

LEARNING FROM ROME

Historical cities and Contemporary design

3rd ISUFItaly International Congress | 23/24 february 2017 Rome Italy

edited by
Paolo Carloti
Anna Irene Del Monaco

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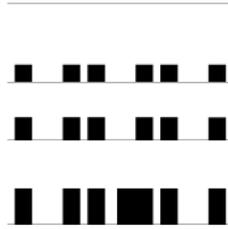
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Foreword

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The Third ISUFITALY International Congress (ISUF Italy 2017) was held in Rome from February 23rd to February 24th and will host 75 participants, more than 40 coming from foreign countries and the others from the Italian Schools of architecture.

The ISUF Italy was launching its third international congress after hosting in 2015 the Twenty-Second International Seminar on Urban Form (ISUF Rome 2015) attended by 350 participants (800 abstract submitted) and publishing in 2016 the proceedings by U+D Editions, a monographic series launched beside the ISUFITALY official Review (www.urbanform.it).

The ISUF Italy 2017 has been organized in parallel sessions gathered together in three main themes: Theory – New-Old Methodologies for Contemporary Design in Historical City (16 papers); Reading – Tools and Analysis of Urban Fabric (37 papers); Design - Urban Space and Contemporary Design (23 papers). The papers accepted present the evidence of a balance of interests in theories and methods applied to historical and contemporary cities and a significant presence of case studies and design issues from Italy, Europe, Asia.

The ISUF Italy was established in Rome in 2014 with an Opening Conference hosting eminent members of the Council of ISUF International, founders of ISUF local branches and a representative number of Italian academics experienced and interested in the themes traditionally discussed in the International Seminar of Urban Form.

Therefore, the idea of disseminating the ISUF International research tendencies with the Italian academic researches and the perspective of merging the Italian most sensitive audience on cities and urban morphology to the ISUF International audience, is confirmed by the spirit of The ISUF Italy 3rd International Congress, as it was already affirmed since the The ISUF Italy Opening Conference in 2014.

The Roman School has a long-term engagement with Urban Morphology studies. The theories and the research on-field produced in Rome since early '20 in parallel with the foundation of the school of architecture and developed up to post Second World War events had been seminal for other Italian Schools of Architecture too. During '60-'70 a significant interest on the Roman School of Urban Morphology emerged in international academic contexts in urban and architectural disciplines such as in others fields: geography, survey, history, anthropology.

The renewed interest and attendance of a significant number of Italian academics at the ISUF International Conference and networks is an opportunity to refresh, rejuvenate, rethink and reflect about the lesson of the Roman School of Urban Morphology and other remarkable international Schools of Urban

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Morphology. New challenging case studies collected from new emerging urban contexts are interesting opportunities to test theories, readings and design tools. So there still is a valuable, bright and internationally relevant lesson from Rome and its School of Urban Morphology.

Despite the recurrent problems European cities can be still considered historical centers of innovation, places for economic, political and social engagements and grounds for cultural transformations. There is a growing and diversified expectation toward the tradition of urban innovation in European society: historical cities are considered main drivers of change, especially because of the use of new technologies, of new social forces although abruptly migrating and of attractiveness related to heritage, nature, leisure, tourism, fashion and food industry.

The European Parliament resolution of 8 September 2015 is collected in the document "Towards an integrated approach to cultural heritage for Europe" addressing Europe's cultural heritage as a common wealth of paramount importance engaging cultural, economic, social, historical, educational, environmental and scientific components; deserving new governance models; involving strategic opportunity and challenges.

If the European urban history is well rooted in a inherited system of cities anchored to the physical and the symbolic substructure of their historical memory supporting since centuries the impact of changes, in other cultural contexts as America, Asia, Africa there is a diversified and growing need to develop methodologies to manage, design and protect their historical cities and settlements, inhabited and natural environments.

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Just to mention significant indicators for measuring the interest in America and Asia on architectural and urban heritage it is sufficient to consider the work of The Getty Conservation Institute and the National Heritage Center of Tsinghua University demonstrating the tough work on continuous readjustment in detecting appropriate methodologies and cultural lines for Balancing Continuity and Change and advancing toward an Evolution of Cultural Heritage Conservation Philosophy.

The ISUF Italy 2017 International Congress will be an opportunity to discuss the criteria for designing in the historical city and the knowledge tools which are able to establish cultural and operational mutual relationships between the urban context and the historical urban fabric of cities under transformation.

Recently, architectural and urban strategies for reuse, recovery, transformation are among the design and research themes mostly considered by the contemporary architectural culture, according to different cultural perspectives: aesthetic, artistic, theoretical, design-based, social and economic driven.

There is a renewed interest of policy-makers, entrepreneurs, planners and conservation professionals on contemporary historical cities for preserving and renewing urban fabric and architectural heritage to prevent abandonment and decay and to develop new forms of profit.

Contemporary historical settlements are urban organisms whose survival, transformation, management requires complex design actions that should be undertaken making use of survey and analysis that integrate different knowledge and components with the scope to consciously address the new interventions, whether they are pursued through design solutions of continuity and discontinuity toward their past urban identity.

Therefore, the scope of the ISUF Italy 2017 International Congress is to share knowledge collecting studies, research, design and methodological tools on the contemporary condition of historical urban fabrics revealing the sense of research and innovation in their biological behavior.



ISUFitaly 2017

The lesson of Rome and the utility of urban morphology studies

Giuseppe Strappa
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In opening the 4th Isufitaly Conference on the theme “Learning from Rome - Historical cities and contemporary design” I would like to propose some considerations on the relationship between the reading of the built reality and architectural design.

I'll say right away that, in my opinion, the Urban Morphology studies could form one of the foundations on which to base a new, rational, anti-romantic, design culture. In fact, I believe that one of our problems is the architect's way (the very essence of contemporary design) to look at the world according to his own individuality.

The shared adhesion of the architect (operating subject) to the object of his work, to the concrete “physicality” of the construction, has been replaced by an abstract, individual, distant relationship. The design thus finally develops its own complete autonomy with respect to the physical reality. Today, it is part of an immaterial circuit where each project refers to other equally abstract projects without place, despite the contrary claims of articles and technical reports. It is no longer the historical “exportability” of the project, the exchanges between areas that have led to fertile contaminations: the very notion of a cultural area has entered into crisis. We are no longer dealing with the exchanges that led to the formation of national languages, where even the dialect had a function of innovative contribution, to quote a comparison dear to Gianfranco Caniggia, but we are moving towards simplified metahistorical forms that do not derive from any civil process.

Of course one can agree with the present state of things, but I believe that the studies of Urban Morphology contain, in their DNA, a critique and a proposal.

Not by chance have these studies remained, for a long time, outside of the contents of the Italian architectural faculties, even in Rome, where we have a long tradition based on adherence to the reality of construction through reading the architectural organism as a result of a historically identified formative process.

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Yet Rome, turning to the theme of this conference, is a lesson in Urban Morphology aimed at the project. This fact is evident if we consider not only the continuity of the ancient substratum within the modern city, but also the role of the notion of type: not only the basic building in pre-modern fabrics, where the constructions were not designed, but, until recent times, were built on the basis of the current, shared and consolidated notion of house.

Here the design of buildings and aggregates surfaced, so to speak, from deposits of a shared memory..

Perhaps for this reason, for the many experiences that have been stratified in the congruence between building, type and fabrics, for many years especially in the period between the two wars and in the immediate post-war time, a clear awareness of the internal solidarity of the built world developed, where the base building shared the same formative matrixes of special ones, virtually indicating new tools, largely left unused, for the contemporary design. Tools that, of course updated, could be very useful to our students.

Since the current crisis of the project based on autobiography and artistry is evident, I believe we should also propose a clear definition of "form", the object of our research, intending it as a readable and transmissible manifestation of a structure, investigable through logic and economy, as well as the product of an aesthetic synthesis.

20 I believe that the studies of Urban Morphology can allow us, in the contemporary condition, to recognise three points of great relevance.

The first is searching for the limit. In an age when everything seems to be possible and compatible, when each value is interchangeable, the forms replaceable and often we talk out of turn about ethics in architecture, morphology studies propose clear and defined choices, for which we assume responsibility. They propose a truth, even if provisional and coexistent with other truths of which we must take note and which we must respect. Urban Morphology suggests, in my opinion, an organic unity between method, reading and design. Not the endless possibilities, therefore, allowed by any experimentation based on perception alone, but the identification of the principles of unity and distinction in the built world, from the territorial scale to the building one.

These studies can allow us to read the same richness and complexity of the built world by recognizing the relationships of necessity between parts, the specific relationship of opposition and complementarity between different elements, that critical reading which is the basis of which every true project of transformation.

Of course, the contemporary territory is home to endless contradictions, it is no longer a true organism. Yet the recognition, through a careful reading, of its characters could show the need and the intention to establish the bonds that have been missed, restoring, where it is appropriate and possible, the severed links.

This consideration introduces a second point: the need of the project as

a projection of what already exists towards the future. The form of Rome, from the operating substratum to modern transformations, teaches us how each changing phase is an update, every new life cycle an adaptation to new conditions. Nothing in the built world is erased and nothing is truly "creation", a term which is amongst the most abused by the architecture literature. We do not inhabit a world of fragments. Every fragment could be a part of a new whole, it could constitute the seed of a future life of the cities and of the territory. Hence the idea, in my opinion new and fertile, that any legacy of decisions taken *against* the form of the city, does not exist in the built world. Every reading, choice, project, however contradictory, has been a contribution to take into account, of which we need to grasp the potential congruence, even if we cannot share today. For this reason, the third point has to do with the economy, in its broadest sense, with the wise use of the resources at our disposal.

On the wave of a resource availability considered infinite, the modern city has squandered the economic ties between the parts. The Roman historical fabrics, its basic and special buildings, still teaches us a lesson of wisdom and sobriety, even in the examples of the monuments. This desire to understand the rational essence of the forms, which can now be found in many studies by young architects, can be fulfilled by finding in the Urban Morphology studies a solid methodological base to replace the ideology of waste with a new ethic of construction.

I therefore believe that we can open this conference with optimism, thinking that our work can, together with the efforts being made in the same direction in other disciplines, contribute to the formation of a new architecture.

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Learning from Rome

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Roberto Venturi aveva "provocato" gli studenti della Yale University con Las Vegas, una città che aveva "poco" da insegnare, nata dal nulla, senza storia, nel deserto del Nevada. Luogo antinomico della città per eccellenza, pieno delle contraddizioni della città del presente. Una delle tante città Collage che Colin Rowe e Fred Koetter successivamente proveranno a ricontestualizzare dalle frammentazioni.

Nel convegno del 2017 abbiamo voluto rifare quello che era stato tentato per Las Vegas, certi però che una città come Roma, che ha colpito tanti, ha oggi ancora molto da insegnare. Specialmente per la sua "tettonica urbana", per quel suo continuo generarsi e rigenerarsi, che rimette continuamente in discussione l'insieme ereditato. Che svelandoci sempre nuovi particolari, non rinuncia a sorprendere. Scoperte e rivelazioni destinate a chi sa e vuole ancora cogliere l'essenza del progetto contemporaneo, teso a continuare quel rapporto dialettico tra costruito storico e città contemporanea.

Diceva Luis Isodore Kahn - il più europeo degli architetti moderni americani¹ - "The arch, the vault, and the dome mark equally evocative times when they knew what to do from how to do it and how to do from what to do. Today these form and space phenomena are as good as they were yesterday and will always be good because they proved to be true to order and in time revealed their inherent beauty."²

Roma, per Kahn come per Venturi e come per altri importanti architetti ed artisti del passato, era stata maestra³. La chiave - Scrive Ciucci - era nella frase di Kahn "the past s a friend", il passato era una parte attiva del percorso progettuale⁴.

1 Leonardo Benevolo, *Storia dell'architettura moderna*, Laterza, Bari 1960

2 Kahn L.I., *Space in Order and Architecture*, p.118, nota 23, tratto dal testo di E. Barizza, *La forma tangibile*, FrancoAngeli, Milano 2017, p 113.

3 Goethe starà a Roma dal 20 novembre a 21 febbraio, si legge nel suo *Viaggio in Italia*

4 Giorgio Ciucci, *L'arrivo di Kahn in Italia*, in: Barizza E., Falsetti M., *Roma e l'eredità di Luis Kahn*, Franco Angeli, Milano 2014, p. 104

La grande affluenza al convegno ISUF del 2015 ci aveva posto una domanda: perché tanti studiosi cercano, ancora oggi, nella memoria litica della città di Roma, qualche risposta ai grandi quesiti del progetto architettonico autenticamente moderno. Colpisce sempre l'attesa che suscita ogni iniziativa che ha sede a Roma – sebbene la sua *civitas* riesca a ridurre anche un evento eccezionale alla dimensione locale - stupisce il fascino che suscita Roma su quanti ricercano nel passato le ragioni del futuro. Cosa si aspetta – ci eravamo chiesti - il mondo dell'architettura e della progettazione da una città come Roma? Forse lo stesso che si aspettava da Las Vegas Roberto Venturi - *"We believe a careful documentation and analysis of its physical form is as important to architects and urbanists today as were the studies of medieval Europe and ancient Rome.."* (Venturi, 1977)

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Nell'immaginario collettivo Roma non è una città moderna. Moderna nel senso di aderente nel presente alle istanze contemporanee. Non vive quella isterica e continua sostituzione provocata dalle istanze economiche e mediatiche contemporanee, non brama a sostituire edifici e percorsi per aderire, il prima possibile, all'immaginaria contemporanea idea di modernità. Una modernità fatta di edifici icona realizzati soprattutto per suscitare immagini di potere e di ricchezza⁵. Che spinge ciascuno a ritenere tutto possibile, che illude tutti di poter diventare potenzialmente ricchi, tutti alla ricerca della felicità – come nel film di Muccino del 2007– dove dalla marginalità della strada il protagonista riesce ad arrivare ai piani alti della finanza, al successo e alla felicità. Non importa invece se solo una piccolissima percentuale ce la fa⁶, se quella città e quell'architettura in verità alla fine per i più rimarrà un sogno, l'importante è sognare. Roma non offre il sogno, ma un'architettura moderna interpretata dai maestri del razionalismo degli anni trenta, degli anni '20, che ipotizzavano una città compatta. Una città fatta di architetture essenziali e non ancora completamente assoggettate alle logiche economiche e mediatiche, quelle che caratterizzano il "moderno" attuale. Ma se consideriamo il termine moderno in senso più ampio, Roma era già moderna anche nell'ottocento quando, a imitazione del piano della Commissione degli artisti per la città di Parigi⁷, tracciava nuove strade come Rue de Rivoli a Parigi. Era moderna quando i modelli architettonici utopici di riferimento erano il Cenotafio di Etienne Louis Boullée (1799), Il Foro Bonaparte di Giovanni Antonio Antolini (1753), o il Cisternone di Livorno di Pasquale Poccianti (1829) - modelli che apriranno la strada all'avventura post moderna della scuola Rossiana. Era moderna anche quando però Karl Friedrich Schinkel a Berlino disegnava l'Altes Museum (1823) e la piazza sul

5 Sudjic D., Architettura e potere, Laterza, Roma-Bari

6 Fa impressione il dato sulla povertà negli Stati Uniti dove una percentuale compresa tra il 30 e il 40 per cento vive sotto la soglia di povertà, senza uno straccio di Stato sociale. Dove la violenza esplose in forme inimmaginabili nelle società occidentali. Eppure l'America rappresenta ancora il luogo del sogno della fortuna.

7 E' del 1794 il piano per la modernizzazione di Parigi, che prevedeva allineamenti in modo che si incentivassero le demolizioni

canale, quando a Roma il Valadier progettava l'isolamento della Colonna Traiana (1812), la sistemazione di Ponte Milvio (1809), la sistemazione della piazza del Pantheon, la piazza Fontana di Trevi. Quando, per la seconda capitale dell'impero, si disegnano i progetti per la Piazza del Quirinale (di Marziale Daru -1812), il Palazzo imperiale sul Campidoglio (di Scipione Perosini - 1812) o i giardini del Campidoglio e il progetto di Piazza del Popolo (1816). Progetti architettonici tanto dalla valenza strategica urbana quanto capaci di esprimere nella forma la sintesi tra tettonica e funzione. Il sogno della felicità nella città moderna nasce quando la società comincia a prosperare accelerando i tempi del cambiamento e il ritmo del suo lento fluire processuale⁸. Per altri quando Wright ipotizza la città estesa (Broadacre) mentre Hiberseimer e Le Corbusier al contrario cominciano a fare i conti con una città moderna caratterizzata da una disponibilità limitata dello spazio, non più infinito e per la quale al contrario si propone la soluzione verticale. Modelli molto lontani tra loro e dall'immagine di modernità incarnata dalla città eterna. Che tuttavia, nella sua millenaria storia, ha anche vissuto una sua idea di modernità, che ha dovuto sempre fare i conti con il carattere immanente della sua ingombrante memoria litica.

Il convegno dell' ISUF 2015 era arrivato dopo una riflessione, portata avanti all'interno del Dottorato di Ricerca della Facoltà di Architettura di Roma "Sapienza", dove molti di noi insegnano, sulla idea di modernità romana. Una modernità molto legata alla tettonica, ai materiali e alla materia del luogo, all'intenzione formale che si esprime nella città ereditata in continua evoluzione. Che ha offerto spunti di riflessione per l'architettura di un grande maestro del presente: Louis I. Kahn. Al quale abbiamo voluto dedicare il manifesto del convegno dell'ISUFItaly 2017 che riporta un'interpretazione della Città fatta con la matita colorata dello stesso Architetto.

25

La lezione di Roma, come scrive in un recentissimo libro Elisabetta Barizza⁹ (Barizza, p.108) è stata per Kahn la scoperta della relazione tra architettura e il progetto urbano, ma soprattutto è stata la sorgente per il suo lavoro. La "lezione di Roma" è il *Leitmotiv* del convegno del 2017. Una lezione di modernità contro la tendenza globale, che vuole l'architettura trasfigurata in oggetti dal forte valore simbolico, condivisa supinamente e acriticamente da individui urbanizzati ripiegati su un modello civile individualista, utile solo a pochi, e che spinge inesorabilmente ogni città ad assomigliare all'altra. Città di architetture sculture, icone di una modernità che enfatizza tendenze e modelli culturali per penetrare da propinare a tutte le fasce di età. Una Forma vs un'architettura, parafrasando Hans Kollhoff¹⁰, che antepone il disegno alla realtà costruita. La lezione di Roma è nella natura delle sue mura, non le mura della città

⁸ Nel 1800 la popolazione mondiale è circa di un miliardo di persone che raddoppierà negli anni trenta.

⁹ E. Barizza, *La forma tangibile*, FrancoAngeli, Milano 2017, p.105

¹⁰ CITARE LA LEZIONE A VALLE GIULIA

ma i tanti muri che costituiscono le strutture delle case e del tessuto edilizio, osservate e studiate nel lento e continuo rinnovamento. E' nella lezione che Augusto ci ha lasciato quando realizzando il Pantheon e l'asse diretto al suo mausoleo, ha imposto le regole per la espansione città imperiale. Segni ancora oggi riconoscibili nelle residue strutture edilizie e nel disegno della città. Tracce che hanno guidato la trasformazione ma anche il consumo di quei depositi edilizi che hanno rappresentato per i romani la fonte inesauribile di materiali e che hanno fornito implicitamente regole edilizie per l'aggiornamento del tipo edilizio. Una lezione che il disegno del tessuto di Roma offre attraverso quelle inseparabili invenzioni architettoniche tratte e restituite alla storia, prendendo dalla tettonica le forme e i significati ma anche portando nuove forme e nuovi luoghi all'architettura e alla città.

26 Il convegno di Roma vuole offrire allora l'occasione per riflettere sulla realtà immanente che ha guidato la storia edilizia della città, per capire, per studiare, per dibattere se da questo apparente "insignificante presente" si possono ancora estrarre gli anticorpi necessari per la rigenerazione consapevole della città, individuale ma collettiva, commisurata al paesaggio urbano ma anche alla realtà globale di una vera modernità. Una realtà polisemica e multifasica che molti vorrebbero paratattica e che personalmente ritengo invece sia esito di infinite mediazioni, avvolte e stratificate nei tessuti urbani storici e che denunciano il legame tra la forma e la costruzione anche in tessuti contemporanei che all'apparenza possono apparire allogenici a questa dinamica processuale.

Una lezione forse utile anche per città come New York¹¹, icona della modernità e del sogno di felicità, dove ognuno crede di poter fare ciò che vuole e dove la città sembra solo frutto di intenzioni progettuali, ma dove tuttavia la Broadway ci ricorda il percorso dei popoli autoctoni, dove Wall Street è la memoria delle mura della città – margine e asse accentratrice poi, linea dividente evoluta, poi di nuovo asse accentratrice importante nel processo formativo della città, oggi nodalità urbana resa particolare dall'angolo di Grand Central.

Riflettere sulla città per riflettere sui segni della città, sui tratti e sui percorsi che hanno organizzato tessuti urbani e aggiunto architetture. Prodotti di una storia millenaria in cui per ciascun presente si è sempre cercato di riorganizzare volumi e percorsi. Fino a quando si è creduto di poter operare fuori dagli schemi: il *Delirius New York*, come ha abilmente sottolineato Rem Koolhaas. Ecco perché la lezione di Roma ci è sembrata una strada, una delle tante, forse, da ripercorrere per una nuova modernità in continuità con la storia. Una lezione di segni e di significati, di forme disgiunte e riaggregate serialmente e organicamente, una società di architetture – parafrasando Kahn – talvolta di servizio, dentro un tessuto che si consuma ma che contemporaneamente si rigenera. Espressioni tettoniche di un saper fare che ha coniugato la forma col significato, il monumento con la

11 P. Carloti, *Urban densification, vertical growth and fringe in American cities*, in: G. Strapapa (editor), *Observations on urban growth*, FarncoAngeli, Milano 2018, pp. 59-76

casa d'abitazione, il cortile con la piazza e il palazzo e col tessuto senza rinunciare all'innovazione e all'armonia tra le parti che rende il corretto, bello. Non sono mancati nella storia dell'architettura, autori, maestri di architettura che hanno invocato il diritto dell'architettura di essere altro, di voler significare altro da se. Nel movimento moderno Ricardo Porro, condannato all'oblio per le sue definizioni dal regime di Castro, non mancò di sostenere che "l'architettura riguarda il processo costruttivo ma essa ha il diritto di sembrare altra cosa che non sia un edificio"¹². Parlava di immagine sovrapposta, del diritto e della volontà dell'autore a persuadere lo spettatore, per attrarlo sulla sua posizione convincendolo della validità del risultato. Tuttavia ponendo gerarchicamente i diversi contenuti da osservare e porre in un'architettura, sosteneva l'importanza della *tradizione*, della comprensione dei caratteri del luogo e del tempo, vicina all'idea junghiana di sub cosciente collettivo. Concetto molto vicino all'idea di "coscienza spontanea" di Muratoriana memoria.

Band of pertinence, assi e percorsi, orditure murarie and *Fringe belt* – parole chiave della Morfologia Urbana – sono allora riconoscibili tanto nella città europea quanto in quella americana. Caratteri e comportamenti edilizi, geometrie regolari e irregolari che spesso rivelano fasi diverse di accrescimento edilizio. Trasformazioni edilizie e nuovi percorsi sovrapposti e realizzati per connettere nuovi edifici e nuove centralità su spazi che erano e sono talvolta marginali. Essi, i segni, che ci appaiono come pezzi della macchina urbana, materiali per ricomporre una nuova caleidoscopica risposta estetica all'architettura nella città.

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12 R. Porro, *Les cinq aspects du contenu*, Parigi, 1990, p. 96

Roberto Venturi 'provoked' the students of Yale by Las Vegas, asking them to measure themselves against a city that had 'little' to teach, as it had risen from nothing in the middle of the Nevada desert, without a history; the paradox of the city *par excellence*, full of the contradictions of modern-day cities, one of different collage city that Colin Rowe and Fred Koetter would subsequently attempt to re-contextualise from their fragmentations.

In our 2017 conference, we attempted to redo what had been attempted in Las Vegas, whilst certain that a city like Rome – that has made such an impression on so many – still has much to teach us, especially thanks to its 'urban tectonics', its continual self-generation and regeneration, which continually calls into question the legacy it has inherited; that in constantly revealing new details to us, never fails to surprise. These discoveries and revelations are addressed to those who know and still wish to grasp the essence of contemporary design, who make efforts to continue the dialectic relationship between the historic built environment and today's city.

Luis Isidore Kahn – the most European of modern American architects¹ – once said: "The arch, the vault, and the dome mark equally evocative times when they knew what to do from how to do it and how to do from what to do. Today these form and space phenomena are as good as they were yesterday and will always be good because they proved to be true to order and in time revealed their inherent beauty."²

For Kahn, as for Venturi and many other prestigious architects and artists of the past, Rome was their teacher³. The key – wrote Ciucci – was in Kahn's statement "*the past s a friend*", the past played an active role in the design process⁴.

The high visitor numbers that attended the 2015 ISUF conference begged a question: why do so many scholars still look for answers to the great problems plaguing authentically modern architectural designs in the lithic memory of Rome? We never fail to be surprised by the excitement that every initiative that takes place in Rome arouses, even though its *civitas* always manages to reduce any international event to a local level; it is astounding how Rome fascinates those who look to the past for motivation for the future. We couldn't help asking ourselves: what does the world of architecture and design expect from a city like Rome?

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Rome is not a modern city in the collective imagination, modern in the sense that it meets contemporary demands in the present. It does not undergo that hysterical and continuous substitution caused by the needs of contemporary economics or the media, it doesn't aim to replace buildings and roads so as to immediately fall into line with the imaginary contemporary idea of modernity, a modernity made up of iconic buildings mainly constructed to elicit an image of power and wealth,⁵ to encourage the belief that anything is possible, buildings that deceive people into thinking they can potentially become rich, all of whom are in the pursuit of happiness – as in Muccino's 2007 film where the main character manages to climb out of the gutter and scale the heights of the financial world, success and happiness. It makes no difference if only a small percentage of people manage to achieve it⁶, as long as that city and that architecture remain a dream for most people; the important thing is to keep hoping. Rome does not offer a dream, it offers modern architecture interpreted by the masters of 1920s and '30s rationalism, who sought to create a compact city, a city made up of essential buildings that were not yet entirely subject to economic and media-driven rationales, as found in today's 'modern' architecture. Yet if we consider the term 'modern' in its wider sense, Rome was already modern in the 1800s when it carved out new roads like Paris's Rue de Rivoli, inspired by the Parisian Commission of Artists⁷. It was modern when it looked to

1 Leonardo Benevolo, *Storia dell'Architettura Moderna*, Laterza, Bari 1960

2 Kahn L.I., *Space in Order and Architecture*, p.118, nota 23, tratto dal testo di E. Barizza, *La forma tangibile*, FrancoAngeli, Milano 2017, p.113.

3 Goethe stayed in Rome from 20 November to 21 February, according to his *Italian Journey*

4 Giorgio Ciucci, 'L'Arrivo di Kahn in Italia' in: Barizza E. and Falsetti M., *Roma e l'Eredità di Luis Kahn*, Franco Angeli, Milan 2014, p.104

5 Sudjic D., *Architettura e Potere (The Edifice Complex: The Architecture of Power)*, Laterza, Roma-Bari

6 Shocking statistics on poverty in the USA indicate that between 30 and 40% of people live below the poverty line, without a minimum of social security, where violence explodes in forms that are unimaginable in other Western societies. And yet America still represents the place where each one dreams of making his or her fortune.

7 The plan to modernise Paris was drafted in 1794 and envisaged alignments that would encourage demolition work

utopian architectural models such as Etienne Louis Boullée's Cenotaph (1799), Giovanni Antonio Antolini's Bonaparte Forum (1753) or Pasquale Poccianti's Cisternone of Livorno (1829): models that cleared the way for the post-modern wave of the Rossian school. Nevertheless, it was even modern when Karl Friedrich Schinkel was designing the Altes Museum in Berlin (1823) and the square on the canal, when, back in Rome, Valadier designed the open space around Trajan's Column (1812), the restoration of the Milvian Bridge (1809), the renovation of the square outside the Pantheon and the square around the Trevi fountain; when designs for Piazza del Quirinale (by Marziale Daru -1812), the imperial palace of Campidoglio (by Scipione Perosini - 1812) or the Campidoglio gardens and the design for Piazza del Popolo (.....) were being drafted for this, the Empire's second capital. These architectural plans were as strategically important from an urban point of view as they were able to capture the harmony between tectonics and function in their form.

The dream of happiness in modern cities first arose when society began to prosper, quickening the pace of change and the rhythm of its gradual flow towards the future⁸, when Wright put forward his concept of the extended city (Broadacre) while Hiberseimer and Le Corbusier, in contrast, began tackling modern cities characterised by the limited availability of space, which was no longer infinite and for which they proposed a vertical solution. These models were light-years away from each other and from the image of modernity embodied by the Eternal City that, nevertheless, over its thousand-year history, has pursued its own idea of modernity, a modernity that always had to take into account the immanent nature of its imposing lithic past.

ISUF's 2015 conference took place after the concept of Roman modernity was tackled as part of the PhD course run by the Faculty of Architecture of Rome's Sapienza University, where many of us teach: a modernity closely linked to tectonics, to local materials, to the formal intention that can be perceived in the city we have inherited but that is continually evolving, which even influenced the architecture of a great master of our day and age: Louis I. Kahn, to whom the 2017 ISUFitaly conference poster was dedicated, with a colour sketch of Rome drawn by Khan himself.

As Elisabetta Barizza⁹ writes in her recently published book (Barizza, p.108), the lesson Rome taught Kahn was the discovery of the relationship between architecture and urban planning, but it was, above all, the inspiration for his work.

'Learning from Rome' was the 2017 conference's leitmotif; the city is a lesson in modernity that bucks the global trend which would have buildings turned into objects of high symbolic value, tamely and acritically applauded by urbanised individuals who hark back to an individualistic civic model that is only useful to a handful of people and that inevitably ends up making every city look much like another; cities of sculpted architecture, icons of a modernity that emphasises cultural models and trends only to penetrate all social levels; form versus architecture, to paraphrase Hans Kollhoff¹⁰, who sets design against constructed reality.

The lesson Rome teaches us is to be found within its walls, not the city walls but the many walls that make up its houses and urban fabric, observed and studied during their slow yet continuous evolution. It is to be found within the lesson Augustus taught us when, during the construction of the Pantheon and the road that led straight to his mausoleum, he set down rules controlling the expansion of the imperial city, signs that we can still see in the remains of buildings and the city's layout, traces that have guided change as well as the consumption of those building deposits that have provided the people of Rome with an inexhaustible supply of materials and have implicitly laid down construction rules to be applied when updating building types. It is a lesson that the design of Rome's fabric teaches us, using those indivisible architectural inventions taken from and returned to history, taking their forms and meanings from tectonics, but also contributing new forms and places to the city and its architecture.

The Rome conference wishes to provide an opportunity to reflect on the immanent reality that has guided the city's construction history, so as to understand, study and debate whether we can still extract from this apparently 'insignificant present' the antibodies we need to carry out an informed regeneration of cities that is both individual and collective,

In 1800, the world population was roughly one billion people, which was to double by the 1930s.

8 E. Barizza, *La Forma Tangibile*, FrancoAngeli, Milan 2017, p.105

9 Hans Kollhoff, *Il progetto contemporaneo nel tessuto storico dei grandi centri urbani*, Roma, Fac.

10 Architettura, 19 ottobre 2017

in keeping with the urban landscape and the global reality of new modernity. It is a polysemic and multifaceted reality that many consider made up of equally meaningful elements, while I personally think it is the result of an infinite number of mediations, wrapped up and layered in historic urban fabric and that demonstrate the link between form and construction even in contemporary fabric that may appear detached from such a process at first glance. It is therefore useful even when it comes to a city like New York¹¹, the icon of modernity and the dream of happiness, where everyone thinks they can do what they like and where the city merely seems the result of design intentions, but where Broadway is a reminder of the trail once used by native people, where Wall Street is a reminder of the city walls: a boundary that later became a focal point, a dividing line that evolved into an important central axis of the city's development process and that has now been exalted by the urban space of Ground Zero.

We reflect on the city in order to reflect on the signs of the city, on the traces and routes that have arranged and composed its architecture and urban fabric, coming from a thousand-year history where every present generation has tried to reorganise space and routes until we believed we could operate outside of the box: 'Delirious New York', as Rem Koolhaas skilfully highlighted. That is what we learn from Rome. It seemed a way forward, one of the many, perhaps, that could be tried on the way to a new modernity in keeping with history. It is a lesson made up of signs and meaning, of fragmented forms that are serially and organically put back together, a society made up of what are sometimes ancillary buildings – to paraphrase Kahn – within a fabric that consumes itself whilst nevertheless regenerating itself; tectonic expressions of a know-how that has combined form and meaning, a monument with a home, a courtyard with a city square and a building with urban fabric without having to forgo the innovation and harmony between parts that make it right, that make it beautiful. The history of architecture is littered with artists, masters of architecture who claimed architecture's right to be something else, to mean something more than itself. When it comes to the Modern movement, Ricardo Porro, condemned to oblivion by the Castro regime for his approach, did not fail to argue that 'architecture concerns the construction process but it has the right to resemble something other than a building'¹². He was referring to an overlapping image, to the right and wish of a creator to persuade the viewer, to bring him over to his side, convincing him of the validity of the result. However, whilst placing the various parts of the content to be viewed and used in a hierarchy within a building, he asserted the importance of *tradition*, of the understanding of the features of a particular place and time, not far from the Jungian idea of a collective subconscious. It is a concept very close to Muratori's 'spontaneous consciousness'.

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Key terms in Urban Morphology – bands of pertinence, axes and routes, masonry framework and fringe belts – are therefore as recognisable in European cities as they are in American ones; they are features and building behaviours, both symmetrical and asymmetrical shapes that often reveal different phases of urban growth; building renovations and new roads overlapping each other and built to connect new buildings and new focal points in places that were (and sometimes still are) marginal. They are the signs that appear like parts of an urban machine, materials that can be used to reconstruct a new kaleidoscopic aesthetic answer to city architecture.

11 P. Carloti, 'Urban densification, vertical growth and fringe in American cities', in: G. Strappa (editor), *Observations on Urban Growth*, FrancoAngeli, Milan 2018, pp.59-76

12 R. Porro, *Les Cinq Aspects du Contenu*, Paris, 1990, p.96

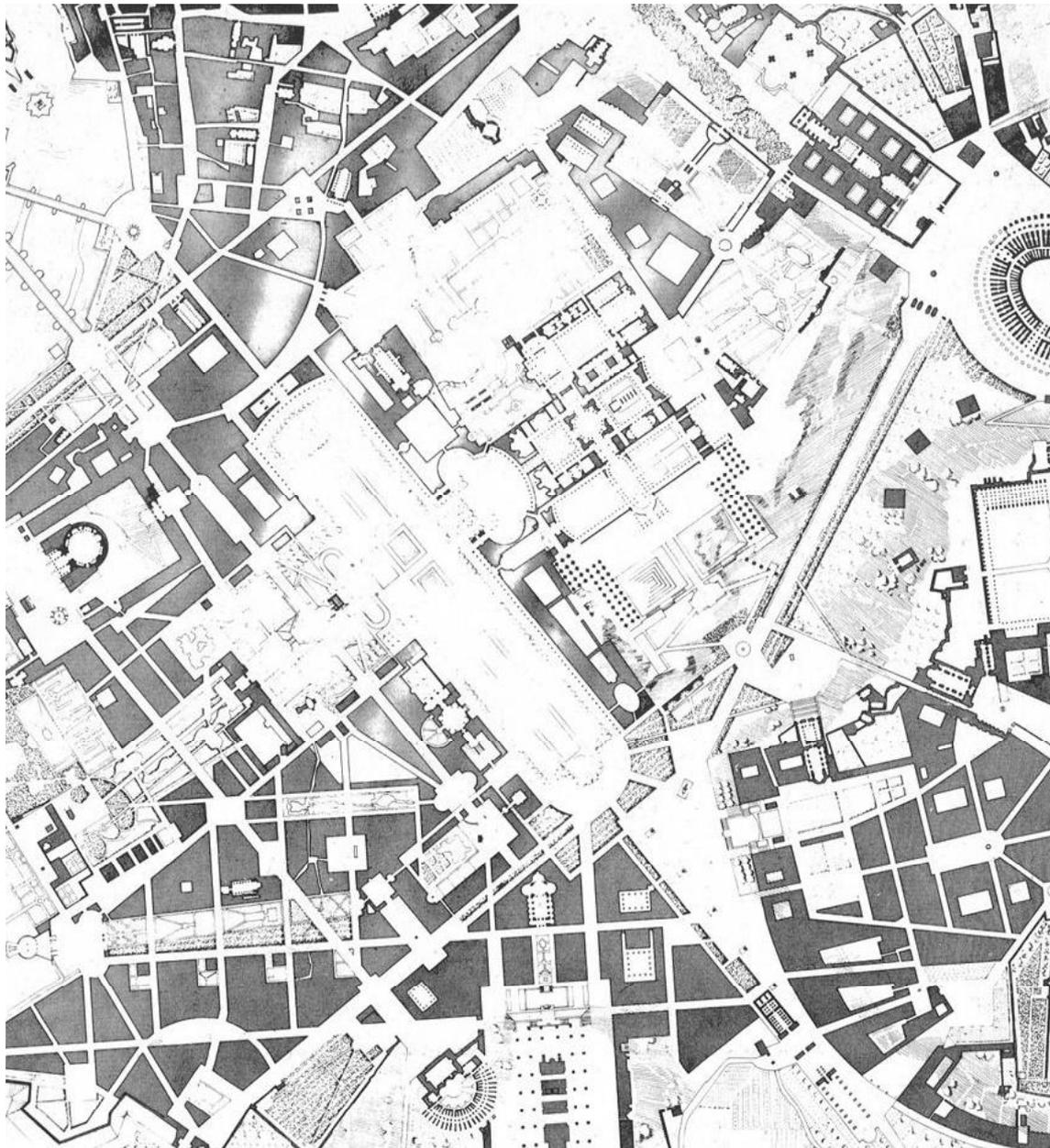
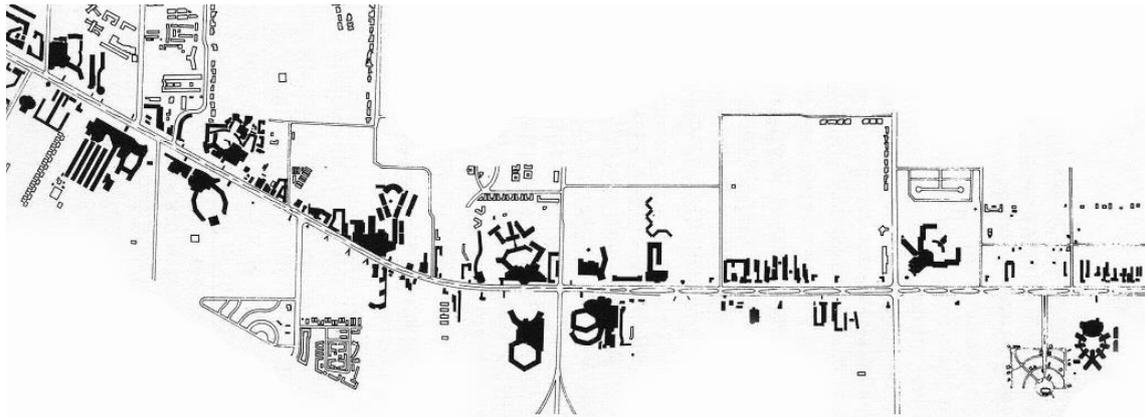
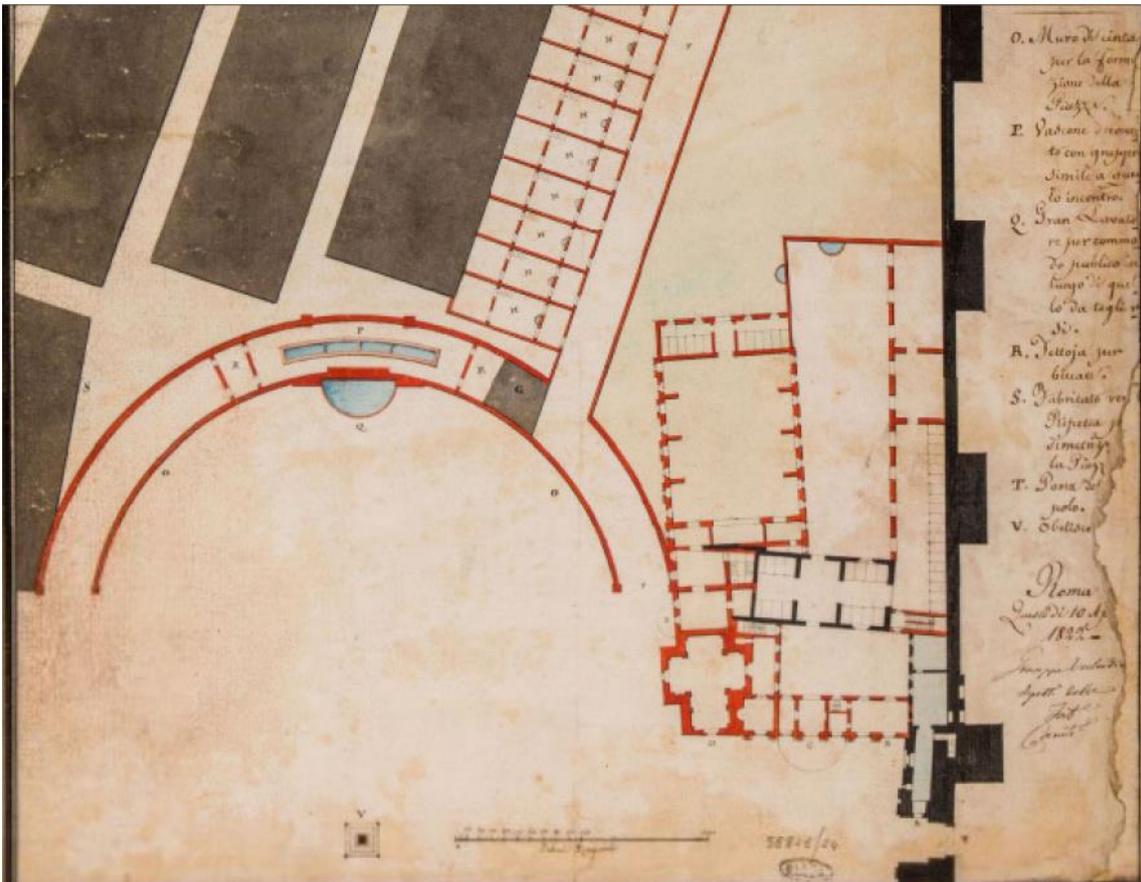
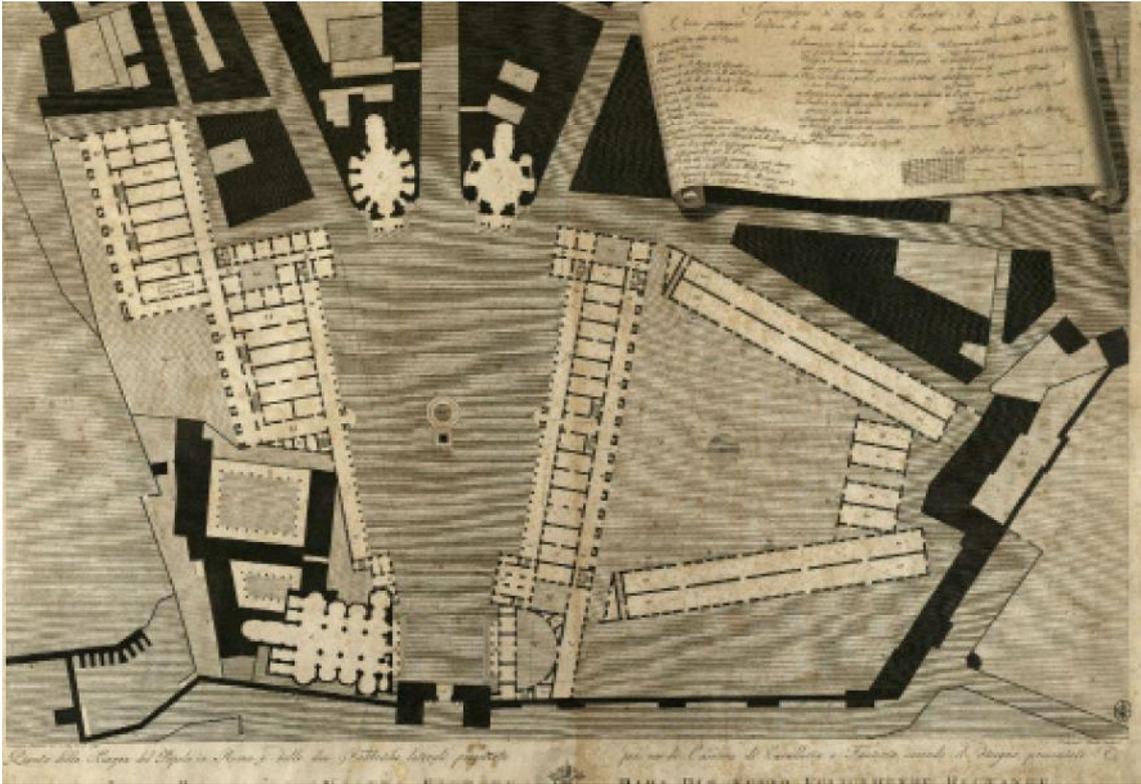


Fig. 1 Las Vegas. Venturi R.,
Fig. 2 Roma: Collin Rowe. Collage di Roma



Fig. 3 Roma: lettura morfologica del disegno particellare



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Fig. 4 Valadier ,G.,Particolare del primo progetto per piazza del popolo 1822
 Fig. 5 Valadier ,G.,Particolare del progetto per piazza del popolo 1822



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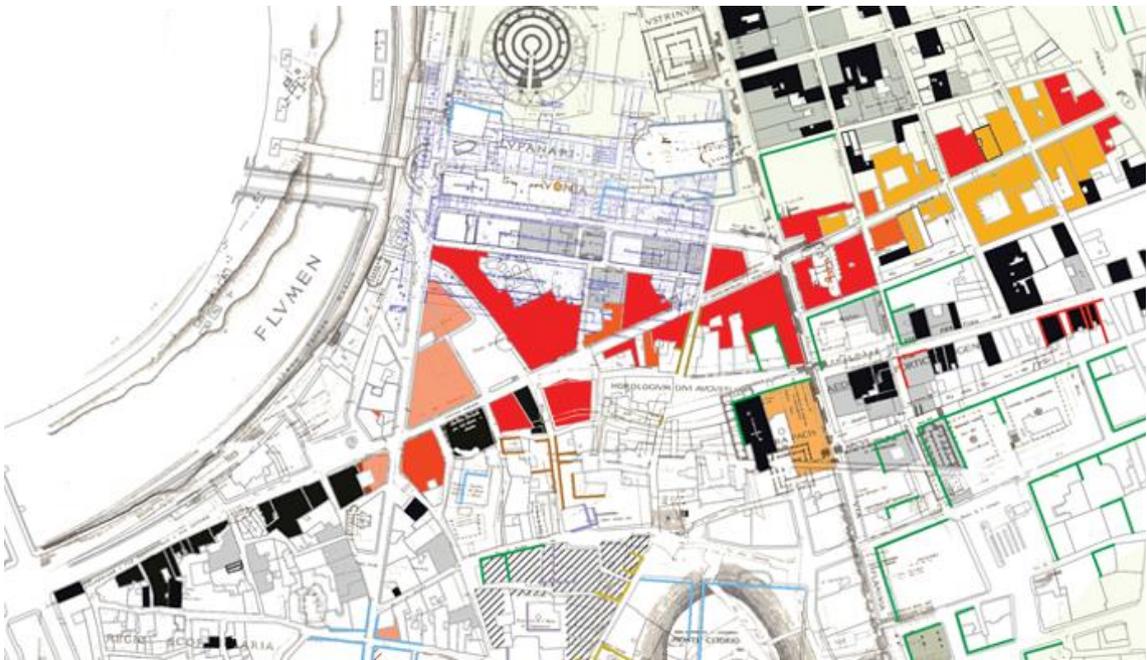


Fig. 6 Il tracciato di via Giulia sovrapposto al tessuto medievale

Fig. 7 Il tracciato di via di Fontanella Borghese 1500 sovrapposto alla lottizzazione degli Schiavoni 1484

For a knowledge-based approach to architectural and Urban Design in historical cities

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Introduction

The uninterrupted transformation of old cities raises numerous problems in terms of both research and action. Some such problems pertain to the way we apprehend and understand the structures of the existing built environment. Others concern architectural design in projects aimed at refurbishing heritage buildings or transforming of the historical urban fabrics. Others, still, relate to heritage management and the aesthetic control in historical precincts.

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These issues can be addressed relying upon either an affective or a cognitive approach. The affective domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasm, motivations, and attitudes. The cognitive domain involves knowledge and the development of intellectual skills. Bloom's taxonomy of the cognitive domain delineates a hierarchy of cognitive-learning levels ranging from the knowledge of specific facts and conventions to more advanced levels of analysis, synthesis and critical assessment.

I will underline three points:

- The daily experience of a built environment does not translate into an understanding of its inner structure and of the transformation processes of which it is the temporary result.
- New design proposals should aim at reconciling the necessary transformation of historical cities with the conservation of their cultural identity; which requires a thorough knowledge of their urban and architectural morphology.
- The review of design proposals poses the question of the nature of Heritage management policies. I posit that the method based on "value-assessments" is totally unsuitable to provide objective empirical evidences needed to support the preservation and the control of transformation in so-called historical precincts.

Looking is not seeing

In our daily experience, the architectural environment is perceived, as Walter Benjamin wrote, in “distraction”. We are only partially conscious of the infinite number of images of built objects and spaces surrounding us and offered to our glare. One easily has an emotional response to the urban space, as the latter triggers memories or allows new experiences. But one never fully captures the complexity of the built environments and the urban landscapes. The general public has a very limited knowledge of the morphologic complexity of the urban environments. Going about their daily errands, urbanites do not have, nor do they need, a clear understanding of the syntactic relations between the components of the built landscape, leaving aside the rules governing their transformation over time.

What we really see, and our level of consciousness looking at existing built environments, depends on the particular way we direct our psychic attention. Directed attention is a faculty of the mind which allocates attention to specific objects in a “directed” manner. Attention is a level of affective characterisation. Our personal interests and cultural taste determines what we choose to look at.

38 What we are able to see also depends on the concepts we use to interpret the perceived reality. Before assimilating the concepts of “verticality” and “horizontality”, young children draw chimneys perpendicular to the roof's slope. They also don't realise that the surface of water inside a bottle remains horizontal when the bottle is inclined. They only perceive the topological relation.

Laypeople and architects do not look at the built environment or perceive the urban landscape the same way. The difference is cultural. Architects evidently possess specific cognitive tools acquired through their academic training and professional practice, but by professional deformation, they also adhere to a particular sub-culture of taste.

Cognitive approach in architecture

When I first started to study architecture, the institution I attended adhered to the traditional Beaux-Arts school model. Teaching “architectural composition” was based on the traditional master-apprentice relationship, an archaic teaching formula, totally unsuitable for an organised knowledge transfer. Practical training was centred on the know-how, a kind of tacit knowledge, difficult to transfer to any person by means of writing it down or verbalising it. Design methods rested on the imitation of previous models. For my generation, the classical references were replaced by those from the work of Modern Movement heroes, including unconditional adherence to their ideology and to the precepts of the International Style's aesthetic code. Architectural projects were conceived without consideration for the existing built environment, for the history and identity of the place, even for the user's culture.

An architect genuinely interested in history could still turn to Architecture

History. Derived from Art History, the discipline objects and methods focused on the exceptions rather than the common, which implies that, among all the buildings in the history of human settlements, a division was made between “works of Art” and none-art. The characteristics and production of works of art were considered the sole objects of interest while other components of the human-built environment were simply ignored.

The main distinguishing characteristic of higher education is the emphasis on the “know-why” rather than the “know-how”. Know-why is a system of explicit knowledge shaped through learning by studying. During the sixties, when architectural education was entrusted to universities, new science-based fields of knowledge and research, including people-environment relations, were added to the architectural training programs. The life process within the built structures underwent behavioural and psychosociologic analysis. Numerous scientific investigations were conducted on related architecture fields such as construction sciences, climatology, lighting, acoustics, ecology, etc. Most architects devoting their time to architectural research tackled these subject-matters, even if non-architect scientists generally did a better job.

However, the teaching of architectural design continued to rest, and still largely rests today, on traditional apprenticeship training methods around the studio. It gives rise to a great diversity of approaches and confused theories. My research director and mentor, Alfred Neumann, who had been the student of Behrens and a friend of Mondrian, wrote:

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Even after a long experience in teaching architectural design, one cannot get rid of the unpleasant feeling of conveying a rather subjective know-how lacking theoretical justification. There are theories about many aspects of architecture, but there is no single consistent theory of architecture. The vague term art is often evoked to cover the confusing situation.

Sometimes, one has the near certitude of touching the border of art. But the built human environment, seen as a whole in its geographical distribution and historical process, has almost nothing to do with art. To use an analogy – of all the spoken or written communication material, very little represents poetry. It is obvious that, in building, a certain latent potential of art can be freed, but such a case represents more the exception than the rule.

Architectural buildings designed in Israel by Neumann in the sixties strongly differed from the prevailing International Style. Based on uncommon types of spatial subdivision associated with the Platonists and Archimedean polyhedrons, it represented a major contribution to the renewal of architectural language. At the same time, it announced the return of place and of history in the project — history of the local built environment, apprehended as a collective creation and material culture product of a community established on a specific territory — as demonstrated by Neumann’s use of malqafs, borrowed from the traditional Persian architecture, in the design of the Bat Yam civic centre, as well as the surprising formal relationship of his polyhedral structures with the muqarnas, which can be found in Middle Eastern architecture since medieval times.

Neumann was among the first to put forward the idea that architecture itself could be investigated scientifically like any other phenomena. He advocated the replacement of the official “history of architecture” by a descriptive and explicative theory of human-made built artefacts, based on morphological criteria. He was one of the key initiators of a new scientific field: the human settlement’s morphogenesis. He contributed to define its existing condition and its theoretical foundations. His goal was to provide cognitive tools that would allow architects and urban designers to make design choices and decisions on objective theoretical foundations, while taking into account that architectural and urban forms constitute a unified research field.

I strongly believe, like all of Neumann’s former students, that the existing built environment should be apprehended as the main product of material culture and as the synthesis of human experience in the matter of building. It represents the main source of knowledge for the project’s disciplines: architecture, urban design and physical planning.

In my teaching, I have always advocated for a cognitive approach to architectural and urban design practice, based on a close relationship between morphological analysis of the built environment and design process, given that every architectural project should be designed as a transformation project of the existing built environment and evaluated from the standpoint of its contribution to its global quality.

40 Of course, it doesn’t mean that subjectivity and questions of value are to be dismissed from the design process. As a creative activity, architecture necessarily depends on intuition, but, as Neumann used to say, the mechanisms of intuition only work in the presence of certain preconditions, the most important being a thorough knowledge of the subject.

During my early teaching years, I was convinced that the development of knowledge in the fields of built environment morphology, people-environment relations and their application to the design process, would lead to a profound transformation of architectural and urban design practices before the end on the twentieth century. I guess I was very naïve. It is obvious that young architects and many young architecture professors still adopt the cult of innovation and the practice of imitating fashionable architects. The only difference is that they adhere to a new, a different sub-culture taste. They no longer imitate Le Corbusier, Mies van der Rohe or Frank Lloyd Wright, but the new narcissistic “starchitects,” like Zaha Hadid and Frank Gehry who, like modernists of the old days, tend to totally disregard the existing built environment, its history, its morphology. They work for themselves and don’t care about the users, about the cultural identity of the place and the rules governing its transformation process.

The problem is that it has become easy to be considered a genius on the basis of being different and exceptional, as official Architecture History values it. One does not have to invest effort and time in patient analysis to understand built environment morphology and syntax. One just has to seduce, with really outlandish projects, relying on a particular sensibility that goes by the cult name of “Camp.”

Sensibilities are difficult to describe because they are largely unconscious. “Camp” is a naïve sensibility, widespread in our contemporary society, notably among architects and designers. The essence of the Camp sensibility, as described by American art critic and writer Susan Sontag, is its love of the unnatural: of artifice and exaggeration. “It’s too much” is a standard phrase of Camp enthusiasm. The hallmark of Camp is the spirit of extravagance. It is the attempt to do something extraordinary, never seen before and fantastically glamorous.

The Centre national d’art et de culture Georges-Pompidou in Paris is an example of “camp” architecture. Putting mechanical systems outside of the building envelope, which should ensure its weather protection, does not make sense. Yet, the Camp sensibility does not care about common-sense. The Vuitton foundation Museum in Paris is another “camp” building. As soon as I saw it in 2013, I couldn’t help recalling the bright description of deconstructivist architecture made by Peter Blake in 1993, 20 years earlier, in *No place like Utopia*.

“It was a terrific style. Most Decon projects were, in fact, very ordinary boxes to which the name architect had attached enormous faux structures — girders and columns and beams and other interesting decorations that held absolutely nothing, were enormously expensive to build, and violated the laws of gravity in every respect. In short, Deconstructivism was a toy, a piece of giant, non-sense sculpture affordable only by the superrich.”

(Peter Blake)

41

These architectural works are the result of a purely affective approach to design. They manifest an antagonist attitude towards the existing built environment’s morphology and history, a will to reject architectural language syntax, not to mention collective experience in construction practices.

The work of most “starchitects” is the result of such a conceptual and narcissistic approach to design. It is based on an egomaniac desire to distinguish itself at any cost, in defiance of the common-sense which has always characterized constructive practices as products of collective experience. Unfortunately, computer-assisted design, which enabled visualisation and building of the most crooked forms, has made architectural stupidity and extravagance only easier.

The widening scope of built heritage management

Architects and urban designers who work in centuries-old cities face another kind of problem: the constraints bound to architectural heritage preservation and the rules set by local public authorities for controlling the transformations in so-called historical precincts.

These two basic questions further confront an evolving ideological context. The concept of built heritage evolved progressively during the last two centuries. The allocation of a heritage value to architectural objects, was, at first, exclusively reserved to the monuments of the Antiquity. It

expanded progressively to constructions inherited from the Middle Ages, then to those of the pre-industrial period, and finally, to recent works of the Modern Movement. Lately, many buildings of Le Corbusier were registered on the World heritage list. This is highly paradoxical since Le Corbusier was a bitter enemy of architectural and urban heritage. Le Corbusier was one of the most dangerous malefactor of the twentieth century. He wanted to make tabula rasa of Paris's historical centre. He tried to destroy urban civilisation and he almost succeeded.

The field of architectural heritage was traditionally closely linked to the notion of "historical monument." Congruent with Art History precepts, it was limited to elements of the built environment renowned for their exceptional aesthetic or historic interest.

Today, we recognise the "prevailing" importance of the so-called "minor" architecture as an historical testimony of each community's values, lifestyles and constructive practices. Within that framework, the perspective on the assessment of the built heritage evolved to another level. It extended from the architectural objects to larger scale anthropic structures in human settlements. Thus, we witnessed the emergence of a new research and practice field regarding the heritage preservation: integrated management of the urban and territorial heritage.

42 The recent interest in "cultural landscapes" is the culmination of this progressive widening of the built heritage sphere. Cultural landscape refers to the human use of place, it acknowledges the fact that built environments express human attitudes and values of the past. This constitutes a new way of looking at the territory that emphasises the historic relations between communities, their activities, and the natural environment.

The generous extension of the concept of built heritage also conveyed some serious ideological drifts, an adverse impact that has not yet been fully measured. We may outline two worrying trends: on one side the progression of "neo-conservatism" and, on the other, the phenomenon of "aesthetic democracy."

The former manifests itself by an excessive desire to preserve everything from the past and by an irrational demonisation of demolition. The latter leads to an abusive aesthetic value granted to all material forms of human expression. All aesthetic categories are confused; the ugly, the grotesque and the kitsch are conflated with the beautiful and the sublime. Graffiti and other demonstrations of bad taste are placed next to the masterpieces of high art as if they could result in true aesthetic experiences.

In these current circumstances, it is necessary to understand the limit of validity of ideas and methods underpinning the traditional heritage management practices. The prescriptive and normative doctrine, originally associated with the preservation of historical monuments, becomes irrelevant with regard to an expanded conception of the built heritage, and incompatible with our evolving view of history and perception of time. Modalities of intervention on buildings considered as "works of art" or "historical documents" are so restrictive that they usually lead to an occultation of some of their tangible architectural qualities. Such modalities

are ill-suited for hold buildings of undeniable, yet more modest, heritage interest and are inapplicable to the so-called “minor” architecture in particular. Further, the concepts and methods developed for preserving architectural objects prove unsuitable for the preservation of urban and territorial heritage. Similarly, methods and mechanisms devised for the conservation of natural sites and historical gardens cannot be extended to the category of cultural landscapes. For, these ongoing collective creations, forever unfinished, evolve in an organic manner as part of the territory’s humanisation process.

Affective approach in built heritage management

In recent decades, a new field of research developed that aims to tackle and assess values in preservation planning. Initiated by The Getty Institute in California, “Values of Heritage” studies aim to bridge economic and cultural approaches to heritage valuing. Relying on anthropologic and ethnographic methods, surveys are conducted in order to measure the attachment and the significance granted to different components of a built environment by various persons and social groups.

To the extent that value assessments are made by a wide group of stakeholders, rather than by traditional preservation professionals such as Art and Architecture historians, these surveys are useful for understanding sociological and cultural conditions underpinning perceptions towards heritage and its preservation. Their results however are useless for decision making on the site’s protection and maintenance, or for the evaluation of projects on heritage properties and their surrounding urban fabrics. Furthermore, the value and significance bestowed on heritage depend widely on the individuals and the social groups culture of taste and are subject to variation in time. Surveys provide a “statement of interest” at one point in time, hardly a project proposal for the future.

Methods used to define and classify the expressed “values” remain, until now, preposterous. The definition of value itself is ambiguous. Sometimes, it refers to abstract moral principles, sometimes to a physical characteristic observed in one object. There are no clear distinctions for instance between utility value and economic value. A catch-all category, called “existence value”, combine an assortment of so-called “non-use” values, akin to hedonistic values, assigned to a whole set of qualities whose economic value is difficult to measure.

The typologies of proposed heritage values reveal themselves totally absurd, quite simply because they are not based on mutually exclusive categories. It is like in Jorge Luis Borges fictitious Chinese classification of animals in which they are divided in: those that belong to the Emperor, suckling pigs, those drawn with a very fine camelhair brush, those that have just broken a flower vase ...among others.

Above all, it is important to understand that no objective scientific method can be used to arbitrate conflicts of values, due to the affective nature of the appraisal. The theory of “subjectivity of values” puts forward the

idea that the value of a good isn't determined by an imminent attribute of the good, but rather by the importance given to the good by a person in relation to his or her desires. According to the British philosopher Bertrand Russell, if two individuals disagree on a question of values, this disagreement doesn't concern any kind of truth, but only a difference in taste. He explained that science cannot decide questions of value, that values cannot be intellectually arbitrated at all because they lie outside the realm of truth and falsehood.

When we assert that such or such thing has "value", we express our own emotions, not a fact that would remain true if our personal sensations were different. Questions of "values" — that-is-to-say those that concern what is good or bad in itself, regardless of consequences — are outside the domain of science and knowledge. Whatever knowledge is attainable must be attained by scientific methods; and what science cannot discover, mankind cannot know.

(Bertrand Russell, Science and religion)

44

In Canada, public authorities address the preservation of the built heritage with a "management by values" agenda. The development of governance frameworks and preservation plans for historical surroundings is also relying upon architectural heritage inventories, which are produced based on highly subjective value assessments made by "heritage experts", generally architecture historians. Architecture is never considered in all its "typological depth" and within its broader morphological context. Aesthetic value assessments are impressionist judgments focusing for instance on appearance and the symmetry of façades, as seen from the public domain.

The specific regulations designed for historical centres and protected areas are not based on objective knowledge of the existing built environment but on emotional and ideological foundations. Generally, the goals formulated in these regulations are relying on mere ideological platitudes which are presented as "governing principles." It goes from the moral condemnation of imitation or "mimetism" to the provision of incentives to "evoke" some features of traditional architecture in the design of new architectural buildings. Ordinances usually prescribe preservation of the "distinctive cachet" of ancient buildings and upholding the original "character" of the area. Such prescriptions, of which explanatory statements are not explicit since the character is never explicitly described, are unenforceable and should not resist a legal challenge.

Architectural projects are hence submitted to a highly discretionary approval process, entrusted to advisory councils on cultural heritage. Due to the lack of clarity or certainty in the wording of the regulations, it often leads to an "abuse of discretionary power," a legal expression referring to the "void for vagueness" doctrine. In practice, members of advisory board can veto any projects not corresponding to their personal taste. Therefore, their decisions are highly unpredictable. The worst architectural intervention could be approved, the best projects are likely to be rejected.

Conclusion

Built environments are submitted to an ongoing transformation process. They are the product of continuous adaptation to the evolving needs, lifestyle and constructive practices of society. Further, even high-value historical structures are subjected to the material lifecycle of building: interventions are thence de rigueur. It entails that the preservation of architectural and urban form should not be envisioned restrictively and be concerned with only a minority of built objects, either deemed worthy of strict conservation or candidate for demolition. Today's most important issue in preservation of heritage is the management of change.

The key challenge in all intervention projects is to reconcile the necessary modifications of the existing built environments with the preservation of their structural permanencies. "Structural permanencies" are precisely the forms that maintain a recognizable cultural identity over time in spite of transformations, including the replacement of some of their components. Therefore, any architectural or urban design project, in particular in high heritage value contexts should be considered and designed as a modification of the already existing built environment and should be assessed based on its impacts on the overall life environment's quality.

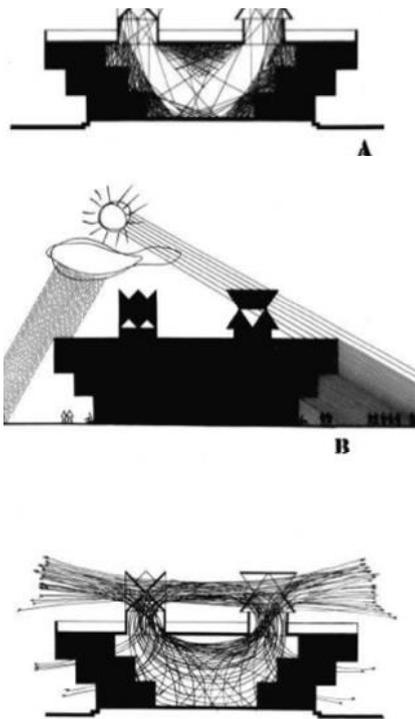
The preservation of cultural identity should not be address through the sectoral logic of heritage specialists, nor should it be based on subjective values assessment, but rather on scientific characterization studies allowing an in-depth understanding of the place's morphological structure. It is a social responsibility of all architects and urban designers to engage with heritage preservation, and with the built environment more broadly, on those terms.

The description and explanation of the diverse architectural and urban tissue types present within the urbanised territory should pursue three aims:

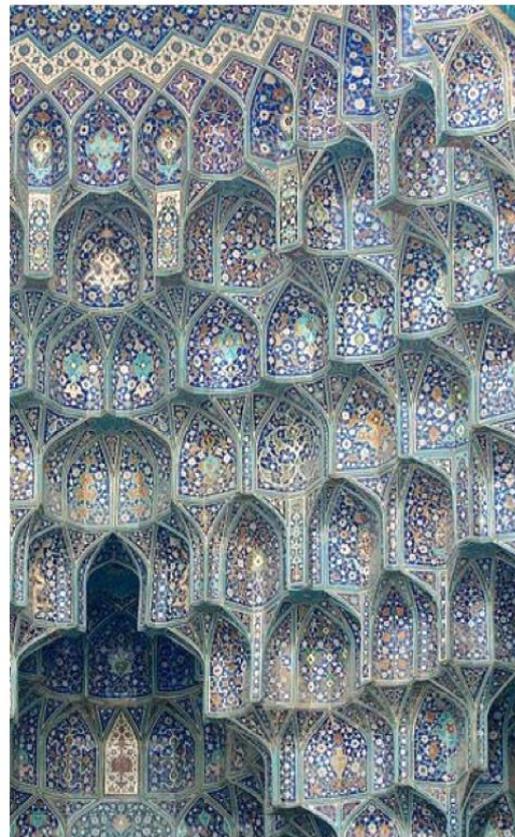
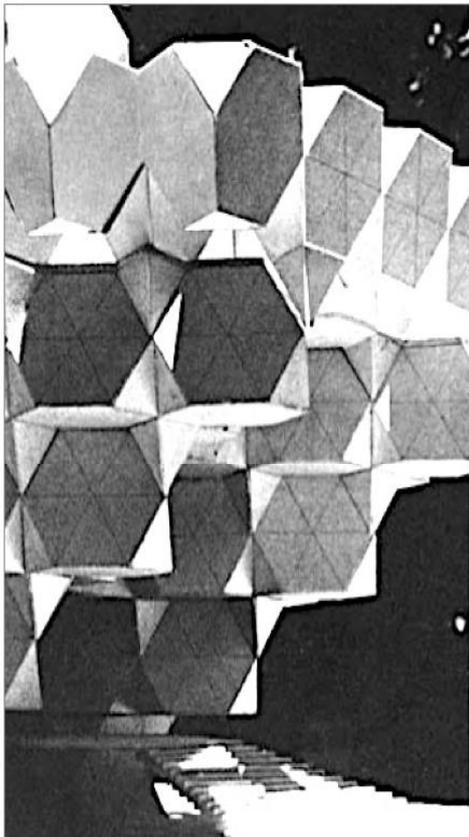
- the identification of the essential features of the building or the urban fabric that mark their belonging to a given architectural or tissue type, and which should remain invariant through time;
- the analysis and clarification of the rules governing the reciprocal syntactic relations between the components of the architectural and tissue types respectively, as well as between those types and other components of the built landscape;
- the evaluation of their transformability and their requalification potential.

The main challenge lies in how to reach a thorough understanding of the structural relations between the types' physical and spatial forms and the underlying cultural models that they manifest at different levels of spatial resolution and through time.

I think it is essential to replace ideological and affective prescriptions of international heritage charters by the geographically and socially situated rules that have contributed to forge the local built environments' cultural identity. These rules can be discovered through the theoretical reconstruction of their historical formation and transformation processes.



46



*Neumann Malqafs Bat Yam city Hall
Neumann Muquarnas Netanya City Hall project*

Un racconto romano

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Un intreccio inestricabile tra storia e mito ha fatto sì che la genesi di Roma e la sua evoluzione siano espresse, spesso in coincidenza tra avvenimenti e narrazioni, in una tradizione interpretativa quanto mai ampia, molteplice e, a volte, contraddittoria. Capitale di un impero che avvolgeva l'intero Mediterraneo spingendosi a nord fino all'attuale Inghilterra e a est al Reno e alle coste del Mar Nero, Roma ha sempre cercato nel suo luogo nativo le ragioni della sua grandezza, identificandole nella sua stessa geografia originaria, che nei *sette colli* vedeva un'entità ideale a al contempo un ampio sistema di differenze. Parallelamente essa ha individuato una sorta di *antipolo esterno* di cui la figura di Enea nel poema virgiliano è un simbolo come emblema di un destino che trovava al di fuori della sua identità fondativa alcune categorie che si riveleranno determinanti per la realizzazione di un progetto di universalizzazione di una consistente parte di ciò che diverrà l'Europa.

49

La molteplicità di cui si è detto è una realtà che rende pressoché impossibile ricostruire in modo lineare non solo lo sviluppo di Roma ma anche, nel corso dei secoli, l'eventuale presenza, implicita o esplicita, di un *progetto di esistenza* della città dotato di una sua continuità, seppure relativa e problematica. A questo proposito si proporrà in queste note l'ipotesi che sia impossibile ricondurre le vicende urbane romane a una unificante lettura tematizzata, un tentativo questo effettuato, tanto per circoscrivere il campo, da figure importanti dell'architettura italiana e internazionale del secolo scorso come, tra molti altri, Saverio Muratori, Ludovico Quaroni, Paolo Portoghesi, autori di pregevoli scritti e progetti su Roma sia sul piano teorico sia su quello urbano e architettonico. Scritti e progetti che sono caratterizzati dalla volontà di fornire risposte *totali* e durevoli ai problemi che Roma pone. L'itinerario conoscitivo che si cercherà di illustrare e di argomentare in questo intervento sarà quindi erratico, composito e, a suo modo, sperimentale. Esso si costituirà quindi come un insieme di *frammenti discorsivi* piuttosto che configurarsi come un racconto completo coerente. Questa scelta scaturisce anche da

un fatto preciso, ovvero l'irriducibilità di Roma e della sua *forma urbis* a quel modello di città dal tracciato esemplarmente chiaro, e ripetuto con varianti in ogni condizione geografica - Como, Torino, Firenze, Londra, Parigi, Colonia, Bonn, Lione - che essa ha adottato. Giancarlo Cataldi qualche anno fa ha suggerito la possibilità che Roma sia invece una città cardo-decumanica. Si tratta di un suggestivo saggio di analisi urbana che deve molto al maestro del suo autore, Gianfranco Caniggia, al quale si deve per inciso una memorabile opera su Como. Un contributo nel quale, al di là della validità dell'interpretazione, sulla quale occorrerebbe discutere, Giancarlo Cataldi ha dato prova di una grande capacità di suscitare inediti ambiti relazionali tra elementi urbani diversi.

50 La domanda che si staglia nello sfondo descritto nelle righe precedenti riguarda un fenomeno interessante almeno quanto preoccupante, vale a dire l'immobilità evolutiva di Roma che data dal 1962, l'anno in cui fu presentato un Piano Regolatore Generale, che resterà in vigore fino a qualche anno fa, la cui idea centrale era la realizzazione di una grande struttura urbana chiamata Asse Attrezzato. Ciò che si proponeva era in sintesi una vera e propria *rifondazione* della città a est lungo una collana di nuovi nuclei direzionali. Ciò non significa che da quella data Roma non abbia fatto scelte urbanistiche consistenti o che non si siano realizzate opere architettoniche significative, ma occorre riconoscere che nessuna *idea-forza* - come Manfredo Tafuri chiamava le proposte che avevano la capacità di modificare in profondità una mentalità e introdurre nella città decisivi cambiamenti - è stata finora formulata da quando l'Asse Attrezzato, poi ridimensionato a SDO, Sistema Direzionale Orientale, restò sulla carta. Ciò nonostante il progetto dello Studio Asse, sul quale si tornerà in seguito, avesse cercato di conferire ad esso una consistenza concreta. A proposito dell'Asse Attrezzato penso che uno degli ostacoli alla sua traduzione in realtà vada riconosciuto in una importante contraddizione poco evidente non solo per i redattori del Piano Regolatore Generale, ma anche per gli addetti ai lavori di quegli anni, che lo attraversava. Per un verso, infatti, esso era la conseguenza dell'idea della città storica come un'entità *finita* che occorreva salvaguardare nella sua interezza, per l'altro lo stesso Asse doveva affiancare a questa testimonianza del passato da lasciare intatta una *città futura*, che si poneva in alternativa a quella storica. Questa scelta voleva così far convivere una visione conservativa con un principio urbano radicalmente innovativo, unendo così due posizioni inconciliabili. La situazione di stallo che si è verificata da circa sessant'anni è un fenomeno negativo almeno quanto è comunque l'occasione di proporre una serie di considerazioni di un certo rilievo. Probabilmente chiedersi cosa sia successo alla città, che tra l'altro si è interrogata più volte su questa incapacità decisionale - si pensi al convegno *I mali di Roma* organizzato dal Cardinale Ugo Poletti nel 1974 e al volume *Controroma* dell'anno successivo - senza però indicare soluzioni o prendere decisioni operanti, è uno degli impegni prioritari non solo degli addetti ai lavori ma di tutta la cultura e della politica locale e soprattutto nazionale. Lo stesso nuovo Piano Regolatore Generale, del

2008, costruito su diciotto centralità che avrebbero dovuto strutturare la periferia inserendo in essa funzioni metropolitane, è rimasto anche esso senza un vero esito. In questo periodo invece città come Parigi, Londra, Berlino, si sono trasformate accostando ai loro tracciati storici, alle architetture antiche e a quelle fino al Novecento una grande fioritura di nuovi e spettacolari edifici che le proiettano direttamente nel futuro. E nel contesto di queste città che è di conseguenza nato un *turismo del nuovo* che muove milioni di persone alla scoperta, attratte dalle performative e levigate architetture recenti, quasi tutte pervase dal tema dell'involucro, dal sedime precedente dal quale esse sono state, in gran parte, prodotte.

Nel 1562 furono dissepoliti nell'area del Forum Pacis i frammenti di una grande pianta marmorea di tredici metri per undici. Era la *Forma Urbis*, fatta incidere da Settimio Severo, che rappresentava la Roma Imperiale. A partire da questi frammenti Giovanni Battista Piranesi immagina una composizione rettangolare ai cui lati sono rappresentati i frammenti stessi, appoggiati casualmente uno accanto all'altro. Man mano che ci si avvicina al centro della lastra appare la planimetria di Roma della quale emergono i sette colli, trattati graficamente come parti della Forma Urbis, in una misteriosa identificazione tra naturale e artificiale. Nasce con questa tavola l'idea di Roma come una città *arcipelago*, una città come un *cretto* le cui parti confliggono. In effetti guardando una foto satellitare di Roma è possibile constatare come essa sia proprio come l'ha immaginata l'autore del *Campo Marzio*. I quartieri sono separati da aree verdi, parchi, giardini o campi coltivati, formando una sorta di gigantesco *mosaico insediativo*. Osservando la tavola piranesiana possiamo tra l'altro notare un'altra cosa. Il recinto delle Mura Aureliane, che è idealmente un quadrato, allude all'aquila imperiale. Il becco è il Muro Torto, la coda l'area dell'attuale Passeggiata Archeologica. In sintesi, anche in base alla visione piranesiana, la mia idea di Roma è quella di un sistema di parti autonome che non sono ordinate da un disegno unitario ma che, al contrario, si esprimono per contrasto. Giovanni Battista Piranesi è senza dubbio il creatore per eccellenza di Roma di una mitologia dell'antico e del nuovo la quale, a partire dalle sue incisioni, è ancora oggi il *luogo rappresentativo* di un tentativo iconico profondo e duraturo che continua a suggerire nuovi itinerari interpretativi. Esso ha influenzato, anche se in modi diversi, fotografi, registi come Federico Fellini o Peter Greenaway, artisti, scrittori, storici, critici d'arte. Il nucleo poetico dell'opera grafica e architettonica piranesiana si riconosce sia nel contrasto tra luce e ombra come aspetto centrale dello spazio urbano, sia il tema della rovina come *compimento* dell'edificio, lo stato in cui esso rivela la sua verità.

All'idea di Roma come un gigantesco *cretto*-la città *arcipelago*, già evocata, di cui ha parlato recentemente anche Vieri Quilici - si associa nella mia esperienza conoscitiva di questa città una concezione letteraria basata sull'incrocio di quattro direzioni interpretative. La prima deriva da un poema in sonetti scritto nella seconda metà del 1500 dal francese Joachim du Bellay, fratello di un alto prelato della Curia. Il poema è intitolato

Les Antiquités de Rome. Si tratta di una delle prime opere nelle quali una visione archeologica della città si unisce a un sentimento duplice, nello stesso tempo di perdita e di riconquista della città stessa. Il sonetto numero ventitré è probabilmente il più teorico. In esso l'autore afferma che Roma distrugge sé stessa e, attraverso questa autodistruzione, si ricompone per frammenti, in una sorta di misteriosa circolarità in cui le stesse forme scompaiono, riemergono, si rimescolano. Si tratta di una *distruzione creativa* che fa nascere una Roma dopo l'altra in una serie incessante di dissoluzioni e di ricomposizioni. Quando Joachim du Bellay compone la sua opera la visione archeologica di Roma, che ha il suo inizio nel 1519, con la famosa lettera a Leone X di Raffaello e di Baldassarre Castiglione - elaborata anche con un gruppo di umanisti, cosa che la conferma come l'esito di un dibattito vasto e approfondito - aveva già prodotto una vera e propria rivoluzione nel rapporto tra la contemporaneità e l'antico. La Roma dei ruderi cominciava a essere considerata come una *città parallela*, una città in qualche modo autonoma, anche se sparsa in tutto il tessuto urbano. Un altro testo che considero centrale nella mia idea di Roma è il *Viaggio in Italia* di Johann Wolfgang Goethe, ovviamente nelle pagine dedicate a questa città. In un passo del suo testo lo scrittore di Francoforte sul Meno scrive "Sono qui da sette giorni, e a poco a poco si precisa nel mio animo un'idea generale di questa città. Già la percorriamo in ogni senso con scrupolo; io mi familiarizzo con la topografia dell'antica e della nuova Roma, osservo rovine ed edifici, esploro questa e quell'altra villa, lentamente m'accosto alle maggiori bellezze e non faccio che aprire gli occhi e guardare, che andare e venire, giacché solo a Roma ci si può preparare a comprendere Roma. Ma, confessiamolo, è una dura e contrastante fatica quella di scovare pezzetto per pezzetto, nella nuova Roma, l'antica; eppure bisogna a farlo, fidando in una soddisfazione finale impareggiabile. Si trovano vestigia di una magnificenza e di uno sfacelo che superano l'una e l'altro, la nostra immaginazione. Ciò che hanno rispettato i barbari, l'hanno devastato i costruttori della nuova Roma. Quando si considera un'esistenza simile, vecchia di duemila anni e più, trasformata dall'avvicinarsi dei tempi in modi così molteplici e così radicali, e si pensa che è pur sempre lo stesso suolo, lo stesso colle, sovente persino le stesse colonne e mura, e si scorgono ancora nel popolo tracce dell'antico carattere, ci si sente compenetrati dai grandi decreti del destino; tanto che da principio è difficile all'osservatore discernere come Roma succeda a Roma e non già soltanto la Roma nuova all'antica, ma ancora le varie epoche dell'antica e della nuova sovrapposte l'una all'altra". Con queste parole Johann Wolfgang Goethe apre un percorso ermeneutico che sarà ripreso nel 1929 da Sigmund Freud in un passo de *Il disagio della civiltà*. Prima di parlare del padre della psicoanalisi vorrei però ricordare la Roma di Stendhal, uno scrittore che vede la *Città Eterna* come un luogo estremo nel quale le passioni si confrontano con la ragione in un binomio tanto inestricabile quanto coinvolgente. La Roma stendhaliana è una città di presenze monumentali separate che compongono un paesaggio architettonico multiforme, sorprendente, misterioso, attraversato in ogni suo aspetto da un mito sentito con un deciso e originale spirito romantico.

Dalla scalinata di San Pietro in Montorio Henry Brulard - l'*analogo biografico* di Stendhal - osserva il panorama di Roma come lo spartito magico della sua esistenza. Tornando a Sigmund Freud egli afferma che, se osserviamo il Palatino, possiamo con gli occhi della mente vedere che, accanto alle rovine dei Palazzi Imperiali, questi stessi, ancora integri, si ergono in tutta la loro imponenza. Nulla è scomparso, ma tutto convive in una eterna contemporaneità. Per questo, sempre secondo Sigmund Freud, Roma non è tanto un'*entità fisica* quanto un'*entità psichica*, un *luogo del pensiero* dotato di una profondità insondabile, una memoria plurima che si rinnova costantemente e di un *inconscio* che riaffiora ciclicamente epoca dopo epoca. Roma è dunque una città pervasa dalla *compresenza* di tutte le sue fasi, materializzate nella *stratificazione* delle sue tracce. Fasi che si traducono in un *accumulo* senza regole apparenti di edifici. Il tutto in una dimensione mentale nella quale la città si fa presenza vivente, palinsesto infinito e mutevole di forme. Di memorie e di pensieri. La *compresenza*, la *stratificazione* e l'*accumulo* sono a mio avviso tre caratteri che hanno segnato non solo la Roma imperiale ma anche la Roma successiva fino a quella contemporanea.

Potrebbe essere di grande interesse percorrere le numerose direzioni che queste quattro interpretazioni, per più versi interconnesse, individuano. Alcune opere di Giorgio De Chirico, soprattutto il quadro del 1922 *Paesaggio romano*, restituiscono con grande efficacia tematica e con notevole tonalità poetica il senso originario di Roma. L'idea di compresenza compare anche nel cinema, come ne *La dolce vita*, del già ricordato Federico Fellini. Nel film compaiono le Terme di Caracalla, la Fontana di Trevi, la Roma moderna con la chiesa di San Giovanni Bosco di Gaetano Rapisardi. In *Mamma Roma*, di Pier Paolo Pasolini, i ruderi romani dialogano con i quartieri neorealisti, tra i quali il Tuscolano di Mario De Renzi e Saverio Muratori. *Il sorpasso*, di Dino Risi, mostra all'inizio una strada periferica deserta, bordata di palazzine - un accumulo di stilemi *modernisti* - che esprime un senso di vuoto come metafora urbana della perdita di valori umani nell'età del consumismo. Michelangelo Antonioni si confronta con i *ruderi moderni* dell'E42 nella pellicola *L'Eclisse*, che rappresenta la sua ultima opera centrata sull'*incomunicabilità*). Come ne *La notte*, in un mondo sempre più alienato è l'architettura che si assume il ruolo di emblema dei sentimenti, "scena fissa della vita", citando Aldo Rossi. Anche nella letteratura le pagine di *Quer pasticciaccio brutto de via Merulana* di Carlo Emilio Gadda restituiscono una Roma reale e al contempo fantastica, casi alcuni passi dei romanzi di Pier Paolo Pasolini *Una vita violenta* e *Ragazzi di vita*. Potrei continuare a lungo elencando opere pittoriche - sto pensando a Mario Mafai e alle sue *demolizioni*, al Renzo Vespignani degli Anni Quaranta e Cinquanta, al Renato Guttuso delle periferie e degli autodemolitori - molti altri film come *La grande bellezza* di Paolo Sorrentino e numerosi romanzi e raccolte poetiche come, tanto per limitarsi a un solo esempio, *Ogni cosa a ogni cosa ha detto addio*, di Valentino Zeichen.

Riprendendo ciò che si diceva all'inizio di queste note c'è da tenere presente che nel 1960 Roma aveva avuto un ruolo internazionale, coronato da un grande successo, ospitando la XVII Olimpiade, una delle prime, se non la prima, in cui i media avevano un ruolo centrale. Quindici anni dopo la fine della Seconda Guerra Mondiale la Capitale era divenuta una metropoli. Compaiono alcune infrastrutture importanti come autostrade, svincoli, il viadotto del Villaggio Olimpico di Pier Luigi Nervi, la Via Olimpica che unisce il Foro Italico all'Eur, appena completato da Virgilio Testa, Commissario dell'Ente omonimo per decidere le sorti, che proprio per questa occasione mondiale garantiranno all'intervento interrotto un nuovo ruolo. Due anni dopo il Piano Regolatore Generale elaborato da Luigi Piccinato, Michele Valori, Vincenzo Passarelli, Piero Maria Lugli e Mario Fiorentino conferma questo momento di trasformazione. Si prevede che Roma cresca da meno di due milioni di abitanti a cinque attraverso un processo che ipotizza lo spostamento del terziario a est lungo l'Asse Attrezzato liberando il centro storico, destinato a divenire il luogo della cultura con la sua secolare e densa presenza di monumenti, biblioteche e musei e la predisposizione di nuove strutture. Approvato con alcune varianti nel 1965, il Piano Regolatore Generale, come si è già detto, non sarà, di fatto, tradotto in realtà. C'è da dire che in esso erano presenti alcune conflittualità latenti che nel corso di pochi anni si faranno sempre più evidenti e operanti. L'Asse Attrezzato, la collana a est di strutture direzionali come ministeri, uffici di grandi aziende e strutture produttive e culturali costituiva per molti versi un'alternativa all'Eur, così come il Grande Raccordo Anulare, allora diviso in due diverse sezioni, conteneva alcune potenzialità insediative terziarie e commerciali che in seguito si concreteranno. La stessa relazione tra il centro storico e i centri direzionali a est e l'Eur a sud configuravano una separazione funzionale forse troppo radicale, giustificata anche da motivi ideologici e politici, come ad esempio la necessità di realizzare importanti operazioni trasformative nelle zone periferiche, per immetterle in modo più organico alla vita metropolitana, sottraendole all'emarginazione, abitate dai ceti meno privilegiati. Le difficoltà scaturite dalla volontà di separare, in una sorta di grande zonizzazione, e in modo chiaro e definitivo i ruoli dei vari ambiti urbani si ritrovano anche nel progetto dello Studio Asse (1969-1972, i cui membri - Vincio Delleani, Mario Fiorentino, Riccardo Morandi, Lucio e Vincenzo Passarelli, Ludovico Quaroni, Bruno Zevi - intendevano dimostrare come l'idea di questa struttura ad andamento lineare, ma con una grande complessità di tracciato, ispirata alle tante visioni di città che a livello internazionale erano state proposte in quel periodo, potesse tradursi in un'architettura urbana fortemente innovativa, pervasa, molto prima della *bigness* di Rem Koolhaas, da un forte senso del *colossale*. Anche questo progetto non ebbe seguito, se non nel Corviale di Mario Fiorentino che ne rappresenta un frammento. La Casa lunga un chilometro voleva segnare il limite di Roma a ovest contrapponendo la sua straordinaria energia volumetrica e la sua unità formale al mare di palazzine, metafora architettonica della perdita di una reale socialità, sostituita da una frammentazione della comunità rappresentata da

un abitare fatto di piccole unità separate, incapaci di definire un vero e proprio tessuto urbano unitario e integrato. Un'architettura potente e a suo modo atopica e capace allo stesso tempo di costruire un luogo, quella del Corviale, che Manfredo Tafuri definì “una macchina che non emette suoni”, quasi il simbolo di una escludente autoreferenzialità. Va anche ricordato che nel 1963, un anno dopo che il Piano Regolatore Generale era stato ultimato, avvenne nella Facoltà di Architettura di Roma una vera e propria rivoluzione. Furono chiamati da Venezia Luigi Piccinato uno degli autori del Piano, e Bruno Zevi. Da Firenze, dove era invece professore di Urbanistica tornò Ludovico Quaroni, che insegnerà Composizione Architettonica. Bruno Zevi organizzò il famoso *Convegno del Roxy*, che si rivelò come un autentico processo alla Facoltà romana, accusata di essere una scuola ancorata all'accademia, chiusa ai nuovi problemi che la città stava affrontando in quegli anni. Vittima sacrificale dell'operazione zeviana fu Saverio Muratori, l'inventore a Venezia e a Roma degli studi urbani, un teorico ma anche un architetto capace di sovvertire il linguaggio moderno per rinnovarlo attraverso una profonda visione della storia, delle preesistenze strutturali della città e dell'architettura e dell'organicità dell'abitare. Un linguaggio, che si era ridotto in gran parte, e da tempo, a codice convenzionale fondato su modalità progettuali sempre più astratte e ripetitive, che per di più non avevano più relazioni autentiche con i luoghi. Occorre riconoscere che, nonostante la rivoluzione di Bruno Zevi fosse ispirata da convinzioni motivate sincere, il risultato della strategia che egli propose fu la delegittimazione e in gran parte la distruzione di una Facoltà che aveva una tradizione formativa complessa. Una tradizione elevata fondata anche sul fatto che era nata nella prima scuola di architettura italiana. Questo patrimonio conoscitivo, attraversato anche da sostanziali divergenze, come quelle tra Gustavo Giovannoni e Marcello Piacentini, non poteva essere da un giorno all'altro cancellata, anche se era necessario fare molte distinzioni, oltre a riscoprire nella scuola romana tendenze e personalità meno evidenti dei protagonisti più noti ma senza dubbio importanti.

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Vorrei ora ripercorrere brevemente una vicenda determinante per Roma e per la sua architettura, il *Concorso per i Nuovi Uffici della Camera dei Deputati*, del 1967. Determinante perché il risultato fu la premiazione ex-aequo di diciotto progetti, una decisione che sanciva in modo diplomatico il fallimento dell'iniziativa. Tra le proposte si distingueva per l'intrinseca opposizione al bando quella di Italo Insolera, autore di un progetto il quale, rifiutando la richiesta di realizzare un nuovo edificio, e scegliendo in alternativa di ricavare gli spazi richiesti dal programma di concorso in manufatti esistenti, negava radicalmente il contenuto del bando stesso. Ciò che l'esito negativo della competizione comportò fu la negazione della possibilità per l'architettura moderna di essere presente nel centro storico, cosa che in realtà era già avvenuta, e con risultati eccellenti, in città come Parma, Venezia, Milano, Torino, Roma stessa. In effetti dal 1967 in poi il nuovo viene espulso dalla città storica, a partire da Roma. In verità solo apparentemente. Costruire opere moderne

all'interno dei tessuti urbani antichi divenne impossibile - tranne il caso del Museo dell'Ara Pacis di Richard Meier - ma si diffuse la modalità di nascondere la modernità dietro le facciate storiche. La congruenza tra la tipologia originale e la sua traduzione in volumi, spazi e particolari costruttivi e decorativi venne infranta. Molti sono infatti i casi di edifici ricostruiti del tutto all'interno, con grande ricorso all'impiantistica, a nuovi nodi verticali, a scale di sicurezza. Edifici che di autentico conservano solo l'involucro, elemento non più architettonicamente connesso a ogni altro aspetto del manufatto, ridotto a semplice elemento di una *scenografia urbana*. Il risultato di questa contrastata e improduttiva competizione fu commentato da un lucido, ma anche per più versi contraddittorio, libro di Manfredo Tafuri dal titolo *Il concorso per i nuovi uffici della Camera dei deputati: un bilancio dell'architettura italiana*, che ripercorreva i temi affrontati dai diciotto progetti formulando una sorta di classifica personale che rivedeva radicalmente il giudizio della commissione.

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Richiederebbe molto tempo comprendere le ragioni di questa assoluta chiusura all'architettura moderna nei centri storici promossa dall'area benevoliana-cederniana-insoleriana e sostenuta vigorosamente dalle Sovrintendenze, un argomento che rinvio a un'altra occasione. Ricordo solo, per contrastare questa scelta due esempi, l'edificio costruito da Hans Hollein a Vienna, davanti alla Cattedrale di Santo Stefano, che contrappone alla grande mole gotica un'architettura nella quale splendidi pareti metalliche e brillanti paramenti di cristallo celebrano in modo originale lo spirito del Novecento e la nitida architettura trasparente di Norman Foster a Nimes, di fronte alla Maison Carrée. Sono due interventi attraverso i quali l'identità del nuovo non attenua ma esalta quella delle preesistenze. Ripercorriamo però in rassegna, anche se velocemente, il senso del concorso e la risposta di alcuni dei progetti premiati. Il Palazzo di Montecitorio - dal quale la metafora pasoliniana del Palazzo come roccaforte isolata del potere - fu progettato nel 1653 da Gian Lorenzo Bernini per la famiglia Ludovisi. Subito dopo l'inizio dei lavori il cantiere rallentò a causa di un problema di natura diplomatica tra Innocenzo X e il Principe Niccolò Ludovisi. Alla morte di quest'ultimo i lavori furono del tutto interrotti fino a quando Innocenzo XII venne convinto da Carlo Fontana a ultimare la costruzione destinandola a ospitare, con alcune modifiche della facciata, tra le quali il campanile a vela e il portale d'ingresso, la Curia Pontificia e il Dazio. Dopo il 1970 l'edificio accolse il Parlamento in un'aula in ferro e legno, progettata dall'ingegnere Paolo Comotto, che presentò quasi subito grandi problemi di degrado che portarono alla sua demolizione del 1900. Un nuovo intervento sul palazzo di Gian Lorenzo Bemini e Carlo Fontana fu affidato all'architetto palermitano Ernesto Basile, che costruì l'attuale edificio quadrangolare coronato da quattro torri il quale, realizzato sul cortile preesistente, raddoppiò su Piazza del Parlamento la facciata dell'edificio seicentesco. Sul lato destro del volume basiliano esisteva, e purtroppo esiste ancora, un'area risultante della demolizione di una preesistenza. Tale area, che doveva essere servita da un elevato numero di parcheggi, era destinata ai nuovi uffici per i

deputati. Davanti a quest'area si erge un edificio di Raftaele Stern, denso di riferimenti all'architettura di Giovanni Battista Piranesi, che con la sua singolarità ermetica costituiva un'altra presenza emblematica oltre quella dell'edificio basiliano, con la quale il nuovo edificio si sarebbe confrontato. Sulla stessa piazza va ricordata per inciso un'altra architettura importante, opera di un Marcello Piacentini ancora nella sua fase eclettica.

Ludovico Quaroni partecipò al concorso con un progetto in acciaio corten dalla potente volumetria scavata da profonde fenditure, sospesa con una sorta di grande modanatura su un ombroso e verdeggianti piano terra dal tono scultoreo. La pianta evocava con il sistema di linee curve, da una parte la composizione dinamica del precedente progetto per le Barchesse di San Giuliano, del 1959, rimandando dall'altro al *primitivismo* delle architetture nuragiche di Barumini. Un'altra proposta importante era quella di Giuseppe e Alberto Samonà. A fronte del carattere compatto dell'architettura quaroniana questa contrastava la solidità dell'addizione di Ernesto Basile costruendo un sistema aereo di volumi compenetrati sospeso, come in alcune pitture pompeiane, su alti e esili pilastri in acciaio. Lo spazio sottostante costituiva una piazza di una certa ampiezza, coperta dal *cielo artificiale* dell'edificio, coronato dalla *Main Ouvre* di Le Corbusier. In effetti il progetto era una sapiente riscrittura della proposta, di pochi anni prima, del maestro svizzero-francese per l'ospedale di San Giobbe a Venezia. Carlo Aymonino disegnò un edificio ibrido, un'architettura che correggeva la necessaria tonalità aulica del nuovo manufatto con elementi che rinviano all'edilizia residenziale. Il gruppo di Vittorio De Feo, così come quello di Lucio Passarelli, cercava di contrastare l'incombere sull'area della torre angolare di Ernesto Basile con una soluzione avvolgente che produceva un energico conflitto tra *pieno e vuoto*. Il progetto di Maurizio Sacripanti, al quale come giovane collaboratore detti il mio contributo, è ancora oggi molto difficile da interpretare. Esso era basato sull'accumulo e sullo scontro tra forme diverse unite in un collage stridente, dissonante, casuale. Vicina alle composizioni di John Cage, allora musicista di riferimento per Maurizio Sacripanti, quest'opera fu molto criticata da Manfredo Tafuri per il suo eccesso *espressionista*, per la sua natura frammentaria, per il voluto effetto di una esasperata concitazione formale risolta in una drammatica spazialità. In effetti si sprigionava qualcosa di perturbante dalle volumetrie sospese a sbalzo, dalle efflorescenze plastiche disposte nello spazio senza un'apparente regola, anche se la geometria era severa. Ellissi, cerchi e rettangoli davano vita a un insieme di forme che anticipavano di qualche anno la geometria frattale di Benoit Mandelbrot. Va anche ricordato che a quel progetto non corrispondeva ancora una tecnica costruttiva adeguata, per cui esso venne considerato troppo ardito, anticonvenzionale da tutti i punti di vista. La soluzione prevista da Costantino Dardi, allora un giovane architetto alle sue prime prove importanti, ma già noto come una delle più importanti personalità, si configurava come un progetto *neoeffusionista*. Un edificio caratterizzato dalle sovrapposizioni di piani aggettanti, solcato da incisioni e da disarticolazioni formali, la cui

matrice proveniva dall'opera di Carlo Scarpa, sovrastato da una grande cupola che evocava l'assolutismo visionario di Étienne-Louis Boullée. Sono gli anni in cui Ludovico Quaroni pubblicò un libro, *Da Ledoux a Le Corbusier*, di Emil Kaufmann, che avrà una grande influenza sugli architetti italiani di quel periodo. Lo stesso Ludovico Quaroni disegnò allora la Chiesa Madre di Gibellina Nuova, anch'essa coronata da una grande cupola dall'interno rivestito di mosaico dorato. Un altro progetto notevole era quello del GRAU (Gruppo Romano Architetti Urbanisti), fatto di comparti spaziali all'interno dei quali si incastravano *gemme architettoniche* che rievocavano i solidi platonici in una dialettica compositiva sospesa tra futurismo ed espressionismo. Vanno poi ricordate le proposte di Emilio Battisti e Marco Porta, di Gianugo Polesello, *preminimalista*, di Gianfranco Caniggia e di un gruppo di allievi di Saverio Muratori i quali, assieme al loro maestro, progettaronο un'interpretazione filologico-evolutiva di un palazzo cinquecentesco che radicalizzava il contrasto tra antico e moderno ripensando quest'ultimo all'interno delle preesistenze, in un accordo, seppure estremo, con le coeve convinzioni di Ernesto Rogers. Quello muratoriano era un progetto per più motivi *paradossale*, una sorta di *restauro urbano* frutto di un rigoroso teorema, dal quale è però veniva eliminato il tema della *contemporaneità della storia al presente*.

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A conclusione di questo itinerario, per mia scelta parziale, accidentale e frammentario, vorrei proporre alcune considerazioni che ritengo di un certo rilievo. A mio avviso si può progettare in modo significativo per Roma solo se si è in grado di elaborare un'idea o una *visione* della sua genesi e del suo sviluppo. Un'idea o una visione che non siano solo il frutto di una ricostruzione storica o di un'analisi strutturale, gli ambiti entro i quali si sono mossi Ludovico Quaroni con il suo testo *Una città eterna: quattro lezioni da ventisette secoli*, del 1959, e Saverio Muratori con il libro *Studi per un'operante storia urbana di Roma*, del 1963. Secondo me occorre infatti introdurre nel pensiero su Roma un vettore fantastico, qualcosa in grado di sovvertire una vicenda reale per conferire alla narrazione su questa città una dimensione ancora sconosciuta. A partire da questo punto di vista credo che sia necessario compiere un'operazione concettuale la quale, a partire dalla città reale, la rimuova idealmente per vedere, con gli occhi della mente, come era il *paesaggio di Roma* prima di Roma. Tale rimozione, che è un *atto immaginativo*, consiste quindi nell'eliminare ogni stratificazione, ogni traccia insediativa, ogni edificio, per scoprire in che modo siano presenti, nella condizione primaria dell'area sulla quale sorgerà la città, le condizioni che ne determineranno la nascita e l'evoluzione. A Roma questa operazione consente di comprendere il paesaggio originario una pianura attraversata dal Tevere - una pianura che fu il *paleoalveo* del fiume - sulla quale insistono alcuni rilievi tufacei. Rilievi dai fianchi pressoché verticali, coronati da boschi, quasi inaccessibili. In tempi remoti le valli tra i colli erano più profonde, come anche le cime dei colli stessi dovevano essere più elevate. Nel corso di più di due millenni la pianura tiberina si è elevata anche a causa delle ripetute alluvioni, e l'altezza dei colli è stata in più modi alterata. Dalla visione del

paesaggio originario discende un primo tema, ovvero come raggiungere le sommità delle alture per insediarvi una serie di villaggi. Un tema che ha fatto di Roma una *città di scalinate e di scale* da quelle monumentali come la Cordonata del Campidoglio, la ripida Scalinata dell'Ara Coeli e quella, scenografica, di Piazza di Spagna, a scale e rampe più semplici, spesso seminascoste nel tessuto. Scale e rampe antiche e moderne che costituiscono un affascinante racconto altimetrico attraverso il quale l'orografia di Roma acquista una sua logica necessaria. Questo tema si traduce architettonicamente nella necessità di *segnalare* l'inizio e l'arrivo di una salita con soluzioni architettoniche che configurino l'ascesa come una *promenade architeturale* la cui conclusione abbia una forte tonalità rappresentativa. Un altro elemento che si può dedurre dal paesaggio originario di Roma, denso di paludi nelle quali si rispecchiavano le formazioni tufacee, deriva proprio dalla consistenza volumetrica di queste. Le pareti verticali delle alture, la compattezza dei rilievi, le loro ondulazioni planimetriche devono aver suggerito ai costruttori della città *forme compatte*, plasticamente modellate, isolate nella loro definizione geometrica. Un terzo aspetto che si può individuare dopo aver rimosso il costruito stratificato, e fatta rinascere l'orografia originaria di Roma è una compresenza di possibili tracciati lineari e di tracciati ondulati imposti dalla condizione dei siti. In poche parole Roma non poteva probabilmente creare o adottare un sistema cardo decumanico in quanto il suolo sul quale è stata fondata lo impediva. Inoltre Roma nacque come una federazione di nuclei insediativi urbani su colli diversi. Da qui quel *sistema ad arcipelago* già ricordato. Riassumendo quanto detto, il paesaggio originario, dalla bellezza selvaggia, fatto di pianure, paludi, alture tufacee ricoperte alla sommità da folti boschi ha prodotto tre luoghi della scrittura architettonica, la sistemazione di *percorsi in verticale* come reinvenzioni orografiche, la compattezza volumetrica degli edifici, la loro *gravitas*, unica nella sacralità primordiale di cui conserva l'impronta, come nel Pantheon, l'irregolarità del tracciato con il risultato di un tessuto urbano conflittuale, antiseriale, derivato dal caso più che dalla necessità. Incrociando queste considerazioni con il misterioso conflitto tra il recinto urbano serviano e quello aureliano è possibile comprendere quali siano i percorsi interpretativi che occorre intraprendere per concepire un'architettura per Roma organica per quanto più è possibile alla sua storia. Solo agendo all'interno di questa ampiezza tematico-problematica si ricomincerà forse a superare quell'impossibilità evolutiva, e quella conseguente immobilità, difficoltà non insuperabili dovute anche alla molteplicità delle *narrazioni* su Roma di cui si è parlato all'inizio di queste note.

Conference topic

A.1) Theories and Methodologies

Urban composition: Imaginary versions of Rome inspired by memories and possible scenarios

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Keywords: *urban setting, possible city, imaginary city*

Abstract

62 *This paper investigates the composition of heterogeneous fragments, excerpts from the inventory of collective memory, and the resulting unpredictable architecture in an urban context. The project focuses entirely on the city of Rome, its classical antiquities, its Renaissance and Baroque works and different branches of modernism found there. The freedom to assemble figures or fragments, to place them in another context, highlighted the effectiveness and decisiveness of a reading of urban design in which the figurative force is the result of consideration based on the visual relationships between objects. The experiences presented outline certain unreal circumstances, but nevertheless inspire a scale evaluation of the results of planned modifications, and suggest corrections, adjustments and new possibilities. The experimental setting, that some may deem fantastical, is derived from the superimposition of an existing environment and works introduced from other contexts. In this way, the artist can redesign and foreshadow, creating a fictional city that can, paradoxically, serve as a reference in the development of new possible urban settings.*

Introduction

The representation of a space in which coherence of place and time is not a requirement was exemplarily practiced by the artist Canaletto in 1742 in a painting in which the project of the Rialto Bridge over the Grand Canal in Venice developed two centuries beforehand by the famous architect Palladio is represented together with two buildings that are part of the city of Vicenza, that is, Palazzo Chiericati and the Basilica. The juxtaposition of well-known architectures to provide form to new spatial connections in the environment verifies new unthought-of opportunities to compose buildings and monuments that modify the space. Through the practice of building using perspective, the spatial representation becomes *objective*, locates buildings in places where are unified to others – by site and in time – volumes in a synthesis that would otherwise be negated due to the habit of not discussing image and appearance. The inventions resulting from the union of individual architectures into unitary visions that do not organically belong together due to shared birth or co-ordinated development is a particular iconography in which buildings abandon the passive and ornamental function thanks to which we have got to know them and reacquire an actively elevated role in the project.

The buildings represented in the perspective representation of the scene have a physical appearance permitting precise evaluations of the choices to be applied in as far as they affect the themes of the private and above all the public space, the volumes, the surfaces, the materials, and the technologies. Consequently, the ancient classical, Renaissance, and baroque works, and the various branches of modernism – to remain within the environment of western culture – allow infinite choices suitable for simulating the planivolumetries as close to the planning thinking as possible.

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A similar procedure that tests the possibility of enhancement of the context and the monument was started by the greatest architect of the era of romantic classicism, Karl Friedrich Schinkel, and can be seen in one of his best known designs called *Large composition, how Milan Cathedral should be situated* (1810). So the monument of the Lombard city is represented on a hill that overlooks a large city on the coast, perhaps Trieste, in order to test a new version of the relationship, here between architecture and nature. It is one of the most well-known anticipated explorations carried out in the past in a planning method facilitating upstream project verification aimed at the evaluation on the one hand of the impact of a new architecture on the environment, and on the other hand, of the opportunity to enhance a given place.

However, it is possible to recognise other previous examples of architecture belonging to different contexts but composed to experiment in other places were first produced. These ideas can be seen, for example, in the fifteenth-century representations of the *ideal city* and also in the environments of the baroque era that were the fruit of bizarre artificial compositions. Giovanni Paolo Panini, Canaletto, Bernardo Bellotto, Francesco Guardi, Michele Marieschi, Giovanni Battista Piranesi, Hubert

Robert, William Marlow, and many other artists painted representations that were syntheses of real information and imagined components.

At the start of the nineteenth century, Karl Friedrich Schinkel painted views of architecture immersed in scenic romantic landscapes that were sometimes re-elaborations from his travel notes based on real building components but conceived and assembled by himself in free compositions. As Luciano Semerani wrote, "Schinkel's interest is almost never in individual monuments or architectural ruins but is usually shown inserted into large generous landscapes (...). Schinkel searched for an idealised 'classical' world, sublime and serene, and found it because he drew it like this. He interpreted the landscape and composed images for his own world. From the very start, he made a strict choice and believed in his own vision with sacred religiosity. "The only architecture that interested him besides the Greek was what he called 'Saracen': the Italianised gothic" representations. "He became enthused by Milan Cathedral and then redesigned it in its ideal position on San Giusto hill above Trieste". Talking of the *correct* reciprocal relationship of architectures composing the representation, Semerani emphasised that love for the ancient Greece brought Schinkel, "to favour, including in his design drawings and plans, the topological relationship between the objects, which he placed to constitute a minute face-to-face dialogue without great correlations with the urban structure". This work produced "by citations, transposition of objects beyond their context, this real and true invention of context which on the other hand is also alive in the "visionary" architects of the period of the Enlightenment brings us to the threshold of modern culture in one of its most important aspects: Surrealism" (L. Semerani 1982, pp. 10-11).

Several contemporary artists have become experienced in the study of place by varying real elements in it, that is, in the analysis of the imaginary environment deriving from. The digital designer Anton Reppon, Russian by birth and American by adoption, has been praised by the critics for a series of images in which he simulates new environments for eleven important buildings in New York, masterpieces of contemporary architecture in the American metropolis that are imagined as being isolated in a desolate inhospitable context, in the desert or on the open sea, becoming unknown and therefore unreachable. The Canadian photographer Chris Helgren, whose studio is in Toronto, has committed himself to an experience on the theme of combining contributions from different times in the same place. The Ukrainian artist Alexey Kondakov has worked on anonymous images of public spaces in the city of Kiev in which figures from other epochs with different attitudes are fitted. The Frenchman Julien de Casablanca, the photographer Julia Fullerton-Batten who is of German origin, and the Sicilian Alberto Alicata are also committed to variations in the context in order to find a relationship between our life environments and the collective culture.

The artist shapes an experimental environment by redesigning places and cities using slippage in time and between places, a shaping that is not real but imagined, and is possible albeit with a little variation.

Methodology

Part of the laboratory experience matured in the teaching of the Urban and Architecture Composition II course (regular professor Enrico Pietrogrande, co-workers Alessandro Dalla Caneva and Nicola Sartorello, 2015-16 academic year) on the Civil Engineering - Architecture degree course at the University of Padua in Italy (Department of Civil, Environmental and Architectural Engineering) has closely approached the above-mentioned experiences by providing for the development of projects by the students in composing collages that show images of possible urban contexts in the city. The developments are real and true urban scenes starting by inserting architectures, preferably monumental and freely chosen from the formal stock offered by history, in a fragment of urban fabric autonomously decided by the student with no conditions attached.

This type of composition goes back to the theory of the Analogous City developed by Aldo Rossi, theory which, in a specific historic moment of reflection on the theme of the city, not only permitted to face the urban project for its functional aspects but also and above all for its formal aspects. The Theatre of the World in Venice, reminder of theatrical constructions for the water festival, evocation of towers and lighthouses, is verification of this understanding. In fact, its advance along the Venetian canals and its crossing of the Adriatic Sea until it arrives in the city of Dubrovnik produces infinite and unexpected relationships with the city by constructing equally infinite and unexpected urban scenes rich in memories and suggestions. So the theatre placed in the space formed by the basin of San Marco dialogues from a distance with the "fixed points" that structure the city of Venice. The buildings of the piazzetta San Marco, the church of the *Salute*, but above all the Palladian architecture of the three churches of *San Giorgio Maggiore*, *Le Zitelle*, and the *Redentore* become the buildings favoured in the construction of an imagined Venice affected by a dialogue from distance.

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Rossi did not hide how much the formal operation staged using the theatre of the world certainly referred to the Venetian Capriccio. Canaletto proposing the insertion of Palladian buildings in a real place like the Rialto Bridge highlights a logical formal operation in which the meanings that unexpectedly emerge from the composition represent the true meaning and authenticity of reality. How the reflection of Rossi specifically originates in Canaletto's canvas preserved in the National Gallery in Parma (*Galleria Nazionale*) is well known. It was this that Aldo Rossi was referring to when he stated that "The Rialto Bridge in the Palladian plan, the Basilica, and Palazzo Chiericati are approached and described as if the painter made an urban environment he himself had observed prospectively. Therefore, the three Palladian monuments, one of which is a plan, constitute an analogous Venice whose formation is achieved by using specific elements connected as much to the history of the architecture as to the city. The geographical transposition of the monuments in the project constitutes a city we know that also confirms itself to be a place of pure architectural values. The Venice that is born in the painting of Canaletto is real and

necessary, it is a logical-formal operation, a speculation disconcerting from the point of view of the history of thought and art. The three Palladian architectures that not only give form to a new city but in being collected together also confirm themselves. Therefore, what matters most in this frame is the theoretical construction, the hypotheses of a theory of architectural planning in which the elements are formally prefixed and defined but in which the meaning triggered at the end of the operation is the unexpected but authentic original meaning of the research" (A. Rossi 1975, pp. 370-371).

So the intention is a reflection on the interactions between the forms in the space that aim to manifest the life of the forms according to precise relationships, not the research of beauty through the study of the plan, usually the main place where the idea takes shape. Consequently, in the experience proposed in these pages the beautiful is not investigated by the application of schemas or principles but trusts its own representation to its evocation, its rhythm, its view, and to its movement, using the stated purpose of communicating the meanings and reawakening memories in order to rediscover the connection between reality and imagination. A reading starting from the forms in the space that highlights the relationships that the imagination through the memory institute between the parts in order to "develop the images the memory has treasured into new relationships" (A. Quatremere De Quincy 1985, p. 220).

66 Here the architect is freed from being a slave to the use of the building and just like a painter freely arranges, according to specific relationships, objects, and things. This type of architect composes a city of memories, a Still life or a "painted architecture" (G. Contessi 1985), made of inert fragments of reality such as towers, churches, town halls, chimneys, and schools, emptied of the presence of mankind but paradoxically revealing an intense interior life responding to our emotive, symbolic, and ideal investments.

The forms are not important as such but the relationships that bind them together are: "More than the things themselves, it is the relationships that cause the things to mean something." (A. Rossi 2008, p. 195). The meaning of things in the poetic description of the reality above all emerges through a procedure composed of a cognitive process of what must be represented, the nature of the form, then only later with the choice of elements to be arranged so as to create relationships, finding the right measure between them to achieve the representation of that imagined reality whose recognition causes the viewer to react emotionally. Therefore, this imagined reality coincides with the nature of the form, a form that through its size, proportions, and relationships knows how to restore the fundamental reason that caused it. It is the size and proportions that made Adolf Loos recognise the meaning of the tumulus as a place of burial: "If we find a tumulus six feet long and three feet wide in a wood, arranged with the altarpiece in a pyramidal shape, we become serious and something inside us says: someone is buried here. This is architecture". It is surprising how the composition among an urban scene of

heterogeneous fragments, citations negotiated from the inventory deposited in the collective memory, produces an architecture from unpredictable outcomes. The freedom to assemble fragments or figures, their remounting in a strange context that does not belong to them, without having to confront the urban structure, has emphasised in the compositional experience processed by the students how effective and decisive reading of the urban project is where the figurative strength is the result of thinking according to the relationships between the objects.

The most important results seem to be the ability of the compositional game to lead to the production of a multiplicity of images in which formal eclecticism combines historically diverse objects and translates them into the evocation of unexpected meanings, which is far from a search for originality. It is remarkable that forms that do not seem to be more meaningful since they are linked to a particular moment in history, recontextualised, make their meaning recognisable, or assuming the new position within the context, they produce a transformation of the meaning that makes them extraordinarily actual in the present.

This operation of reappropriation of the historical forms and their reassembly in a context that does not belong to them represents what Antonio Monestiroli considers to be the second way of modern architecture whose biggest exponent is Aldo Rossi: "The other road (...) travelled by Aldo Rossi is the appropriation of forms from history. It is true that Aldo Rossi has sometimes followed the road of formal simplification, we think of the first geometric monuments (...). However, the essence of Aldo Rossi is really appropriation, that of the use of historical forms, the forms of the past, recomposed so that their meaning is changed, brought up to date, so that they are suddenly rediscovered. Some forms do not seem to be more meaningful because they are linked to a moment in history but we recognise their meaning when they are recontextualised" (A. Monestiroli 2000, p. 112).

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This principle of composing by perspective relationships between individual and autonomous buildings and this sensitivity to the spatial effect that volumes as plastic figures produce in their stringent relationships are taken up again in twentieth century architecture. Having autonomous volumes available in the space that are in strict relationship and interdependent to form spatial harmony constitutes what the German historian of architecture Siegfried Giedion defines as the initial conception of space: architecture as sculpture.

Applications

Four developments in the city of Rome are now proposed. These places, which are firmly fixed in the collective memory, are reconsidered by decomposition of the constituent elements, the deletion of some of the characteristic elements, and the proposal of monuments belonging to other contexts.

By mimicking the collage, students Davide Campanari and Enrico Pomaro built a new unthought-of but real image of an urban scene in

Rome suspended between the dome of St. Peter's Basilica and Castel Sant'Angelo (Castle of the Holy Angel) close to Campo Marzio (Figure 1). The starting point for constructing the imaginary view is the insertion of the Nordic architecture of the neoclassical building of the Reichstag in Berlin in place of Castel Sant'Angelo, once the ancient Mausoleum of Hadrian, a burial place for the Roman emperors from the second to the fourth century after which it became a military garrison.

The Reichstag and St. Peter's with the expressive strength of the Cupolone (as St. Peter's dome is known) are set close to each other and described by the students as if an urban environment were viewed prospectively, effectively given as existing. So the Reichstag and St. Peter's construct an analogous Rome whose formation is conceived using elements from architectural history. Certain elements of architecture such as St. Peter's, the Reichstag, and the Ponte Sant'Angelo (Bridge of Angels) are assembled in a new unthought-of but real architectural project. What impresses about the experience developed by the students is a sort of strange vision of architecture as if it were architecture viewed and observed for the first time. The Reichstag building from Berlin has nothing to do with the history of Rome but the unusual effect is even more evident precisely because of this and the emergence of architectural meanings and values inside the composition is also evident. This aspect constitutes the original moment of the entire urban composition. The meanings that emerge from the composition are more interesting than the stylistic and functional aspects: the city is the place where the experience of life as lived by mankind is represented.

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The formal logical experience that students Carlotta Picci and Damiano Ricca achieve is composed of the insertion of a well-known historic form, Palazzo Vecchio in Piazza della Signoria in the city of Florence, within a picturesque view of the eighteenth-century urban landscape in Rome (Figure 2).: The view of the urban landscape referred to by the students is that of the painter Gaspar Van Wittel entitled *View north from the Trinità dei Monti church before the construction of the Spanish Steps on the right*. A place highly representative in the urban history of the city that reached its stable definitive form in 1723-1726 with the construction of the *Trinità dei Monti* steps, a work by the architect Francesco De Sanctis, viewed as a scenic connection between the slopes of Pincio dominated by the Trinità dei Monti church and the Piazza di Spagna below.

The simple operation of substituting the Trinità dei Monti church whose façade and two bell towers by the architects Giacomo Della Porta and Carlo Maderno were added to the pre-existing sixteenth-century gothic church which was designed by the architects Annibale Lippi and Gregorio Caronica, with a historic form rich in meanings like the Palazzo Vecchio in Florence from the start produces an unusual sensation reminding the twentieth-century Italian experience of surrealism. Its connection in a strange context that it does not belong to permits to understand, after a few moments of reflection, the sense of the urban role of the historic building as a notable architectural fact that dialogues with the monumental buildings

in the city of Rome such as Palazzo del Quirinale in the background. In fact, with its autonomous shape, volume of Palazzo Vecchio facilitates the rediscovery of the role of the monuments as “fixed points” which have historically structured the urban space in the city of Rome.

The students Chiara Pomes and Lorenzo Piccinini confronted another place identifying Rome, the Piazza del Campidoglio, by changing the backdrop perspective of the piazza, that is, Palazzo Senatorio, which was consolidated in the structuring of the public space desired by Pope Paul III and planned by Michelangelo between 1534 and 1538 (Figure 3).. The perception of another building, Palazzo Madama, which stands in Piazza Castello in Turin, opens various opportunities to conclude the space, new relationships between the Roman context and the baroque architecture that Filippo Juvarra designed to cover the medieval building.

Lastly, Elisa Castagna and Eric Cavallin centred attention on on the Piazza di Spagna in order to evaluate the effect produced in the heart of the historic-artistic Rome by the presence of distinctly contemporary forms such as one of the towers of the Neuer Zollhof complex developed by Frank O. Gehry in Düsseldorf (Figure 4). The volumetry is irregular, the morphology is completely dissonant, and the glass sheets that reflect the sunlight butt in on the measured composition of the piazza. The dialogue between radically different methods of expression exalts the very aspects of the baroque architecture that define Piazza di Spagna like the aspects of the deconstructivist art developed by Ghery.

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Conclusion

Architecture is a spatial experience that we face in our daily lives in the real world. We have lost the habit of comparing ourselves in this experience, often considering the city and its human works to be a foreign fact since the habit makes us insensitive to the meaning of things so it seems obvious and entirely natural to be immersed inside the spaces in which we live every day and that the forms architecture takes have built according to the measure of human life. And yet these spaces are a product of human activity and as such reflect the life of mankind in their forms: “Our ties with the environment and the objects that we build and personalise around us are related to our emotional life given that things incorporate memories, relationships, successes and failures, and given that they reflect part of our personal life story and meet personal and private psychological needs. We construct with things personal refuges of miniscule universes in which (...) we feel at home, free to express our personality, our needs, and our deepest desires” (L. Leonini 1992, pp. 58-59).

The city possesses its own character that cannot be evaluated by a purely social or functional analysis but has to be above all considered from the formal point of view. The city is not only the place of logical construction of architecture but is the place of life, of stratification of the emotional experience of human life. As Aldo Rossi reminds us, the ability of the project to unite the logical aspect of architecture with the poetic aspect represents the highest form of realism, the only way to relate the real experience of

human existence.

For the old Masters the city was built according to aesthetic principles and so they worried about arranging the buildings according to determined sizes and proportions, more evidently in the main places in the city. The aim was to make that monumental meaning manifest itself in space due to which a collectivity recognised in it the symbolic and emotional values that produced it. The Acropolis in Athens and the Field of Miracles in Pisa have taught us that the expressive force of form depends on the free but mathematically established disposition of buildings in relation to each other.

The architectural project today should be oriented more than ever to operating inside or on the edge of the historic city, considering the relationships that the forms establish with the pre-existing historical environment. This means thinking of the project not as an autonomous or isolated entity but an architectural fact that is placed in relation to other parts of the city. In this way the project is conceived to build an idea of urban landscape in which the experience of emotional life by mankind does not feel excluded or even worse alienated but may inhabit that place. In fact, the city is credible if its forms manage to restore or represent the values in which a collectivity recognises itself and the city manages to enrich itself in the multiple layers of meaning which are then stripped away when it is treated as a simple value of use or merchandise for exchange.

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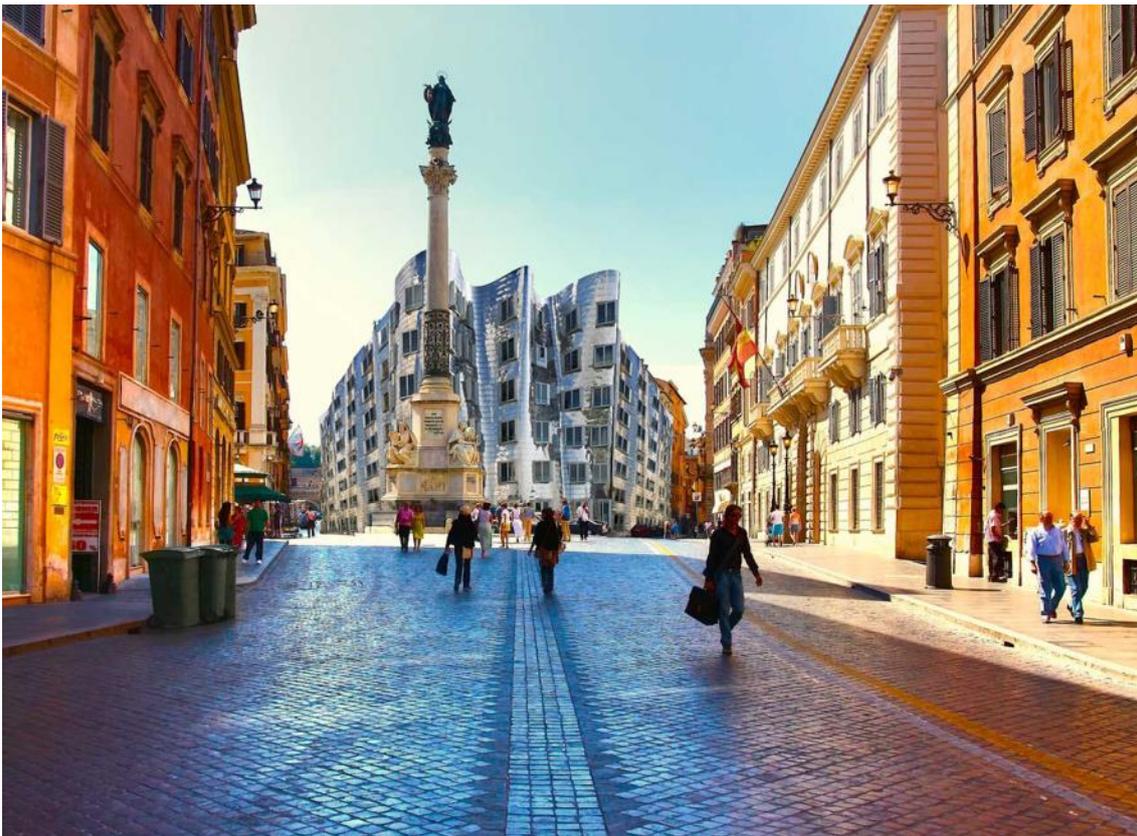


Fig. 1 The architecture of the Reichstag in Berlin on the bank of the River Tiber is reflected in the water.

Fig. 2 The Palazzo Vecchio in Florence in a dominating position over the place where the church of the Trinità dei Monti stands.

Fig. 3 View of Palazzo Madama in Turin transformed by Filippo Juvarra at the start of the eighteenth century, repositioned so that it forms part of the perspective backdrop of the Campidoglio.

Fig. 4 Piazza di Spagna redesigned with the presence of the Neuer Zollhof architecture developed for Düsseldorf by Frank O. Gehry between 1996 and 1998.

Morphological gaps within the structure of the contemporary city as the urban reason for the strategies of renovation

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Keywords: *terrain vague, fringe belts, urban renovation, morphological gaps*

Abstract

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In the morphological analysis of each city architects identified so-called "terrain vagues", "territories-in-between", etc. (1996). They are the territories with the not understandable structure and history of forming, unplanned unpredictable in development. From the point of view of urban morphology fringe belts were identified as somewhat similar to "terrain vagues" if look carefully to the history of their forming, complexity of their structure and consequently strategies of renovation taking into account modern requirements for the city environment. Russian regional administrations are searching for the strategy of the organic development using the scientifically based reconstruction of the city historical core as well as it's fringes. Fringe belts still contain original samples of unique civil architecture, and more over some traditional industries, gardens, etc. everything that really could be lightly reconstructed for the purposes of the core maintenance including contemporary interventions. Old times, functional processes evidently leaved imprints in the forms of individual house holdings as well. Fringe belts could be considered as an integrating dialectic "sponge" between new and old functions, architecture and new and old forms of urban life "inscribed" into historical and contemporary world. The comparative analyses of modern renovate projects shows similar attitudes toward understanding of city structure.

In the morphological analysis of each city architects identified so-called “terrain vagues”, “territories-in-between”, urban “gaps” etc. (1996). Rather often these territories were defined as unplanned unpredictable in development with the not understandable morphology and history of forming under the pressure of the economic, social and politic phenomenal changes as well as global and local. Meanwhile from the point of view of urban morphology fringe belts were identified as somewhat similar to “terrain vagues” if look carefully to the history of their forming, complexity of their structure. Urban designers and firms are searching for the strategy of the “organic” development using the scientifically based reconstruction of the city historical core as well as it’s fringes and other types of lacunas more and more often. Thus, understanding of laws of urban gaps forming will allow professionals to compose strategies of the urban renovation taking into account modern requirements for the city environment.

A comparative study of occurrence and formation stages of urban structures is usually based on popular theories, widely known in the Anglophone world from the ridge path theory (Kropf, 1993) the first groups of human beings in their search for food tended to follow watersheds, to unknown in the western world theories of Russian scientists (multi-core theory by Lavrov 1961 for sample). Groups of researchers and researches tend to focus on specific historical, economic, socio-political stages of populated areas’ formation. However, scientific interest lies not only in comparison of common processes, viewpoints of the research groups, historical stages, results of different socio-political and economic effects, but also the commonness-mismatch analysis of viewpoints of historians, researchers, present day and practicing urban planners and architects to understand structure of the city. For designers and planners in urban planning projects urban renovation requires an understanding of comparative interdisciplinary analysis of objective phenomena in the structure of a modern city such as “vagues”, from the standpoint of urban morphology and some of the concepts of urban and architectural theory.

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In the mid-twentieth century, global professional consciousness formed a firm position on the value and uniqueness of each historical stage of cities development. Methods of research and protection of cultural heritage sites were created. However, urban areas of various scales including landscape ones as objects of cultural history actively functioning with all the complexity of issues lately form the subject of purely scientific debate. Historical science usually examines architectural objects, existing urban design ensembles, and historic towns on a certain stage of development, whereas applied research and practical urban planning focuses on functional areas, structure, and infrastructure of populated areas. At the same time, urban planning theory proved the development of different by quality and significance but unique territorial entities. In the last decade of the twentieth century “unidentified locations”, “in-between territories” or otherwise known as “terrain vagues” were ascertained to have their own

patterns of development, tearing the logical continuity of the city structure. It is possible to integrate and divide areas of different historical periods, functional and technological content with conscious planning of buffer structure-saving areas. This system can be seen as an instrument for preservation of historic urban areas, landscape, architectural, and preservation sites in the city structure, as well as for overcoming spatial segregation.

The question of “optimal city” as well as finding ways of evolution, which would preserve the value created by material culture and fix planning deficiencies, occupied professional community as long as cities themselves exist. The city undergoes ancient, medieval (agricultural), industrial, post-industrial stage of development and, by definition given by some researchers, “immerse into post-carbon”. Each of the periods leaves characteristic, recognizable image of the city structure and system of regulations imposed on urban planning. In addition, the city as a self-developing system “makes its own adjustments” to material environment due to unforeseen events. In a sense, optimal morphological structure is a component of sustainable development of populated areas, for which the humanity began struggling consciously only in the last quarter of the twentieth century. Dynamic balance of the city planning elements may be retained by means of in-between territories with special use regulations, some of which can be planned deliberately, the other part was formed spontaneously, but logically from the viewpoint of natural history and, obviously, can be discussed from the standpoint of the city’s future development.

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The concept of a modern city – a dense city, protecting natural environment around and within itself, solving its environmental, transportation and other issues not at the expense of continuous absorption of vacant land, but at the cost of structuring and technologizing urban and agglomeration processes based on coexistence of cultures and biotopes. It is viewed from the standpoint of environmental or at least functional imprint in the region. In this regard, the methodology of the city’s renovation changes. Scale and globalism of the process suggests that currently in urban reconstruction two fundamentally different methodological stages can be observed. The first formed in the mid-twentieth century and is connected with the reconstruction of cultural heritage and, as a rule, affects historical cities and historical centers of dynamically developing industrial cities. For the first stage it is important to define the monuments of architecture, history, culture, protection zones, historic environment, and preservation of the cultural heritage sites in the urban environment in general. For the second, specific for the present day, first comes the purpose of restructuring the city in connection with conversion and naturally developing and unexpected transformations. A particular challenge in this context is functional, communicative connections between memories of a bygone era in the old logic of the city layout with reconstructed and newly constructed areas in search of integrity, space-tolerance, and freedom of conflict. It is about ensuring non-conflict coexistence of phenomena and systems, considered incompatible, “parallel” in a single urbanized

space. The aim is to overcome spatial segregation and restructuring of the modern city in connection with the formation of marginal gaps in the process of replacing industrial, power, information technology, while there is an inevitable tendency of combining global and regional principles of the modern city together with the preservation of its culturalogical identification. As a separate goal should be regarded the restoration of native eco-systems through functioning of the city and non-exhaustion of natural resources while combining spaces, biotypes and cultures. The latter requires development of a fundamentally new outlook on regulations of ecology-oriented urban renewal, based not on the principle of cost-effective approach to the engineering and construction sector, but on the contrary, on a “reserve” of excess providing the vital activity of the species, especially in case of man-made crises. In this regard, the study of different kinds of in-between, border zones' formation principles, their morphology and possible typology can be used as a basis for methods and strategies of tolerant town planning and restructuring of modern cities.

The industrial city of the twentieth century was viewed from technocratic positions of engineering and sociological utopia where any settlement system was considered not a single organism, having internal laws of development, but a “machine” that can be designed down to the smallest details of production and life organization and brought to life. Methodology of technocracy, which continues to live today, at least in the regulatory and procedural documents, is based on the fact that natural processes of city-systems development including social life, relative freedom of the economy, and their material embodiment in the city environment are determined by planning and construction industry. The internal dynamics, transformation, function-mixing, ambiguity of interpretations of different objects, city's territories, multiple layers and multiple meanings of certain areas including historical are not taken into account. At a time when urban life was treated as a conveyor belt and daily life and culture as derivatives of industrial processes, ideas of spatial self-organization were prohibited. It was not anticipated that technologies can not only be outdated, but lead to the loss of industrial flagships of economy and in this regard lead to a radical change of the spatial structure of the city, filling it with marginal gaps.

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Undoubtedly, none of the authors of that time could not fully comprehend the phenomenon of global conversion in the late twenty-beginning of the twenty-first century. The closest ideas about the situation expressed Kisho Kurokawa – in 1959 he predicts that the world will make a “Transition from the Age of the Machine to the Age of Life. While the Machine represents an age of homogenization, Life is an age of pluralism and differences. Thus, the architecture of Life is an age of differences expression. There comes the age of intercultural interaction, where a system of values and lifestyle of the West and other countries come to coexistence, symbiosis. The doctrine of Humanism, which made the man a rational being secondary only to God and gave him control over the living and the natural world,

comes to a crisis.” K. Kurokawa states that the question of human survival, even from only an environmental perspective, depends entirely on the ability to co-exist with the other life forms and eco-systems on the planet. Twenty-first century will no longer be the century of logocentrism.

Theorists of architecture believe that natural transformation, which in the era of technocracy was not given much thought, have led to the fact that large urban areas are currently occupied by so-called “terrain vagues” – diverse areas having different interpretations, and totally contradictory qualities of diving and merging, harmonizing disparate, different quality territories of urban environments. These qualities can probably be used in modern urban regeneration strategies, because, as a rule, the “unidentified” gaps are located on the formed outskirts, often self-sufficient structures, as well as industrial and such as elementary residential planning units, thereby strengthening the integrity of the latter, or dividing residential and other functional areas with their scale. These areas received different names from different authors. The first international discussion of the problem occurred during the International Congress of Architecture in Barcelona 1996, where they were combined into a single typological group conversion and more or less of related objects: former industries, ports, railway stations and their territories, etc. (pic. 1)

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In the theory of the city understanding of “in-between territories” formed around 60s – early ‘70s, when several space-planning formulas were created. This is the replacement of ideas about monocentric city to polycentric one; it is a gradual development of ideas of uncontrolled city development. Theory of urban planning was enriched by the research in the sphere of landscaping by concepts of urbo-morphological research: consolidation of the market, social structures, landscape and urban zoning, and typology of borders in the city (stitches, barriers, fringe belts, etc.).

The largest terrain vague is considered to be industrial areas. The research of the late twentieth – early twenty-first centuries show that large industrial areas, due to the replacement of obsolete technologies and ruined in the short term. For centuries in cities there was an overlapping of transport, residential and industrial areas, including banks of water bodies, etc. New urban phenomenon is of interest due to the power of expression within the city fabric and is generally perceived as a negative or unknown problematic phenomenon, currently, in a focus of large-scale transformations. The relevance of their study is in the examination of urban spatial relationships they establish, morphological systems they create, and typological planning models can they produce.

A closer look at “terrain vagues” in the city and on its periphery indicates that they are products of a series of manifestations of the city’s growth process, functional and technological transformation. Transformation processes are often presented as a result of significant discoveries in information technology, which is usually expressed as “urban disintegration” with the idea that the city is no longer a center of “concentration”, “exchange”, “centrality” of functions, for example, due to the development of telecommunications, but a continuing element in widespread and diffu-

se system. There are several processes associated with the formation of "gaps" and related to this type strategies of restructuring and renovation of cities. Large areas of aging and marginalization of the city are forming because "... the city is a consequence of reflective projects made "by the law", which leads to the formation of independent rules, laws, regulations, processes, random, subjective and non-regulated". Among them, the researchers identify four groups of objects: "large inner holes", "obsolete industrial equipment and technology", "old ports", "railway stations and areas of their service."

Some examples of renovation, "recycling" of urban areas are similar to the ideas of "waste disposal" and perception of the city as a loft (Martina Baum, Kees Christiaanse, 2012). For example, The Distillery District – at the same time the largest residential precinct in the heart of Toronto, the largest in North America collection of industrial architecture of the XIX century Victorian period with more than forty architectural monuments, the area of theaters and art galleries, art studios, festivals, fairs and special events. The area can be considered a true stage – over the past decade, nearly 800 film and television productions took place here. The new owners have refused to rent out shops for retail, catering networks, or any other operating franchises and, accordingly, most of the buildings are occupied by unique boutiques, art galleries, jewelry stores, restaurants and coffee shops. Art workshops and studios rent the upper floors of buildings; they are allowed to be used as home offices, provided that businesses are in the field of art. The new theater, youth center for performing arts that occupies the so-called Tank-house (storage) are home for Theatre Company and stage for drama productions of George Brown College. The Distillery District structure partially includes residential buildings, kindergartens, but the area's largest residential condominium area is isolated from the main area in view of its active creative functioning and unique culturological significance for Toronto. Currently, a series of high-end residential projects in the unoccupied areas surrounding the District is planned, but this is extremely controversial. The only undoubtful aspect for the city planners of Toronto is gentrification of neighboring the renovation territories of the city projected in the near future. The Distillery District before, during and after the reconstruction is to be protected as a historic monument of national importance in compliance with Ontario Heritage Act 1976. Development Strategy of the District is justified by the new zoning plan, including different from industrial use and special requirements to preserve the architectural form of buildings in order to fully keep proportions, scale and material not only in architectural objects, but also in the open spaces of the District. (pic. 2)

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Often a port, being the cause of a city's foundation and development becomes a problem. Port technologies, size and quality of ships, warehousing and handling of goods are changing. The difference between the European and the US ports is that European are common administrative facilities and in the United States piers function separately. Converting each of the piers is easy. The difficulty lies in creation of a single project

of reconstruction for a port and choosing an architectural image for it. In Manhattan, Boston, Baltimore, San Francisco, Seattle, there formed a trend of intensive commercial use of port areas. Reconstruction of port areas in European cities managed by a single administrative unit is a complex process.

An outstanding example is the reconstruction of HafenCity in Hamburg into residential precincts of increased comfort. Mainland ports of Hamburg, despite their remoteness of 100 km from the coast, are subject to flooding, and one of the historical design standards established in this city requires builders to raise the residential floors above the commercial and public. The same standard has been cleverly used to create a “transition”, image-architectural and functional buffer between the historic commercial storage areas and residential districts. The first edge of new residential buildings turned out to be viewed from all directions, but impassable. At the level of the second public floor, there are footbridges ending in different vistas – spectacular architectural accents, standing on the shoreline (developing company (developer) Bergedorf-Bille and construction company Otto Wulf Bauunternehmung GmbH, architectural firm APB Architects and Böge Lindner K2 Architects and Haslob Cruz + Pratner, Bremen, 2007-2010)

80 In HafenCity there were built four bridges for short connections with the city center, in terms of reconstructed area development called the “city of short distances”. Closer to the coastline the scale of construction, materials and architectural techniques are changing. The first line, adjacent to the historic district is designed and built from red brick and proportions typical of the old warehouses. However, the design details of new residential buildings’ facades are different. Therefore, the street between the new and the old town has a different development views, but creates the overall impression of unity and harmony giving the notion that there is “old”, and there is “new” in this environment.

For image connection in multi-storey car parkings they applied a special architectural detail, characteristic only for Hamburg – optimized winch hook, once used in all warehouses for transporting goods from ships to the upper floors. Special design of double bay windows, facades of warehouses with cutaways on half a floor formed in medieval times due to anti-fire regulations. The same item in design and floor parameters was used in ramps of multistory parking garages, which reminds of the historical plasticity of building facades in the vicinity. The height of modern car parkings and the medieval warehouses, material (brick) and the color is uniform, so the building are perceived organically. As we move to the shoreline through the new residential group – piers gradually, piece by piece goes away a reminder of historicism of buildings and comes a realization that a pedestrian comes to a modern residential area with a unique rich plasticity of space. The transition from the historical to the contemporary is made gradual, gentle, and effective, while maintaining the advantages of historical development and benefits of modern architecture. Just as gradually the space is saturated with functions: from private housing through

local open spaces (courtyards of residential clusters, museum, theater) to open public spaces of city importance, including piers for international sea liners. This obviously has to be an advantage of creating a “porous sponge”. (pic. 3)

The next type – railway stations, which are no longer “cathedrals” of arrival in the city. Currently, they are complex hubs of intersections of different transport modes. This attracts a large number of passengers and gives stations a “centrality” to attract development of multifunctional areas around with the inclusion of offices and service facilities. Restructuring of the stations' functional component becomes an urban feature, provoking the emergence of new areas.

The analysis of the attempts to overcome all sorts of conflicts in the environment of modern cities leads to the conclusion that in urban environment there should be buffer zones so as to maintain the uniqueness of the neighboring areas. World practice of urban design distinguishes two groups of such areas: first, as a rule, protects natural landscapes against excessive expansion, the second group includes all sorts of fringe belts studied within urbo-morphology. Given the complexity of the processes within them and architectural dissimilarity, linking or dividing different structural and functional areas of the city with “soft” transition zones is extremely difficult. However, some experience shows that it is quite possible. A sample could be a project of renovation of the fringe belt of Yeniseysk of the XVIII century which mostly green area with historic housing, barns, traditional crafts inclusions, monastery and green private and public spaces. The main purpose of their renovation based on resource of Fringe belts understanding is formation of integrating dialectic “sponge” between new and old functions, architecture and new and old forms of urban life “inscribed” into historical and contemporary world through the architectural heritage reconstruction as the integral part of the historical environment and shaping of old streets reconstruction based on the analyses of the forms and materials characteristic to the period of XVII-XVIII-beginning of XIX century. It could be considered as inner buffer zone where a number of households – so-called “typical urban Siberian homestead”, green belt are preserved, historical form should be preserved and new businesses could be developed. Thus, this area can work on the town structure preservation, regulation of economic activity as a green belt with the touristic service system inclusion around the historical core and off regulation of the built and natural environment.

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For an introduction of the of such facilities to the design practice adaptive planning, based on the assumption of flexibility of town planning regulations can be used. In this case, regulations are defined more than once given the size of a zone or structural part of the city designed for particular construction technology. “Hard” indicators of regulation are: optimal performance of species populations, giving basis for calculating green zone sizes, for example, it can flexibly change along the monitoring the state of living environment and the number of “environmentally sensitive” popu-

lations and landscapes. “Hard” architectural indicators of regulations, for example, may be following the proportions of building height, assuming changes in other parameters, which in many countries has successfully written into the documents of the legal zoning and building regulations. “Hard” indicators of urban planning regulations are mandatory requirements for the formation of multi-function and public areas at a certain freedom of “house-forming” in these areas, as well as participatory planning with all interested citizens and organizations that have the right to express their will.



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Plastic City. Transforming The (Built) Reality

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Abstract

86 *This paper focuses on a particular way of conceiving the built reality by man, typical of the Mediterranean, and its consistent and procedural transformation. The built reality, constituting physical contingent matter to be transformed, recovered, rehabilitated, is returned to the center of the current architectural debate. Architecture is the reality that man has built around himself, measuring the space through the practice of gestures, movements, actions he can take. The architecture of the city is the projection of such practices in longer distances, where to define the urban space is motion. The dyad 'elastic-plastic' indicates the polarization of two opposite common characters, traceable in the matter, in the materials, in the elements, in the buildings and, in the same way, in the urban organism: in fact, it is possible to identify an 'elastic' city and a 'plastic' cities, according to the character of the component elements and the degree of necessity that puts them in relation to each other. This paper investigates the organic character of the plastic city and discusses a method of intervention in consolidated contexts, adapting the concepts of resilience, flexibility, adaptability, so far used in the socio-political sphere, that is part of the global problem of the city, to the material conception of a physical urban transformation.*

Introduction

These notes are concerned with a particular way, typical of the Mediterranean area, of reading the built reality and its consistent and, in some way, processual transformation. This reality, which is the physical matter to transform, recover and rehabilitate, is read as a center around which it is possible to reconstruct a debate on current architectural design tools. Against many abstract and aesthetising drifts that occupy the contemporary architecture scene, it is necessary, I believe, to consider architecture as the physical structure of shapes, forms and materials that man has built around himself, measuring the space through the gestures customary, movements and acts he do. The architecture of the city is the projection of these habits to a different scale, in greater distances, where motion and its expressions (paths, nodalities, polarities) play a fundamental role in defining the urban space.

I think it useful, in this sense, to use the dyadic terms 'elastic' and 'plastic' to indicate the polarization of two opposite and complementary characters, traceable in the matter, in materials, in construction elements, in buildings and in the same urban organism.

On this basis, despite the complexity of the problem and the infinite possible exchanges between the terms of the dyad, I think it is possible to identify cities that could be called 'elastic' and cities that could be called 'plastic', as a synthetic distinction of characters, of their component elements in relation with, also, the degree of necessity that relates them to each other.

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These notes are intended to investigate the organic character of the 'plastic' city and discuss a method of intervention in consolidated contexts, adapting the resilience concepts, ductility, adaptability, usually employed in the overall problem socio-political sphere of the city, the material conception and construction of urban transformation.

Architecture and Reality

In Italy, from the first decade of the new millennium, the debate that animates theoretical positions in architecture has repositioned itself below the large shell of Realism¹. On a closer inspection, however, it is a return, a reprise of themes developed during the last century that has involved not only architecture but also other disciplines such as art, literature, painting, cinema, all converging toward the same center².

¹The new interest of architects towards Realism manifests after the appearance of some essays of the philosopher Maurizio Ferrari as 'Documentalità: perché è necessario lasciar tracce' in 2009 and the 'Manifesto del Nuovo Realismo' in 2012.

²In the second half of the Twentieth Century, derived from the first experiences in the European context of the Nineteenth Century with the French Art Realism (Courbet, Daumier, Millet, Bonheur, Fantin-Latour, etc.) and the Nineteenth-Century Literary Realism (Zola, de Maupassant, Balzac, Flaubert as naturalists; Verga, Capuana, Serao 'veristi' but not 'realisti') develops a new interest for the reality that contain multiple disciplines, including literature (Moravia, Fenoglio, Pratolini, Pavese, Calvino, etc.), painting (Guttuso, Turcato, Morlotti, Pizzinato, etc.), cinema (Rossellini, Zavattini, Visconti, etc.) and especially Italian architecture (Quaroni, Ridolfi, Valori, de Renzi, Fiorentino, Muratori, etc), generally identified with 'Neorealism'. This multidisciplinary movement expressed the closeness to reality through different forms of expression. In particular, the post-war Italian archi-

The way in which this recovery has taken place and has produced new insights, in some way, constitutes the subject of the same interest that proposes to structure these notes and concerns the 'plastic' character of transformations. Plasticity, which later in this text we will try to prove being the typical and common character of masonry organisms and urban fabrics, lies, here, in the ability to generate, in coherence, adherence and continuity, new theories, taking advantage of cracks and fessures, of pre-dispositive conditions to future transformation of the previous one, being inserted in substrate that could be its fertile base.

In fact, the term 'Realism' now joins the adjective 'New' that somehow repeats, refining and blurring its meaning, the previous prefix that identifies the term 'Neorealism'. The 'New Realism' not only takes, reworks and transforms themes already known proposing a new basis for new thinking, but arises from a reaction to a cultural formation and diffusion center of opposite sign, identified with the Post-Modernism³, now consumed/sold out, and of which overturns its foundational thesis.

88 A 'plastic' formative phenomenon, which proceeds from a pre-existence, grafting on weakness signs of the same pre-existence, finally obtaining a new form, which will be fitted to new/future interpretations, changes, updates. On the merits, New Realism in architecture essentially repeats arguments of the Italian Neo-Rationalism whose cultural substrate settles itself thanks to the contributions of authors such as Rossi, Monestiroli, Grassi, during the Sixties/Seventies of the Twentieth Century. The 'real' world, that through a rigid, firm and ordered architecture it was tried to represent, is infused with too much 'reason', drained from error, essentialized, modularized, finally stationarized. It reflects a reality that is interpreted and analogic, that does not coincide with the real life of things, that is organic and complex.

The current debate on Realism in architecture is missing, in the plastic/constructive comparison of intellectual positions, the recognition of the important weight, intellectual and operative, that a part of Italian architectural culture had produced in the same years by developing a theoretical *corpus* in which reality was considered the active substrate in which architecture has to dip, merging into it⁴.

ecture was trying to merge the new construction techniques in a global vernacular appearance, close to the imaginary of a collectivity wound in memory. The INA-Casa experiences are generally identified as better examples of this movement.

³The foundational argument of the Post-Modernism can be condensed into a single expression that contains them all: 'There are no facts, but only interpretations' (Nietzsche). The reality does not exist except as it is interpreted, losing the physical and material sense that characterizes it, especially in architecture.

⁴The profound study of reality begins with the relief of it and Saverio Muratori was the first that defines this new method: the formative analysis of a town can not be separated from the study of its physical traces, represented by walls. Method of study/reading that Muratori consolidates but inherits from other eminent scholars of architecture, among which Giovannoni, Fasolo and Milani, who placed at the center of architectural knowledge his deep and comprehensive study, that is structural, spatial and functional together. Gianfranco Caniggia continues refining the discipline with the introduction of the 're-design' (riprogettazione) approach as a critical element, internal to the reading method. This could allow to 'complete' the walls reliefs, that are real but partial signs, following a constructive logic, coherent and necessary.

A dynamic and processual reality in which architecture is the reality that manifests itself in its materiality/physical artifacts such as constructions produced by man in which condense/plasticize his proofs and on which he intervenes in order to be able to preserve them as long as possible and transmit them to future generations, in a continuous and integral adaptation cycle.

The focus of the debate is eccentric. Architecture, made of weights showing the perception of the gravity force through the physicality of walls and loads putting in tension the internal structure of materials constructing large public/collective spaces, made of light as a reflection of a flow expertly directed by opaque matter, organized and ordered by the architect, is reality. It coincides with the material world that man has formed and forms around him. A reality that forms on its forming, inseparably to human actions.

Architectural reality materializes by the human relentless action. In fact, man is the effective cementing element, the active component in the realization of architecture, thus in the construction of reality. Through the repetition of constructive practices, sedimenting actions and stratifying knowledge, he physically defines the anthropic space, plastic synthesis of the body experience that is static (perception) and dynamic (motion), through the intimate contact with the objective presence of matter, of which discloses/shows aptitudes, potential, predisposition to be transformed into material, then into element, finally composing the architectural organism, according to increasing degrees of logical complexity, corresponding to the complexity of life that progresses.

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Orientation and action belong to primordial consciousness of man, shaping the space proportioning it to his measure, stabilizing it universally: the domestic space is unchanged, indeed, compared to the extension of its existence, paths represent the synthesis of the dynamic relationship between man that moves and the immanence of nature. The mediated balance of dimensions is perceived on the border, on the edge where the differences and changes became more sensitive, changing the reference scale. So the human reality materializes, through architecture, those slight differences and diversities that are bearers of cultural witness and heritage to be transmitted into the future.

The well-known Le Corbusier modulator or the Existenzminimum standardized dimensions represent reductions, albeit minimal, of the human world infinite variety, that is on the contrary imperfect and imprecise. Industrial standard fits into the grid of controlled perfection the accuracy of an approach that defines a finite and numbered reality, classified and arranged, abstract and detached: summation of parts against organic unity of those parts. The rigid architecture of the module, repeated, serial, always the same, is opposed to the complex and organic unity that is a result of logical and rational synthesis, of the plastic absorption of the error, true essence of human doing.

Resilience and Plasticity

Once identified the relationship between reality, architecture and human being, we shift the focus on the intrinsic laws that govern this relationship. In particular, we refer to important physical characteristics, related to the behavior of matter and its organic composition in complex structures, that we have ideally taken from other disciplines that are now in this respect and in a certain way cooperating and complementary such as those technical ones, and we make use of them in an attempt to support, proportioning efforts/weights that matter proposes, the argument presented here, trying to put in tension the entire theoretical system in a new balance, ready to receive and absorb more theoretical thrusts.

These are some of characteristics and properties of materials and structures whose meaning, in my opinion, could reveal and clarify the behavior of what we are calling 'plastic city'. We must proceed by successive clarifications of those meanings which have already accumulated large amounts of intellectual elaborations⁵ and that are now ready and available to a new critical-plastic regeneration. In particular, we will act on meanings of terms as 'resilience' and 'plasticity', on the greater influence of the superficial (referred to the 'surface') ones and on the critically-operative potential of the most hidden and intimate ones, structuring an architectural discourse, operative and real.

90 The term 'resilience', referred to materials technology, is the resistance to a dynamic stress, ie the ability of materials to withstand shocks or traumas. The same term is used in other scientific areas among many ecology, sociology, psychology, economics, computer science, to represent same, similar behaviors. It is the planning discipline that, expanding the scale of reference, fits the original meaning to the behavior of cities, to the totality of their intrinsic complexity of which it is possible to identify the ability to regenerate herself, to rebuild, to react to traumas caused by exceptional events.

The attempt to convergence of all these disciplines, that use the term 'resilience' and share substantial parts of its meaning, defines all those ways through which the city regenerates, rebuilds, reacts, but doing it sociologically, economically, ecologically. The original meaning, the one related to the physicality of reality, seems generally adopted when it refers to urban reconstruction, followed by major disasters and driven by human, social, anthropic needs to recover the domestic environmental features, or to the ecological regeneration, in which the upgrading of outdated buildings equipment is implemented by adding, to the existing wall structures, so called 'eco-smart' systems, activated by clean energy and/or renewable energy.

⁵The study of the built reality has led to the typological synthesis proposed by Saverio Muratori and specified by Gianfranco Caniggia. The common features identified in the matter, in the material, in the elements, and finally in the architectural and urban organisms, have identified two great worlds: the wooden-elastic world and the masonry-plastic one. In his latest study, Giuseppe Strappa summarizes processes and characters of the masonry-plastic world and precisely because of this effort it is possible to see open slots in that theoretical structure, as an opportunity to continue it, looking for a new temporary and plastic unity.

Resilience is, however, a distinctive and common character, identifiable by studying, reading, analyzing urban organisms, urban fabrics, masonry architecture. The shift of the meaning has centripetal orientation, aiming the beating heart of the matter and its structural/organic composition in architectural organisms. Resilience as intrinsic capacity, internal to architecture physicality, of giving coherent answers to various stress types that it involves. Reread traditional urban organisms critically, having in mind such concept, it is useful to an old/new cultural predisposition of the architect in the critical transformation of masonry urban organisms.

The measure of the ability to adapt, to respond to shocks and in general to the exceptional events is linked to another, complementary and not less interesting character, from the critical-operative point of view, that is ductility, ie the ability of the material to undergo plastic transformations, the extent of a plastic deformation that a material can endure before it breaks.

Ductility, in a positive sense, is a detectable character present in traditional masonry constructions and researched in earthquake-resistant contemporary buildings, in which the plasticization of elements, still linear and serial (reinforced concrete pillars and columns, for example), constituting the structural load-bearing skeleton, it is preferable to a sudden collapse of a structure.

In reference to the identity reality=architecture, it seems that these concepts could be very interesting reading tools of traditional urban organisms, as we shall see, useful to the architect's preparation in their critical and actual transformation.

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The other important character that describes much of the built reality that we have produced as builders is plasticity. The original meaning of this term refers to plastic as the art of shaping, of modelling a malleable material.

So, concerning the artistic field, plastic is related to the ability to generate full form, completed, to generate chiaroscuro, massiveness, reliefs, dynamism. Plastics in architecture would re-awaken that same character of pictorial and sculptural plastics, proportionally increasing its self-presence through the articulation/composition of volumes.

The development of this aspect has been proposed, defended and spread by a large part of architectural criticism, resulting happily accepted and easily understood by insiders. The problem lies in the shallow depth of this criticism: the architecture of volumes and shapes, articulations and effects are described and presented for what, to visual test, have managed to raise at the first sensory contact. A superficial critical approach, internal or external, that has never managed to include, merging it into one and organic judgment, the structural and 'tensional-static' perceptive aspect, penetrating in the deeper, real and alive essence of architecture.

Plasticity is, in the physics field, the ability of a material to undergo irreversible changes of shape in response to applied stresses: after the elastic phase, in which the material, at the stop of imposed stresses, resumes, after deformation, its initial configuration, comes the plastic phase, in which

the material, at the end of imposed stresses, does not return to the initial configuration, but it proposes a new one. Plasticity is the ability to transmit internal stresses through the plan, to dissipate, downloading external forces through the material, all committed and involved in this task.

The organic architectural approach, in which all parts of a unity cooperate necessarily together to a unique purpose that is spatial-distributive, static-constructive, symbolic-expressive, possesses in its interior the notion of plasticity.

We could imagine how much these meanings could be useful to describe material, physical, real behaviors, characterizing all masonry-plastic cities, the object of this research.

Plastic City

The latest arrangement of matter, that plastically reorganizes the existing theoretical heritage, prepares itself to the possibility of a coherent and continuous update, favored by many open questions as small crevices of a ductile and resistant structure, as components that are reinforced/completed with new, complementary and coherent theoretical structures, obtaining other new units in preparation.

92 The considerations which have been stratified until now ideally found an adherent graft just in these crevices and claim fit into the ongoing process of theoretical elaboration that, for each 'fusion', proposes a new coherent, albeit partial, result. It would, that is, examine in depth the sense of the future/possible 'plastic city', advocated at the conclusion of the reflections on the evolving masonry-plastic world⁶.

Plastic city consists of a smaller scale elements that work together spatially and constructively to the organic unity of urban composition. Collaboration between parts is necessary because the system of elements shares the same goal: the life of the city itself. Those transformations that urban organisms undergo in a continuous way are finally called 'plastic' because, when stabilize a temporary balance achieved, they present new unitary configurations that include and merge the existing reality with the new proportioned one.

Plastic city is, for those reasons, organic and resilient: routes, paths, build-

⁶Molti sintomi indicano come qualcosa stia per finire e qualcosa stia per cominciare, anche se i tempi non saranno brevi. Ma dovremo guardare alla realtà costruita con occhi nuovi, oltre le manipolazioni e l'autorità delle interpretazioni ufficiali. Un intero mondo si dischiuderà: non solo i monumenti, ma anche i semplici tessuti di abitazioni delle città italiane, e poi molta architettura moderna, costruita con strumenti aggiornati nel grande alveo della solidarietà tra costruzione e utilità civile, racconteranno il pathos di una grande civiltà plastica e la possibilità di un modo diverso, contemporaneo di costruire e abitare. [...] Perché un principio sembra ritornare con chiarezza: che l'architettura è, prima di tutto, realtà' (Strappa, 2014).

'Many symptoms indicate how something is going to end and something is going to begin, even though times will not be short. But we will have to look at the built reality with new eyes, beyond manipulations and the authority of official interpretations. An entire world will unfold: not only the monuments, but also simple urban fabrics of Italian cities, and then a lot of modern architecture, built with up-to-date tools with the great solidarity between construction and civil utility, will tell the pathos of a great plastic civilization and the possibility of a different, contemporary way of building and living. [...] Because a principle seems to come back with clearness: architecture is, first and foremost, reality' (Strappa, 2014). Translated by the author.

ings, urban fabrics not only blend them together, including and obtaining new forms, coherent and anthropically measured, but are ready to adjust their spatial structure in response to violent external attacks represented by exceptional events to which they oppose resistance, even constructive.

Plastic city presents organic, spatial, constructive, and finally aesthetic characters related to linguistic expression of logical relationships between constructive elements, making it visible and then exteriorly readable. Architectural expression is the last degree, concise and intelligible, of a process, the typological process that accumulates costumes and actions that always repeat, encoding them in language and shares them spontaneously in the community of a social and cultural neighborhood.

A plastic process, which physically involves matter in its arranging and organizing phenomenon even more complex, through human being critical action: the measure of a brick has remained the same since its first definition as the only one to adhere to the hand size that would have had to take, lift and place, composing the wall.

Architectural language is coded from repeated constructive costumes that become common rules, unwritten but present in the spirit of human kind of each era: the construction of a wall included, when it reached a certain height, the beating of the setting-up plan for the openings; in Roman area it was common to setting-up a row done with a different material, usually composed of two rows of regular bricks that established a material discontinuity in the vertical plane of the wall over the other resistant material, for instance the Roman tuff.

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A long building tradition, one would say, that is interesting for its 'plastic' ability to turn itself into rules/language, to adhere to the materic/constructive significance and express, ultimately, the aesthetic attitude of each individual author: these rows, internal to the own construction and belonging, one could say, to the technical/constructive discipline, turned into recognizable elements, such as the 'marcadavanzale' (possibly translated with 'windowsill stringcourse') that is a horizontal element realized with travertine bands that together express and plasticize the process of assimilation and codification of primitive constructive action that was its the 'spiritual' and unconscious legacy.

Study Cases

Before presenting some contemporary examples of plastic transformations, we will consider a traditional 'plastic' city in all its aspects, spatial, structural, linguistic, urban. Matera is the perfect synthesis of the argument presented in this study. It is an organized mass of stone elements forming a typical masonry plastic city where elements cannot be replaced, added or changed, without producing a new overall configuration of the city.

There you could find a close relationship between the above-ground space and the extracted material used for its construction: in fact, each residential unit is set on an excavation, roughly large as the material caved for the construction of the unit itself, then used as meteoric water well. At

the same time, while Matera urban fabric is built above the ground organizing the excavated matter from the stony ground below, the efficient system of wells connected by tunnels expresses that deep connection that is plastic, constructive, spatial and functional together. Each elementary cell, every row house, each residential unit specializing its shape depending on the position and the type of relief condition present, both typologically both constructively.

Walls, the physical limit/definition of space, find the right location and specialize their shape in the close structural collaboration that is established between space and construction, and plastically binds all elements, achieving that balance characterizing the deep and 'plastic' sense of a masonry-plastic organism like Matera. Static and structural equilibrium, reached by stone blocks that, by organizing themselves into a barrel vault, covering the main space of the urban *lamione* by releasing tensions through walls, so thick that they can be lightened by digging into them real serving spaces, collaborating to typological/spatial/constructive definition of the building.

94 The residential units aggregation, apparently confused, plays at urban scale the sense of deep collaboration between parts in plastic tension with each other: beyond the structure, which lives of internal tensions and forces that discrete elements of which are composed transmit to the ground, is involved the space, the one open to the public neighborhood, establishing a hierarchical relationship with the private spaces, dug into the rock, closed and concluded. Almost we can taste/fell the organic relationship between the caved ground and the upper buildings as explained before, we can see how all these cells work together, constructively, spatially, and maybe expressively too.

One of the most effective examples of plastic transformation approach could be found in the Trinità dei Pellegrini Houses project by Gianfranco Caniggia (Fig. 1) with his father Emanuele in Rome. It has already been widely studied and deepened⁷ the masonry plastic character of this seemingly complex city: the study of the urban fabric, through the reading of the wall reliefs, of maps and land registers, has allowed us to understand indigenous and typical transformative phenomena, which have configured, with subsequent vertical stratifications and horizontal adjacent recasting, the current urban structure of the city.

The plastic character of Rome shows the consolidation of shared construction costumes by the collectivity, before the onset of the Renaissance architect, expressed on own buildings through the codification of a language that could be defined also 'plastic'. The intervention of Caniggia recovers and restores, in a very modern way, the plastic condition of roman urban transformation, for this reason coherent and congruent with highly typical context in which it located.

⁷More info in Camporeale, A. (2016) 'Urban Tissues and Masonry Plastic Language. Emanuele and Gianfranco Caniggia's Houses in Via Trinità dei Pellegrini, Rome', in Amato, A. R. D., Camporeale, A., Strappa, G., (ed.) *City as Organism. New Visions for Urban Life, Conference Proceedings of the 22nd ISUF International Conference*, Rome (U+D editions, Rome).

At the urban scale, this intervention is grafted onto a gash in the urban fabric of Rome, ordering a new balance between the internal path of the block and all residential buildings volumes that define it: a new and different unity that was rebuilt/reconstructed starting from an initial 'plasticized' configuration, that is predisposed to a logic, coherent, measured transformation, whose 'cracks' have suggested the solid engagement. In particular, the serial building of duplex residences is set on the refectory great vault of the Trinità dei Pellegrini old convent, involving it with its structural aspect, establishing physical, constructive, distributive and expressive ratios of proportion between different parts.

The construction system adopted has undergone, also itself, a plastic transformation process during the design phases: a reinforced concrete structure, with beams and pillars of variable section according to special static role that each of them plays, has been preferred to the original elastic structure, designed as a skeleton of iron beams and pillars, lighter and to be stabilized with diagonal tie rods chipping away, from the fruition point of view, the spatiality of rooms. The architectural language of fronts, in fact, represents the final and readable synthesis connected with the individual expression of the Roman common constructive language: linear features marking horizontal parts of the building, pilasters identifying the duplex residential units, in a coherent and congruent fusion with the existing reality.

A second example of an urban plastic transformation could be considered the reconstructive intervention in the historic center of Pisa by Massimo Carmassi. (Fig. 2) A plastic intervention, again, distinguishable at different scales, urban, architectural, technological, expressive. Starting from St. Michael's church, the courtyard of the ancient monastery articulated that open space, according to the traditional conventual formative process. During World War II the urban fabric that incorporates the church and the convent was bombed: we could consider the act of war as a violent action that acts on the temporary unity, that is distributive, structural and spatial together, of the monastic complex.

After such a 'shock', the global unity is lost but remains possible, since this 'breaking' has a plastic character, engage in those obtained slots and could retrieve a new unity. Massimo Carmassi's project could be interpreted in the light of those considerations: he re-establishes the spatial unity of the new public square inside the block, defining its boundaries with new residential buildings volumes, changing the old convent specialized function with a new basic one. From a break in the urban fabric, from a temporary equilibrium on hold, it could be possible to reach a new unity, which is also temporary, but congruent and coherent with the context in which it occurs.

And it does it plastically, physically involving existing structures, leaning on them, triggering tensions and efforts that together with gravity and weight make alive existing walls in necessary collaboration with the new ones, recovering, that is, their deepest meaning. At the technological level, this transformation is experimentally masonry, walls are made of continuous

reinforced concrete septa, cast in formworks of red bricks: the contemporary reinterpretation of the massive character, load-bearing and at the same time closing space, of walls does not determine that peremptory and clear detachment between existing and new but offers a new synthesis of their critical/architectural fusion. The brick exposed expression resumes the masonry tradition of the central-northern Italian areas and it reinterprets in a contemporary way that typical architectural language derived from those areas.

A final example of urban transformation is the plastic urban transformation by Francesco Venezia in the little town of San Pietro a Patierno near the city of Naples (Fig. 3). Also in this case one starts from an initial configuration of the urban fabric that predisposes itself to a possible and new unitary synthesis with the existing context. San Pietro a Patierno is set on an axis polarized on the major church and on the square outside, urban node and symbol of public life. The building fabric, that this axis structures and on which it set, may be read as an aggregation of courtyard houses that have undergone the usual and generally recognizable 'clogging' phenomenon of the free interior space.

96 An axis, orthogonal to the first, contributes to strengthen the knot of the square which is volumetrically defined by residential buildings orthogonal to it. They are linked to the residential curved building, defining the front of the square, through a small passage which establishes the hierarchy between the two buildings. The curved housing building is grafted on the existing building, merging into it, taking advantage of existing walls and organizing a new courtyard space, similar to a modern *palazzo*: it is possible to recognize an overturned path inside the building that continues vertically through the stairs and the beginning of paths, orthogonally disposed to the first, that set ground floor volumes defining the central space of a pseudo courtyard.

So we recognize an attempt of hierarchization in typological setting of those new buildings: the seriality of in-line houses found its specialization in the *palazzo* that faces the other special building of the church. A not complete *palazzo*, on closer inspection, but predisposed to a new plastic transformation that could return its typological unity, involving plastically existing structures and knotting, for example, the central space with a light covering.

Conclusions

The current status of the theory, the critics and the architectural practice requires an urgent global rethinking of the entire discipline that could be materialized on concepts recovery already established, but lost, misunderstood, distorted during the course of history. Retrieving a lost theoretical thread and tie it to restore the continuous and necessary flow of transformations that will continue to occur, becomes an appropriate and critical choice.

More research on urban formative phenomena means studying that concrete transformations, as inseparably information, fused, inscribed, con-

tained in the built reality that appears confused and chaotic to those who can not be able to read those clues. Knowing how to read the built reality means being able to critically interpret transformations and prepare the existing, in coherence and adherence to new and future configurations. The masonry plastic world has undergone an important phenomenon of slowing down, almost a complete stop, due to the absence of method in practice and critical theory regarding urban plastic transformations.

Having been able to identify characters that unite inseparably both matter to material, both place to civilization that has transformed it, allowed to trace, until now perhaps only in theory, a totally new line, in some ways still unexplored, concerning not so much the study of plastic transformation phenomena, now easily readable in masonry plastic contexts considered historical/historicized, as their future design interpretation.

A potential, I think, to be organized and verified in the practical and physical insertion in built reality, in this specific case masonry plastic reality, recovering and reinventing an organic approach in urban transformation. New materials, often slaves of a misinterpretation that stifles their deepest essence and thus condemned to pillory of negative expressions, tragic and catastrophic, together with typology, basically annulled by an erroneous judgment on presumed limited opportunities for 'creative' invention mixed with a kind of 'closed' composition, represent the actuators instruments of those considerations made till now in this text.

Learn about processual evolution of existing built reality, that is understand the necessary link between distribution, space and construction of buildings, allows us to legitimize every critical operation on that reality, which tends to transforming them into a new unitary, albeit temporary, configuration, predisposed to receive the life of the era in which we are living in now, to testify as an anthropic built act about the passage of that life, and to prepare themselves for future events that necessarily will have to change it again and again.

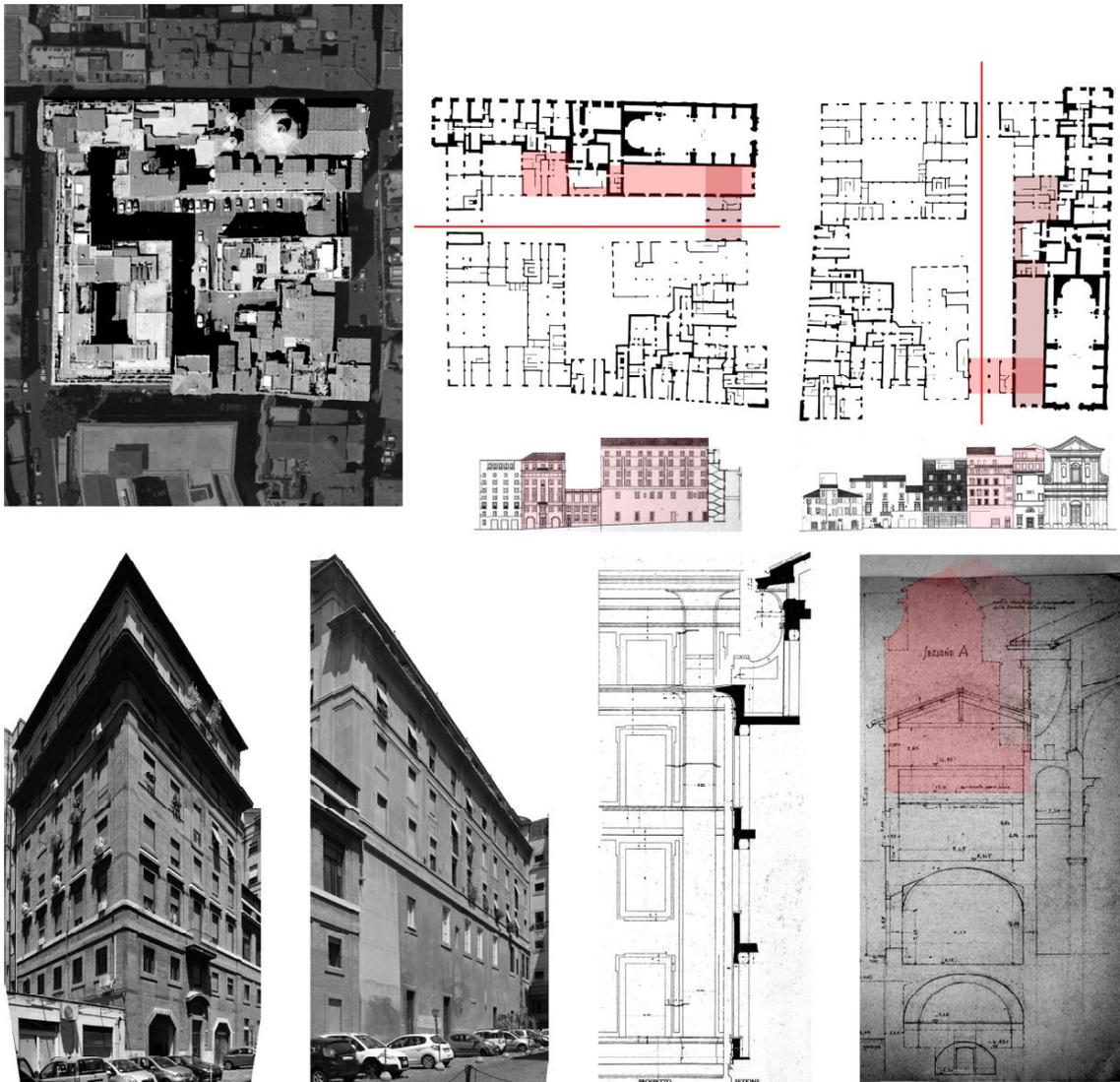
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Fig. 1 Rome. Houses in via Trinità dei Pellegrini by Emanuele and Gianfranco Caniggia. Elaboration by the author.



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Fig. 2 Pisa. Urban Fabric Reconstruction in San Michele in Borgo by Massimo Carmassi.
Elaboration by the author.

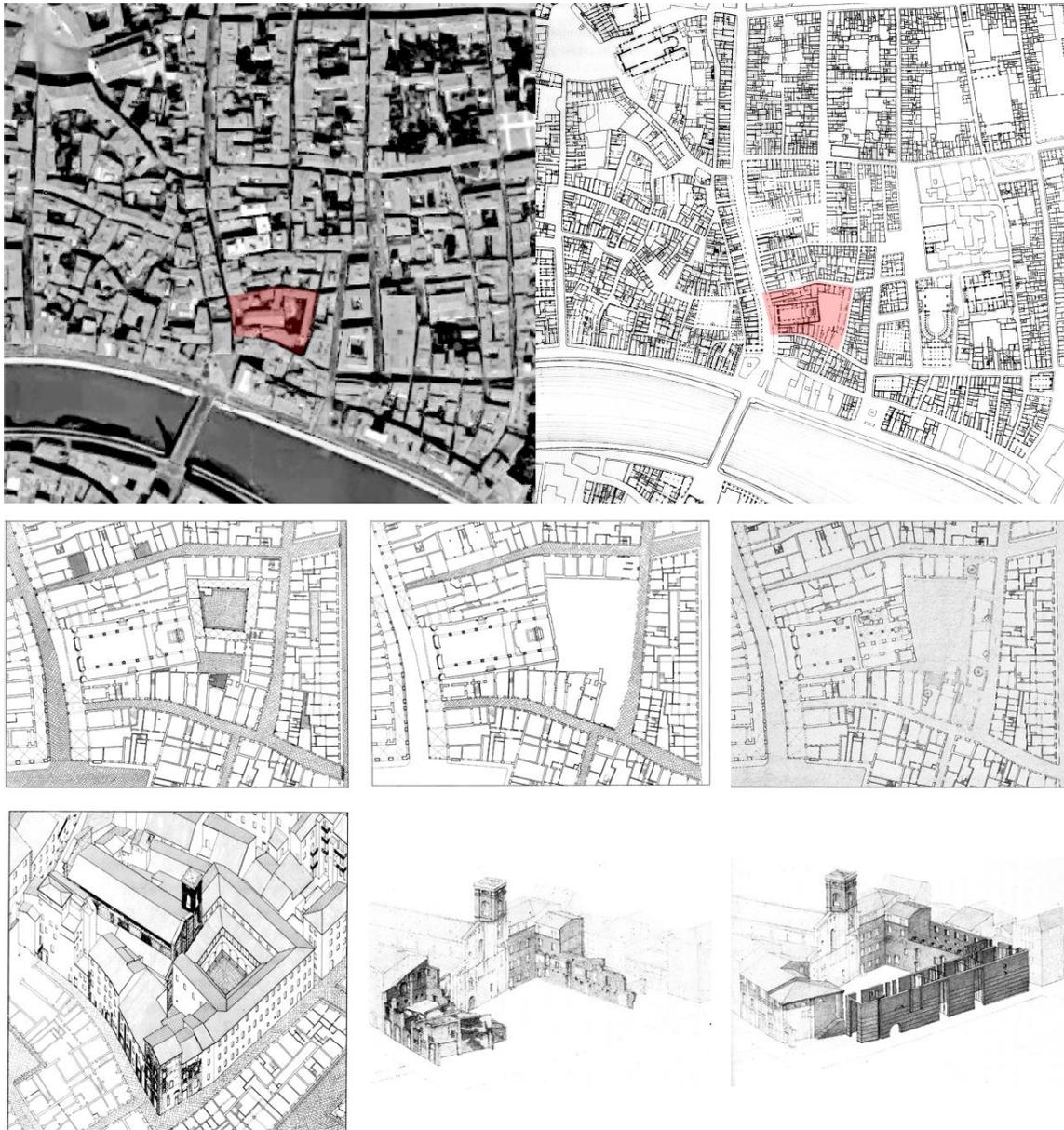
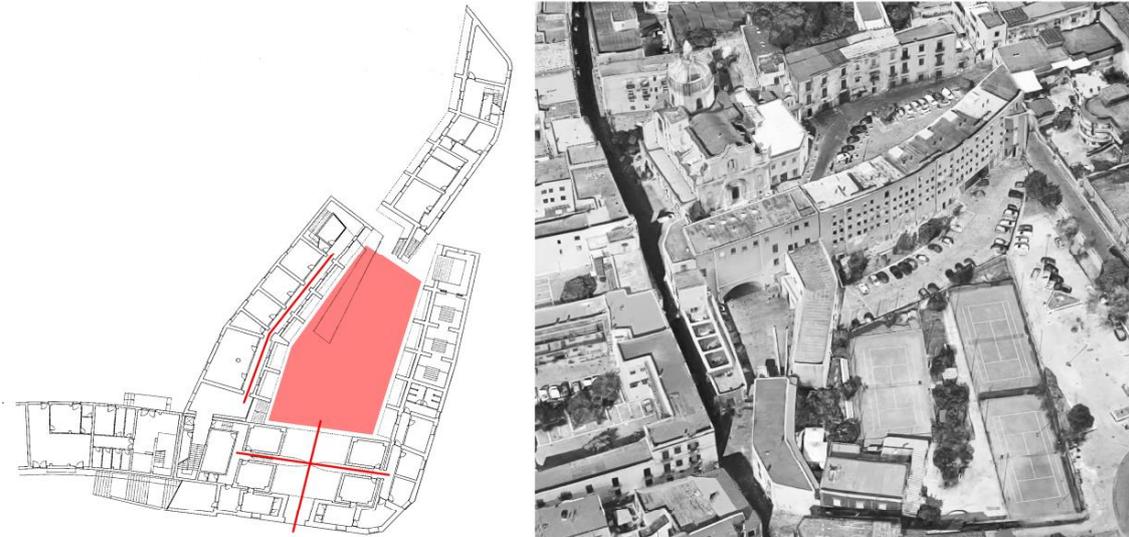


Fig. 3 Naples. Urban Fabric Reconfiguration in San Pietro a Patierno by Francesco Venezia.. Elaboration by the author.



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Architecture and Planning. Aporias in contemporary regeneration processes

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Keywords: architecture, planning, phenomenon, concept, regeneration

Abstract

104 *The paper considers the contemporary condition of crisis of the building market as being responsible of a stimulating challenge with respect to the current architectural practice. Moreover, it identifies in the building vacancies and in the urban brownfields, multiplied by the crisis of the globalizing Network City, a potentially new generation of experimentation opportunities, whose consistency is widely witnessed within the European context and confirmed by a wide spectrum of interesting design initiatives in progress (Oswalt, 2013). In fact, beyond a certain threshold, any crisis suddenly shift from a temporary state into a permanent condition. While the former situation turns out to be physiological of every development of the existing urban form, the latter expresses a pathological situation affecting the city overall organic quality (Caniggia, Maffei, 1979), leading to an irreversible loss of its "common rationality". However the Plan, because its supposedly "universal rationality", always resists to any attempt to experiment new possibilities, eventually leading their results to reach the status of a new temporary "canon" through a legitimizing process. The paper aims at tracing back the premises of this embarrassing aporias to the pre-modern age, and the foundation of Urban Morphology and Building Typology to the need to overcome the enduring struggle between Architecture and Planning upon which Modernity grounded its prejudicial legitimacy. In conclusion, it will be demonstrated how this opposition has affected, and still does, the possibility of any urban form transformation, especially within the historical context (Conzen, 1969).*

Introduction

The persisting condition of crisis of the building market, which has been mostly affecting the western world over the last decade, seems to offer a stimulating challenge to the current architectural practice. Moreover, it identifies in the building vacancies and in the urban “brownfields”, multiplied by the crisis of the globalizing Network City (Marzot, 2006), a potentially new generation of experimental opportunities, whose consistency is widely manifested within the European context and confirmed by a wide spectrum of interesting design initiatives in progress (Oswalt, 2013).

In fact, beyond a certain temporal threshold, any crisis (from the old Greek *krinō*, to choose, to take decisions) suddenly shift from a temporary state into a permanent condition of deficiency. While the former situation turns out to be physiological of every development of the existing urban form, the latter expresses a pathological situation affecting the city overall systematic quality and the expected role performed by each building component within its conventional framework (Caniggia, Maffei, 1979), leading to an irreversible loss of its “common rationality”, where this is intended to be completely historical and, therefore, limited in value, according to space and time.

However, within the persisting Modern legacy, the Plan, expression of a presumed “universal rationality”, capable of crossing over any prejudicial historical border, always resists any attempt to experiment new opportunities, eventually leading the results of the latter ones to reach the status of a new temporary “canon” through a legitimating process. This observation justifies why any attempt to reflect on the role of contemporary design within the historical centers should, first of all, assume the relation between “Architecture and Planning” as its grounding premise to be critically questioned.

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This paper aims at tracing back the origin of this embarrassing aporias to the modern thinking, and the foundation of Urban Morphology and Building Typology, as a promising field of investigation, to the post-modern search for overcoming the enduring struggle between Architecture and Planning upon which Modernity founded its prejudicial legitimacy. In conclusion, it will be demonstrated how this opposition has affected, and still does, the possibility of any coherent urban form transformation, especially within the historical context (Conzen, 1969).

Methodology

Notwithstanding the emergence of Urban Morphology and Building Typology as a proper disciplinary field clearly reflects the discussion on the above mentioned relation as a critical aspect of any design strategy addressed to the contemporary city, answers reciprocally differ in relation to the role assumed by the specific nature of the so-called “drivers of change” (Marzot, 2014). This justify a very basic distinction between “object oriented” perspectives and “subject oriented” ones. While the former tend to emphasize the autonomous capacity of architecture to subvert the existing condition, mostly acting at a formal level, therefore substituting to an

existing “architectural language” a new one, the latter tends to postpone the critical reflection on the appearance of disciplinary codes to a necessary previous analysis of an already existing change regarding the notion of “subjectivity”.

This gap is justified by a different philosophical background in approaching the same fact, i.e. the reality as a “phenomenon”. The “object oriented” perspective always answer to the question “what it is a city?”. This implies an endless search for definitions, which remains inevitably constrained within, and preliminary limited by, the boundaries of a prejudicial disciplinary field. Not by chance this specific way of questioning any experience resulted, since the very beginning, in the grounding foundation of any Metaphysics, from that moment onward doomed to produce “entities”. As an immediate consequence, it is not possible even to question the relation between “Architecture and Planning” as such, since the two expressed “entities” are implicitly presumed prior to any research, because of the coordinating preposition “and”, as belonging to the same level of knowledge. The “subject oriented” perspective, on the opposite side, avoids any preconceived definition by simply answering to the question “why to build a city?”. So doing, this horizon of investigation never presume to know who is doing what, why, when and where, which are the basic aspects of any consistent research. Even further, it envisions the perspective that all the reminded aspects of any experience will be reciprocally defining themselves by experimenting mutual correspondences and by assuming their failure and/or their success as a simple possibility.

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To clarify this fundamental difference we will compare three canonical texts dealing with the architectural quality of the city and its transformation over space and time. Then, we will describe and explain their arguments in order to find out the implicit position of the corresponding authors. Finally, we will try to extract a clear position on the relation between architecture and planning to see whether or not it can fulfill the expectations of a critical design approach to the existing situation, raising a discussion on eventually missing aspects to be further investigated.

Forming processes. Three canonical positions

The architecture of the city (Rossi, 1966); Architecture as a theme (Ungers, 1982) and Delirious New York (Koolhaas, 1978) are the selected texts for the experiment. They were all written by architects and theoreticians operating in the field of architecture and urban design, whose shared aim was to trace back in the history of urban form compelling premises for supporting their own intentional design strategy, which tend to remain latent within the initial part of the book content, to be made progressively explicit in the course of the narrative. In that sense they are all apparently post-modern, coherently with the cultural climax they were part of. However, on a closer watch, differences immediately emerge, emphasizing the “untold” and the “unthought” of their author position. Here lies the prejudicial aspect we are interested in, which will be affecting their design strategy.

The Autonomy of Architecture in Aldo Rossi

Aldo Rossi's text acquires a special value by reason of the extensive dissemination of the ideas brought together inside it through numerous translations. It can legitimately be maintained that the significance of the work lies in the motives behind it. These do not seem to have changed over the years, as the author himself recalls in his various introductions, and this means there was never any call for him to bring the text itself up to date. His essential idea is to question the theory of what can be called "ingenuous" Functionalism, which reduces architecture to the pure representation of its utilitarian functions through a one-way relationship of a causal kind. Rossi counters this principle with that of architecture as an autonomous discipline, endowed with a code of values independent of the indisputable pressures of an economic, political and social kind, based on the permanence of certain principles constantly verifiable in the course of history. These the author defines as the "form" of the urban "artifacts", to distinguish their general aspects - and their implicit validity - as compared with their concrete manifestations revealed in precise conditions of space and time.

The purpose of his argument thus becomes to bring out, through reference to situations which have really occurred and are historically founded, the existence of closely correlated systems of laws and characters in order to try to create a theory of the city, an urban science. This science is intended to take Saussure's linguistic theory as its methodological model. This explains the implicit identification between the city, understood as a system of rules to which every building and architectural manifestation conforms, and *Langue*, as defined in precise terms by De Saussure himself. The text is divided into four sections: the structure of urban artifacts; the primary elements and the concept of area; the individuality of urban artifacts; architecture; the evolution of urban artifacts.

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The first section clarifies the hypothesis underlying the entire work. The city is considered as an artifact, a work that grows in time in accordance with a logic of continuous adaptations of the existing patrimony to changing needs. In this way the city is modified in keeping with criteria of an artisanal kind, namely by piecemeal adjustments made in real time. Hence it is essential to recognize the individuality and uniqueness of urban artifacts as the starting point for any reflection on the future of the city and its transformation.

Nevertheless, we can succeed in defining the constituent modes of every individual architecture or urban manifestation only through a series of successive abstractions from the data with which the book starts, namely the concreteness of urban artifacts. Rossi defines the result of these operations as the "type". The "type" for Rossi is therefore a constant, namely the underlying "form" of urban artifacts. In Rossi's interpretation of the city there thus coexist a platonic image, the idea of the city, and an Aristotelian vision, the whole set of urban facts in their concrete materiality as an occurrence, and these factors are always closely correlated, to the point where, out of respect for Saussure's linguistic formulation, the urban arti-

facts become the “words” through whose historical sedimentation “languages” are renewed.

Seeking to define architecture as an autonomous discipline, Rossi identifies it with Composition, out of respect for the cultural revolution begun by the Enlightenment. As the art of composition, architecture is pure rationality, it has its own lexical elements and its own rules of syntactical-grammatical articulation. These elements and rules do not belong to history but to the world of forms. In this way Morphology is concerned with concrete urban artifacts, white typology with their constructional logic. The “analogue city” concept introduced by Rossi to support this hypothesis displays concrete artifacts - the theatres of Arles and Nîmes, the fortress of Split, the Palazzo della Ragione in Padua, etc. - to express idea of the recurrence of elements and relationships which underpin the city and its architecture, independently of the use made of them in any given conditions. However his recognition of the existence of “types”, understood as schemes with a metahistorical validity, does not follow from a structural analysis of the reasons for their existence, i.e. does not derive from critically answering the question “why do we need to build a city and, eventually, choosing a way more than another?”.

108 This position is shored up by Rossi’s decision to apply the architectural concept of the “type” to the building and the city, rejecting the humanistic distinction of the “scale” of the project. In this way the “type” becomes the unifying factor of a logical kind which ties up all built manifestations, regardless of their dimensions and the complexity of their interrelations. In this way Rossi identified the type with *Lingue*, so superseding certain ambiguities present in the definition given it by Saverio Muratori and his school, which apparently prevented the concept from acquiring an analogous unifying function. In practice they limited the term “type” to defining the historically ascertained concept of the house¹. The analysis of urban artifacts, hence of urban morphology, confirms the existence of logical principles, namely “types”, which transcend morphology while comprehending it. The general validity of these principles is not undermined by the fact that they are embodied in widely different situations; in fact this constitutes the foundation of their truth. This same fact jeopardizes the functionalist assumption of form as an organ which is developed and modified in relation to its function. The concept of the house as a utensil is a slogan that does not do justice to the permanence of specific organizational principles in strongly differentiated programs. If anything, says Rossi, it is the type that is the organizational model of this function.

Function does not lend itself to becoming an effective parameter for the analysis of reality, though the Modern Movement made excessive use of it. Other parameters that had a considerable success were those that had an economic nature and social content. Though these analyses helped

¹ This point was explored in a paper I presented at the seventh IASTE conference held at Trani from 12 to 15 October 2000. The paper is published in the Working Paper Series n° 136 under the title *The Dialectic Between Tradition and Innovation in the Italian Typological Studies*.

comprehend important aspects of Morphology, they are not capable of explaining it in its entirety. The city by its nature defies any all-encompassing interpretation which excludes recognition of the existence of purely formal categories endowed with their own behavioral autonomy. Only Marcel Poëte (Poëte, 1929) and Pierre Lavedan (Lavedan, 1926) introduced criteria of analysis – the identification of persistent elements in the urban organization - capable of penetrating the form of the urban artifacts from within their morphology. For example, verification of the existence of elements of the plan of the city which retain their force through successive urban transformations, and which may actually consolidate it, is a confirmation of the autonomous validity and effectiveness of the principles regulating them. Rossi, however, never doubted that the persistence of these phenomena was not necessarily a synonym of choice but rather the effect of an inertia to change, due in part to the nature of the materials employed. Would the destiny of the theatres of Arles and Nîmes, in the early Middle Ages, have been the same if they had been built of wood and not stone? Couldn't respect for certain alignments be explained simply as less laborious than their alteration or cancellation? This would help understand why the *cardo* and *decumanus* of Roman cities are better preserved than all the other signs of lesser importance. It is therefore difficult to interpret the preservation of material elements as an implicit recognition of the validity of their underlying principles.

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Architecture as a Rhetorical device in Oswald Mathias Ungers

The text is located historically at the end of a long period of reflection on the form of the city - its formation and transformation in the course of time and its relationship with architecture - and the results of this theoretical output in the construction of urban space. As such it is a fundamental contribution to the comprehension of part of the state of things in which we still live.

Ungers' principal objective is to stress the importance of architecture as an autonomous language, capable of expressing ideas, that is themes, which precede it and condition it in its choice of elements and its rules of inner articulation. In this way Ungers seeks to express his criticism of ingenuous Functionalism and the consequent subordination of architecture to purpose, technology and the reasons of the economy, which have made it an applied art. This urge to attribute a communicative capacity to architecture, regardless of the question of interdisciplinarity, was typical of the 1960s. It was also consistent with the principles of scientific research, in which the initial working hypothesis defines the direction of thought in the analysis and quality of the results obtained. Themes, precisely because they are not natural or spontaneous aspects but the result of conscious choice, are partial. It only as such that they succeed in ensuring architecture has the linguistic function which the author seeks to attribute to it. But for the same reasons the choice of these aspects, to be widely shared, a collective choice and not a personal poetic inaccessible to most people, should possess a historicity of their own: i.e. they should clearly represent

central aspects of the cultural debate at a specific time, a question that the author seems not to grasp unequivocally.

As the immediate result of choices not shared, the language of architecture will prove in various cases to be conditioned by the nature of the theme, so being translated into a catalogue of codes, meaning strongly specialized languages. The fact that the different themes/languages can coexist within the work of a single author reveals its partiality and that it belongs to the field of the poetic. The '80s thus opened under the aegis of linguistic particularism, following the heroic season of the '60s and '70s, which sought to refound architectural language on more solid bases which could be widely shared through emphasis on aspects of active participation in its formation. The individual was thus the author and beneficiary of the choices made. With Ungers, individuals delegate a brief to the architect who, by virtue of his poetic abilities, succeeds through his mediation in finding a form for the needs of the community.

110 "The theme of transformation or the morphology of the Gestalt" is defined by Ungers in a multiple way. It can be understood as the expression of endless individual variations by which it is possible to express a general concept like "entrance" (by analogy with the distinction made in linguistics between the acts of *Parole*, which are endless and unrepeatable, and *Lingue*, which is finite in its grammatical rules and components). But the theme can also express the transition from a state of order - the layout of a planned city - to its abandonment because of a change in the general context which seemingly alludes to a state of chaos. An example is the early medieval city, which developed on the earlier system in continuity with its most elementary aspects. Finally, the theme can be expressed through a continuous transition from the natural element to the artificial and vice versa, hence by simulating a clear change of state. Each of these strategies, says Ungers, makes it possible to clarify the theme of transformation through the language of architecture, making architecture the language of transformation, enhancing the idea of a possible variety within the unity of the system. Ungers supports this thesis with the examples of the projects for the Museum Morsbroich in Leverkusen, the student residence at Enschede and Grünzug-Süd in Cologne.

"The theme of the assemblage or coincidence of opposites" enables Ungers to remind us that Western culture has educated us to consider a lack of unity in the whole as a limitation for the attainment of beauty in a work. His purpose, on the contrary, is to show that the composition of contrasts is sometimes the only strategy available for coping with a design problem and, as such, it may be the source of aesthetic reverberations. The theme of fragmentariness is also taken as an act of freedom from the often dogmatic imposition of unity. Aldo Rossi's conception of the "city by parts" emerges clearly from these words. The city lives by the richness of discontinuities, of contradictions, unlike the village, which emphasizes unity. This passage is perhaps one of Ungers' most important observations, as it prompts reflection on one of the principal themes of criticism of the bourgeois city in the late nineteenth century. Discontinuity, complexity and

specialization have become synonymous with the modern condition and the big city in particular. The ideas contained in the model of the garden city were defined in opposition to them. But the theme of the assemblage also becomes a metaphor for the language of contemporary architecture as the place of the fragmentation. If architecture is the visualization of an idea, which by virtue of its partiality enables it to be communicative, the simultaneous presence in the same space and time of opposed themes, i.e. of fragments that are not composed into a single whole, becomes the expression of a Babel of co-occurring codes. This is due to the fact that architecture as a language presupposes specialization, a drastic reduction of its semantic potential by emphasis on a single aspect. But this very choice in practice decrees its rapid obsolescence. Codes, by definition strongly specialized languages, afford less flexibility to change of context. To confirm his thesis, Ungers cites the projects for the Tiergarten Museum in Berlin (significantly the ideal context to emphasize the theme of fragmentation, at which Daniel Libeskind has recently tried his hand), the Stadtparkasse in Berlin, the Wallraf-Richartz Museum in Cologne, the restructuring of the Frankfurt trade fair and the Berlin courthouse.

“The theme of incorporation, or the doll inside the doll”, is the description of an approach that can be developed, according to Ungers, in two directions, formal and conceptual. The first approach entails the existence of compositional analogies between objects on different scales, which for this reason are comprised one within the other - like the relations that existed in the mediaeval city between the town wall and its contents, squares and inclusions, the city lot and the building within it – and have close points of contact with the idea of the “analogue city” already fully developed by Aldo Rossi. The second is with the existence of simple organisms, unicellular by nature, which remain incorporated in more complex spatial structures by a process of growth, as in the case of the ancient Greek temple in which the naos, the innermost cella accessible only to the priests, is the operative memory of the primitive form of the temple.

This theme is of particular interest because, in his various explanations, Ungers seems to be suggesting that in the processes of future transformation of the architectural object it is essential to recover the original matrix and begin again from this to find a new meaning in the work, suited to the changed contextual conditions. This hypothesis is confirmed by the projects for the Landstuhl Solarhaus, the Deutsche Architekturmuseum in Frankfurt and a hotel in Berlin.

“The theme of assimilation or adaptation to the genius loci” was definitely the one most fully developed in the debate in the '70s, and is the most difficult one to define and systemize. In absolutely general terms it represents the idea that architecture, to be translated into a language, should draw its references unequivocally from the location in which it is set, and that the old and the new should therefore become reciprocally interdependent elements in the organization of existential space. So the way the subject is interpreted not only varies from context to context, but should explicitly state this differentiation as its distinctive trait. With certain clear

references to the concept of the “analogue city”, but much more highly specified, adaptation to the context seems to allow for the citation of elements of local architecture, though they are embedded in an original system of relationships, which bears witnesses to the evolution of the times. Seemingly implicit in Ungers’ arguments is the idea that architecture can be translated into language only if it recovers elements of the tradition by relating to them in keeping with rules of transformation. The significance of the innovation emerges from a comparison between what pre-exists the architecture and what is added within that interval. Innovation and tradition are therefore complementary. The context is therefore fundamental to any understanding of the significance of a work.

From these considerations derives an important observation: in order to alter the existing state of things, architecture has to “comprehend”, in the twofold etymological sense of the word, firstly as understanding through analysis and secondly as assimilation/inclusion through the operation of the project. The emphasis on syntax should not make us lose sight of the relationship with the existing structures, understood as a rich repertory of reciprocally interrelated forms.

112 Modern architecture therefore has to include traditional architecture within itself, if it is to supersede it with full awareness, in such a way that this superseding can be not just felt but also seen. Architecture is above all a language in images. Even though Ungers does not tackle the issue explicitly, it seems we can say that the idea of architecture as a language presupposes its being rooted in a context, and that every form of distancing, including a conceptual distancing, from this position, entails shifting the question to the criteria of the formation of languages, i.e. on a syntax and a vocabulary so general that it offers a level of abstraction which makes it an instrument applicable to different contexts. But it is necessary to remember that this level of generalization is not a language, but only a generative grammar which seeks to provide a rational explanation for the variety of languages, which is not negated by starting from a basis in rules that are common, since these are innate, hence not a product of culture. To confirm these hypotheses Ungers cites the project for a group of homes at Marburg, the project for the residential area on the Schillerstrasse in Berlin, that for the Badische Landesbibliothek in Karlsruhe, the project for the restructuring of the Hildesheim Marktplatz and the project for a building in the Braunschweig Schlosspark.

Ungers interprets “the theme of the imagination or the world as representation” in two different ways. The first is implicit in the general title of the text. It holds that we can talk about architecture as a language only if we decide to analyze it in accordance with an interpretation which will govern its transformation subsequently. The way we understand the world, and so build it, clearly depends on how we perceive it. The nature of the parameters or themes chosen is decisive in relation to the results eventually obtained. The second significance of the theme is that the language of architecture is language by images, a figurative language. In other words there exists a rhetorical use of architecture, which is related to the

use of “figures” analogous to the literary figures - metaphor, allegory, metonymy, hyperbole, etc. - which sometimes help to say what on a purely conceptual level (perhaps here we glimpse an attempt to move beyond the iconoclastic Structuralist positions of the '60s and '70s) it is impossible to convey in a specific historical period.

In this respect some Enlightenment experiences clearly attempt to express new impulses, which it was not possible to convey in the language of the Ancien Régime. Among these “figures of speech”, synecdoche (the part for the whole or the whole for the part) and metaphor have been the most widely used in the history of architecture. In particular synecdoche seems to offer the possibility of verifying the quality of a form which, through a condensation or rarefaction of the image, leads to a new expression not contained in the original. This reflection is present in the projects for a house at Berlin-Spandau, the construction on Welfare Island in New York and in the project for the Fachhochschule in Bremerhaven.

The delirious Architecture and the hybrid city in Rem Koolhaas

Although there has never been a clearly demonstrated relationship between Deconstructivism and the successful book *Delirious New York*, written by Rem Koolhaas and first published in 1978, in the writer's view it contains a series of extremely interesting critical reflections that exhaustively examine the post-modern condition with the additional merit of an essentially architectonic/town-planning perspective.

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The author considers Manhattan Island to be the clearest expression of 20th Century town-planning culture, a collective work that he refers to as the “culture of congestion”. Nevertheless, though he demonstrates an ability to systematically document the genesis and development of continuing practices that are analyzed with a comprehensive historico-critical approach, Koolhaas acknowledges that they lack supporting theory. In an age that seems to have firmly repudiated the avant-garde, which, since the start of this century has developed through the radical rethinks of the 1960s and early 1970s, the author's controversial intent is to propose a retroactive manifesto to justify a programme that is so at odds with the culture of modernity that, if its proposals were openly declared, it could never be implemented: In the author's words: “...This book is an interpretation of that Manhattan which gives its seemingly discontinuous - even irreconcilable - episodes a degree of consistency and coherence, an interpretation that intends to establish Manhattan as the product of an unformulated theory, Manhattanism, whose program - to exist in a world totally fabricated by man, i.e., to live inside fantasy - was so ambitious that to be realized, it could never be openly stated.”². Noting that choice of subject matter can determine the ultimate aim, the author justifies awareness of the theoretical project and his position regarding the risks and limitations of a more tested a posteriori critical and historical reconstruction. Although the premises of this relatively unknown theory can be recogni-

2 Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.10.

zed in some technological innovations tested and presented at the Exhibition in Manhattan in 1853, such as the lift invented by Elisha Otis, Koolhaas states that we should not underestimate the role played by some archetypal structures, such as the tower and the sphere, which first appeared on occasion of this exhibition and took form in the Latting Observatory and the Crystal Palace, as well as the acclaimed grid-like infrastructure that had given plan and order to the island since 1811: "...The needle and the globe represent the two extremes of Manhattan's formal vocabulary and describe the outer limits of its architectural choices. The needle is the thinnest, least voluminous structure to mark a location within the Grid. It combines maximum physical impact with a negligible consumption of ground. It is, essentially, a building without an interior. The globe is, mathematically, the form that encloses the maximum interior volume with the least external skin. It has a promiscuous capacity to absorb objects, people, iconographies, symbolisms; it relates them through the mere fact of their coexistence in its interior. In many ways, the history of Manhattanism as a separate, identifiable architecture is a dialectic between these two forms, with the needle wanting to become a globe and the globe trying, from time to time, to turn into a needle - a cross-fertilization that results in a series of successful hybrids in which the needle's capacity for attracting attention and its territorial modesty are matched with the consummate receptivity of the sphere..."³.

- 114 But the culture of congestion, which was to use technological innovation and the archetypes of the grid, the tower and the sphere to justify its own existence, historically finds its first major manifestations in Coney Island. To quote Koolhaas: "...Coney Island is the incubator for Manhattan's incipient themes and infant mythology. The strategies and mechanisms that later shape Manhattan are tested in the laboratory of Coney Island before they finally leap toward the larger island..."⁴. Although Coney Island, with its unspoilt natural beauty and relative inaccessibility, had represented an ideal place to shrug off the stresses of daily life since New York City's earliest days, during the city's rapid development into a metropolis between 1823 and 1860 the urge to escape became ever more pressing, and the growth of transport infrastructure between Manhattan and Coney Island - first the railway in 1865, followed by the opening of Brooklyn Bridge in 1883 - led to the island's beaches becoming the most crowded in the world, within easy and affordable reach of the proletarian masses. According to Koolhaas: "...This invasion finally invalidates whatever remains of the original formula for Coney Island's performance as a resort, the provision of Nature to the citizens of the Artificial. To survive as a resort - a place offering contrast - Coney Island is forced to mutate: it must turn itself into the total opposite of Nature, It has no choice but to counteract the artificiality of the new metropolis with its own Super-Natural. Instead of su-

3 Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.27.

4 Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.130

suspension of urban pressure, it offers intensification..”⁵. Such a response translated into the realization of an endless series of amusements - Loop-the-Loop, the Roller Coaster, Shoot-the-Chutes, the Inexhaustible Cow, Electric Bathing - leading finally to the first amusement parks, such as Peter Tilyou’s Steeplechase, where mechanical horses that anyone could easily control ran around an enclosed track; the Lunar Park of Frederic Thompson and Elmer Dundy, where visitors took a spectacular imaginary journey to the moon, ascending to 300 feet above the ground; and the mythical Dreamland of William H. Reynolds, the first true amusement park, organized in such a way as to resemble a coherent town plan. Koolhaas’ interest in this entertainment project, in a scale greater than any previously seen, arose from the desire, coherently and gradually achieved, to provide experiences capable of satisfying dreams and the imagination and giving them greater solidity, far from the humdrum reality of daily life, through a calculated intensification strategy of spatio-temporal opportunities, beyond the offerings that could be experienced in the real city. The quest for the supernatural, in which Coney Island had deliberately placed its hopes of survival in the face of mass society and its secret rituals, thus took coherent form. Dreamland also represented the first amusement park devised for all social categories, overturning the previous logic of entertainment reserved for the proletarian masses. As Koolhaas recalls: “...Dreamland is located on the sea. Instead of the shapeless pond or would-be lagoon that is the center of Luna, Dreamland is planned around an actual inlet of the Atlantic, a genuine reservoir of the Oceanic with its well-tested catalytic potential to trigger fantasies. Where Luna insists on its otherworldliness by claiming an outrageous alien location, Dreamland relies on a more subliminal and plausible dissociation: its entrance porches are underneath gigantic plaster of Paris ships under full sail, so that metaphorically the surface of the entire park is “underwater:’ an Atlantis found before it has ever been lost...”⁶. By applying the same technologies that allowed Manhattan to become the world’s most important metropolis and organizing 15 different thematic areas in a horseshoe pattern around a shoreline cove, Reynolds managed to artificially reproduce an eventmental space closely resembling the present post-modern condition, in which individual events take place in a totally unconnected way, with no past and an unpredictable future. Of the episodes that drew the most admiration and interest, we may recall Lilliputia, the miniature city, a faithful reconstruction of the Venice canals, a simulation of the Swiss landscape, the eruption of Vesuvius, and Fighting the Flames, a set that repeatedly simulated a fire in a city block and the consequent arrival of fire fighters who successfully extinguished it. Koolhaas comments:”...Ostensibly seeking to provide unlimited entertainment and pleasure, Tilyou, Thompson and Reynolds have in fact alienated a part of the earth’s surface further from nature than architecture has ever succeeded in doing befo-

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5 Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.33

6 Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.45.

re, and turned it into a magic carpet that can: reproduce experience and fabricate almost any sensation; sustain any number of ritualistic performances that exorcise the apocalyptic penalties of the metropolitan condition (announced in the Bible and deeply ingrained since in the anti urban American sensibility); and survive the onslaught of over a million visitors a day. In less than a decade they have invented and established an urbanism based on the new Technology of the Fantastic: a permanent conspiracy against the realities of the external world. It defines completely new relationships between site, program, form and technology. The site has now become a miniature state: the program its Ideology; and architecture the arrangement of the technological apparatus that compensates for the loss of real physicality..."⁷. Despite the concern expressed by the defenders of well-meant town planning, who would have replaced the city of entertainment with a more decorous urban park, Coney Island has consolidated its success over time, becoming known for extraordinary construction initiatives of remarkable impact. In fact, an advertisement announcing the launch of the Globe Tower building project, the largest that the world had seen, appeared in a New York newspaper in 1906. To raise the vast sum required to finance the project, all New York residents were invited to invest in this adventure. This building attracted interest because of its many formal and programmatic features. The schematic sketch illustrating the Globe Tower's features showed that it represented a compromise between the archetypal structures of tower and sphere, which, as noted earlier, had made their first appearance at Manhattan in 116 1853 with the Latting Observatory and the Crystal Palace. Although in the Illuminist culture, the sphere had represented a secular alternative to the role of the cathedral, in this case it was stripped of any metaphorical adjectivation and, very pragmatically, reduced solely to its earning potential: "...It is the American genius of Samuel Friede, Inventor of the Globe Tower, to exploit the Platonic solid in a series of strictly pragmatic steps. For him the globe, ruthlessly subdivided into floors, is simply a source of unlimited square footage. The larger it is, the more immense these interior planes; since the Globe itself will need only a Single, negligible point of contact with the earth, the smallest possible site will support the largest reclaimable territory. As revealed to investors, the tower's blueprints show a gigantic steel planet that has crashed onto a replica of the Eiffel Tower, the whole "designed to be 700 feet high, the largest building In the world with enormous elevators carrying visitors to the different floors..."⁸. As planned, the tower was to occupy a small corner of Steeplechase, rented by Tilyou to Friede, and would contain Steeplechase, Luna Park and Dreamland enclosed within a single volume, each situated autonomously on its own floor. With a total floor space 5000 times greater than its actual footprint, the Globe Tower was an explicit example of the skyscraper's potential to admit other worlds. A single planning exercise, providing an ele-

7 Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.62.

8 Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.71.

mentary plastic/volumetric solution, made it possible to restore the appropriately condensed and intensified complexity that the experience of an extensive area offered. By resorting to the artifice of construction, it was possible to concentrate the meaning of an entire conversation in a single word. A new era of architecture and town planning opened up with little sign, as yet, of any full and conscious awareness. Although this initiative turned out to be fraudulent, with even the foundations never being completed, once Dreamland was destroyed by fire in 1916 the experience gained in creating the first city of entertainment was to prove essential to understanding the developments that had been under way in Manhattan since the turn of the century.

Development of the skyscraper was linked to the convergence of three factors: the possibility of reproducing the world artificially, assimilation of the archetype of the tower, and the triumph of the city block, in other words, identification with Manhattan's infrastructure grid model. Each of these aspects played an essential role, naturally taking account of the contribution of technological innovation, which made it possible to exploit to the maximum the potential of buildings of predominantly vertical development: "...In the era of the staircase all floors above the second were considered unfit for commercial purposes, and all those above the fifth, uninhabitable. Since the 1870s in Manhattan, the elevator has been the great emancipator of all horizontal surfaces above the ground floor. Otis' apparatus recovers the uncounted planes that have been floating in the thin air of speculation and reveals their superiority in a metropolitan paradox: the greater the distance from the earth, the closer the communication with what remains of nature (i.e. light and air). The elevator is the ultimate self-fulfilling prophecy: the further it goes up, the more undesirable the circumstances it leaves behind..."⁹. It was also clear that the lift, through synergy with the steel load-bearing structure, could almost indefinitely repeat the space corresponding to the reference parcel. This perspective is clearly outlined in a 1909 comic strip, in which the potential performances of the skyscraper are clearly identified. A steel framework supports 84 floors, each of which retains the dimensions of the original plot. Each floor contains accommodation that differs in style and social aspiration with no interference whatsoever from adjoining floors. There is clear paradox in the idea of a single building whose life is in reality fragmented into a countless series of incompatible episodes while the steel structure guarantees a minimum of unity without interfering with the intended use of the individual buildings it houses. The latter can be continually updated without the need for any work on the structural framework. The town planning consequences of such potentialities are immediately underlined by Koolhaas: "...In terms of urbanism, this indeterminacy means that a particular site can no longer be matched with any single predetermined purpose. From now on each metropolitan lot accommodates - in theory at least an unforeseeable and unstable combination of simultaneous

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9 Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.82.

activities, which makes architecture less an act of foresight than before and planning an act of only limited prediction..."¹⁰. The skyscraper became a factor in the promotion of a new approach to urban planning. The technology of the fantastic employed in Manhattan was translated into a technology of pragmatism at the service of property investors.

Conclusion

In Aldo Rossi's perspective, it appears evident how urban transformation becomes a simple pretext to define form as the grounding principle of the city and its architecture. The so-called "primary elements" are trans-scalar configurations, or logical principles, that preserve their inner stability independently from any urban fact change or programmatic substitution, becoming all-encompassing universal aspects affecting the human behavior. Even more, the author neither questioned the possibility of having architecture and the city, nor doubting about the intentionality underlying its recycle. In such a way, Rossi implicitly assumes the existence of any "form/type" as a simple fact, assimilated to something that is already given, independently from the existence of the subject, thus becoming the ambiguous "artificial environment", derived from De Saussure's definition of an all-encompassing Langue, into whose horizon the action possibilities of the subject are already "inscribed" and of which, even more, the "artifact/morphology" are simple interpretations. Form, therefore, becomes independent from any transient aspect regarding the urban phenomenon, whether it is material or functional, replacing the role Planning was claiming through its zoning principles and the myth of functionalism, intended as the unavoidable premise of any architectural strategy. Paradoxically, the subject seems to be alienated from a supposedly universal set of rules which preexists to him, intended as a rational "natural equipment" he has to operate with, not being responsible at all of its coming into existence. On an apparently similar horizon, Ungers focuses on the "life of form", investigating its dynamics through space and time. However, we would not give justice to his position if not considering the emphasis put on the identification between "form" and the level of representation. In that perspective, architecture intentionally becomes a rhetorical exercise which is clearly allusive to something else, happening prior to the existence of a proper language, and the so-called themes act as its "figures of speech". This statement seems therefore a major achievement with respect to the ambiguity prompted by Aldo Rossi, where form tends to identify with nature, paying a direct homage to the culture of the Enlightenment. In fact, on a closer watch on the character of the selected "themes", forms play with practice, as well concepts seems to derive from a related experience. If architecture is therefore intentionally intended as a "discourse" on something built, in Ungers that "something" refers to the birth of the language as such, whose truth seems to be buried in the etymology of the used words/figures. In both cases, however, the prejudicial search for an

10 Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.85.

enduring rationality, inherent to form itself, it is not questioned at all, not leaving space for any critical discussion about the valuable role of conventionality in design and its intentionality, but simply transferred from the Planning activity to the architectural one, always affected by an “object oriented” perspective.

In Rem Koolhaas's position, paradoxically, Coney Island represents the “real” field of endless exploration of possibilities that are inhibited in the “fictional” Manhattan by the prejudicial overwhelming control of the Grid and its zoning principles. In that respect, the former manifests the “urban unconsciousness” which doesn't inhabit anymore the latter's abstract rationality. To let experimentation take command again in the New York island, it is necessary to hide the promoter real intentions. “Lobotomy” is therefore the strategic “Troian Horse”, instrumental to graft back life into the hollow body of the existing city, not being explicit in that purpose.

In such a way life is expected to progressively consume from within the fictional representation of New York, substituting its role through a deliberately “delirious” architecture, constantly exceeding its preconceived role and limitations, ultimately becoming a city in itself. Life and Form are, therefore, contradicting but complementary aspects of the same urban phenomenon. According to Rem Koolhaas, Form emerges as the temporary ideal state of the endless becoming of urban life, which is always unpredictable in its appearance, while stability is the self-reflective result of the programmatic instability of any experienced phenomenon. Manhattanism becomes the way through which the disappearance of processuality of life, because of Modernity, is therefore finally avenged, resulting the grounding principle of Form itself. In that respect, we can assume that Rem Koolhaas's one is clearly a “subject driven” perspective of investigation of the city and, as such, can be still used nowadays as a promising device to critically intervene within existing material conditions, as had been happening before the substitution of the traditional local “common rationality”, socially instituted, with the “universal rationality”, naturally instituted by the modern Plan.

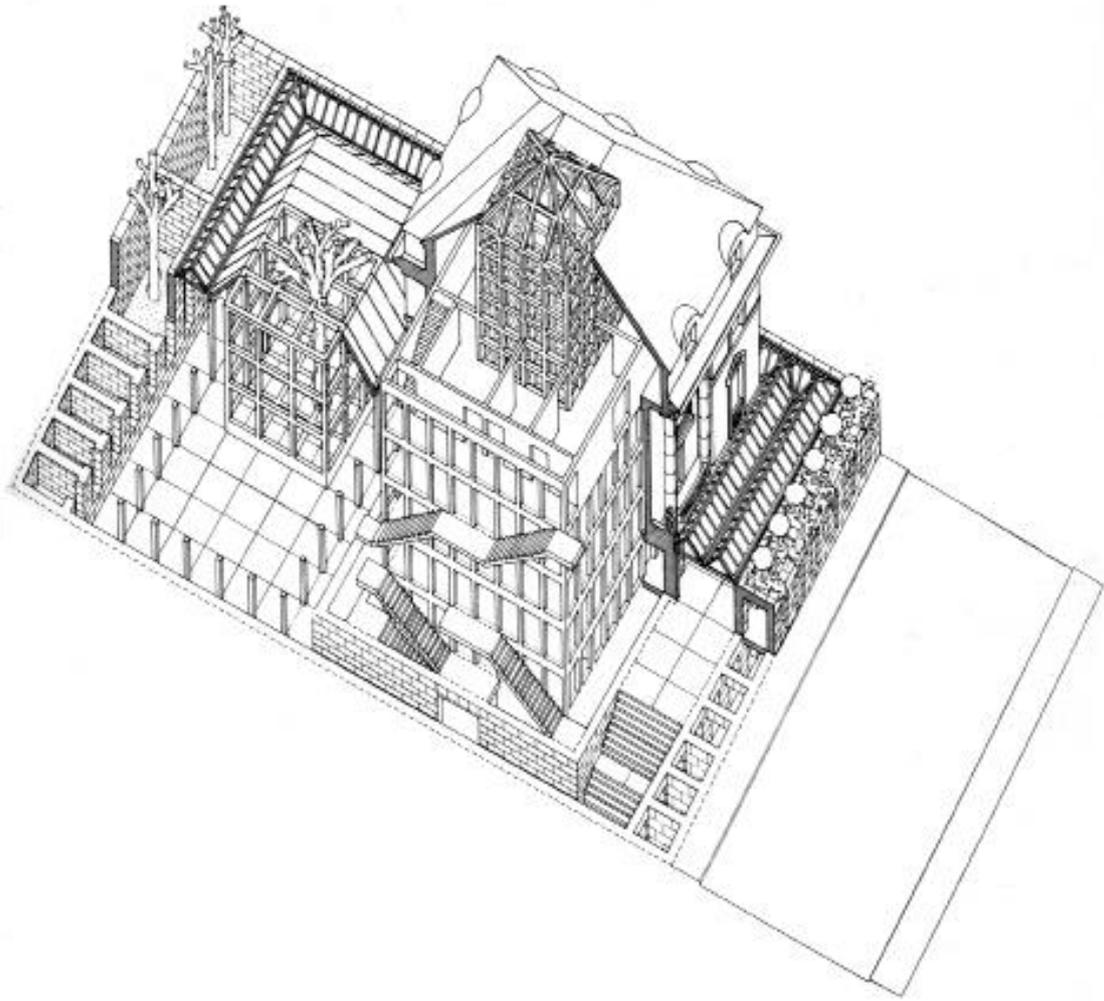
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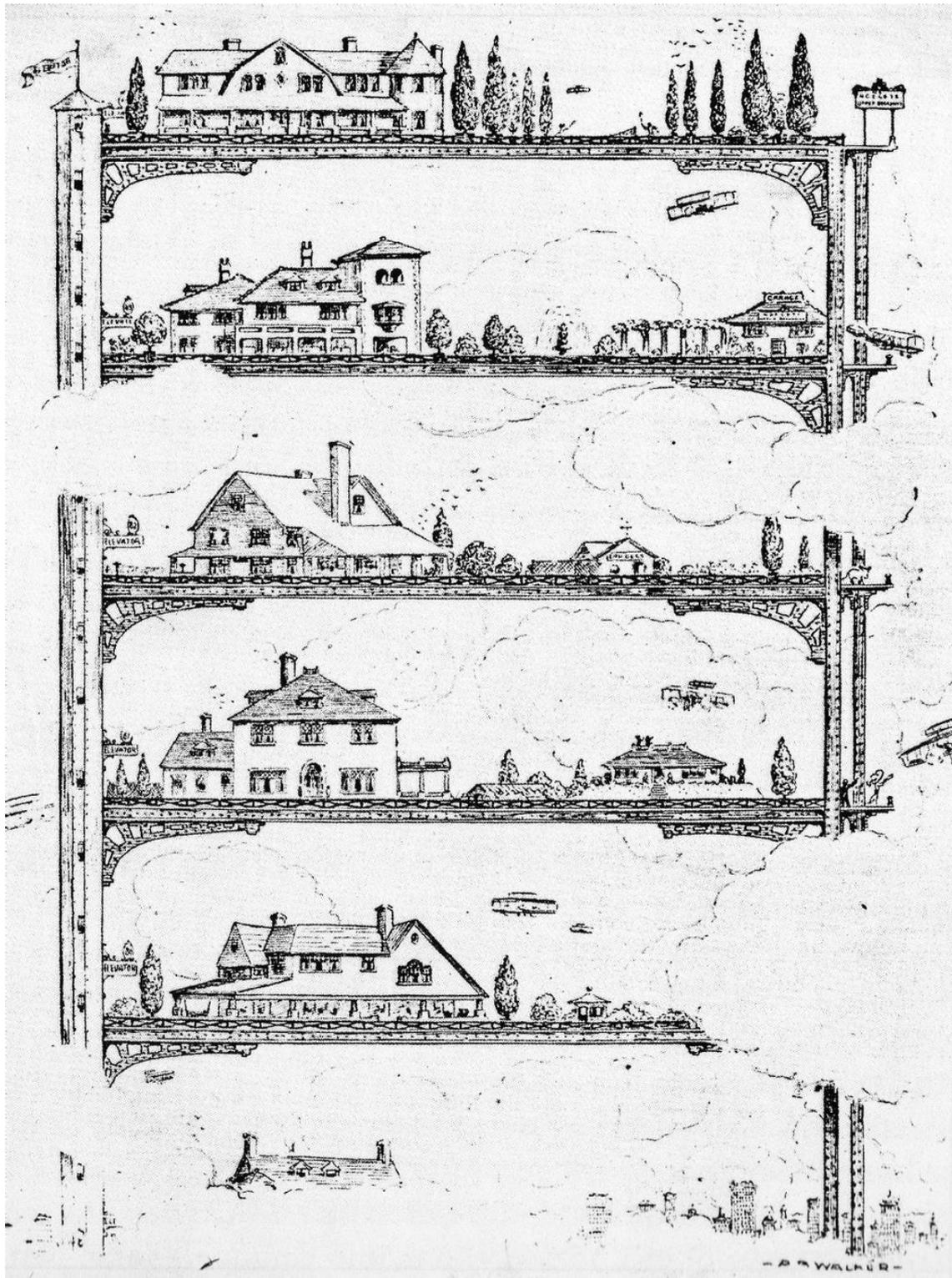
Fig. 1 Engraving of Arles' roman amphitheatre after the Empire fall, XVIII century. Aldo Rossi finds archeological evidences of the survival of Form, calling it Type, after processes of functional disposal and successive abandonment of already existing public monuments of the past. Assuming this permanence beyond historical epochs, as the grounding principle of the architectural practice, naming it Composition, it becomes the natural environment into which architecture establishes its valuable horizon. As a consequence, neither the nature of architecture is questioned not its necessity. The dualism between concept and materialization duplicates in the disciplinary field of architecture the enlightenment one between rationality and its sheer application.



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Fig. 2 Deutsche Architekturmuseum, Frankfurt am Main, 1978. Through the theme of "inclusion", interpreted as a rhetorical "figure of speech", architecture displays, and let it perceive, a narrative dealing with the reprogramming process of the existing complex building, a bourgeois urban villa dating back to the second half of the XIX century, to its grounding elementary premise, offered in the metaphorical shape of the primitive hut. If architecture becomes a discourse on itself, or a meta-language, its words explicitly refer to its underlying practice. Notwithstanding architecture cannot exceed the limitation of its system, intended as a Laugue, because it remains circumscribed by its set of rules, according to Ungers it can at least elucidate its premises and foundation, ambiguously swinging in between the practical and the conceptual level.

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Fig. 3 Life, advertise of the Skyscraper, 1909. The skyscraper identifies the City with its Architecture, dooming Planning to ratify ex-post an already manifested legitimating process of an entrepreneurship emerging through a continuous process of experimentation. In such a way practice envisions unprecedented social, economical, technical and also political possibilities, thus becoming ex-ante a theory by itself, then transformed into a "retroactive manifesto". Architecture is not simply a representation of new driving forces, claiming a role in the society, through a great Gesture, but, even more, its operational institutionalization.

Conference topic

A.1) Theories and Design

The concept of structural 'becoming' in the project of the historical fabrics of Gozo and Aachen

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Abstract

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Leaving aside the paroxysmal outcomes that characterize the concept of transformation as a condition of complete interruption of historical continuity and concomitant adoption of a principle based on the semantics of "non-space", the theme of the contemporary project in the inherited city seems to find - often in recent critical outcomes that look to the problem of congruent mutations in the historic built - a binary meaning of research of 'the becoming' which however produces very different results.

On the one hand, the concept of synchrony as the only truth of the historicity meaning read in the Hegelian sense of living the contemporaneity as an expression of the being revelation of own time; thus the project expressed with a language compatible with the temporal phase in which the propositional action come true; on the other hand, the overcoming of this "transient fixity" which implies a 'doing' not as a spirit of time but as an "organism", i.e. as a limit to the condition that identifies the fulfillment of its time preferring a research field positive coherent with the constituent phase of the body (urban, aggregate and building) in which it intervenes.

The aim of the discussion will be therefore the comparative research of the various theoretical and design conditions that express this dialectical binomial, punctuating that the design experiences described are part of a research experiment inspired by a cultural horizon pivoted on the second theoretical-methodological assertion, based on the coherence principle in the mechanics of becoming, which produces organic results which are spatially and temporally depending from the structural character of the construct in which they fit in.

The bin-up case study of the semi-spoiled fabric in the medieval citadel of Gozo and the search for the reorganization of the Frankenberger district of Aachen - a semi-peripheral area built between the end of the nineteenth and early twentieth centuries - will show the diversity of critical orientation that leads to design a coherent built with the language which is proper of the linguistic context.

Introduction

Using an *aporia* that reveals, as is well-known, the obvious inadmissibility of an answer to a question which is unsolvable for its nature, the essay will attempt to clarify the intrinsic difficulty of the theme of historical fabric transformation as a critical conceptual action of the architect as operating subject which compared with a legacy that “constrains” its action with respect to what inherited.

But before thinking to how propose a critical reflection on the theme, it is necessary to establish what <historical> means - referred to the urban tissue - by considering that the “character of historicity” refers to “something” that belongs to an “being” - expressed in the identities of a culture by means its language which is that of the urban built in all its major manifestations - that announces a temporality which is antecedent to the moment in which it is “looked” to propose the modification: all that with the awareness that it essentially a judgment on reality conceived not as its own vision, but as a codified participation. Something that is not given in itself but that to be understood in the fullness of its exclusive values requires essentially an exegetic operation.

So to order the structure of our speech is the question of recall the condition of historicity which can not be the exclusive prerogative of the only author - of those who propose the transformation of reality - but belongs to an entire community.

In order to not digress over marginal aspects and to reach a rapid clarification of the concept, it is important to notice how on the meaning of *historicity* there is an undoubted condition of relativity which depends from many factors, among which there are temporal phase conditioning that interprets its “sense”, which is the “ideal” essence of the civil stage that exposes the judgment. In other words, the evaluation essentially depends on the way in which each civilization has “interpreted” the distinctive sign of the past, transmitted in the architecture of the (own) present.

Trying to construct, even by means of a paradox - here is the *aporia* - a hypothesis of evaluation of this basic concept of reasoning, let's think to the (historical) judgment that would be expressed, for example, by a Roman builder on the works of the past (not evidently excluded those produced by cultures rooted in different or distant places). The question concerning the “value of *historicity*” would be for him, in all likelihood, a “nonsense”, since Roman culture (in general based on the postulates of *civitas augescens*, a growing city in which converge or join together ideological elements and different populations) has always grafted / united / transplanted organically into the vital structure of the localized cultures to which it came into contact by merging their knowledge - and not only the technical-constructive one - with the native experience.

Instead different is the perception and therefore the answer that the Renaissance's man would give; it is because he remain aloof from the consolidated city and, contrary to the thinking and action of Roman culture, move a crude criticism to the period that precede his time, especially because it is the Gothic period considered as barbaric age, not

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recognizing the historical value of the present building and the peculiar structure of the urban system. In fact, he aspires to a different idea of civil progress and arrives to conceive highly valuable architectures, both in the categorical plurality of structural values and in the unity.

Interventions of the post-medieval and baroque "rebirth" represent - for a great part of European culture - a period of fertile experimentation which, however, marks a singular dichotomy of action and thought, especially at the later stage, that close to the utopias of the pre-enlightened avant-gardism (gradually converged into the ideality of the current thinking - the enlightened - self-sustained, as S. Muratori says (1960), from a mentality fueled by an excess of analytical attitude). On the one hand, the works carried out relate harmoniously to the consolidated city, albeit in the diversity of language and the expectation of content (even formal-structural); on the other hand thought is slowly changing in the scholars of time - exponents of rationalism pre-enlightenment like Descartes - towards a volunteer detachment from the (medieval) city spontaneously formed, not recognizing in it any value even in the monuments. And by not considering this appropriate to the expectations of the scholar of the time, they imagine a new urban reality, ordained in its constitutive conformation.

128 The interpretative view developed at this stage, in which it is recognized a different intellectualistic spirit that animates the romantic and positivistic conception of the problem of relationship with history - after a period of indifference to the inherited city (let's think to the frequent restoration plans of the ancient centers proposed in the nineteenth century) - will flow over time in the decisive reforming perspective of the modernity.

But it will be above all the late modernity that, even considering the idea of continuous progress as a prerequisite for the development, and not just the civil one, will announce - through a favorable critical synthesis - the clue of a growing aspiration towards the knowledge of the transformative phenomena of the historical built, by questioning on the concept of city-heritage in its meaning of documentary value and by producing diverse outcomes based on a composite methodological orientation. This is demonstrated by the multiple interpretative meanings of the fabric concept that originate proposals which oscillate from a highly articulated range of solutions, based on a hypothesis of continuity inverted in projects that interpret historicity, on the one hand, with a structural sense that produces conditioning on the typo-morphological and readable character of the built, on the other hand, as a value recognized to the "context" that pursues an idea of "ambientamento" (as "setting"), with a different interest in deciphering the procedural phenomena of the constructed.

Thanks to this growing sensitivity, a profitable reflection on the aspects concerning the inherited urban built¹ - which the specialized literature will

¹ An exhaustive discussion of the intervention cases in the historical fabrics that can be critically recognized are dealt with by R. Dalla Negra (2016), which, however, distinguishes integrations

call "historical center", by using a lapidary rather than an approximate expression to distinguish it from the rest of the city built in the following centuries - will begin. Such a notion will come - especially in the Schools of Milan / Venice and Rome, respectively with Ernesto Nathan Rogers and Saverio Muratori, and almost concomitantly in that of Naples with Roberto Pane - to elaborate very fertile reflections that radically change the perspective of interest by coming to reverse the trend which had led, several decades before, to a series of culpable wrecks.

Analytical evaluations that the epigones of the before mentioned Italian Masters will accomplish after the 50s of the last century by creating a critical dualism that will characterize Italian school studies, which will become an inspiration source for many researches carried out in some European countries, and in particular in the Iberian Peninsula.

The question that comes to the conclusion of this brief introduction - which considers the writer's research interests in the specific field of the subject that indissolubly links the *analysis and design* (of the historical urban tissues) - concerns the possibility of selectively understanding - among the almost indefinite cultural positions upon which the critical thinking of the architect who intervenes in their modification basis on - the double interpretative meanings which is seen in the idea of transformation built on a hypothesis of research of *becoming* (*divenire*) as an idea of continuity².

The becoming in the design of historical urban tissues between "synchronic assumption" and the notion of "phase coherence"

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Leaving aside the paroxysmal outcomes that characterize the concept of transformation as a condition of complete interruption of historical continuity and concomitant adoption of a principle based on the semantics of "non-space" - as pursued by many exponents who adopt a design idea that signifies a hypothesis of discontinuity (see the approach of those who seek to build on the principle of liquid architecture or the postulate of New International Style) - the theme of the contemporary project in the inherited city seems to find - often in recent critical outcomes that look to the problem of congruent mutations in the historic built - a binary meaning of research of 'the becoming' which however produces very different results.

The proposed complementary dialectic of <thought and action> considers the heterogeneous conception of judgment to which architects attribute a meaning of value to their critical speculations: on the one hand, the *concept of synchrony* as the only truth of the meaning of historicity, read in the Hegelian sense of living the contemporaneity as an expression of

in relation to the meaning of *void* or *lacuna*.

² The aporia in this case is even more exalted due to the poor historical distance, as it is not possible to understand - how many and what - meanings would be appropriate to recognize at the present on the theme of the project in the historical urban tissues. The reflection proposed in these notes analyzes only a partial aspect of the complex theme, by looking - in fact - only to the quality registered in the transformation of the inherited construct, precisely through the concept of becoming.

the being, revelation of the own time - so a project that is expressed in a language compatible with the temporal phase in which the action is invoked; on the other hand, the critical principle of overcoming this "transient fixity" by thinking not as a spirit of time but as an "organism", that is, as a limit to the condition that identifies the fulfillment of its own time, preferring a research field which is pro-positive and coherent with the *constituent phase of the being* (urban, aggregate and building) in which it intervenes.

The first cultural position, connotative of a certain modernity, assertively affirms the (logical) correspondence - of the action - to the historical phase of the present with its peculiar expectations of affirmation. That is, of congruent adherence to the ideas which are present at that particular moment that is expressed in the paradigm of thought according to which the architecture, in its constitutive and legible forms, must identify itself with the spirit of time. It must exactly reproduce the idea of the characteristic becoming of the present history, and any intervention proposed in the consolidated historical nucleus can only be manifested, as an expression of the specific historical course, the only one in which the "true" takes place.

130 The equivalence: <modern time> / <today's architecture> allows to the author who operate in the 1900s to be always in a state of actuality and to confirm the paradigm according to which to the "new time" corresponds the originality of the "new architecture". It is, of course, a critical position that denotes a way of doing in which the autoritality sensibly acts on the design process (unlike to the "communitary" and "unitary" character that announces the goals and the solutions to make real with the pre-modern architecture) and assumes the characteristics of a condition so varied to produce an almost indefinite plurality of solutions, even eccentric, since it is possible to hypothesize the renewal of the consolidated urban tissue as an indispensable need for modernity and adaptation to the "expectations" of time.

It is essentially a non-contradictory approach with respect to the principle that elects the concept of *becoming* because it is a sort of maximum adaptability sought by history as an attempt to overcome the already fact in which the historical process finds its full reason to be.

Just to name a few cases, let's to consider the project of G. Terragni for Casa Vietti in the Cortesella district in Como (1940), the Casa Cicogna at the Zattere in Venice of I. Gardella (1953-58), the Palazzo delle Poste by G. Michelucci in part of the ruin of the district of S. Croce in Florence (1957-1967), etc ..

Beyond emblematic doubt is the competition for the Chamber of Deputies in Rome (1965-1968) from which conflicting varying points of view emerge, showing an interest in producing an architecture that does not consecrate, in most cases, a relationship of correspondence with the existing construction phase and finds in the evaluations of authors - who also look at experiences of modernity coming from other cultural areas - the reason of their critical distance. (In the book of Tafuri (1968) there

is a complete analysis of the projects and, in general, of competition's outcome commented with an extremely critical approach).

An alternative thesis - but certainly not oppositional to the one so far enunciated because it does not contradict the speculative scope based on the Hegelian judgment - is that which intends - and expresses - the true/the real no more as a substance, as an object put in front of the subject but as a "subject" in its fullness of "meaning" and proposes, in line with the theories of the philosopher³, the concept that reality must be conceived as a process, that is as development which has in itself the law of its developing, which announces a specific transformational vocation. This point of view finds a precise dialectical tangency with the other thesis and generates a research presupposition of the reality in its entirety and processuality. And through its full execution, its temporal / spatial development ends up to make itself becoming effectual. It is a theoretical perspective that imagines the truth of things in the depths of a procedural condition, that is, a becoming that recognizes them as not generated from nothing, thus bound to the concept that considers every transformational moment of the reality as inevitably affecting any subsequent development⁴.

In this idea of time that passes leaving its trace there is the overcoming of the "logical" postulate of *becoming*, now no longer perceived as the only conjunction of the *being* - seen as something that considering the time remains, in his temporary crossing, belongs to his nature - and of the *nothing* - according to which the continuous flow does not leave any trace, as every moment exceeds, eliminating it, the previous moment. The overcoming of these categories is intentionally sought through the different meaning of *permanence* (the *being* in the *becoming*), which accepts the condition of recognizing in the past an original "root" as inevitable foundation of the own work, so that man's doing is not only expression and spirit of the time in which it comes true.

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It is a concept - meaning to think the project in terms of Aristotelian *proairesis*⁵ - by which - assuming the past/process as a value and not

3 Hegel argues that the *absolute is becoming*, so is *subject*. This means that in order to understand it in the fullness of its meaning, it is necessary to keep in mind the passage of all intermediate terms that is the whole process (the process of reality that is the whole of the human history becoming and of the nature). He also states that the truth of reality is the whole of his moments. The absolute is the truth of this development. Consequently, stopping at a single element, at one point, there is a distorted view of reality. The true (declares) is the whole. But the whole is only the essence that is completed through its development.

4 Let's think to the critical flair that generates this position, which participates to the laceration towards the classic idea of "art," once thought as imitation, as laborious research by man / maker to "reproduce" something which is in itself considered a model - with a semantic and referential charge - and opens up to a complex scenario when you mean to be able to establish - for example in architecture - a different link with the past. Therefore, not pure imitation of the model, because the past is conceived as a process in its structural essence that implies the awareness to must critically choose what is coherent with the specific phase of the place (architectural) in which it intervenes, giving up to the only response condition to the own time.

5 Cfr.: Ieva, M. (2013). *Il progetto (sostenibile) di risanamento, ricostruzione, ristrutturazione: una questione di interpretazione critica e di ottica valutativa*. In: AA.VV.. *Naturalmente ... Architettura*. vol. 8/2013, p. 40-43, Milano: Di Baio Editore

merely accepting the idea that the work is coherent with the actuality, - consideration that opens a world on the principle of reality-*organism*, being that is structurally transformed into time (a condition that presupposes a limit to the condition that identifies the fulfillment of the present) - privileges a pro-positive search framework coherent with the constitutive phase of the entity (urban, aggregate and building) within which to intervene. In the specific case of the project in historical tissues, such a “phase coherence” requires a logical assumption of past knowledge, which goes through the recognition of the historical processuality with which to fix - with sufficient scientific rigor - the temporal coordinates of the transformation and intercept the time of maximum “performance” of each organism in its sharing relationship with the lower or higher scale being in which it is contained. It means that the propositional action that assumes any of its mutations is attributed to the specific historical stage of the context in which it tries to express itself as a historical-procedural essence, renouncing to present the principle of the only overcoming of the *becoming* as coming true of the (only) present.

132 The precepts of this cultural position are deeply rooted in G. Caniggia's thought, which brings to fulfill a reflection, even of philosophical nature, already built by S. Muratori. The advanced method hypotheses, for example, in the competitions of Florence for the district of the “Murate” and Rome for the so-called “holes” are tangible evidence of a critical judgment that proposes a conceptual design undoubtedly based on the concept that explains the historical flow as a process and as a limit to its own work. This is a point of view that is widely shared, albeit with different accents depending from the different cultural positions, even in the architects projects, such as: A. Rossi (very active in the debate <historicity vs modernity> on the theme of the intervention in ancient heritage) with its reflections for example on the adjustment of the Giudecca of Venice; A. Natalini for Piazza Matteotti in Siena; M. Carmassi in the reconstruction of S. Michele in Borgo, etc.

The theme is also alive in the Oltralpe's projects, especially in the case of reconstruction of pieces of urban tissue destroyed due to the Second World War. Or let's think to the interpretation of the Teutonic architecture character proposed by H. Kollhoff in the Lilienstraße building for office and commercial activities in Hamburg and in the residential and commercial complex Leibnizkolonnaden in Walter-Benjamin-Platz in Berlin-Charlottenburg. All arguments that are confirmed in Uwe Schröder's work (see the Hofe am Kaffeeberg project in Ludwigsburg) ⁶.

The cited cases show how current and flourishing is in architecture the research on the project in the historical urban tissue which consciously face with the inherited built assumed as living testimony of a past that is offered - to the present - with an actuality that derive from his being

⁶ Although supported by a different theoretical orientation, it seems that reflections and / or the achievements of designers such as V. Gregotti, G. Grassi, G. Valle, F. Venezia, G. Strappa, G. Arcidiacono, etc .. and many architects of the Iberian School, are part of this line of research

organism in continuous diachronic mutation⁷.

The becoming as “plurality of meaning”

Only a nod to a third way that tends to relativize the positions and comes to consider the intervention through the search for a *plurality of meaning* that leads to “differ” the result. A result, therefore, that may vary according to the relationship that - although binding - makes differed *signifier* and *signified* (thought / project vs reality).

If one takes away the thought from the time - set up through the *eidos* - and becomes available beyond its temporal becoming real, proposing its decipherability and unlimited readability, it makes possible what J. Derrida calls *différance*. A gap between concept and concrete expression that always respites to a difference. A track from which the multiplicity of interpretations spreads. This position states that the truth is not in the concrete construction, but is in the “not manifested”, of which the built is just the “trace”. From this point of view, the visible thought as the being is just its “simulacrum”, a semblance of what it is. For this reason the searching for truth is to be traced between the set of expressions - even temporal ones - that can be accepted as deferment. It is not always or totally given, but lies in the trace of *Being* that is the reality in its concrete manifestation. This particular meaning of becoming is own of researchers such as F. Purini and L. Thermes who express a deeply founded theoretical based on the concept of *différance*. This is demonstrated, for example, by the decoding they propose about the different ways of critical action in the historical context: on the one hand, they re-read in some cases the full congruence of the work that establishes a direct relationship with the stage of the *ente*, as for the intervention of Foschini in *Corso Rinascimento*; on the other hand, propose the adoption of a critical attitude that encourages something “dissonant” with which to assure a truth that, while joining to the history of the place, comes to indicate a solution that moves to beyond its time, as for the complex case of *Via Giulia*. Therefore, an *aletheia* that is not in the real, is not only in the subject, because there is also the deferment (temporal, precisely) that produces a plurality of meaning. And therefore, decisions that point to a diversity of outcome that is captured by carefully scrutinizing what lies in the lines, in the interline of the written text, that is the built.

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In order to clarify the theoretical assumption upon which the cultural horizons of the writer basis on, two didactic exercises will be presented that will show the different outcome that declares an identical conception of the “sense” of historicity reinterpreted in geographical contexts which are different each others. Difference that is expressed in relation to the temporal phase of the built and to the character of the cultural area, in which the principles from which the reflection moves on will be verified.

⁷ A singular experimentation, which could be culturally intermediate among those here searched, appears in some works by G. De Carlo, as evidenced by the solution proposed in the arrangement of the Faculty of Magisterium in Urbino in 1982.

The project in the historical urban tissue of the Citadel of Gozo (Malta) and Aachen

The fundamental question that stimulates personal research on the topic of intervention in the historical urban tissue as a “coherence / congruence phase” hypothesis - already extensively treated by G. Strappa who propose new method arguments with respect to a tradition of established studies in the field of the processual typology⁸ - is to search in the conviction of the foundation of the dialectical system based on the “distinct by Croce” (a critical postulate already proposed by S. Muratori who reinterprets the meaning), with which it tries to establish the critical correlation between the first and the later by recognizing - of the place - the “ideal” identity which lead the maker to candidate the “new” by resorting to a necessary sense of structural relationship with the historical essence, proper to the existent phase.

Identifying this dialectics means to critically evaluate the problem of the relationship that arises from the reciprocal interference of the *subject* and *object* processes, which allows to capture the range of possible variations by the sequence: categorical *logical* act / structural *economic* act / organic *ethical* act / individual- environmental *aesthetic* act, to which are associated additional combinations generated by the correlative union. The *object vocation* is always in an organic connection with the will (non-parasitic) of the subject that recognizes the aptitude to the *congruent transformation*.

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The first didactic design test is related to the reconstruction of two blocks in the Gozo Citadel⁹, the highest part of the city of Victoria, distinguished from the Rabat. At present the site presents a built part (residential and special) limited to the inner area of the access door to the acropolis wall, being the remaining part constitutes only by partial walls that defines the ancient confinements of the medieval dwellings destroyed by the Turkish siege of the XVI century. The existing nucleus, defined by the main polarity formed by the square overlooking the Cathedral - ex-prisons - the current museum and the judiciary palace, and some basic buildings on Via Triq

⁸ See in particular, in addition to his latest work (Strappa, 2014) in which he extensively treats the concept of the becoming with a critical setting, the editorial of U + D 2015, pg. 4-7 in which he states: « ... What made traditional cities extraordinary was their balance and their generative capability, their understanding and awareness of the limit of things. It is this limit (the ability to limit and delimit) that generates form and establishes the boundary of the unformed, a substratum of the rule that allowed (and still allows) us to subordinate even a multitude of subjective works, even unique and one-off episodes of art, to the shared values expressed by the urban layout, by the notion of urban fabric and by that of type. That is why we need to update the role of architect, particularly when it comes to plans for city centres, overcoming the approach that, from Romanticism on, has associated the figure of the architect with the perceptive individualism of the visual arts and explained the beauty of historic urban fabric with the randomness of its appearance.... »

⁹ For a more in-depth study of Victoria's education see the essay: Ieva, M. (2014) Cultural Contaminations in the Mediterranean. The case of the Maltese archipelago. Art History Research, vol. 112, p. 7-22.

The project has been elaborated by the graduates Valeria De Leo, Germano Germanò, Simonetta Intini, Angela M. Mauriello, Annamaria Nuzzi, Serena Sciannameo, under the guidance of the writer who coordinated the Thesis Laboratory activities in A.A. 2012-2013.

Zenqa, openly reveals the typical characters of the Maltese building influenced by the propositional innovations of architecture introduced by the St. John Knights.

The reconstructed blocks are located in Triq Milite Bernardo - one of the matrix paths connecting the Cathedral with the Chapel of St. Joseph - and Triq Zenqa. The project is based on the structural evidence still present and - after reconstructing the formation process that explains the phase of maximum expression of indigenous types - hypothesizes the reconstruction of the original courtyard units, which reach an arrangement temporally coinciding with today's phase, comparatively reconstructed to the cases which are located in the tissue of the whole city. This operation is here facilitated by the presence in the block of a residential building with a discreet state of conservation, from which it has been reconstructed the type process of diachronic mutation and the evolutionary phase of development which has allowed to it the adaptation to the today's concept of home. In other words it means: understanding the moment of maximum "yield" of the type that seems to be able to refer to the late medieval development of the *courtyard-row house* which reaches two overall levels (dayroom on the ground floor and zone for the night rest at the second level, with access located at the top of the courtyard and the staircase below). This is the most mature phase of the residence in Gozo that has gained a living space corresponding to today's standard. This evolutionary stage did not produce any further substantial mutations, except the traditional and recurrence re-fusion phenomenon of several elementary units in the case of specialized residences, such as the one used today as Folklore Museum.

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The two blocks are respectively destined for receptive activities (diffused hotel, function suggested by the local community) and homes. In the first case, the adoption of the late medieval type has obliged - due to the limited size of the blocks defined by current confinement of properties - to the choice of the re-fusion of two contiguous units which use a common staircase and organize a flat per floor. The hotel's common facilities and the main staircase are located to the block's head and are accessible by means a corridor placed in a median position, to cross the entire complex. Instead the housing aggregation - favored by the presence of larger modules - has also repeated in this case the updated type - technologically improved - confirming the presence of the ventilation court which is a distinctive feature of the entire architecture of the Maltese archipelago. In relation to what has been previously noted on the theoretical-methodological level, the author's intentionality has been subordinated to the postulate of reaching the unity-organicity respecting the character of the context, expressing a language (*parole*) coherent with the *langue* of the existing built. This is demonstrated, for example, by the constructive technique in globigerine load-bearing masonry, coherent with the consolidate system (characteristic of the plastic-wall cultural area) and the layout of the stone façades, very opaque and with traditional windowsill marker, expressing a legibility (self) determined by the necessities of the

type for the proper aero-lighting of the interior spaces.

The project in Aachen¹⁰ is placed in a neighborhood built between the end of the eighteenth and early twentieth centuries, consisting of multi-family and in line-houses. Oppenhoffallee and Viktoriastraße, leading axis of the planned system of Frankenberger Viertel, seem to be the generating elements of the structural order defined by the road and blocks system, gradually consolidated in this portion of the city, where there are some factories (previously planted) embedded in the tissue, which originate many large blocks. A strong element of criticism in the area is the presence of the railway line, placed on an artificial relief which separates the east-south sector from the Burtscheid district by defining a true “anti-nodal” limit attested, moreover, by the presence of a large deposit of building materials which has prevented the tissue’s completion. In fact, although the area can express a higher hierarchical charge and a different relationship with the remaining neighborhoods, the absence of a continuous link with the south part of the city causes a poor qualification to the entire marginal built. Instead, a qualifying element is undoubtedly the specialist system which can be noticed along an “ideal” north-south connection axis, defined by three important special buildings isolated in the green: the castle, the bunker and the Maria Montessori Schule. All organisms with a different functional valence which express a structural set able to configure - suggested U. Schröder - a kind of *specialist archipelago* in the green. An integrated system <green urban-public building> to which could also even participate the Luise-Hensel-Schule area located beyond the rail *limes*.

Considering the character of Frankenberger Viertel’s built - which makes explicit the linguistic-aesthetic connotation of the temporal building phase, “contaminated” by a today’s language produced by the timely substitutions of the last decades - the project considers in this case the relativity of the temporal distance and proposes an intervention that tries to “bind-up” the interrupted tissue, assuming it could be the “falling rhyme” of poetry that, resumed, would come to reestablish the lack organicity. This, of course, without giving up the necessary updating, both in technically-constructive terms and of language. In addition - in order the project could reach a value that goes beyond the only possibility of expressing itself with the modern north-European lexicon and to search for a direct relationship with autochthony - a “quote” of the most representative place in Aachen has been critically introduced: the square of the Palatine Chapel.

More specifically, with regard to the tissue’s bind-up action, the current paths’ track from which was defined the new blocks structure - geometrically and hierarchically derived from the existing layouts - has

10 The study on the Frankenberger Viertel district and the initial hypotheses for masterplan’s elaboration were shared with prof. Uwe Schröder of the RWTH University who supported with great transport and scientific expertise the researches of graduates Valentina Malena, Noemi Prezioso, Maria Ritoli, Mario Russo, Luca Tommasi, during the stage in the city of Aachen. Graphic elaborations are the result of the design work done within the Thesis Laboratory coordinated by the writer in A.A. 2015-2016.

been re-examined. The typological diversity of the residential building - set on each of them - originates from the district's structural system and then from the variation of "valence" recognized to the paths. Those with a maximum value are organized with in-line houses which have, as it is known, an higher building and housing density; the other paths, drawn by them, organize pertinent strips consisting of multi-family row houses that recall some typical features of the in-line houses present in the neighborhood and update their characters (distributive, constructive and readable¹¹). These planned building route, although presenting all in-line houses, show a different building density depending on the different hierarchical value recognized to the system.

About the possibility of composing the specialist archipelago along the ideal axis which goes from the castle to the opposite polarity of the Luise-Hensel-Schule - beyond the railroad - it has been searched a direct connection - not just visual - by tracing some routes which cross railroad boundary. And just the different role assumed by the railway track, which ceases to be a pure insurmountable boundary, lead to consider the high ridge of about 11 meters which is susceptible to be artificially transformed to participate more closely to the built and to the urban activities. In fact it has been realized a continuous «built façade» facing on the blocks, which fulfills, at the same time, the function to reinforce the wall and to use it (let's think for example to how the problem in the Traianei Markets in Rome was solved). The support for the hummock, like a substructure, builds a rhythm and a system of public spaces (commercial services and workshops). The binary step that defines it marks its functional and plan hierarchies, with the visible trellis wall structure shown in the hierarchies of the façade planes. The entire system becomes a «scenery flat» continues on the blocks, which remain open as typically used in the Northern European cultural area, making the original private pertinences, not closed spaces for public or semi-public use.

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The specialist axis, supported by routes crossing the railway has been enhanced where the «*extra muros*» school is, with the organization of a university complex consisting of a series of services (student, gym, canteen, offices, library, hall conferences, etc.), also linked to a road linking the surrounding areas up to order - on the one hand - the existing urban gardens, and on the other hand, the residential neighborhood "marked" by a series of mixed function towers (residence and office) that establish a visual-perceptual emergency relationship with the rest of the city. The configuration of the "square" made between the special buildings designed in the southern limit "evoke" - as mentioned - the structural layout achieved in the area of the Palatine Chapel. The organisms that cradle this plate show a coherent readable character, both with the same

11 About the readability it has been recalled the typical connotation of the surrounding buildings; it has been expressed in the coloristic and material attribute which is characteristic of the northern European cultural area.

nature of the designed building (serial, organic, polar, mixed, etc.), both with the wooden-elastic linguistic system of the North European cultural area. A lexical apparatus that is expressed, among other things, - for the static component - in the lightweight system of the northern trellis-timber frame, - for the materials one - in the use of the brick and in the concept of coating and curtain wall.

Therefore it can be deduced that the XIX-XX century context, unlike to the previous case, suggests a transformation perspective that - although based on a presumption of continuity, recurs to a future that pursues a hypothesis of necessary updating, in line with what inherited from the history) and with a declared interest to the achieving of a maximum adaptation condition to the present expectations.

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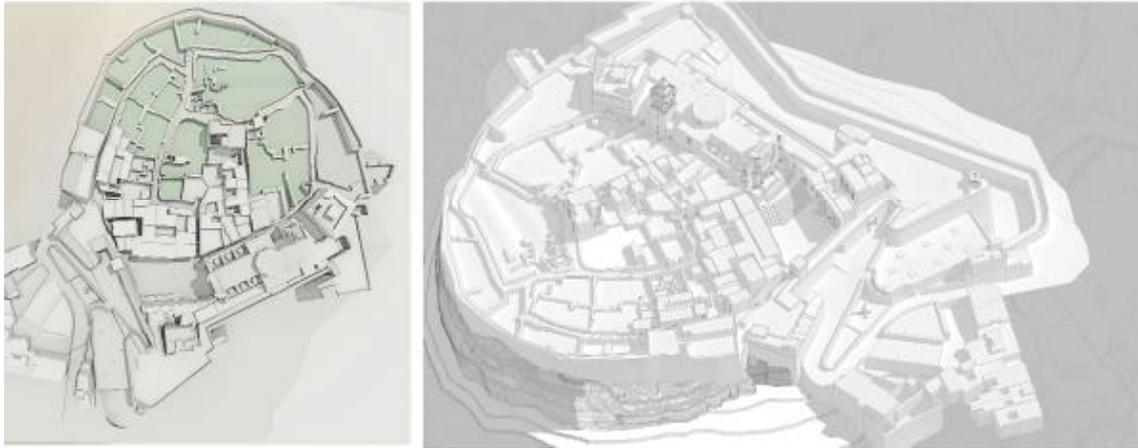
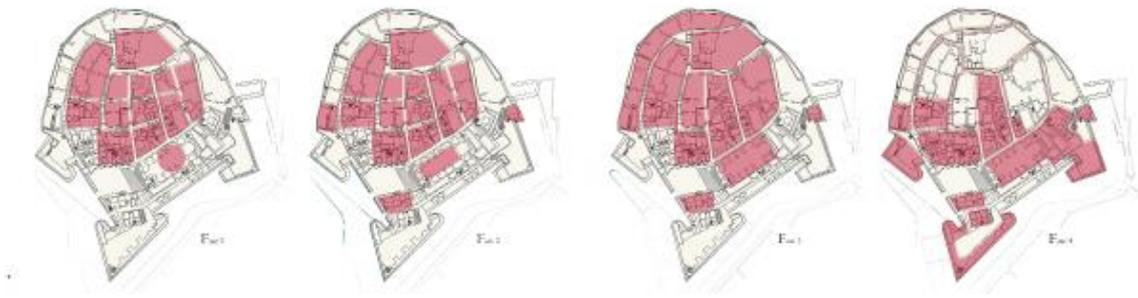
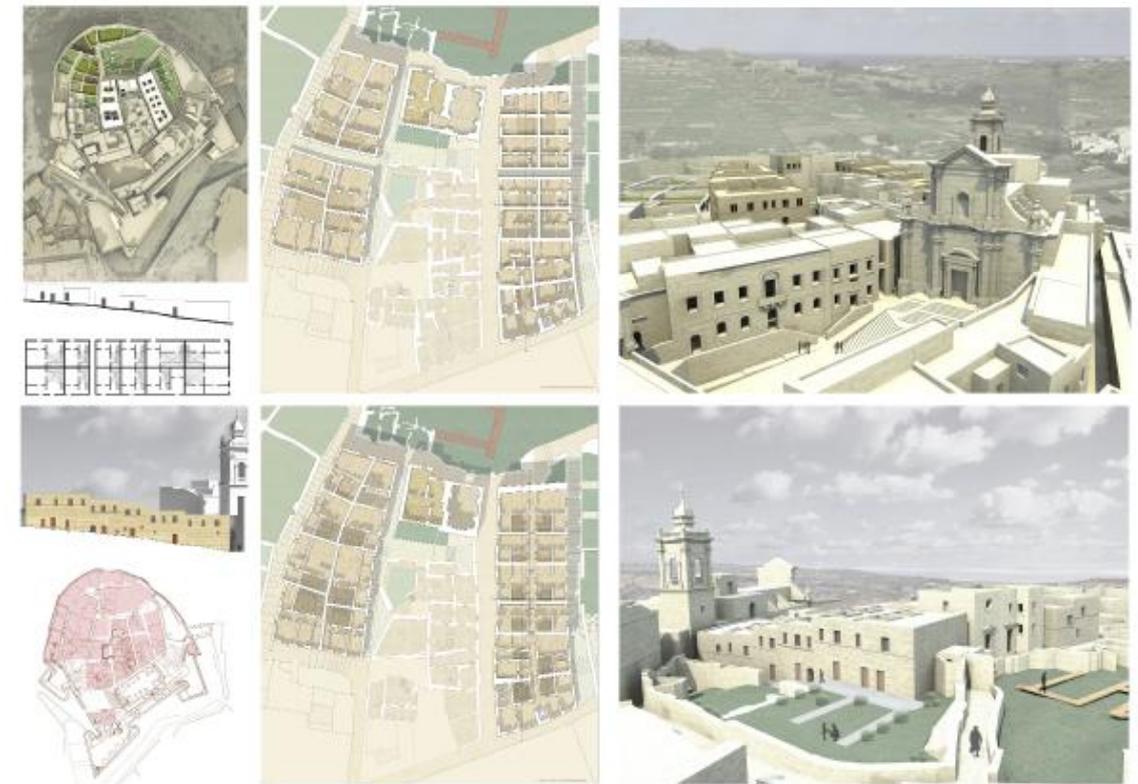


Fig. 1 and 2, referring to the Maltese case, respectively show the reconstruction of the Citadel's formation phases with its representation to the current state and the design hypothesis represented in the blocks' plants and in some view of the rebuilt fabric.



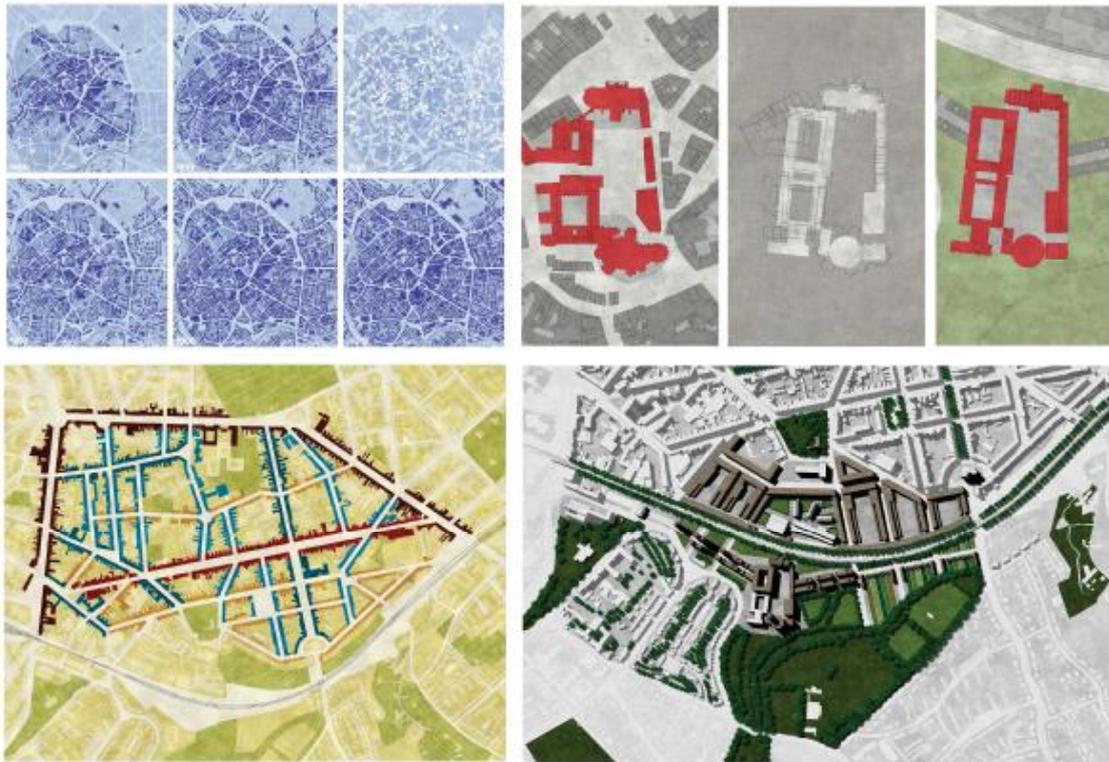


Fig 3 and 4 describe the Aachen case. The first image shows the evolutionary phases of the city since the middle of the nineteenth century, the routes hierarchy of the Frankenberger district and the planimetric and volumetric project with in-depth analysis on the square - built by special buildings - which establishes a structural relationship - figurative with the urban pole of the Palatine Chapel. The second image summarizes the design solutions and shows the design of a redesigned block, with the accidental view of the in-line houses and single / multifamily row-houses, exemplifying the character of some special buildings and proposing a series of general views of the most significant urban spaces.



Processes of Reconstruction of the Aleppo's Urban Landscape

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Abstract

The Syrian Civil War is causing extreme suffering to civil population; moreover, the fighting is destroying cities and landscapes bearing witness to the Country's millenary history. Damages are particularly centered into the UNESCO site of the Ancient City of Aleppo where the former grandeur of the urban landscape was given by a 'counterpoint' between major monuments and the fine-grained urban fabric.

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Under these circumstances, a reflection on the future design strategies for the recovery of the urban fabric of the Ancient City of Aleppo, which is in grave danger, is needed. In particular, when the international debate is focused on the Suqs or of the Great Mosque, it seems urgent to start talking about the reconstruction/recovery of historic courtyard houses residential neighborhoods. In the short term, is urgent to document damage and giving people a shelter; in the long term, to ensure the inhabitants' right to get back their homes, preparing plans for the reconstruction, keeping in mind that sheltering and reconstruction cannot be intended as separate problems: We should develop a methodological approach that embrace the sheltering action into the reconstruction one, considering them as two phases of the same achievement.

In this complex scenario, this paper aims at setting methodological perspectives for the after conflict reconstruction, based on the analysis of the traditional urban fabric characteristics, as well as on the need to update it to current living standards. To protect the Ancient City building heritage means to preserve the Aleppo's cultural identity.

Introduction

The Syrian Civil War is causing extreme suffering to civil population; moreover, the fighting is destroying cities and landscapes bearing witness to the Country's millenary history. Damages are particularly centered into the Ancient City of Aleppo where the former grandeur of the urban landscape was given by an overlay of architectural and archaeological layers, as well as by the 'counterpoint' between major monuments and the fine-grained urban fabric.

Under these circumstances, considerations on the future design strategies for the recovery of the urban fabric of the Ancient City of Aleppo, which is in grave danger, are needed.

In particular, when the international debate is focused on the Suqs or on the Great Mosque reconstruction, it seems urgent to start talking about the recovery of historic courtyard houses residential neighborhoods. In the short term, is urgent to document damage and giving people a shelter. In the long term, to ensure the inhabitants' right to get back their homes, preparing plans for an urban reconstruction that should be carried out keeping in mind that sheltering and reconstruction cannot be intended as separate problems. A methodological approach, which embraces the sheltering action into the reconstruction one, should be developed, instead, considering them as two phases of the same achievement.

In this complex scenario, this paper aims at setting methodological perspectives for the after conflict reconstruction, based on the safeguarding of the traditional urban fabric characteristics, as well as on the need to update it to current living standards.

To protect the Ancient City building heritage means to preserve the Aleppo's cultural identity.

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Why Aleppo is important? Framework and war scenario

Located at the crossroads of trans-national trade routes the city of Aleppo was continuously inhabited since the 2nd millennium B.C., and successively ruled by the Hittites, Assyrians, Akkadians, Greeks, Romans, Umayyads, Ayyubids, Mameluks and Ottomans who left their footprints on the urban fabric and building typologies.

The monumental Citadel rising above the Suq al-Medina, the Great Mosque and various Ottoman madrasas, courtyard houses, khans and public baths, all form part of the city's urban fabric, which bears evidence of the early Greek-Roman street layout and contains remnants of 6th century Christian buildings, as well as Medieval architectures.

From 1950s, fundamental changes occurred to the urban fabric and building typologies, as well as street layout and open spaces characteristics, including the destruction of entire neighborhoods, and the development of tall new buildings and widened roads. The eight floors building development in the Bab al-Faraj area, as well as the other major urban changes in the north-western area of the old city within the Mamluk walls, have had a detrimental impact on the visual and morphological integrity of the Ancient City. Nonetheless the surviving ensemble and the coherence of

the suqs and residential streets and lanes morphology, all contributed to the Outstanding Universal Value which was at the basis of the inscription of the Ancient City of Aleppo on the UNESCO list. (Fig. 1)

In 1986 Aleppo was indeed listed as World Heritage Site¹ according to:

- Criterion (iii) "The old city of Aleppo reflects the rich and diverse cultures of its successive occupants. Many periods of history have left their influence in the architectural fabric of the city. Remains of Hittite, Hellenistic, Roman, Byzantine and Ayyubid structures and elements are incorporated in the massive surviving Citadel. The diverse mixture of buildings including the Great Mosque founded under the Umayyads and rebuilt in the 12th century; the 12th century Madrasa Halawiye, which incorporates remains of Aleppo's Christian cathedral, together with other mosques and madrasas, suqs and khans represents an exceptional reflection of the social, cultural and economic aspects of what was once one of the richest cities of all humanity."

- and Criterion (iv) "Aleppo is an outstanding example of an Ayyubid 12th century city with its military fortifications constructed as its focal point following the success of Salah El-Din against the Crusaders. The encircling ditch and defensive wall above a massive, sloping, stone-faced glacis, and the great gateway with its machicolations comprise a major ensemble of military architecture at the height of Arab dominance. Works of the 13th-14th centuries including the great towers and the stone entry bridge reinforce the architectural quality of this ensemble. Surrounding the citadel within the city are numerous mosques from the same period including the Madrasah al Firdows, constructed by Daifa Khatoun in 1235."

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In 1992, the Project for the Rehabilitation of Old Aleppo was set up under the Municipality of Aleppo, and in cooperation with international agencies. In 1999, was established the Directorate of the Old City to guide the urban rehabilitation under the UDP (Programme for Sustainable Urban Development in Syria), a joint undertaking between international and national agencies and several partner institutions. Under this framework, was prepared a comprehensive plan for the rehabilitation and development of a city that, in 2011, when the uprising in Syria started, with a population of 2.5 million people was Syria's largest city and commercial capital.

From 2012 to 2016 the boundaries of the World Heritage Site of the Ancient City of Aleppo were the scene of the 'Battle of Aleppo', a major military confrontation between the Syrian opposition against the government of Bashar al-Assad, and against the Kurdish People's Protection Units. The battle began on 19 July 2012, as part of the ongoing Syrian Civil War and, after four years, ended in December 2016, with the Syrian government victory.

As a result of major escalations of armed conflict, the Ancient City of Aleppo has been severely damaged since 2013, and very large portions of the UNESCO property appear to have been completely destroyed.

The large scale devastation of the battle, which was marked by wide-

¹ <http://whc.unesco.org/en/list/21>.

spread damage to the major monuments and listed neighborhoods, including repeated targeting of traditional courtyard houses, led into ruin the city core, especially the area around Suq al-Medina and al-Farafra neighborhood. (Fig. 2)

This has resulted in a humanitarian crisis with displacement of large sections of the inhabitants, and major destructions of the city that now needs extensive reconstruction, and the recovery of its social and economic fabric.

Due to escalation of the conflict, and to the significant destruction of cultural heritage, a series of meetings were organized by groups of multidisciplinary experts to brainstorm on the issue of post-conflict reconstruction, in particular that held at the UNESCO's Headquarters on 18 and 19 June 2015 and at the German Foreign Office in Berlin on 2 – 4 June 2016.²

Moreover, several international and national initiatives, such as the ASOR Cultural Heritage Initiative,³ Heritage for Peace (Perini and Cunliffe, 2015)⁴ or the Aleppo Archive in Exile- Plan of the Old City of Aleppo,⁵ documented damage in Aleppo, and gather the existing archives, historical data and recent surveys.

Current scenario

Soon after the end of the Battle, the Syrian Council of Ministers approved a plan for the gradual reconstruction of Aleppo.

But on which basis will be carried on? By prioritizing the monuments' restoration or the houses' reconstruction? How will the traditional urban fabric be rebuilt? In continuity or in discontinuity with the inherited urban form? It seems particularly important to look at these issues because, even if we still cannot foretell the scenario building by building, today, within the UNESCO boundaries, we are facing at least four different circumstances:

1. Buildings that were very well documented and need to be restored (such as the Grand Mosque);
2. Buildings that were well documented and will be partially or completely reconstructed (such as the Suqs or the Khusruwiyya Mosque);
3. Buildings that were not documented and need to be reconstructed. This case concerns especially clusters of traditional courtyard houses;
4. Need to plan emergencies allowing people to re-settle in their own homes.

While cases 1 and 2 belong to the restoration field, and can be supported

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² <http://en.unesco.org/syrian-observatory/news/ancient-city-aleppo>; <http://whc.unesco.org/en/news/1505>.

³ <http://www.asor-syrianheritage.org>.

⁴ <http://www.heritageforpeace.org>.

⁵ The Aleppo Archive in Exile- Plan of the Old City of Aleppo is a map in scale 1:500 of the ground floors of the Old City of Aleppo within the UNESCO boundaries, which was financed by the German Ministry of Foreign Affairs and edited by the Brandenburg University of Technology Cottbus – Senftenberg with cooperation partners from Stuttgart University and Polytechnic University of Bari, under the framework of Stunde Null, a wider project that the German Archaeological Institute (DAI) together with the Museum of Islamic Art (MIK) in Berlin is developing since 2012.

by a comprehensive register of the Old City building heritage, how to face points 3 and 4 is a little bit harder.

While most of the major monuments of the Ancient City are well enough documented, and could be restored without the need for any 'interpretation' of their pre-war conditions, it seems urgent, instead, to develop methodological strategies to renew and reconstruct residential and mixed-use historic buildings and neighborhoods, which are partially or not at all documented in pre-2012 registers; to renew buildings that hadn't a particular architectural value.

To this aim, questions that arise are: How to approach, from a methodological point of view, the reconstruction of houses and neighborhoods, which are partially or not at all documented? How we will face the reconstruction of building plots that did not have before the war any particular architectural value? Can we provide shelters to the Old City's inhabitants into their own houses? Is possible to think at the emergency and reconstruction problems as 'steps of the same process'? Is it possible to give to the inhabitants methodological tools to re-build 'step by step' their houses, following the 'logic' which was at the basis of the formation of the Ancient City's urban landscape? How should we design to adapt the building fabric to new urban and housing needs? How to update traditional courtyard houses to modern living standards?

146 In this framework, is particularly important to face the problem of reconstruction of cluster of traditional courtyard houses and the re-use of mixed-use buildings retaining the characteristics of the listed urban fabric, and facing inter-scalar problems between buildings and neighborhoods, instead of just focusing on the restoration of the monuments: with the aim to transform what is today the ghost of the Ancient City of Aleppo into a living city, we need to lay the bases for the return of its inhabitants.

Moreover, since the 'eclipse of the memory' is hanging over the Aleppo's future it is important to rebuild its urban fabric 'in continuity' with the past and with the traditional structure of the Ancient City.

It is also particularly important to retain the uniqueness and diversity that Aleppo has always had, against possible attacks of globalization given by oblivion or economic interests, and that has allowed the Old City to be listed as UNESCO World Heritage Site. To reconstruct the Ancient City built environment, should also mean to preserve the Aleppo's cultural identity. Methodological perspectives for the after conflict reconstruction of the urban landscape should be set, preparing plans for the recovery of destroyed or endangered buildings, and proposing design solutions based on the analysis of the traditional urban fabric characteristics as well as on the need to update courtyard houses and fabrics to current living standards.

Methodological approach and working phases

To reconstruct the Ancient City urban landscape in continuity with its 'cultural history' we should start from the following assumptions:

- The city as a living organism:

An historic urban landscape is the result of the layering and intertwining of cultural and natural values over time, such as urban structures, topography, built environment, cultural practices, open spaces, infrastructures, geomorphology, hydrology, diversity and identity. The concept of living organism is therefore a moving target, destined to change with culture and society. (Muratori, 1967)

The key to approach the reconstruction of the Aleppo's historic urban environment is then the recognition that the city is not a static monument or group of buildings, but is subject to dynamic factors that shaped it and keep shaping it. Historic contexts and new developments can interact and mutually reinforce their role and meaning. New social needs and habits shall be reinterpreted into the landscape, urban and architectural design. 'The recommendation on the Historic Urban Landscape' adopted by UNESCO's General Conference on 10 November 2011 (Bandarin and van Oers, 2014) states that 'Cities are living and dynamic organisms and there is not a single 'historic' city in the world that has retained its 'original' character. [...] Countless population groups have left their mark, and continue to do so today, with their own culture and new specific needs.' (UNESCO, 2013) If we apply the UNESCO'S Historic Urban Landscape Approach to the Ancient City of Aleppo reconstruction, it would be easier to prospect the Aleppo's urban renewal in continuity with its past.

The historic urban landscape approach, which sees and interprets the city as a continuum in time and space, seeks to increase the sustainability of planning and design interventions by taking into account the existing built environment, intangible heritage, cultural diversity, socio-economic and environmental changes.

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Instead of freezing the Aleppo's historic urban landscape into a 'museum', recovery plans should be aimed at integrating urban heritage values and their vulnerability status into a wider framework of city development, updated to the nowadays living standard and needs.

- The Adaptive Reuse for buildings and urban fabrics:

One of the most effective ways of practicing sustainable conservation of Historic Cities is to relate restoration and rehabilitation projects of the urban fabric to Adaptive Reuse of buildings.

Adaptive Reuse is not exclusively for historic buildings: it is a sensible and creative reuse by which buildings are developed for their cultural value, while receiving new sustainable uses. This approach aims at protecting, preserving and sustainably conserving not only the individual buildings, but in most cases, the urban fabric as a whole.

Dynamic relationship within the Aleppo's Old City can be promoted through conversion of buildings, ranging from clusters of courtyard houses to modern buildings, giving them a new function.

Accordingly, comprehensive studies on the pre-battle conditions of buildings and housing clusters are needed, to propose suitable design.

It is also necessary to establish guidelines as to the nature of intervention to meet the standards of historic value and adapt those in response to the new economic and social realities, looking into the system of combination

of old and new within the same building, or in the urban fabric concerned. Special attention should be also given to an adequate presence of open spaces within this fragile historic environment, and the combination of modern architectural settings in old environments.

- The role of the Spontaneous Consciousness in the war and post-war period:

While, in general, the term consciousness expresses 'the thoughts and feelings, collectively, of an individual or of an aggregate of people' (WordReference), in typomorphological studies by spontaneous consciousness we mean 'the attitude of subjects adapting in their work, to their inherited civil substance, without needing or requiring mediations or choices'. (Caniggia and Maffei, 2001)

Spontaneous consciousness prevails in historic intervals that have an established civilization in which a culture does not change radically. (Muratori, 1963)

In Syria, and Aleppo in particular, the cultural gap given by the civil war has led the inhabitants to shift toward a spontaneous consciousness into their building and living behaviors.

Is therefore necessary to foreshadow the emergency as a phase of reconstruction of the Ancient City's courtyard houses from their ruins, according to the same spontaneous consciousness, which was at the origin of the traditional urban fabric forming process.

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Reconstruction perspectives

To give responses to future Aleppo conditions, is therefore necessary to focus on these issues and, in particular, to take into account the urban landscape transformation processes caused by the war, as well as the preservation of the 'cultural landscape' of the Ancient City's courtyard houses. It is particularly urgent to give back to the Old City inhabitants their own houses, considering the urban reconstruction as a rehabilitation of the Aleppo's cultural heritage, which means to give back to Syrian people their cultural identity, their homes, their urban spaces.

Special attention should be given to the need for documentation of the pre-war conditions of this World Heritage Site, as well as to the use of typomorphological methodologies for the design and renewal of undocumented destroyed houses and neighborhoods.

Both in the short-term (collecting pre-war documentation, documenting damages and promoting global awareness) and in the middle-term perspective (planning emergency and post-war responses) is urgent to develop strategies for reconstruction, and to allow the undertaking of first-aid measures for the recovery of its cultural heritage.

If the short-term perspective is already started, the long-term perspective is the most urgent. It is necessary to develop plans both to give shelters to the displaced inhabitants of the Ancient City, and to face the future reconstruction, keeping in mind that sheltering and reconstruction cannot be intended as separate problems.

With the aim to regain the Aleppo's original urban landscape, we should

therefore take into account – between the others – the following aspects:

- The need to consider all the urban layers (monuments, archaeologies, courtyard houses, open spaces) related to the unique urban morphology of the Ancient City.

In particular, we need also to look the archaeological layer within the reconstruction plans: given the 5000 years of Aleppo's uninterrupted urban history, during the reconstruction phase, with excavations for new sub-structures and urban renewals, archaeological finds could be unearthed. This could represent an opportunity to integrate archaeology with architecture into the Aleppo's renewed urban landscape, giving new light to its peculiar urban history, as well as creating visual connection between past and future.

- The need to adopt different approaches to the reconstruction of the different layers of the built environment such as monuments, archaeologies, and traditional courtyard houses.

The latter, in particular, are the most fragile and difficult to monitor, and consequently need specific guidelines for their renewal. Recovery plans should indeed pay specific attention to their layer, which was at the basis for the listing of Aleppo between the World Heritage Sites, and made the uniqueness of its urban landscape.

- The need to lead under a scientific umbrella the spontaneous and uncoordinated reconstruction actions that the Ancient City inhabitants are currently carrying on, by developing a methodology in which the same logic of the spontaneous consciousness is at the basis of the renewal process of the Aleppo's urban landscape, giving directives to the houses and clusters reconstruction.

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Recovery plans should include specific guidelines for a typological 'step by step' self-reconstruction or renewal of undocumented historic courtyard houses. A typo-morphological approach can help in 'interpreting' the traditional urban fabric typical behaviors, and proposing design solutions that are 'in continuity' with the urban landscape historic structure. Looking at the traditional courtyard houses characteristics, several different layouts for their partial or total reconstruction should be proposed, according to the 'spontaneous rules' of gradual settling of rooms around the courtyard, which can vary according to: parcel dimension, relationship street / entrance / parcel, specialization of rooms in summer living rooms (iwan), best orientation of rooms and iwan towards fresh air and lighting, increase in building height on specific sides of the courtyard, parcel partitions.

Consequently, in cases of courtyard houses reconstruction, understanding and following the 'typical behaviors' of the built up area inside the parcels means to propose a 'step by step' design of 'shelters' for the Old City's inhabitants inside their own houses. If we give people methodological tools to gradually re-build 'from the inside' their own parcels, the emergency could be interpreted as at the first step of the reconstruction process.

- The need to upgrade historic courtyard houses typology to modern living standards, while preserving their main architectural and morphological characteristics.

Following the logic of gradual setting of the built up area inside the parcel, we can develop design hypothesis to update the courtyard houses to modern living standards, arranging facilities such as toilets and kitchens (which currently are lacking) and providing staircases and hallways inside the built up area. (Fig. 3)

- The need to upgrade building techniques of traditional courtyard houses, providing semi-industrial self-construction skills (perhaps re-using destroyed building materials).

In the post-war reconstruction process of undocumented houses the use of both traditional and updated construction techniques and materials could clearly show what is old and new.

- The need to improve the urban landscape characteristics of the Ancient City areas that were heavily transformed during the last decades because of the construction of multi-story buildings along the new roads (Abdul Moun'em Ryad St, Al Mutanabbi – As-Sijn St) cut within the ancient urban fabric.

Recovery plans should specifically consider how to renew these buildings (which presence has undermined the survival of courtyard houses around them) by reducing their height or demolishing them.

In particular, while in the middle-term perspective it could be possible to plan emergencies settling empty plots or these government buildings to squat the Ancient City inhabitants whose houses have been heavily damaged during the war, in the long-term perspective these multi-story buildings will hopefully be regenerated or demolished. (Fig. 4)

- The need to take into account the social and economic impact of the war on the neighborhood level, such as the change of population, of education, of skills on traditional construction techniques, of habits in living places, and so on.

- The need to reconstruct the public open spaces to recreate urban sociality and to give urban security.

To this aim, in recovery plans some housing lots could be left unbuilt, creating visual connection between past and future.

- The need to focus on a dynamic cross-scalar interaction between open spaces and built environment, with the aim to identify strength and weakness of neighborhoods and building typologies, and to give back to the *haras* the cultural identity they have lost during the war, under extensive damage.

Recommendations and possible outcomes

In the complex circumstances of a still ongoing civil war we need to prospect possible scenarios for the reconstruction of damaged monuments and urban fabric inside the UNESCO's boundaries, the restoration of monuments (including the Citadel, the Great Mosque and the Suqs) and traditional urban landscape, as well as ensuring the inhabitants' right to get back their homes.

With this aim, as well as to regain the Aleppo's cultural urban landscape, we should therefore recommend to identify the following priorities:

- To collect all the available data on buildings, neighborhoods and open spaces before 2012 (including land use and functions, historic buildings, architectural values, *haras*, ownership, courtyard houses, and archaeological layers), and mapping the destroyed areas under a unique inventory.⁶

- To set methodological tools to prepare future plans (identifying potential actors who can be involved) aimed at giving back to the urban landscape its original characteristics.

- To assess the impact factor of our actions: to change the traditional building typologies could mean to eclipse the cultural identity of the built environment; to update building typologies and neighborhoods structure to modern needs and standards could mean to rebuild the urban scape in continuity with its cultural identity. This is particularly important to avoid the risk to have skyscrapers into the Ancient City area.

- To give to the inhabitants the means to re-settle in their own neighborhoods and houses. To this aim, an updated cadastral register is needed.

The future of the city shall be built on the uniqueness of its building heritage and 'in continuity' with the architectural and archaeological characteristics of this World Heritage Site.

Considering the dramatic situation of destruction into the old core of the Syrian city, this methodological design approach could represent a way, from the one hand, to give a chance to the people from Aleppo to return to their homes soon after war and, from the other, to 'rebuild' the Ancient City urban fabric cultural layout.

⁶ A comprehensive documentation of the al-Farafra district was made during the Expert and Researchers' Workshop Scenarios for Post-War Reconstruction in Aleppo, which was held at University of Stuttgart, Institute of Urban Planning and Design, Department of International Urbanism and IUSD Lab on 16.06. – 19.06.2016, with Brandenburg University of Technology Cottbus – Senftenberg and Polytechnic University of Bari. See: Neglia, G. A. (2016) *A Methodological Approach to the Post-War Reconstruction of the Aleppo Building Fabric Morphology*. In: Laue F. Gangler A. (eds.), *Expert and researchers' Workshop. Scenarios for Post- War Reconstruction in Aleppo* (IUSD, Stuttgart), p. 32-39.

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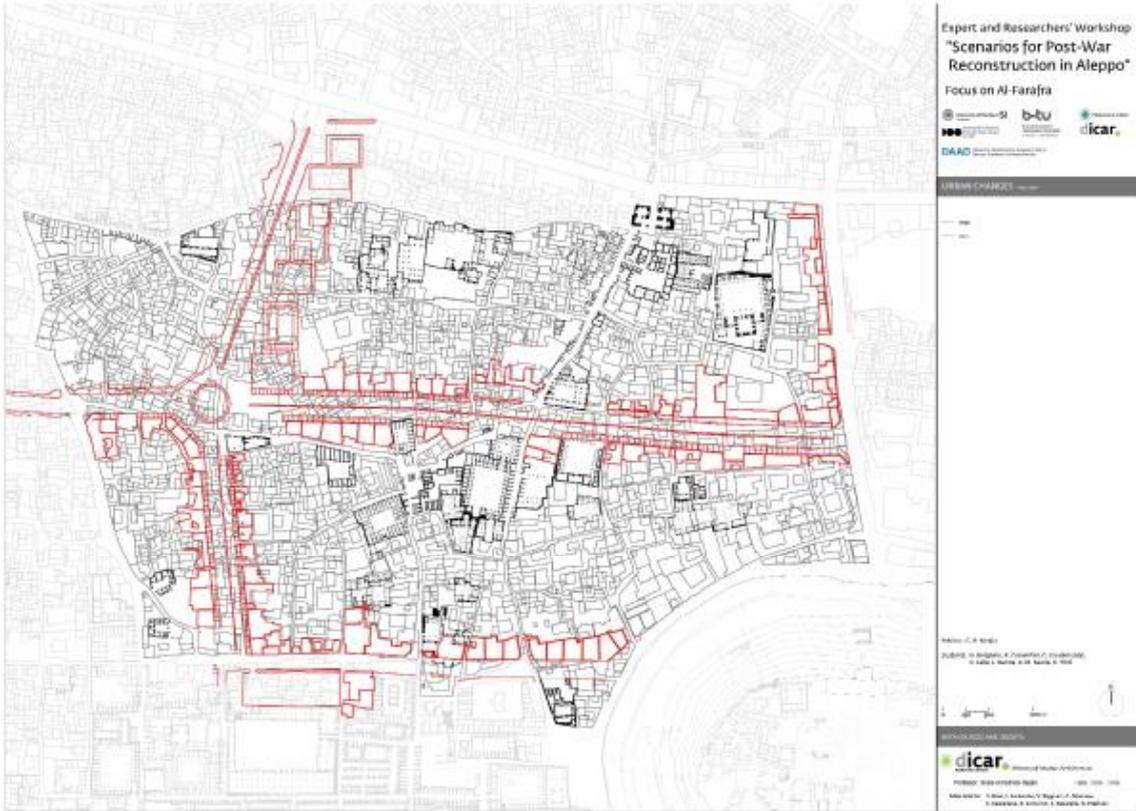


Fig. 1 Urban transformations in the al-Farafra district between 1932 and 2011.

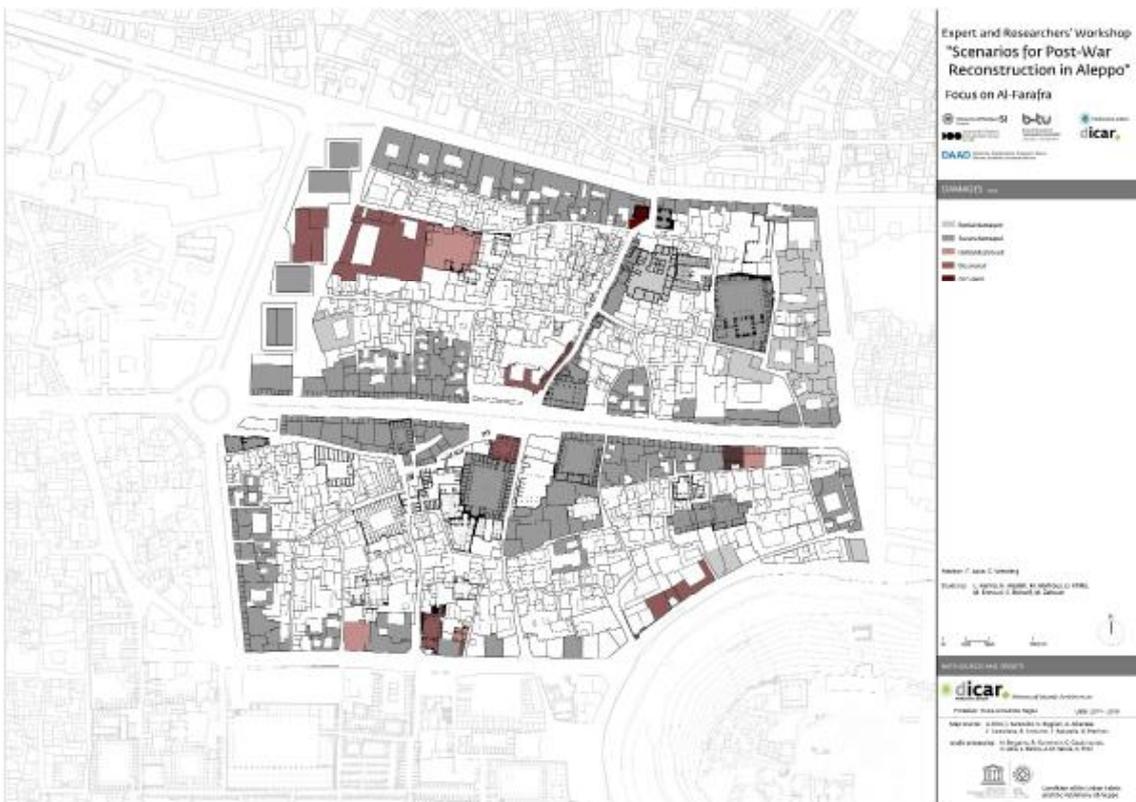


Fig. 2 Urban transformations in the al-Farafra district between 2012 and 2016, according to the UNESCO.



154 Fig. 3. Reconstruction hypothesis of undocumented courtyard houses, based on the analysis of the typical behaviors of rooms around the courtyard.

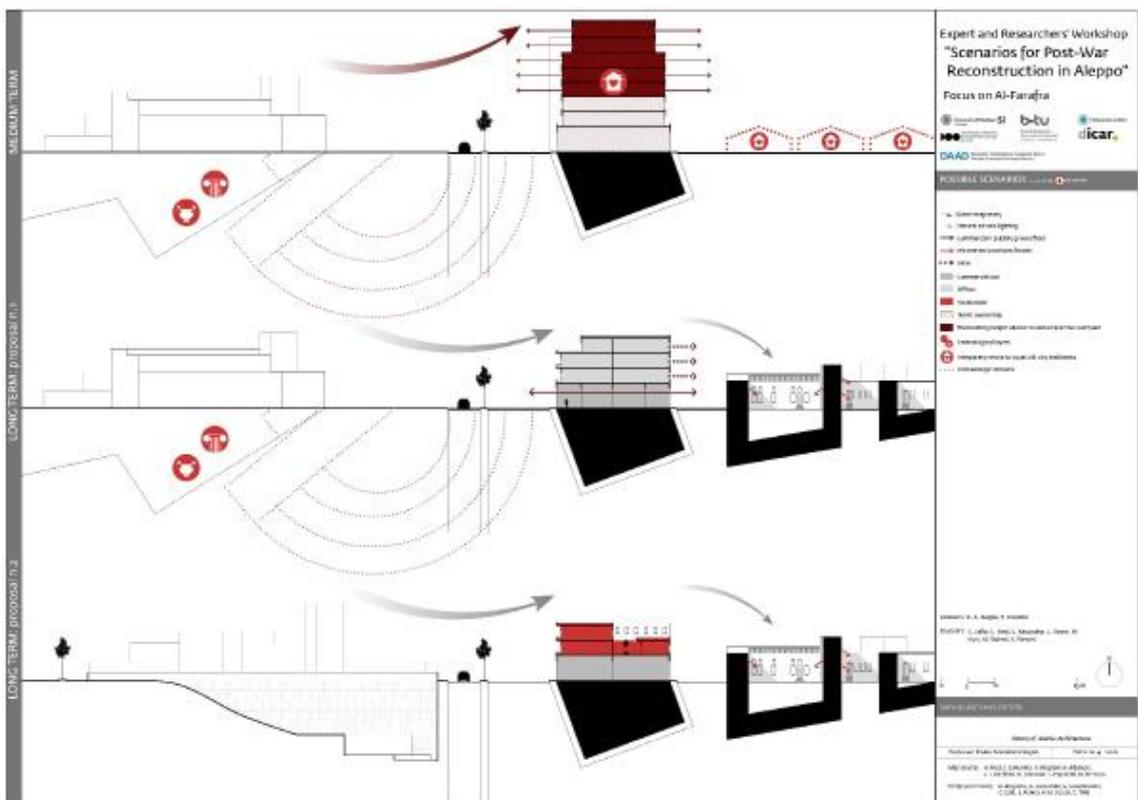


Fig. 4 Short, middle and long-term recovery hypothesis of multi-story buildings and the surrounding courtyard houses urban fabric.

La modificazione come strumento del progetto Il caso dei buchi di Roma

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Keywords: modification, Rome, preexistence, tradition, language

Abstract

156 *The paper identifies purposes and modes in order to define the construction method of the modification language, where the modification is intended as a conceptual instrument leading the architecture's planning (Gregotti, 1984) and, moreover, it talks about the overlap of physical - operational level, and of the linguistic - conceptual level, that the term includes. The permanence of the issue, that determines the constant actuality, mainly refers to a particular context, as the Italian one, in which the presence of environmental pre-existences (Rogers, 1955) includes the need for an inclusive act of maintaining and conservation that is opposite to the exclusive principle of tabula rasa belonged to the Modern Movement. Therefore, the project is considered as an element of investigation and coherence with the characters of the place that they involve, especially, both the presence of history, a permanent entity between collective culture and architect's individual culture, and that of discipline, general rules and traditions system that translated and projected toward new interpretations by the modification project.*

Attraverso questo scritto intendo occuparmi della lettura di alcuni progetti in relazione al tema della *modificazione*. Intendo inoltre prendere spunto dalla possibilità, introdotta da Vittorio Gregotti nel doppio numero di Casabella 498-499 del 1984, di assumere la *modificazione* come “uno strumento concettuale che presiede la progettazione dell’architettura” (Gregotti 1984), utile quindi a definirne lo stesso linguaggio. La mia intenzione è quella di affrontare il principio operativo che è sottinteso nella prima parte del termine, comprendendo, la *modificazione*, tanto l’azione quanto l’effetto del modificare, e cercherò di farlo attraverso la comparazione di alcuni esempi progettuali che a mio avviso si pongono (ognuno con modalità differente) la questione del rapporto tra contesto e progetto come momento di sintesi critica fra un caso specifico e il sistema generale, (cioè fra la storia di un luogo e la tendenza ontologica della disciplina architettonica (Ungers 1984), comprensiva della sua tradizione e della sua storia). Intenderò perciò la *modificazione* come azione strumentale interna al progetto: una azione tanto ‘transitiva’ (*misura*) quanto ‘pronominale’ (*si misura, si confronta*), utile cioè ad imporre un sistema di relazioni tra le parti, rivelando il senso della stessa azione progettuale, ed a confrontarsi, al contempo, con la specificità di una realtà, intesa nella sua natura provvisoria e parziale (Gregotti 2004).

I progetti che presenterò sono stati pensati per delle aree particolari di Roma, e risalgono al 1984. Questi progetti sono nati a seguito di una collaborazione tra iniziative pubbliche e iniziative private promosse dall’Assessorato per gli Interventi sul Centro Storico, istituito alcuni anni prima da Giulio Carlo Argan, allora sindaco della capitale, attraverso cui Carlo Aymonino, Assessore agli Interventi sul Centro Storico di Roma, con il Programma 1981-1986 per il Centro Storico di Roma, propone di “trasformare, coniugando recupero e valorizzazione, il ritardo storico dell’adeguamento a città capitale in un anticipo a capitale diversa, veramente contemporanea (...)” (Aymonino 1990). Tra le tante, alcune iniziative culturali coinvolgono la Cooperativa AAM Architettura Arte Moderna, diretta da Francesco Moschini, e vengono raccolte sotto la sigla “Laboratorio ‘83”. Da questa serie di eventi nascono diversi laboratori di progettazione su diverse aree di Roma e ai quali sono invitati a partecipare una sessantina di architetti. La questione comune riguarda la possibilità e le modalità di trasformazione della città esistente per mezzo degli interventi moderni, come verifica dei piani e dei progetti che il Comune aveva avviato per il centro storico. In particolare, il Laboratorio numero cinque affronta gli interventi nei cosiddetti *buchi* del centro storico, cioè “una serie di spazi impropri, ritagliati nel tessuto fitto della città rinascimentale-barocca”¹. Praticamente si parla di Piazza della Rovere, Piazza della Moretta, via dei Polacchi, testata di Corso Vittorio, Piazza del Parlamento. Spazi che ancora oggi rappresentano dei nodi

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¹ Dal documento di presentazione del programma del Laboratorio n. 5, patrocinato dall’Assessorato per gli interventi sul Centro Storico e inviato dalla Cooperativa AAM a diversi architetti.

irrisolti di un tessuto che nel tempo ha visto consolidarsi una opposizione tra il sistema della città storica, di carattere fortemente residenziale (a est del Tevere), e gli edifici specialistici oltre il fiume. Ho ritenuto opportuno selezionare quelle proposte che operano sia attraverso la rilettura dell'organismo urbano nella sua unità e nella riproposizione dell'edilizia di base, che attraverso l'esplicitazione, talvolta in dissonanza, di un carattere dichiaratamente moderno del progetto. Sono comunque progetti che a mio parere affrontano il tema della trasformazione attraverso interventi di riempimento o di ricucitura, intendendolo come coerenza tra caso specifico e sistema generale piuttosto che come risultato di eventi occasionali, e che ammettono inoltre una pluralità di possibili relazioni tra i sottosistemi che compongono il contesto e il progetto stesso; relazioni che appartengono, cioè, ad un metodo attraverso il quale si instaurano differenti modalità operative che esprimono il loro comun denominatore nei caratteri di testimonianza, memoria e analogia (a volte aderendovi e altre distaccandosene volutamente) e che oscillano nei rapporti tra le caratteristiche morfologiche, tipologiche e spaziali che appartengono alle preesistenze ma soprattutto all'intenzionalità delle singole proposte insediative.

158 A tal proposito basti pensare alle proposte per piazza della Moretta di Gianfranco Caniggia² e Antonio Monestiroli, proposte per un'area in cui, tra l'altro, era previsto un museo della scienza progettato da Maurizio Sacripanti. Tanto per Caniggia quanto per Monestiroli, rispetto alle caratteristiche morfologiche del contesto, l'impianto si pone in termini di continuità. Eppure, se per Caniggia la riproposizione del tipo edilizio di prima edificazione costituisce una sorta di postulato da cui il progetto è dedotto, per Monestiroli la continuità che risulta attraverso il procedimento analogico (e iconologico), rispetto alle corti e ai giardini dei palazzi di via Giulia, pare spingere la configurazione del progetto (di un museo, come Sacripanti) verso una legittima molteplicità di soluzioni. Così: la continuità del prospetto su via Giulia diventa un pretesto per lavorare sul tema delle due corti aperte (una verso la città storica e una verso il fiume); le corti sono un momento di riflessione sulle differenze linguistiche (e strutturali) tra dentro e fuori; i basamenti, la muratura, i giardini, un'occasione per stare alle regole del luogo, mentre l'acciaio dei pilastri delle corti, con le pareti vetrate, le aperture orizzontali e l'impianto planimetrico rigidamente controllato nelle proporzioni, esprimono sia l'intenzione di voler escludere qualsiasi rischio di mimesi, che il chiaro riferimento ad un utilizzo disinvolto di un linguaggio di chiara matrice moderna. Le preesistenze adiacenti, comunque, non determinano semplicemente il volume, ma anche gli assi di percorrenza e soprattutto le proporzioni tra pieni e vuoti. Ad esse quindi, alle preesistenze, Monestiroli affida il compito di *suggeritore*, per mezzo delle quali la sua architettura rivela e giustifica il proprio senso³, in

2 Per un approfondimento del progetto di Caniggia, già trattato, si rimanda al testo dell'autore e Marta Burrai riportato in bibliografia (Burrai, Oltremarini 2016).

3 "La proporzione è il principio generale su cui si fonda l'architettura; è intesa come siste-

continuità con la materia esistente.

E se Caniggia e Monestiroli dichiarano, in un certo senso, a volontà di ripristinare l'antico significato di via Giulia, Dario Passi invece si pone la questione della testimonianza di una storia presente: trasforma cioè la criticità di uno spazio irrisolto e discontinuo (rispetto al suo antico significato) di un buco, appunto, di Roma, valorizzandolo in vuoto urbano. Semplicemente Passi delimita l'area con due elementi lineari, intervallati ognuno da cinque torri, e stabilisce un rapporto interno al progetto fatto di continue trasgressioni, conferme e negazioni: e cioè la scelta del recinto, ma su pilotis; di una barriera, però penetrabile; la sovrapposizione di 2 sistemi modulari e probabilmente tipologici – e quindi anche strutturali – che costituiscono il contrasto tra le linee (o ballatoi) e le torri; l'apparente conclusione di un sistema e la sua immediata riproposizione e messa in discussione attraverso l'apertura ed il raggiungimento del fiume, ad evocare la memoria antica di un impianto in cui la città delle case alte e delle case basse si confondeva, accostandosi e sovrapponendosi, rispetto al Tevere.

In questi termini, anzi estremizzandoli ancora di più, lavora Franco Purini con la sua proposta per un Danteum. L'estraniamento (riferibile alla storia del luogo) lascia spazio ad una sorta di evocazione preistorica, iconica forse, di un sito preurbanizzato. Purini parla di "strati tufacei inclinati come colline, (...) alberi aggrappati (...) come ricordi, i pilastri interrotti come (...) resti di una dissertazione anatomica nel nome di Roma (...)" (Klotz, Pavan 1987). L'architetto romano affida la narrazione di tutto questo al confronto tra *limiti* e *lodi* che appartengono alle regole suggerite dalla storia della disciplina. Regole che si esprimono anche qui attraverso un'evocazione (calligrafica) in memoria di Terragni e di Piranesi, e non a caso Purini si riferisce a questo progetto definendolo *memoria* e *testamento*. Comunque, la *modificazione*, intesa come strumento, come misura della distanza critica che tiene insieme il progetto ed il luogo, esprime, nel progetto di Purini, forse il grado di libertà più ampio rispetto agli altri progetti qui presentati, quasi che quel campo specifico di conflitto tra i sottosistemi stia per dissolversi, per sfibrarsi a causa di una distanza tale fra i sottosistemi che sposta i limiti del progetto oltre i limiti del luogo e che traduce le preesistenze (preistoriche) a pretesti progettuali. Pretesti che, a loro volta, traslano il baricentro del metodo compositivo verso un processo (empirico ed induttivo) di ridefinizione di un nuovo principio insediativo.

I progetti per Via della Lungara di Caniggia e Laura Thermes riducono invece queste distanze. Entrambi lavorano sulla restituzione della sezione originaria della via fino a porta di S. Spirito. E se anche qui, come prima, Caniggia ripropone il tipo edilizio di prima edificazione, nell'intervento che riguarda gli edifici specialistici (nel caso del Liceo a p.zza della Moretta, e qui dell'Ospedale), questo recupero e questa riscrittura sembrano meno rigorosi. Prevedendone la demolizione e la sostituzione, ricostruendo un fronte seriale che secondo Caniggia si associa alla logica seriale degli

ma di rapporti fra le parti, rivelatrice del senso dell'edificio" (Monestiroli 2002).

edifici oltre il Tevere, queste parti del progetto si misurano attraverso l'unità seriale che viene prima individuata e poi riproposta ai fini di una relazione organica col tessuto. Con i due blocchi proposti nel progetto, Thermes dichiara sia la volontà di ricostituire l'unitarietà dei fronti, che il tentativo di risolvere l'incompiutezza angolare della testata su piazza della Rovere. E lo fa accostandosi alle originarie case a schiera, di cui ne riprende le caratteristiche che si esplicitano in facciata, per reinterpretarle attraverso una distribuzione interna a ballatoio. Fortemente radicato nei principi insediativi del luogo, il progetto di Thermes si svincola comunque da fraintendibili soluzioni di mimesi ed analogie. La memoria dei caratteri locali si traduce non solo nell'utilizzo della pietra, del mattone e dell'intonaco, ma anche nelle scansioni ritmiche dei prospetti, delle orditure di luci e ombre. Ma soprattutto risponde, con riservatezza modesta e al tempo stesso severa, ai suggerimenti di una presenza adiacente che resta lì, come testimone del passato.

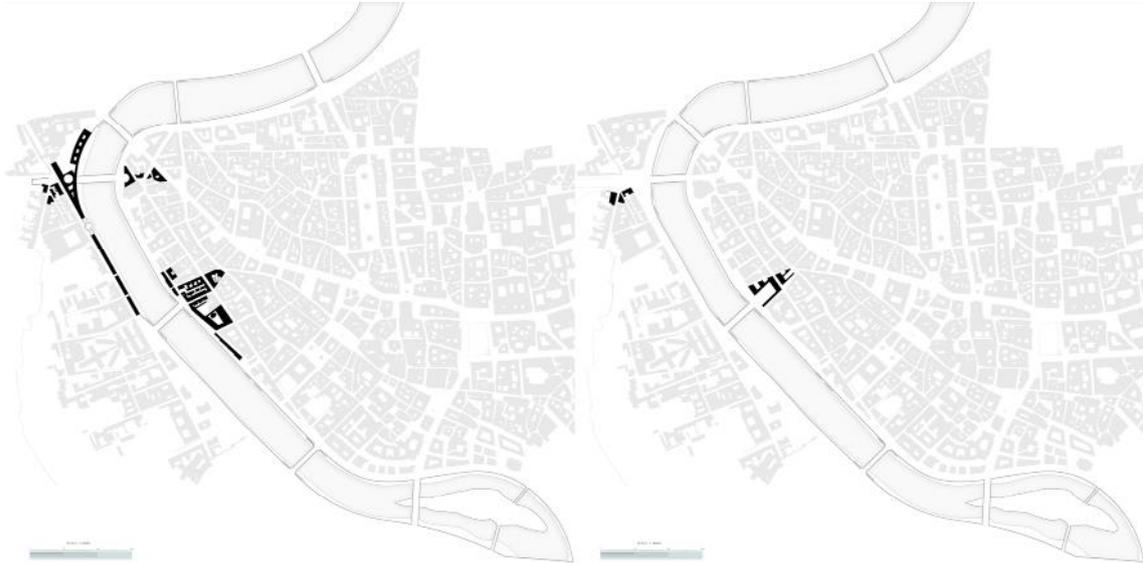
160 Esclude invece ogni tentativo di mediazione fittizia, almeno nelle intenzioni, il progetto di Beccu, Desideri e Raimondo per l'area archeologica di Cripta Balbi. In questo progetto la questione fondamentale non è l'incontro o scontro tra nuovo e antico: si lavora per sottrazione, sostituzione, sovrapposizione e montaggio di volumi (caratterizzati da estensioni) mono e bidimensionali. E la modificazione come strumento è tutta interna al sistema generale che regola il processo costruttivo del progetto e che interpreta, in un certo senso, le concessioni dell'esistente come pretesti utili a giustificare tutte le operazioni compositive e per indagare le conseguenze delle stratificazioni, tanto modulari quanto storiche, che insieme concorrono alla salvaguardia della memoria del passato e alla testimonianza di un progetto contemporaneo.

In conclusione, credo che i progetti presentati lavorino all'interno di un tentativo comune di definizione di un linguaggio e di ridefinizione di un metodo critico che affronta due questioni: quella della trasmissibilità di un metodo che nasce dal confronto tra caso specifico e sistema generale e quella di un colloquio, non meno problematico e sempre aperto, tra empirismo e canonismo. Sono progetti, inoltre, che esprimono una forte intenzionalità nel voler prendere "contatto con il suolo, con l'ambiente fisico, con l'idea di natura come insieme delle cose materiali presenti" (Gregotti 1984) e la modalità attraverso cui si verifica questa intenzionalità coinvolge innanzitutto la costituzione del processo insediativo, inteso come esito (attraverso un metodo tendenzialmente deduttivo) oppure come strumento (attraverso un metodo tendenzialmente induttivo). A sua volta, la modificazione, come strumento del progetto di architettura, cioè come azione interna al carattere che appartiene al processo costruttivo del progetto, regola la distanza tra i sottosistemi che compongono progetto e contesto oppure, meglio, sistema generale e caso specifico. E non a caso la radice etimologica di modificazione, ce lo ricorda Gregotti, è *modus*, che la collega al termine di misura. Una distanza, inoltre, che non è possibile annullare, dato che queste sovrapposizioni (tra caso specifico e sistema generale, appunto) – ma anche tra empirismo e canonismo – non

sono mai coincidenti. Si determinano, perciò, tra i sottosistemi, specifici campi di conflitto, determinati gradi di libertà che non solo il progetto di modificazione è tenuto a controllare (lontano da coincidenze e casualità che appartengono invece ad un processo di mutazione spontaneo) ma addirittura, prendendo in prestito le parole di Henri Focillon in *Vita delle forme*, “aggroviglia, rigira, decompone e ricompone il loro labirinto” (Focillon 1943). E quanto più, dal confronto tra caso specifico e sistema generale – o tra empirismo e canonismo – si definiscono rigide guide, tanto più tra queste regole rigorose, la modificazione, come strumento, la modificazione, come progetto, la modificazione, come forma, si fa viva, mobile e permanente.

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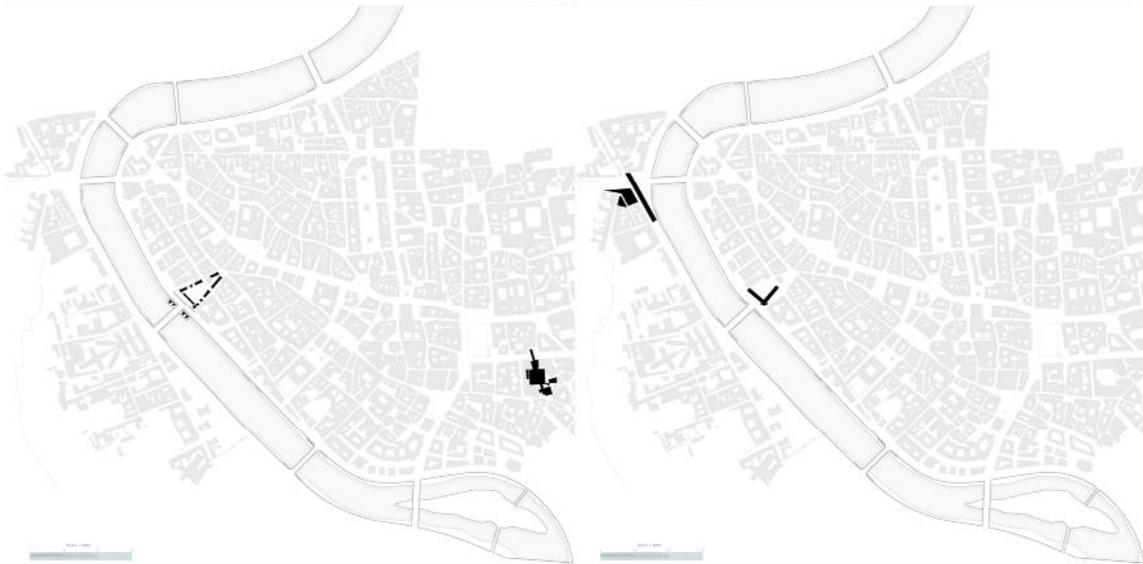
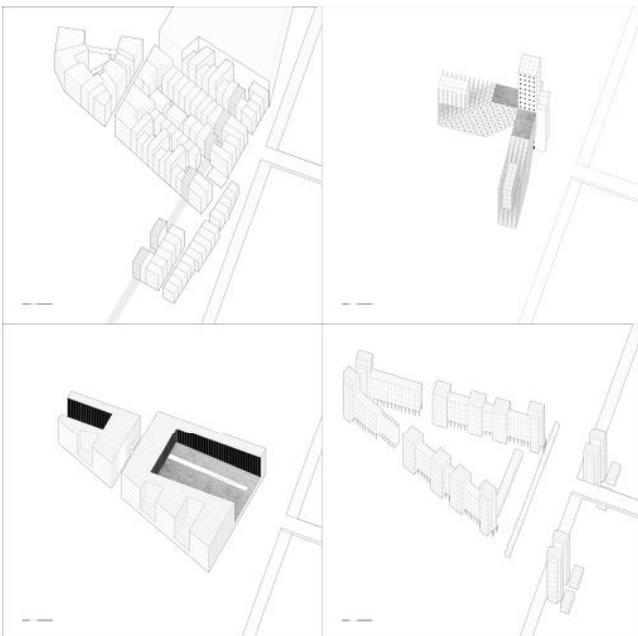
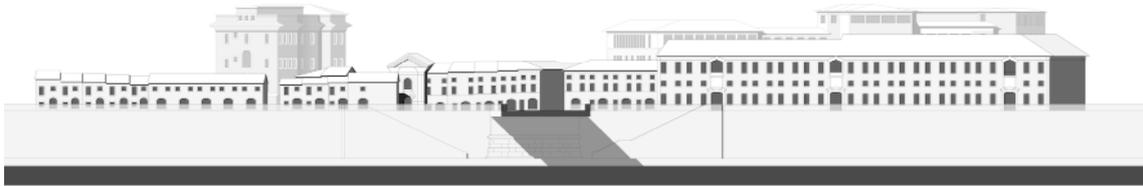


Fig. 1 Planimetria del centro di Roma. In nero i progetti analizzati: in alto a sinistra la proposta di Caniggia; in alto a destra Monestiroli; in basso a sinistra Passi per piazza della Moretta e Beccu, Desideri e Raimondo per via delle Botteghe Oscure; in basso a destra Thermes per piazza della Rovere e Purini per piazza della Moretta. Ridisegni dell'autore.

Fig. 2 Piante dell'attacco a terra delle proposte per piazza della Moretta di Caniggia, Monestiroli e Purini. Ridisegni dell'autore.

Fig. 3 Schemi assonometrici di studio dei progetti di Caniggia, Purini, Monestiroli e Passi. Ridisegni dell'autore. le proposte di Caniggia, Monestiroli e Purini. Ridisegni dell'autore.





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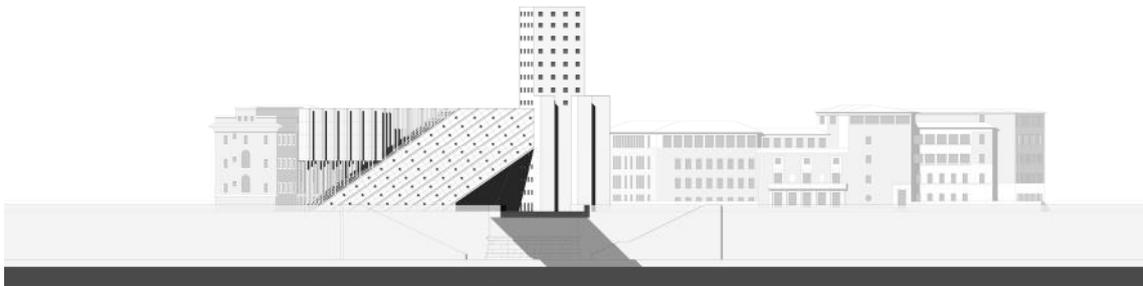


Fig. 4 Prospetti dal Lungotevere corrispondenti alle proposte di Caniggia, Monestirol e Purini. Ridi-segni dell'autore.

Tre letture sull'asse. Politica e rappresentazione

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Keywords: asse, dispositivo, rappresentazione, politica, composizione

Abstract

166 *Il concorso del 1967 per i nuovi uffici della Camera dei Deputati è un importante episodio per l'architettura italiana del dopoguerra poiché è uno dei pochi esempi di dialogo tra il tessuto storico romano e l'architettura contemporanea. L'insolito risultato ex aequo mostra il fallimento del concorso, analizzato in un interessante saggio ad opera di Manfredo Tafuri. A distanza di venti anni, durante la XVII Triennale di Milano, ed in particolare nell'ambito della mostra "Le città immaginate" curata da Pierluigi Nicolini, il Gruppo Romano, guidato da Franco Purini, ritorna su tali argomenti, offrendo una proposta di dislocazione dei Ministeri dal centro alla Periferia Romana. Le analisi effettuate si concentrano sullo strumento compositivo dell'asse, che interviene all'interno del disegno della città. Il ruolo di tale dispositivo è duplice: oltre ad essere strumento ordinatore si propone, nella sua declinazione progettuale, come mezzo di rappresentazione democratica. Viene proposta, in seguito, una lettura parallela che vede come protagonista il piano per Roma del 1927 di Armando Brasini che, usando lo stesso dispositivo, arriva a risultati differenti a causa della diversa rappresentazione del potere richiesta, offrendo in tal modo un contrappeso progettuale ed ideologico.*

Un dispositivo per costruire la città: l'asse attrezzato

Il concetto di asse in architettura è riconducibile al termine "tracciato" o, ancora più precisamente, ai termini "percorso" o "via". Riferendosi alla genesi geometrica l'asse è riferibile a quella forma di astrazione che più lo rappresenta, la "linea" che Kandinsky indica come la "traccia di un punto in movimento" secondo una direzione prevalente. L'intersezione di un insieme di linee parallele secondo due direzioni determina poi una "griglia", un sistema d'ordine piuttosto regolare di trama e di ordito ovvero una superficie determinata da maglie quadrate, rettangolari, o di altre forme geometriche che, sub specie architettura, in una trasposizione compositiva ideale sulla città ne costituiscono gli isolati.

Il concorso per i nuovi Uffici della Camera dei Deputati a Roma del 1967 – i cui esiti progettuali si forgiarono di un carattere di assoluta astrattezza e di utopismo – è stato nel corso degli anni motivo di riflessione sul rapporto tra i luoghi della politica e i luoghi della città. A distanza di vent'anni in occasione della XVII Triennale di Milano ed in particolare della mostra "Le città immaginate" curata da Pierluigi Nicolini, Franco Purini coordinando un folto gruppo di progettisti¹ propone, vista la mancanza di un disegno unitario per Roma capitale, un programma "politico"² che prospetti l'idea di trasferire i nuovi Ministeri del potere dal centro alla periferia romana. Il luogo deputato alla dislocazione di questi servizi, necessari al Parlamento italiano, era stato individuato in un grande vuoto urbano dove ebbe sede il primo aeroporto italiano, poi dismesso, nel quartiere di Centocelle, zona periferica a est di Roma, oggi luogo di nessuno.

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Un progetto implica sempre una modificazione dei luoghi della città nei quali interviene. Solitamente però le diverse condizioni urbane, tra centro storico e periferia, pongono per il disegno nella città presupposti e occasioni differenti di intervento non sempre ugualmente reiterabili. Tuttavia nella proposta per la Triennale l'idea di rifunzionalizzare l'asse di Via del Corso, venne riproposta dai progettisti come atto di strutturazione principale anche nel progetto per Centocelle proponendo così l'innescio di un parallelismo, in termini di progettuali, tra centro e periferia.

Via del Corso a Roma – originariamente antico proseguimento della via Flaminia col nome di via Lata – come asse principale di connessione tra piazza del Popolo e piazza Venezia, fa oggi parte di un sistema di strutturazione della città storica noto come il "Tridente" assieme a via di Ripetta e via del Babuino. Proprio tale sistema triassiale della città storica, derivante da un poderoso intervento urbanistico tra il XV e il XVII secolo, funse da modello 'insediativo' per il progetto dell'area dei nuovi Ministeri. L'ipotesi progettuale era definita da un'asse centrale – tracciato

¹ Il gruppo di progettazione si componeva di G. Accasto, A. Anselmi, F. Cellini, C. D'Amato, G. D'Ardua, V. Fraticelli, R. Nicolini, F. Prati, L. Thermes oltre alla presenza di architetti internazionali quali a P. Eisenman e C. Rowe.

² L'attributo "politico" è appunto inteso nel suo più alto, e non così ovvio, significato di "per la polis". Si veda a tal proposito il testo M. Biraghi, *Il disegno politico di Roma*, in La Varra G. (ed) *Viceversa 01 - Gli spazi della politica*, 2015, pp. 20-33.

'strutturale' dell'insediamento – che riconnetteva le attuali via P. Togliatti e via di Tor Pignattara e dall'innesto di un secondo sistema di tracciati ortogonali secondo la direzione di Viale della Primavera. Quest'ultimo biforcandosi in due diverse direzioni portava inoltre nel tracciamento insediativo l'unica strada in diagonale rispetto l'asse, come eccezione della regola insediativa poc' anzi descritta. Gli isolati che si determinavano erano isolati il cui interno venne lasciato libero divenendo il luogo elettivo per la collocazione di edifici isolati, mentre lunghi edifici direzionali posti in corrispondenza delle strade secondarie formavano grandi recinti sui quali si innestavano coppie di torri prospettanti sul decumano. Questa proposta, della quale sono state disegnate ben tre varianti planimetriche attraverso schizzi di studio che declinano i medesimi intenti, non è tuttavia mai stata messa a punto con approfondimenti di scala più specifici. Nonostante ciò le suggestive prospettive di Alessandro Anselmi da un lato e di Franco Purini e Laura Thermes dall'altro sintetizzarono efficacemente il tipo di città che si stava immaginando per la Periferia di Roma. Una nuova possibile città nella quale l'asse, oltre ad imporre un nuovo ordine, mostrasse il suo più semplice intento di essere un dispositivo in grado di riconnettere parti di città oggi tra loro separate attraverso attente e precise operazioni di ricucitura con la città esistente.

168 Nella suddetta proposta del gruppo romano l'asse *attrezzato* viene utilizzato nel centro e nella periferia come principio d'ordine per poter definire, o ridefinire, parti di città che necessitino di un nuovo disegno urbano.

Franco Purini in un testo dal titolo "Elementi per una morfologia della composizione" sostiene che esistano sette morfologie possibili (il Recinto, la Linea, il Punto, la Proiezione, il Groviglio, l'Accumulo, la Rete) tutte riconducibili alla linea e a partire dalle quali prende avvio il procedimento compositivo. «Riflettendo ulteriormente su queste sette morfologie ci si rende inoltre conto che esse sono in realtà sei sviluppi della linea, che si configura per questo, dunque, come il *principio primo* di ogni composizione architettonica. [...] Il Recinto è infatti generato da quattro linee; il Punto è il *segmento nativo* della linea stessa; la Proiezione consiste in assi proiettati da un centro o da un sistema di centri; il Groviglio è una linea che si svolge liberamente nello spazio sovrapponendo volta per volta le sue circonvoluzioni; l'Accumulo non è altro che un conflitto tra diversi recinti, a loro volta prodotti da linee; la Rete consiste in fondo in una serie di recinti accostati e quindi, di nuovo, in un sistema di linee»³. Quindi in definitiva la linea o meglio l'asse può assumere alla scala urbana il ruolo di elemento generatore nell'*incipit* di un nuovo progetto come strumento compositivo e dispositivo primigenio, primo tangibile tracciamento in grado di stabilire un ordine possibile a partire dal quale si renda possibile avviare e mettere a punto il disegno di una parte di città incompiuta.

3 Il testo del 2013 è rinvenibile in una raccolta di scritti e lezioni dell'architetto romano pubblicata sul web all'indirizzo <http://www.francopurinididarch.it/testi.html>

L'asse politico (o la politica dell'asse)

La proposta del Gruppo Romano guidato da Franco Purini per la XVII triennale di Milano nell'ambito della mostra "Un viaggio in Italia: nove progetti per nove città" del 1987 comprende lo studio per "La Città Politica, Il Parlamento e i Nuovi Ministeri".

La lettura qui affrontata si propone di analizzare il progetto per il foro romano di via del Corso e la sua definizione tramite lo strumento compositivo dell'asse.

Premessa

La questione degli edifici destinati alla politica era stata già trattata a Roma nel 1967, durante il concorso per l'ampliamento della camera dei deputati. Concorso che vide la vittoria di 18 progetti ex aequo e che non riuscì a dare una risposta alla questione dell'ampliamento. Manfredo Tafuri analizza i risultati nel 1968 e dalla sua trattazione ne esce un bilancio di sintesi che ritrova gli architetti confrontarsi con la questione del moderno. Prendendo, nello specifico, il ragionamento che egli pone sulla questione prettamente architettonica, egli osserva che è presente in più progetti, seppur diversi in quanto a linguaggio, la tendenza al recupero al simbolismo. Nello specifico:

- a) la legge della diagonale;
- b) la soluzione delle cerniere formali tramite l'accumulazione di spazi o volumi cilindrici;
- c) l'uso del corten come materiale di copertura o rivestimento.

Tafuri ritrova quindi in tutte queste manifestazioni "la volontà di rendere istituzionale il linguaggio architettonico, di ricaricarlo di significati comuni, di dargli un maggior spessore. In tal modo si sondano le possibilità di recupero di assoluti formali, anche se essi si nascondono dietro estranee giustificazioni o si dissimulano pudicamente [...] È a questo punto che si introduce una difficoltà insormontabile. Non è ancora possibile superare, con una nuova rivoluzione architettonica, la tradizione del nuovo così come essa ci è stata consegnata dal complesso e contraddittorio insieme di esperienze"⁴.

Parallela a questa esperienza, negli stessi anni, è l'esperienza progettuale dello Studio Asse⁵ (1967-1970) - formato da Bruno Zevi, Mario Fiorentino, Riccardo Morandi, Lucio Passarelli, Vincenzo Passarelli, Ludovico Quaroni, Vincio Delleani - che individuava nel Piano regolatore generale del 1962 un'area ad Est con destinazione direzionale. Il progetto si caricava di un valore non solo di ricerca progettuale sulla grande dimensione ma anche rifondazione disciplinare cercando di dare a Roma un'alternativa alla costruzione puntuale ed alla dispersione spaziale. Dal punto di vista compositivo lo strumento dell'asse è utilizzato come strumento regolatore

4 M. Tafuri, *Il concorso per i nuovi uffici della Camera dei Deputati*, Venezia, 1968 p.84

5 AA. VV., *Roma 1967-70. Asse Attrezzato e Studio Asse, storia e attualità*, catalogo della mostra, Accademia Nazionale di San Luca, Roma, 8 marzo-8 aprile 2006, Fondazione Bruno Zevi, Roma, 2006.

capace di dare tramite la sua direzionalità univoca e la sua assertività, una regola ed un piano per Roma.

Ponendo come sostrato queste due esperienze coeve ma diametralmente opposte, l'una che si cimenta nella ricerca di una risposta puntuale (l'edificio) l'altra in una domanda lineare (l'asse), si può rileggere la proposta del Gruppo Romano che di certo aveva interiorizzato il passato del concorso della camera e aveva anche passato l'esperienza "mitica" della progettazione dell'asse attrezzato.

Asse compositivo e potere di rappresentazione

La proposta per la città di Roma del 1987 del gruppo guidato da Franco Purini, prevede la demolizione dell'edilizia ottocentesca presente in via del Corso nelle immediate vicinanze di Montecitorio e Palazzo Chigi.

Le modalità di azione sulla città possono essere ricomposte tramite una possibile lettura il procedimento progettuale che vede la duplicazione dell'asse di via dei Condotti, il suo ribaltamento e la sua ripetizione sulla maglia 10.80 x 10.80.

170 L'asse interviene sulla griglia definendo gli spazi democratici per la città. Il valore di tale operazione non è solo compositivo: Tramite la ri-misurazione della città data dalla maglia, lo spazio viene ad essere democraticizzato, la cancellazione degli edifici precedenti ha il forte significato di riscrittura della storia che viene però ad essere ricordata dalla presenza latente dell'asse di via dei Condotti. Il tracciato precedente riscrive la città assumendosi la responsabilità di dividere e di riformulare la griglia.

La memoria della città è conservata in uno degli edifici risultanti, nello specifico nel cubo di vetro dell'ex Rinascente, in un ambiente sotterraneo definito da un grande spazio unitario di circa 300 x 45 metri che riporta alla luce la quota storica della città. L'utilizzo dell'asse quindi si può dire che non sia figurativo bensì progettuale poiché definisce, taglia, modifica e riformula il nuovo volto del foro romano. In conclusione, se il concorso della Camera dei Deputati serviva al tempo a rappresentare un potere a renderlo evidente, il Gruppo Romano rifugge la rappresentazione stessa. Si può affermare, infatti, che il concorso non vide la sua risoluzione non solo per le motivazioni già ampiamente trattate da Tafuri ma anche per lo scollamento che sarebbe avvenuto di lì a poco con i moti del 1968 tra il volto della politica e chi questa avrebbe dovuto rappresentare.

Si potrebbe stilare un parallelo ideologico, difatti, sulle diverse modalità di rappresentazione intesa come comunicazione politica: la "rappresentazione" dei progetti derivanti dal concorso del 1967 è teatrale, di impressione per alcuni casi esso è stato "un pretesto per vestire l'abito della festa e dare sfogo a velleità inibite"⁶. La rappresentazione, in questo caso, rappresenta e quindi offre un'immagine percettiva. Si potrebbe dire, forzando agli estremi, che quello del concorso è una rappresentazione prospettica, di impressione, la "rappresentazione" del Gruppo Romano, invece, interviene sul Foro Romano con una

“rappresentazione assonometrica”. E’ la ri-presentazione della verità. E’ la necessità di verità democratica che investe il ruolo dell’architetto. Essa come un’assonometria deve e deve così. Non è rappresentazione del palazzo del potere, non è sfoggio di forza politica ma disegno muto ed infinito che lascia la possibilità, nella sua essenza, di far parlare la polis.

L’asse monumentale dell’Urbe Massima di Armando Brasini

L’eredità del passato, addensata nella sua complessa stratificazione, vede la necessità di confrontarsi con le nuove posizioni architettoniche sorte negli inizi del Novecento.

Roma, nuova capitale, si trova ad affrontare le problematiche del premoderno passando attraverso la necessità di monumentalità dettata dal governo del tempo, che aspirava ad un’immagine unitaria, e dalla sua situazione frammentaria dovuta ad una crescita non controllata e pianificata.

In tale contesto si inserisce questa lettura che analizza il ruolo del progetto nel centro storico tramite lo strumento compositivo dell’asse, sempre tenendo presente il periodo storico di riferimento che ha visto l’ideologia politica sovrapporsi alla scelta progettuale.

Riflettendo sulle emergenze della città e basandosi sulla forte considerazione della preesistenza, la proposta progettuale di Armando Brasini sulla sistemazione del centro storico di Roma⁷, nel 1927, cerca una modalità di azione che rappresenti un parallelo alla monumentalità. La situazione di frammentazione degli interventi nel centro viene affrontata tramite il principio dell’asse che regola le relazioni tra le parti. L’intervento sul luogo avviene in maniera consolidata, mirando all’idea del recupero della grandiosità. Tenendo ferma tale esigenza, audacemente, attraverso varie operazioni, viene prospettata una sistemazione policentrica che deriva dal potenziamento del significato dell’asse. Quest’ultimo unisce gli spazi della città, i manufatti esistenti e quelli che dovranno sorgere nell’ottica di riflettere un’immagine potente ed unitaria in un’unica via che attraversa l’intera Urbe richiamando così la Roma Imperiale.

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Il ruolo portante di questa spina dorsale viene realizzato demolendo i fabbricati di relativo interesse storico e diradando gli spazi intorno ad i monumenti isolati come il Pantheon, la Colonna Traiana e il Tempio di Adriano attribuendo, in tal modo, un chiaro significato a ogni monumento nella propria singolarità storica. La trasformazione della struttura urbana nel piano di Brasini assume una vasta articolazione anche negli spazi aperti: aumentando la dimensione in larghezza degli assi viari Brasini propone dei collegamenti visivi che avrebbero posto in una relazione di dialogo le parti della città facendo così controbattere la città nuova all’eco di quella antica. La griglia proposta per il tracciato del centro e delle aree di espansione, assieme ai grandi manufatti, riflette la necessità di tale

⁷ A. Brasini, *L’opera e urbanistica di Armando Brasini: dall’Urbe Massima al ponte sullo stretto di Messina*, Corigliano Calabro, Roma, 1979

comunicazione. Nel confronto tra lo stato attuale e quello di Brasini, fatto di pieni e vuoti, emerge la sua intenzione principale, la prevalenza del vuoto, che lungo questa arteria viene realizzato tramite la demolizione di piccoli edifici, strade e chiese minori.

La via Imperiale recupera il piano romano al fine di mostrare i ruderi antichi: tale azione rappresenta la convergenza delle vie consolari che negli incroci con il tracciato fa emergere la linea centrale che raccoglie i Monumenti Romani che attraversano il periodo Repubblicano, Imperiale e Cristiano.

Il piano di Brasini pur concentrandosi nella sistemazione del centro storico prevede contemporaneamente una continuità con le parti in espansione. Le vie consolari convergono nell'asse principale proposto ed in tale modo vanno a creare una nuove polarità che rappresenta il nuovo centro di vita della città. Inoltre, lungo questa arteria Brasini prevede la costruzione di grandi spazi che avrebbero potuto aumentare la potenza delle scene visuali emerse da tale sfondo monumentale.

La proposta di Brasini avrebbe avuto come nucleo il Foro della politica, centro dell'Urbe, dove la comunicazione tra gli edifici statali, monumenti, piazze, la via Imperiale e la nuova basilica mussoliniana, avrebbe permesso la contemplazione contemporanea della monumentalità, del potere e della vita attuale. In tale sequenza l'importanza di via del Corso viene ad essere trascurata ed il suo ruolo portante viene trasferito agli assi trasversali, dove i Fori sorgono come nuove centralità. Questo fa sì che ci sia un decentramento ed un depotenziamento di via del Corso. Tale operazione riflette la trasformazione della struttura urbana che, concentrando invece la sua potenza nel Foro Mussolini, piazza del Parlamento, piazza Colonna e nel Foro Sabauda, mette così in crisi il sistema del Tridente. La soluzione che prevede la costruzione di un asse imperiale come nuovo nucleo politico, la scelta di ridimensionare l'asse esistente e la proposta di demolizione di alcune parti di una città consolidata come Roma viene tuttavia ritenuta utopica e per tali motivi accantonata.

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Mentre nelle altre capitali la ricerca e la progettazione di espansione del centro storico viene affrontata anche poderosamente, la proposta di Brasini, con tutte le caratteristiche del tempo in cui si colloca rimane uno degli ultimi tentativi di rappresentazione di monumentalità e soprattutto di risoluzione alla frammentazione del centro. L'asse in quanto strumento compositivo ebbe dunque, nel progetto di Armando Brasini, una forte valenza politica e assertiva del potere dell'epoca. Per questo occorre chiedersi, qualora fosse depotenziato di una tale valenza, se si possa ancora considerare come uno strumento progettuale di riconnessione capace di manifestare il significato politico della città del nostro tempo.

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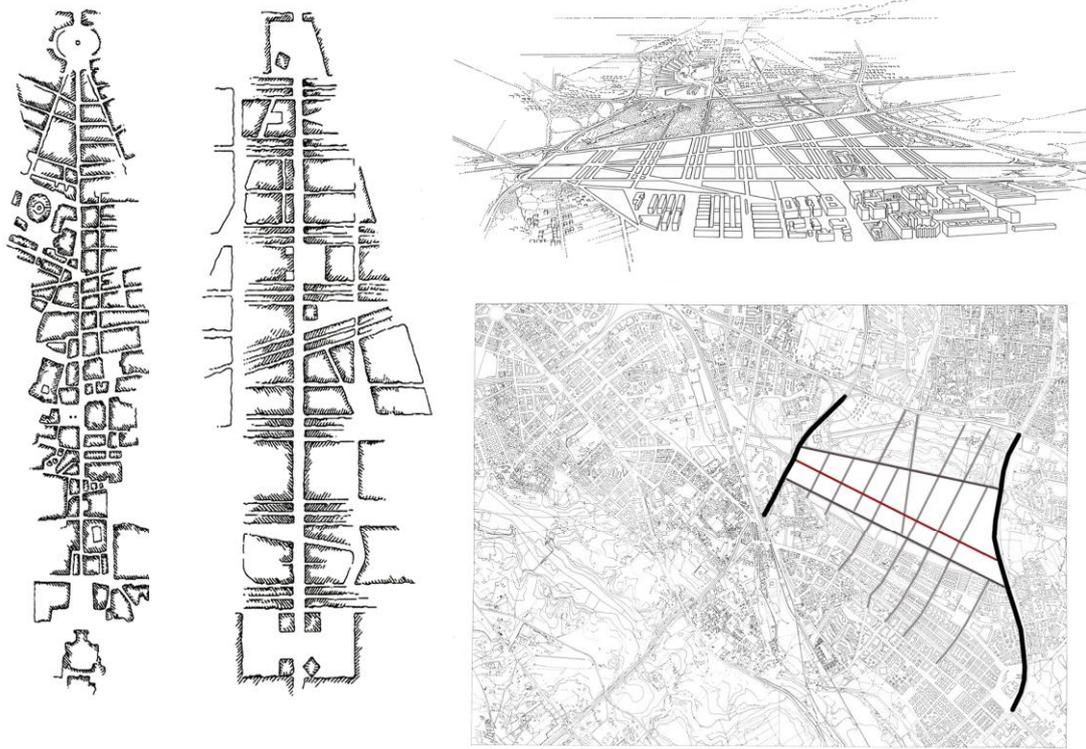
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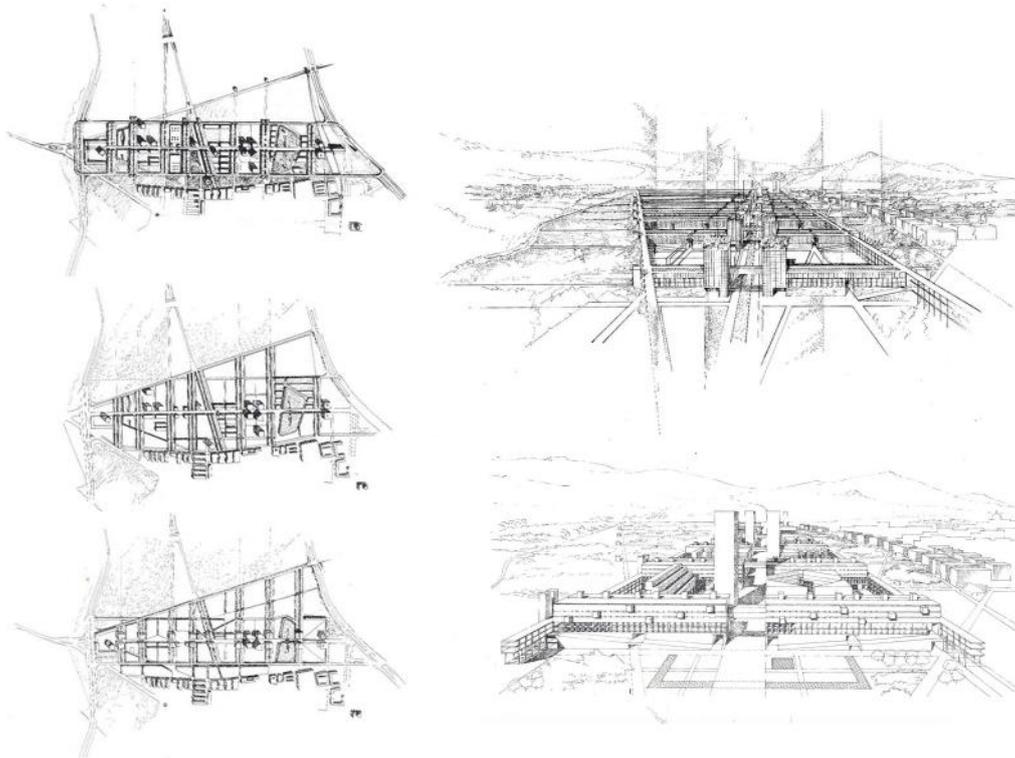
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Fig. 1 Gruppo romano (capogruppo Franco Purini), " La città politica, il Parlamento e i nuovi Ministeri, Progetto per Centocelle". A destra l'asse di via del Corso e l'asse di Centocelle. A sinistra operazioni di ricucitura tra l'area di Centocelle e la città esistente, XVII Triennale di Milano 1987
Fig. 2 Gruppo romano (capogruppo Franco Purini), " La città politica, il Parlamento e i nuovi Ministeri, Progetto per Centocelle". A destra variazioni ammissibili sul progetto. A sinistra prospettiva di F. Purini e L. Thermes (in alto) e prospettiva di A. Anselmi (in basso), XVII Triennale di Milano 1987.



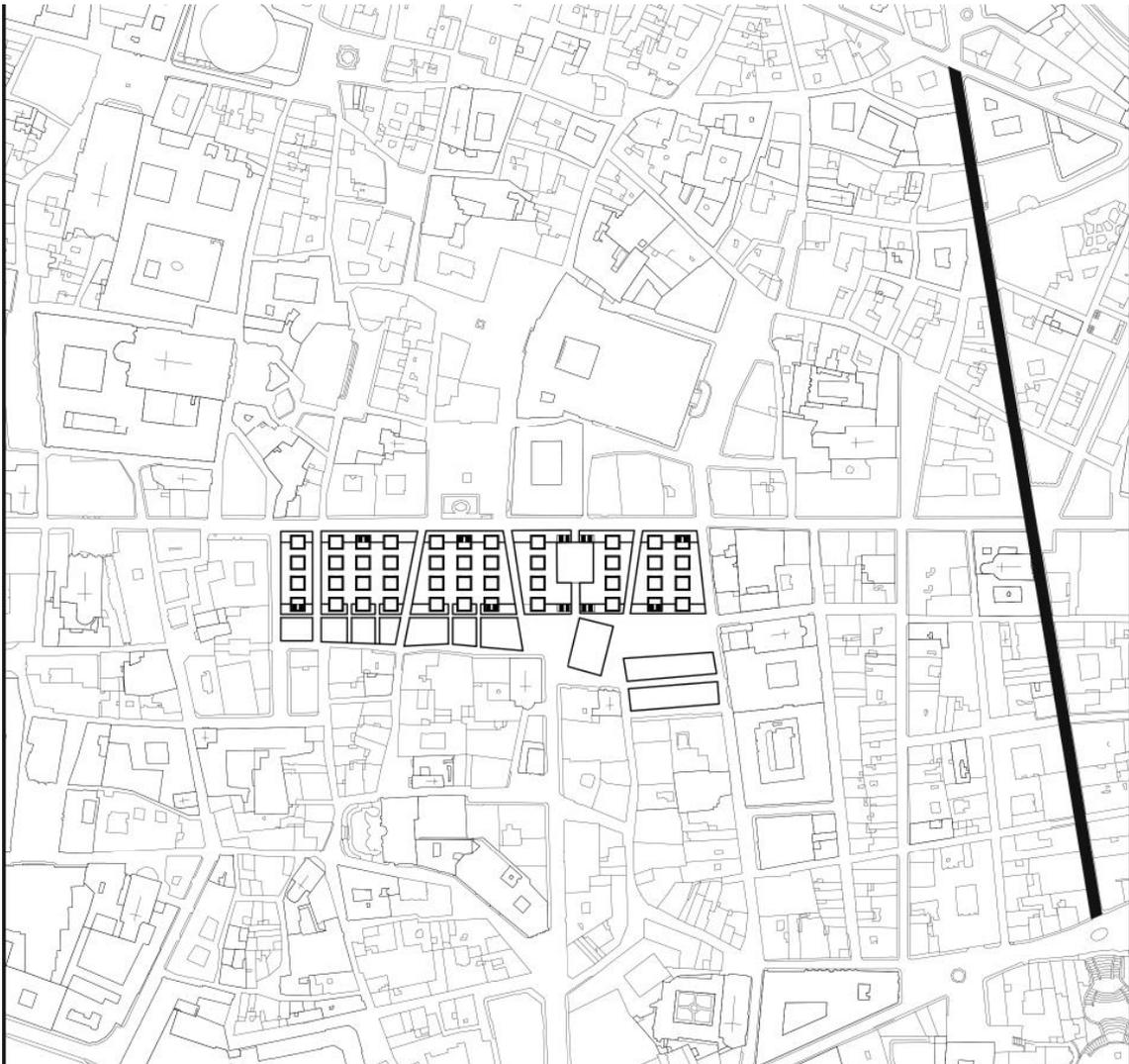
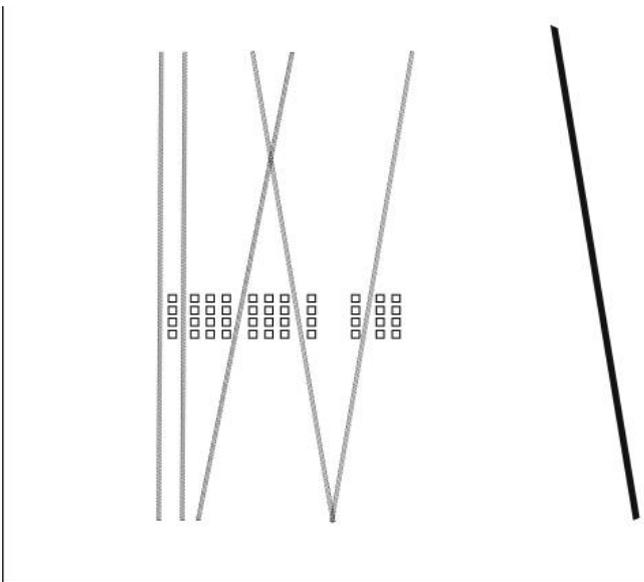


Fig 3 e 4 Analisi grafica del progetto del gruppo romano (capogruppo Franco Purini), "La Città Politica, Il Parlamento e i Nuovi Ministeri".



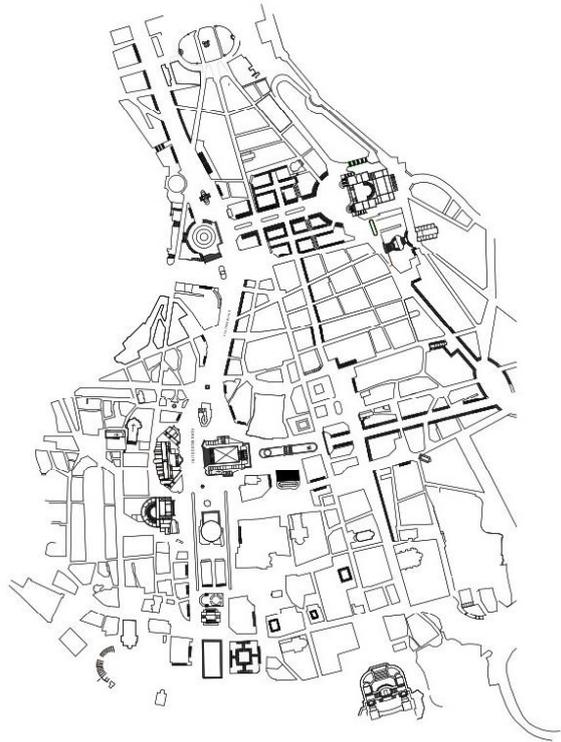


Fig. 5 Confronto tra la planimetria attuale di Roma e la proposta di Armando Brasini
Fig. 6 Armando Brasini, ipotesi di progetto per Roma imperiale

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Il progetto dello spazio pubblico nella città storica Il concorso del 1967 per l'ampliamento della Camera dei Deputati

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Keywords: Rome, urban design, historical city, political city

Abstract

The competition of 1967 for the new offices of the Chamber of Deputies is an important episode in the Italian architecture of the postwar period, because it is a rare example of contemporary design in the heart of the city of Rome, both for the participation of the major Italian exponents, but also for the unusual ex aequo result which shows the failure of the competition and the heated dispute of those years about the topic of the city.

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The projects of the competition, which are collected in an interesting essay by Manfredo Tafuri, undoubtedly show the main attention to the architectural shape of the building and its interior functional program, but through the careful reading of the projects, it is interesting to see the centrality of urban design as a generator or, at least, as indispensable strategy for the insertion of the object in its context.

Following the research project done during the phd program of DRACo school - Architecture and Construction in La Sapienza University, the paper aims to deepen the design of urban space before the architectural design which is present in the projects of the competition of 1967, the different methods and strategies of design, for example the urban platform by Passarelli, the honorary column by Polesello, the perspective views of Quaroni and Vaccaro. In this sense it is crucial to compare these projects and the design of Parliament Square by Ernesto Basile of 1902.

Introduzione

Il Concorso del 1967 per l'ampliamento degli uffici della Camera dei Deputati è un importante episodio nel panorama dell'architettura italiana del dopoguerra sia perché risulta essere uno dei rari casi di progettazione contemporanea nel cuore della città di Roma, sia per la partecipazione dei maggiori esponenti del pensiero architettonico del tempo (dai maestri ai progettisti più noti allora molto giovani). Ma anche e soprattutto per l'insolito esito, un inatteso *ex aequo*, che riflette tutte le contraddizioni e la complessità della questione italiana e l'accesa disputa di quegli anni sul tema della Città. I progetti del concorso, raccolti nell'interessante testo critico di Manfredo Tafuri, rivelano indubbiamente un'attenzione prioritaria alla forma architettonica dell'edificio e al suo funzionamento interno, ma ad un'analisi più approfondita è possibile vedere la centralità del progetto urbano che emerge in molti di essi come generatore o comunque come fondamentale riflessione per l'inserimento del nuovo oggetto nel contesto.

Piazza del Parlamento è uno spazio urbano ad oggi ancora irrisolto, il cui disegno e la relativa interpretazione semantica è mutata continuamente dal suo stesso concepimento. Il progetto di Ernesto Basile del 1902 per il Nuovo Palazzo del Governo nasce dalla dichiarata intenzione di trasformare Palazzo Ludovisi in un palazzo bifronte. Questa scelta, nella densità del tessuto storico di Roma, si fa carico necessariamente di una radicale trasformazione dell'area e della progettazione di una nuova piazza che, specularmente a quella di Montecitorio, ne emuli il più possibile la magnificenza.

La sistemazione dell'area secondo le direttive di Basile non giunge mai a compimento e ciò segna l'inizio di un travagliato iter per questo emblematico pezzo di città che arriva fino ai giorni nostri, delineando quello che oggi appare come un vero e proprio vuoto urbano a fianco del Parlamento Italiano.

Su queste premesse si innesta il concorso del 1967, e nonostante l'attenzione al tema centrale della costruzione di un edificio funzionale e integrato al preesistente, i progettisti dell'epoca non possono prescindere dall'importante compito della collocazione di tale oggetto nell'area assegnata. Come concepire dunque tale innesto contemporaneo nella complessità del tessuto antico?

Come immaginare uno spazio che ha in sé il tempo dello stare e quello dell'attraversamento? Che interazioni innescare tra i vuoti e pieni di una città così stratificata? Quale lettura dare o quante letture sovrapporre? Il testo proposto vuole indagare i progetti del 1967 secondo questo nuovo *focus* che non si attarda nel linguaggio utilizzato o nel funzionamento dell'oggetto architettonico ma sull'interpretazione dello spazio pubblico generato da tale intervento all'interno del complesso disegno della Roma del Tridente.

I progetti del concorso per i Nuovi Uffici della Camera dei Deputati del 1967: analisi dello spazio pubblico urbano

La complessità del tessuto del centro storico di Roma, la conformazione di questo vuoto urbano e il carattere politico del nuovo edificio richiesto rendono questo concorso un episodio unico nella storia dell'architettura italiana. La particolarità del lotto, presente già allora nella memoria

collettiva come un grande vuoto a fianco del palazzo del Parlamento (l'area appare irrisolta sin dai primi del Novecento) pone come prioritario il problema dell'inserimento del nuovo manufatto nello spazio urbano.

L'interpretazione suggerita dai concorrenti riguardo lo spazio pubblico, generata dalla collocazione dell'edificio nel contesto, viene in questa istanza approfondita attraverso l'analisi di quattro categorie progettuali relative alle tipologie di spazio collettivo. I criteri di valutazione utilizzati tengono conto *in primis* della sostanziale differenza tra spazio pubblico esterno e spazio pubblico interno all'edificio stesso e in secondo luogo di alcune sottocategorie desunte dalla tipologia di fruizione e attraversamento nello spazio nonché dallo sviluppo dei fronti, dal grado di riempimento del perimetro dato e dal rapporto compositivo tra pieni e vuoti. La ricerca vuole mettere in luce come tali variabili alterino radicalmente il rapporto tra dimensione privata e pubblica e offrano l'occasione per una nuova percezione dello spazio esistente.

La prima categoria riguarda quei progetti che privilegiano lo spazio pubblico interno come elemento distributivo dell'edificio. Il cortile, ma anche la grande hall ad esempio, appartengono a questa strategia progettuale.

Il Gruppo Caniggia e il Gruppo Bollati, ad esempio propongono il totale riempimento del perimetro dato mediante la continuazione del tessuto edilizio, come scrive Tafuri (1968:69) "*seguirne la legge diviene per loro garanzia di storicità del nuovo prodotto*". Dotati di un carattere sperimentale e didattico, tali progetti propongono uno spazio pubblico che trova il suo significato nell'interpretazione contemporanea del palazzo dove lo spazio architettonico interno riflette quello del tessuto edilizio urbano. Il progetto del Gruppo Romano-Castellazzi, segue lo stesso criterio compositivo ma si contraddistingue per una geometria molto semplice e volutamente priva di un forte legame con il contesto. In particolare, questa proposta inserisce la fontana al centro della facciata, donando a Piazza del Parlamento un arredo urbano, oggetto quasi simbolico, che cerca una continuità visiva con la scala del Palazzo di Montecitorio.

La seconda categoria prende in esame quei progetti permeati da alcuni forti linee generatrici che ne scalfiscono la linearità perimetrale e che individuano degli spazi pubblici interni di attraversamento come dei passages cittadini.

Il progetto del Gruppo Quaroni, sebbene appartiene anche alla prima categoria, spezza la continuità del perimetro con un particolare disegno di pianta che pare rifletta all'interno le linee direttrici dettate dal contesto. La struttura compositiva determinata da quattro assi che attraversano il progetto, posti l'uno rispetto all'altro a novanta e quarantacinque gradi, è visibile anche verticalmente attraverso dei tagli nei prospetti. (Tafuri, 1968:35). In tal modo sembra quasi che l'edificio, pur nascendo dalla conformazione del tessuto stesso, generi al suo interno nuovi percorsi come una città, quella politica, nella città stessa.

Il progetto di Aymonino, invece, mette insieme varie forme astratte tra le quali corrono dei percorsi pedonali a diversi livelli, permettendo di avere oltre una varietà di visuali, dovuta alla composizione spaziale, anche una diversa percezione di fruizione del progetto, tanto in piano quanto in verticale; spazi terrazzati, che pare rievochino i giardini romani barocchi, trasformano questo vuoto in uno spazio urbano strutturato su

più livelli. I progettisti nella relazione ritengono che il progetto *“non viene proposto come un ulteriore, piccolo monumento da collocare accanto agli esistenti; ma la sua caratteristica principale è costituita dall'essere prima di tutto una sistemazione urbana”* (Tafari, 1968: 106).

Nel caso di Manieri poi, due figure che tendono al triangolo vengono tagliate attraverso un passaggio diagonale che unisce Piazza del Parlamento con Via della Missione, consolidando in questo modo un nuovo ingresso urbano a quest'area e attivando un sistema di percorsi secondario ma non per questo di minor importanza che offre una nuova lettura della piazza.

La terza categoria analizza quei progetti che utilizzano lo spazio pubblico esterno come elemento dominante nella conformazione del manufatto architettonico. Innalzando il volume dell'edificio, o arretrando il piano terra, questi progetti sono caratterizzati tutti da uno spazio pubblico coperto su Piazza del Parlamento. Il progetto del Gruppo di Samonà è un caso significativo tra tutte le proposte, essendo un edificio di fatto sospeso. Citando provocatoriamente LC, il nuovo palazzo di Samonà si mostra come dinamico gioco di volumi che si stagliano nel cielo sfidando la gravità, grazie alla proporzione e alla posizione degli esili pilastri che li sorreggono. Questo sottile equilibrio tra peso e sostegno mantiene in parte la qualità dello spazio vuoto originale, configurando una piazza coperta che si fonde all'attuale pur mantenendo la sua indipendenza. In questo modo il progetto interpreta una spazialità moderna che calata dall'alto permette di apprezzare i fronti del tessuto edilizio esistente. Vicino a questa proposta si trova il progetto del Gruppo Pellegrini, che sviluppa l'idea di piazza coperta unitamente a quello di piastra rialzata rispetto al livello urbano. In questo caso si legge un volume più unitario strutturato da pilastri e relativi percorsi che attraversano il piano terra e il piano rialzato configurando tanto una piazza coperta esterna quanto una interna al progetto. Interessante in tal senso la proposta del Gruppo Vaccaro, vincitore mancato del concorso, il quale, pur sfruttando il perimetro dell'intero lotto, arretra il piano terra, con un graduale slittamento di superfici in facciata, creando un nuovo spazio pubblico nella piazza antistante.

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In ultimo la quarta categoria si concentra su quei progetti che vogliono verificare la relazione tra il nuovo edificio e il disegno dello spazio pubblico esterno.

Tra questi troviamo il progetto del Gruppo Passarelli che partendo da una lettura critica della storia dell'area, fonda la composizione sull'equilibrio di due geometrie molto diverse: una modulare e dinamica, che segue il ritmo del tessuto preesistente, e un'altra, più massiva e monumentale, che dialoga con il Palazzo di Montecitorio. I volumi semicircolari sottolineano questo dialettico rapporto e si incastrano in una piastra pedonale che unifica e consolida tutta l'area parlamentare intorno al Palazzo. La provocazione quasi utopica di questo gesto pone lo spazio pubblico urbano come elemento connettivo della città politica. Similarmente, pur se attraverso un linguaggio architettonico totalmente distante, Polesello cerca l'unità attraverso la giustapposizione di parti ben distinte tra loro, il volume puro dell'edificio e la piazza ribassata antistante. Il progetto del Gruppo di De Rubertis infine suggerisce l'immagine di un edificio scavato dallo spazio pubblico urbano. Un semicerchio in pianta, estruso in alzato,

disegna un cilindro cavo che, forte della sua immateriale presenza, invita ad entrare nell'edificio.

La cittadella politica del Gruppo Passarelli

*"Il fatto di lasciare un segno dell'architettura attuale nei centri storici è un punto molto importante e particolarmente ritengo che un luogo appropriato sia proprio la Piazza del Parlamento"*¹ Così risponde Passarelli alla fine della sua carriera alla domanda "E' possibile costruire il nuovo nell'antico?". Per Piazza del Parlamento infatti, nel 1967, egli insieme a Paolo Cercato, Maurizio Costantini e Paolo Ceschi, progetta la proposta "3P 3C", risultando tra 18 vincitori ex aequo e tra i 5 finalisti.

All'inizio della relazione allegata al progetto viene sottolineata la centralità del contesto e della storia dell'area. Dalla sovrapposizione del Palazzo di Basile (1908) ad una planimetria del 1829, Passarelli vuole evidenziare che la trasformazione cruciale della zona avviene dopo l'edificazione della nuova Camera dei Deputati. Segue poi una ricerca e un'analisi del tessuto urbano circostante, individuando tre trame diverse cronologicamente sovrapposte: quella dell'edilizia settecentesca, quella della fine dell'Ottocento e quella del Novecento successiva all'avvenuta costruzione del Palazzo. In base a questi risultati si afferma perentoriamente che *"il nuovo edificio deve naturalmente avere un'architettura attuale e non di compromesso. Una composizione unitaria, in senso stilistico tradizionale, creerebbe una quarta architettura aumentando la confusione dei linguaggi architettonici"* (Relazione, 1967:35). La soluzione

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è un'architettura "commista" che recepisca i tessuti dominanti, cioè quello del centro storico antico e quello dell'edificio Basile in un nuovo alfabeto architettonico. L'interpretazione contemporanea di questi due tessuti, avviene principalmente mediante il contrasto materiale e formale di due temi compositivi sovrapposti: da un lato l'uso di tre volumi massicci di cemento armato con pietrisco calcareo di colore caldo, due curvi e uno retto² richiamano le torri del Palazzo di Basile; dall'altro il dinamismo di volumi di un materiale leggero tipo acciaio di color ruggine³ vogliono rievocare l'irregolarità del tessuto edilizio settecentesco. Questo contrasto è in diretta relazione con le funzioni interne: i volumi massicci contengono le "cellule" di lavoro individuale³, basate sulla misura del modulo lecorbusiano⁴, mentre la struttura di volumi leggeri accoglie gli uffici, la biblioteca e il ristorante. Tra i punti d'incrocio dei due linguaggi, profondi vuoti segnano le principali connessioni orizzontali e verticali.

1 intervista personale a Passarelli (12 Febbraio 2015).

2 "Elemento "di forza", in linea a confine di edificio esistente". Estratto dalla Relazione, Gennaio 1967, p.38. ³ "Tale griglia è interrotta con degli spacchi verticali in corrispondenza di ogni ambiente. Dall'interno quindi si ha una vetrata continua schermata parzialmente dalla retrostante griglia, con squarci di veduta in corrispondenza delle interruzioni di detta". Estratto dalla Relazione, Gennaio 1967, p.39.

3 "Le sale di scrittura tradizionali non risolvono il problema della concentrazione; si tratta, sempre, di ambienti comuni, ove le persone sono a contatto l'uno dell'altro. La soluzione che si ritiene idonea è di dotare ogni parlamentare di una stanza singola, come accade in altri paesi". Estratto dalla Relazione, Gennaio 1967, p.40.

4 "l'ambiente dove Le Corbusier lavorava nel suo Studio di Parigi e dove riceveva i visitatori; risultato delle ricerche del grande Maestro sulla modulazione, le esigenze umane e l'architettura. Un ambiente cubico di metro 2,26x2,26x2,26". Estratto dalla Relazione, Gennaio 1967, p.56.

Il monumentalismo delle forme massive è evidente, i due elementi circolari incastrati in questa griglia di superfici mutevoli, emergono dalla terra con una forma decisa che si impone al contesto, accogliendo e distribuendo i flussi di percorrenza all'interno dell'edificio. L'elemento più significativo è la curva di dimensione più grande⁵, che raccoglie la spinta visiva del Palazzo di Basile ruotando come un grande vuoto intorno alla torre destra di facciata del Palazzo del Parlamento. Qui il setto semicircolare sprofonda a terra a quota -5,8 metri creando una piazza ribassata che porta ai parcheggi sotterranei. Dall'altra parte di Via di Campo Marzio invece l'elemento circolare minore⁶, si apre a segnalare il punto d'incrocio con un piccolo vicolo.

Quello che emerge come interessante secondo lo studio dello spazio pubblico urbano è un aspetto particolare del progetto, che non viene proposto dagli altri architetti, cioè la costruzione di una grande piastra rialzata che estendendosi su tutta l'area di Montecitorio cerca l'unità della città politica. Passarelli fa richiesta di un piano di attuazione, da inserire in un futuro piano particolareggiato del centro storico, che preveda la consolidazione di quest'area urbana mediante una zona pedonale denominata "precinto"⁷ del governo. Tale elemento ha una valenza simbolica e sociale, un basamento unificatore dove il cittadino "avverta la presenza dell'aula; dove il parlamentare possa essere a contatto con una città di uomini e non solo con il traffico" (Relazione, 1967:32). Questa grande piastra unisce Piazza Colonna, Piazza Montecitorio e Piazza del Parlamento, conformando anche il piano seminterrato e il piano rialzato del progetto. Al tempo stesso essa permette l'ingresso ai parcheggi del sotterraneo e al primo piano (che corrisponde al piano principale di accesso). Attraverso essa inoltre si accede alle sale di ricevimento pubblico e avviene il collegamento con la "Galleria dei passi perduti" del Palazzo di Montecitorio. Nei piani seminterrati e interrati ci sono l'archivio e il CED; nei piani superiori gli uffici, il magazzino libri e la biblioteca; e negli ultimi piani il ristorante e gli appartamenti. Il "precinto", insieme ai due volumi semicircolari che si aprono alla città, evidenzia un'attenta sensibilità al contesto e alla dimensione sociale e pubblica, riconoscendo l'impatto che genererebbe un intervento di questo tipo nel centro storico e l'importanza del rapporto tra architettura e cittadinanza. Questi aspetti, insieme al ragionamento sui tessuti edilizi e al confronto con le preesistenze, fanno dell'edificio di Passarelli un importante esempio di dialogo con la memoria e la società. Egli fonda l'essenza dell'architettura sull'evoluzione e l'identità di un luogo accogliendo attivamente e positivamente tanto la sfida quanto la necessità di lasciare un segno del nostro tempo nella storia della città.

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5 "contenimento della spinta visiva del Basile; inserzione e raccolta della torre d'angolo; struttura di sostegno del tessuto edilizio esistente, tagliato nettamente a ridosso; decisa asimmetria dell'altro angolo dell'edificio Basile su Piazza del Parlamento". Estratto dalla Relazione, Gennaio 1967, p.36.

6 "Elemento analogo unitario di richiamo". Estratto dalla Relazione, Gennaio 1967, p.38.

7 "Tale precinto comprende appunto Piazza Montecitorio e Piazza del Parlamento, con un affaccio su Piazza Colonna e possibilità di ampliamento verso il Pantheon ed il Senato attraverso zona stradali o spazi interni". Estratto dalla Relazione, Gennaio 1967, p.32.

Il Nuovo Palazzo del Governo di Polesello

Come dichiara perentoriamente Tafuri *“Polesello vuole evidentemente compiere con questo progetto un esperimento linguistico parziale, vuole verificare la coerenza interna di un metodo, le sue possibilità comunicative nello scontro con la struttura urbana”*⁸.

Egli stesso parla di questo edificio come l'edificio pubblico per eccellenza, *“il moderno palazzo del governo”*⁹: un'opera che riassume nella centralità della sua funzione e nella sua rappresentatività, il fatto urbano per antonomasia. Quest'opera è l'occasione per Polesello di disegnare l'essenza della città intesa come *urbs* e *civitas* insieme. Polesello sceglie un triangolo puro dalle pareti cieche interamente rivestite in travertino, un oggetto assolutamente astratto che si oppone dichiaratamente ad un confronto con il Palazzo di Basile. Il suo interesse è quello di dar vita ad un'architettura senza tempo che nella compiutezza della sua forma e nella coerenza della sua struttura sia una macchina perfettamente costruita ad arte per il suo funzionamento interno. *“Un monoblocco assoluto che ostenta la propria coerenza”*¹⁰ la definisce efficacemente Tafuri. Questo oggetto architettonico però, pur se apparentemente indifferente al contesto, si rivela in realtà strettamente legato allo spazio in cui viene inserito poiché secondo la logica poleselliana è dalla sua collocazione spaziale che assume il suo stesso significato ed è in essa che trova l'unità. La filosofia compositiva di Polesello infatti nasce dal pensiero che ogni architettura è il risultato della combinazione di più parti che, pur mantenendo la loro compiutezza, assumono un significato altro, diciamo pure aggiunto, nell'unità. *“Noi crediamo poter dire che l'unità è il legame che produce un tutto, vale a dire l'accordo delle parti tra loro e con l'insieme”*¹¹, dice Polesello e tale unità è per lui la città. La città viene identificata come inizio e fine dell'atto progettuale, egli stesso afferma *“è vero, per me, che la città è stata assunta come luogo di origine e di ritorno per l'esperienza di progettazione architettonica”*¹².

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In tal senso possiamo leggere il progetto proposto per il concorso dell'ampliamento della Camera dei Deputati, come l'applicazione concreta di un pensiero compiuto, un'opera sperimentale che ha in sé già tutti gli elementi della maturità poleselliana. Non a caso egli citerà tale progetto come riferimento continuo fino alla fine della sua carriera nonostante sia una delle sue prime opere¹³.

Un prisma perfetto quindi, che assume la sua completezza solo se unità parziale di un'unità superiore: la città. Capiamo perché. Innanzitutto il triangolo di Polesello non è un triangolo equilatero ma un triangolo isoscele

8 M. Tafuri, Il concorso per i nuovi uffici per la Camera dei deputati, un bilancio sull'architettura italiana. Edizioni universitarie italiane Roma 1968 p. 64.

9 GP, in “La logica delle Memorie” di Tomaso Monesteroli, Maggioli editore, Milano 2010. Pag. 120

10 M. Tafuri, Il concorso per i nuovi uffici per la Camera dei deputati, un bilancio sull'architettura italiana. Edizioni universitarie italiane Roma 1968 p. 65.

11 A.C.Quatremere de Quincy, Dizionario storico di architettura, voce “unità”, edizione a cura di V.Farinati, G.Teyssot, Venezia 1985, pp. 280-281.

12 GP. Note per architettura tematica, in “Per un'idea di città. La ricerca del Gruppo Architettura a Venezia (1968-1974)”. CLUVA Venezia 1984.

13 (il progetto) “più vecchio che ho fatto e al quale sono più affezionato”, scrive Polesello, è il progetto per Camera dei deputati” GP. Architetture e piani, in Gianugo Polesello. Progetti di architettura, a cura di P. Grandinetti, Kappa. Roma 1983.

e cioè ha dichiaratamente una direzione e un verso, la sua punta converge su Piazza del Parlamento. Inoltre l'apparente impenetrabilità delle sue pareti in realtà si rivela all'occhio di chi osserva ben presto vulnerabile poiché ai tre lati corrispondono tre ingressi, e ad ogni ingresso lo spazio pubblico esterno sembra trafiggere l'oggetto invadendone i contorni ed occupandone le forme. Ad ogni accesso infatti corrispondono tre grandi atri che si dilatano in altezza su più piani. Questa corrispondenza, o coerenza linguistica, tra funzione e forma, tra interno ed esterno, si misura con il valore segnico di alcuni elementi architettonici. Nella parte retrostante la grande rampa, citazione lecorbusiana, si sviluppa fino alla copertura dietro una grande superficie vetrata, sulla facciata principale l'ingresso è contraddistinto da otto colonne binate, mentre nella piazza ribassata ad angolo con Via di Campo Marzio una colonna cilindrica dipinta di rosso si fa simbolo del potere politico richiamando le antiche colonne onorarie di Roma. Inoltre l'inserimento dell'oggetto architettonico nel lotto assegnato è lo strumento per individuare due distinte piazze, una di carattere più rappresentativo e pubblico sul fronte e l'altra di carattere più intimo e privato sul retro. Nel primo caso la piazza si trova ad un piano ribassato ed ospita la colonna rossa già citata, nel secondo caso invece vengono collocati sia il collegamento al Palazzo di Basile (attraverso un insolito elemento scultoreo verticale) sia la fontana barocca, quasi ad echeggiare le atmosfere di certi cortili dei palazzi romani.

In alcuni schizzi ritrovati presso l'Archivio Polesello, infine, emerge uno studio approfondito dell'intera area di Montecitorio, in essi è evidente l'intento di mettere in relazione Piazza Colonna, Piazza di Montecitorio e Piazza del Parlamento attraverso la progettazione di alcuni essenziali interventi, come la nuova facciata dell'allora Galleria Colonna o l'utopica proposta di demolizione del palazzo de Il Tempo. In pochi segni, la sua matita sembra mette in luce la costante ricerca di un equilibrio misurato tra le parti, come dettato da un pignolo studio della dinamica dei corpi in un gioco attento di geometrie e pesi, dentro quel complesso e mutevole fenomeno che si chiama città.

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Conclusioni

Il concorso del 1967 si colloca in un particolare periodo storico del pensiero architettonico italiano, un periodo di accese dispute, già pregno di quella contestazione politica che non tarderà ad esplodere nel movimento sessantottino e quindi carico di un acceso fermento ideologico. Il suo esito ne sarà l'inequivocabile e provocatorio bilancio. La ricostruzione postbellica, un passato davvero molto recente, aveva già aperto numerosi interrogativi sulla ricerca e la legittimità di un metodo, mentre gli studi sulla città proprio in quegli anni davano alla luce molti tra i testi più importanti della nostra letteratura. L'urgenza di codificare un linguaggio e con esso una metodologia operativa emerge come prioritaria in tutti i progetti proposti. L'attenzione sull'oggetto architettonico dunque sembra prevalere sullo studio dello spazio pubblico urbano, ma ad un'attenta analisi esso non appare in second'ordine rispetto al tema compositivo.

Nelle ricerche di archivio da noi approfondite durante le attività del dottorato Draco relative ai due progetti di Passarelli e di Polesello è stato possibile ritrovare elaborati che mettono in luce in entrambi i casi un scrupoloso studio dell'area non solo dal punto di vista storico-evolutivo

ma anche e soprattutto relativo allo spazio urbano. L'attualità di certi argomenti infatti non ci allontana dal pensare quindi che anche nel 1967 un buon progetto architettonico, ed in particolar modo un progetto architettonico nella per la città, non esuli mai dallo spazio in cui viene collocato e dallo spazio che da esso viene generato. Ed uno spazio cittadino poi, essendo per la collettività, al di là della natura della sua proprietà, può definirsi a buona ragione sempre e comunque uno spazio pubblico.

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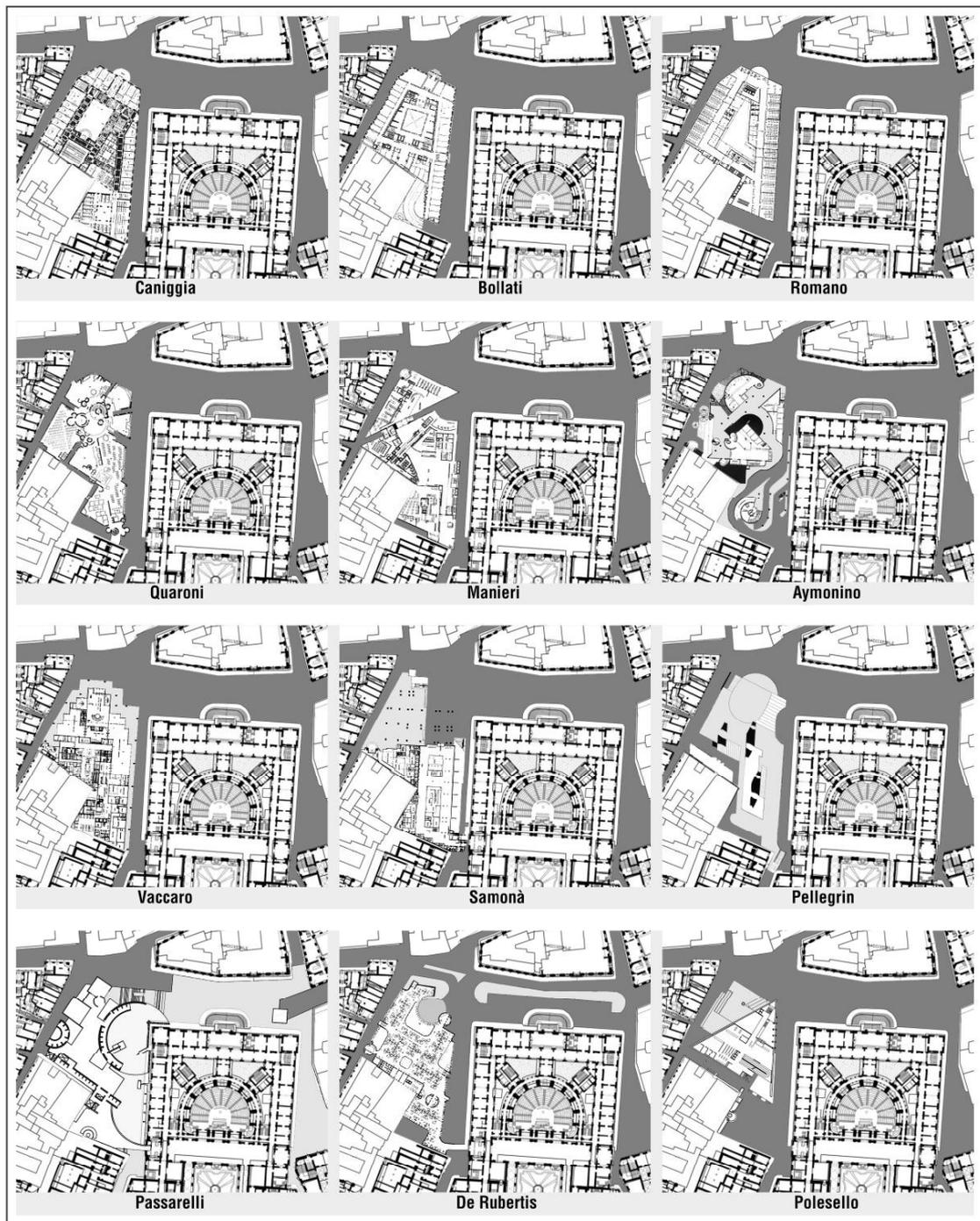


Fig. 1: Analisi dello spazio pubblico urbano dei progetti del concorso. Rielaborazione grafica Angela Fiorelli e Pia Marziano.



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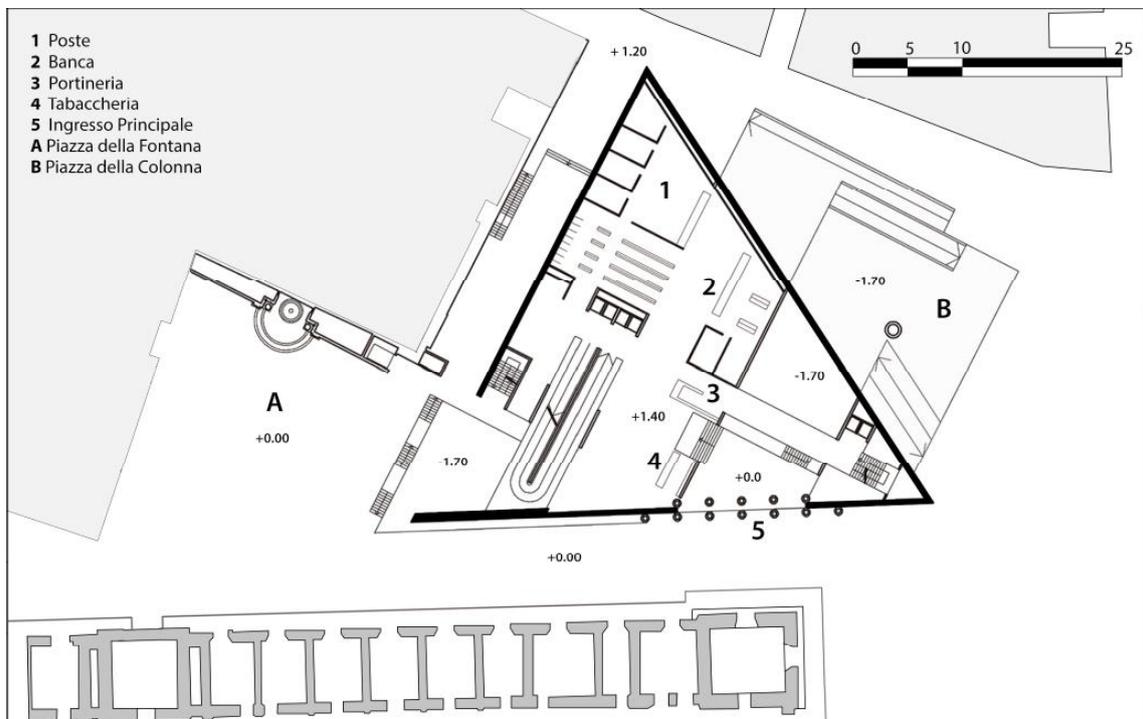


Fig. 2 Pianta del piano rialzato. Progetto del gruppo Passarelli. Rielaborazione grafica Pia Marziano.

Fig. 3 Pianta del piano terra. Progetto di Polesello. Rielaborazione grafica Angela Fiorelli.

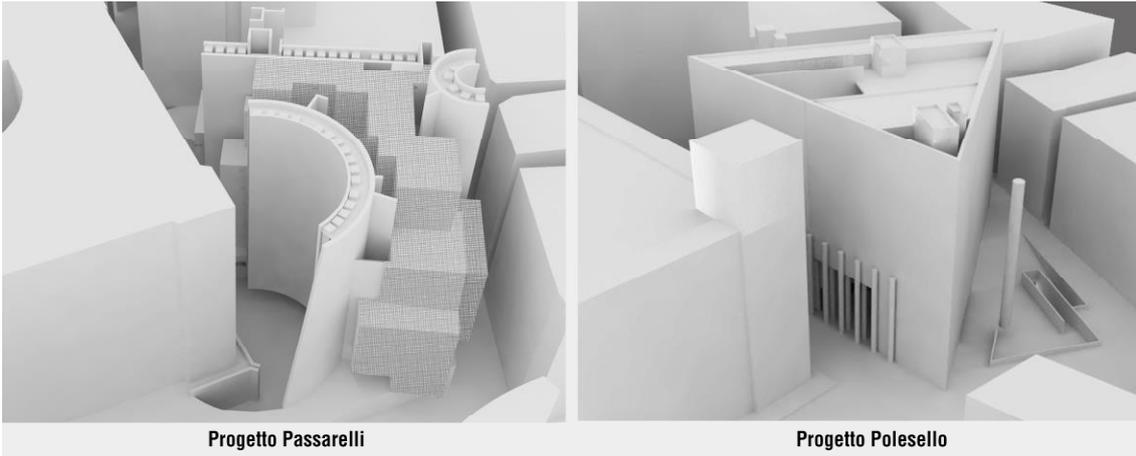


Fig. 4 Viste 3D. Progetto del gruppo Passarelli e progetto di Polesello. Rielaborazione grafica Angela Fiorelli e Pia Marziano.

Conference topic

A.1) Theories and Reading

Cartography and iconography as diachronic analysis tools of the urban fabric: Évora and Setúbal

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Abstract

192 *The evolution of cities can be interpreted through graphic elements, as recommended by Marco Pollio Vitruvius (1st century BC), whose forms of expression (plans, elevations and perspectives) are revealed as precious and reliable instruments to read the cities. Establishing mapping elements, they appear as representing cities and in various stages of construction of their urban networks. The iconography is an important element of analysis that allows a careful reading of the "reality" of cities at specific times. In addition to understanding them as representative of static moments, they allow the current reinterpretation of the urban fabric. Adding new elements may be important in reading the cities, which are considered as dynamic tools for its understanding. Regarding cartography and iconography of various eras, we propose to make a comparative analysis of the historical urban fabric of two cities with deployment capabilities and differentiated urban development (Évora and Setúbal). To achieve our goals, we will read the morphological elements of the Medieval City (fortification, street, square, medieval blocks; market; singular buildings) and its iconography in order to understand its diachronic evolution between their similarities and differences.*

Introduction

The evolution of cities can be interpreted through graphic elements, such as that recommended by Marcus Vitruvius Pollio (1st century bC.) (Maciel, 2006), whose forms of expression were plans, elevations and perspectives, which prove to be precious and reliable instruments for the reading of cities. It is important to establish these elements, which appear as representations of cities, in various stages of construction of their urban fabrics, in documents such as cartography or iconography. These are relevant testimonies in the analysis and allow a careful reading of the “reality” of cities at different times. In addition to understanding them as representations of a certain period, they allow the current reinterpretation of the urban fabric, and should be considered dynamic instruments in the understanding of the reading of the cities. Considering cartography and iconography from several epochs, we will make a comparative analysis of the historical urban fabric of two cities, using differentiated urban implantation and development (Évora and Setúbal). To reach these objectives, we will read and interpret morphological elements of the Medieval City (fortifications, squares, streets, blocks, markets, singular buildings among others) and these respective witness documents, to understand the diachronic evolution in their similarities and differences.

Geomorphology in the city's image

Urban development has similar characteristics, in its genesis, although they derive from identical human needs, and it is verified that each urban nucleus presents characteristics inherent of their implementation, in highly differentiated topographies with their own unique geomorphological characteristics.

The experience of societies in a given territory, with its own specificities, provides the creation of the various dimensions of the society, such as cultural, economic, functional and symbolic factors, which originate a cognitive process of identity. The combination of this set of factors also undoubtedly determines the creation of structuring elements specific to each city. These include public spaces, such as squares, streets, blocks, and buildings, such as equipment, unique buildings and civil architecture. Considering the study cases, as to its geomorphological framework, we have the city of Évora in the interior of the country, in the center of the Alentejo's province, on a mildly shaped hill, and the city of Setúbal on the Atlantic coast, in a bay next to the mouth of the River Sado, surrounded by the mountain range of Arrábida. The distance between these two cities is only 82.25 km (51.10 mi), but the environmental, geographic and morphological conditions determined very different economic and urban developments (Fig. 1) based on an economy related to the products of the land, namely the cereal culture, in the case of Évora and linked to fluvial-maritime products and activities, with great relevance for the salt industry, in the case of Setúbal.

Concern about the representation of man-occupied space has existed since ancient times to illustrate, one can consider the set of fragments

that represent or map the ancient city of Rome by its contemporary inhabitants. This is a valuable document for the visualization of an ancient Roman city, demonstrating the relevance of cartography for the understanding of cities, although it is not known cartographic representations of Évora and Setúbal, these were constructed through the reuse of Roman structures or on them, respectively.

Évora is indicated in the old cartography, since the 18th century as an important urban nucleus appearing on the maps of Portugal and Spain with the corresponding symbolic representation, Setúbal appears in the cartography of nautical character from the 14th century, being marked with the representation corresponding to an important port, from the 15th century, due to the maritime trade routes between the economic powers of that time, namely the commercial trading exchanges from its port.

In the most recent cartography, which already allows an analysis of the urban space, we observe different forms of implantation and expansion, whose configuration and morphology are influenced and determined by the geography and the topography of the place (Fig. 1 - a and b).

In the illustrated iconography (Fig. 1 - c and d) it is possible to verify the differentiation of the profile designed for the two cities, related to a topography that determines and shapes the image as urban implantation grew.

194 Although conditioned by topography, the cities would assume the directives of Vitruvius (Maciel, 2006, 41) for any city of the Empire. Public equipment, the regularity of the layout and the size of the streets were essential to define the urban image.

Évora is a very remote city that still preserves its historical center, surrounded by a set of fortifications whose construction dates back to the end of the Late Middle Ages and which are remarkable in the reading of the urban image of the city (Fig 1- c).

The morphology of the urban fabric of Setúbal was constituted, with an elongated shape, generating with an orientation of urban axes parallel to the coastline (Fig. 1 - b).

Medieval morphological references

Concerns about defending cities have led to the need to reinforce defensive systems, strengthen existing structures or build new structures. In these projects, cartographic surveys give rise to more detailed information on the various areas that need intervention. These documents emerge in Evora in modern times. In Setúbal it was felt the need to strategically reinforce the defense during the Spanish government (1580-1640), both for the need to protect the coast, namely this relevant port, as for the Lisbon approach and its integration into its defensive system. The construction of the Fort of S. Filipe, by Philip Terzio, which led to the design of the "Planta da Villa e Porto de Setúbal", at the end of the the 16th century, still not yet detailed at the block level but the main thoroughfares and free public spaces of the medieval city, or be they the squares, are drawn.

Travel journals also give us information about the most important fortifica-

tions, squares, streets, blocks, markets, and buildings of the cities that inform their morphologies and images. In the cases under study we highlight the description of Cosme de Médicis' trip and the respective drawings by Pier Maria Baldi (Fig. 2).

About Évora it is stated that:

“Evora è citta di 4000 fuochi posta sopra un rialto in mezzo d'una campagna piana, fértil e coltivata. Ella è senza controversia dopo Lisbona, la prima del Regno fino ai tempi del Re Don Sebastiano abitazione dei Re, da cui un grandissimo numero di famiglie titolari ed illustri riconosce l'origine, e vi conserva sino al dí d'oggi, e casa ed avere.” (Faria, 1901, 38).

Being mentioned about Setúbal that:

“Setubal è villa di 2000 fuochi capo di comarca, dove stà il Corregedor, et insieme il famoso Porto di Mare, vantato da molti per la prima fondazione di tutta Spagna, lusingati leggermente dal nome a crederlo edificato da Tubalcain discendente da Noé. Si distendon le case in forma di mezzo cerchio lungo la spiaggia d'una deliziosa pianura, che riman serrata tra un seno di monti vestito di bosco, e seminati di ville, onde l'aspetto per ogni parte vaghissimo.” (Faria, 1901, 42-43).

In the city of Évora there existed in the High Middle Ages an urban center of very remote genesis that was surrounded by a perimeter of Roman building wall, here indicated. In Setúbal there are no known defensive structures that dates back to that time and whose existence could have influenced the present walled medieval form. In Évora a second ring of fortifications was built that covered all the urban expansion consolidated during the 13th -15th centuries. This one began to integrate two concentric spaces, connected by the primitive Roman/Goths doors. At the beginning of the 16th century the economic and civic center of the city moved from the interior of the primitive space to the outside. The urban fabric was consolidated in the late middle Ages. The buildings grew along the main axes and squares. The location of convents and monasteries were decisive for this densification as they were the driving force behind an essential urban economy at that time. In reading the medieval urban image the main churches stand out (Fig. 2 - a)

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After the Christian reconquest, religious power in Setúbal was distributed by the churches of Santa Maria and S. Julião, which became the first two parishes until the 16th century, on creation in 1553, of the parishes of S. Sebastião¹ and Nossa Sra. da Anunciada. In the 14th century, when the ring of walls was built, these churches already existed, but also the church of Nossa Sra. da Anunciada that was left outside, and the remaining core of space and medieval societies, the Jewish and the Mouraria, urban fabric formed from its center, the Ribeira Square, which in the 16th century moved to the Praça do Sapal. The four parish churches are referred to in the trip of Cosme de Medici (Faria, 1901, 45) and drawn in the urban profile as reference points in the village, by Pier Maria Baldi (Fig. 2 - b).

The urban space bounded by this fortification has a structure based on

1 The Church of S. Sebastião was demolished in the 18th century. XIX.

the Square, as an urban, political, administrative, mercantile and civic center, organized from the main street that linked the Porta da Ribeira to the Porta da Vila and ensured communication with the various spaces of the village. From the 16th century, with the great urban changes of D. João III the urban-morphological relations were modified with the opening of new connections from new doors built in the fortification, with the adaptation to the new centrality of urban equipment and the emergence of large areas that became squares. There was a growth beyond the limits of the walled fence that at each moment followed the organizational parameters that defined and generated the form, from its center, with the influence of the coast line in the continuity of the main street, to the West and the East, and with the progressive emergence of squares that contributed to the constitution of new centralities (Fig. 4 - b).

196 One of the characteristics of the medieval city of Évora is that, despite the diversity of urban typologies, it grew from the primitive walled center to one or more open spaces, close to the fortification doors, which would become future squares. At the end of the 15th century, the construction of the second walled circuit circumscribed the urban area, encouraging the flow of circulation to the existing doors. The urban space bounded by the medieval wall presents an evolution based on the primitive nucleus, with meshes of different designs structured from the center (Praça de Giraldo) and the paths radiating from the doors of the Roman wall (Alconchel, D. Isabel and de Moura) (Fig. 4 - a).

The need for ample openings along the interior of the fortifications for the circulation of defensive forces and the existence of the yards located at the mentioned doors determined the location of more construction compelling to a progressive densification in the other areas. One of the highlights in the medieval city of Évora was the stay of the Portuguese royal family in the city and its consequences.

In Évora the initial urban center centralized the evolution and determined the radial organization of the various types of urban design, whose routes radiate from the main doors.

The medieval core in these cities was composed of multiple social groups, with a mixture of races and religions, Christians, Moors and Jews, autochthonous and immigrants whose coexistence was not always peaceful, but was a relevant factor in cultural diversity and social dynamics.

Urban fabric in modern times

After the Restoration of Independence of Portugal, in 1640, the defensive system was reinforced, which included the construction of a modern fortification that circumscribed the consolidated urban area. From this time we have had several studies and cartographies carried out by the various military engineers who worked in the fortifications, which allow us to do a more in-depth reading of the morphological elements that most influence the cities. Also many copies appeared, of national and foreign authors and some anonymous ones, executed from these cartographic plants (Fig. 3). In Évora the military engineers Charles Lassart, Jean Gillot and Ni-

colau de Langres were distinguished among others in the construction of the fortress. From Setúbal, we consider with great relevance the drawings of Jean Gillot, with great definition of details of the suburb, João Roiz Moura and João Thomas Correa. Such a in Évora Nicolau de Langres, he also worked in Setúbal, having made drawings of this fortification although with a more simplified layout.

These sixteenth-century fortifications continued the trend of the geometry of the space occupied by the former medieval wall, and the former centrality of the “urban center” with the convergence of the main guidelines of the city (Fig. 4).

This defensive system, concretized in Évora contributed slightly to the formation of a new urban fabric considering that the built bastions were located very close to the second walled perimeter and the need for ample free space prevented the constitution of more urban fabric. From this fortified base the roads go radially, to Lisboa and Setúbal through the Porta de Alconchel, to Estremoz by the Porta de Avis and, to Beja, through the Porta de Machede. These urban connections resulted from the old ways that evolved into preferred routes of circulation and gave rise to the most convenient openings in the defensive set built over the centuries.

In Setúbal, this fortification created new boundaries and a new relationship of influences in urban morphology, both between the various urban spaces, and in the relationship between the new urbanity and the rural surroundings. The former suburbs were, since then integrated in the urban nucleus and formed the neighborhoods. The urban center continued to perform its functions, communicating with the remaining areas through Rua Direita, which extended and branched across the neighborhoods, in a parallel to the coastline.

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Urban expansion beyond the walled limits

The photograph constitutes a fundamental testimony to the knowledge of the cities from the middle of the 19th century. From Setúbal, we highlight the first known photographs, which contribute to the understanding of its urban and architectural history, by Anthero Seabra and Francisco Rocchini. For Évora we must refer José Pedro Passaporte.

At the end of the 19th century and the 20th century new urban dynamics emerged influenced by European movements, namely, in the reforms of Paris, which came to change the parameters of the medieval city. With these urban changes of cities would result in an environmental quality that went beyond the limits of the “historic city”, and begin a new cycle corresponding to an economic phase based on industry. The adaptation of the cities to the new realities began with the implementation of equipment, infrastructure, public tours, the creation of new public spaces and the organization and regulation of buildings.

In Évora, regarding to cartographed elements, mention should be made of the contribution of Manuel Joaquim de Mattos, at the beginning of the 20th century, and in the middle of the same century, that of the urbanist architect Étienne de Gröer.

It dates from the beginning of the 19th century, the plants of Setúbal with a lot of detail of the occupation, both urban and rural, whose plants were carried out by Maximiano José da Serra and later, at the beginning of the 20th century, by Luís Lança, constituting fundamental documents for the knowledge of urban evolution through a comparative analysis.

Due to the displacement of the Royal Family to Lisboa, the city of Évora declined at the end of the 16th century until the middle of the 19th century, there was no significant urban and economic development during this period.

In a city where the urban fabric was filled with private property, the spaces formerly occupied by religious houses provided key areas for urban regeneration and location of public services. The construction of the railroad provided the urban evolution of specific areas making the connection between the station and the walled space. In 1945, with the Estado Novo political system, Étienne de Gröer recommended interventions in the urban fabric with an urban plan, proposing the constitution of new streets, opening of new streets and realignment of others, through the sacrifice of existing buildings.

a great expansion, in zoning, in a radial structure from the old city, new streets are indicated towards the already created Av. Luisa Todi, whose relevance is reinforced with the construction of reference buildings, to the detriment of the old city and the current Av. Dr. António Rodrigues Manito which constitutes a great road axis².

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Wide new avenues, with two lanes separated by a central wooded space³, were created drawn perpendicularly and parallel to the Avenida Luisa Todi, projecting the city to North and to the East with the construction of new neighborhoods.

The urban planning foreground to Évora, by Étienne de Gröer, an architect town planner for Évora, which began in 1942, proposed different kinds of interventions for different socio-urban scenarios⁴. Outside of the whole walled space, Gröer proposed to construct a new urban zone with characteristics of a “garden city” that surrounds the city’s limited ancient nucleus at that time, thus creating a “lung” (Brito and Camarinhas, 2007) that would allow a better environmental quality. The urban space defined by the successive urbanization plans was structured through the construction of a set of roads, some radial, and some circular, which allowed the interconnection of the various districts dispersed by the surrounding area to the historical center. It should be noted that part of this road structure has not yet been fully implemented for various reasons.

2 This plan was not fully implemented.

3 This typology of streets has been altered. Currently, it exists only on Avenida 22 de Dezembro.

4 The foreground by Étienne de Gröer was based on a new type of urban planning resulting from the IV International Congress of Modern Architecture, from which emerged the new criteria that served as basis to modern urbanism through the Athens Charter of 1933. Of the foreground, there are still in ownership of CME, four plants referring to: “Plan des zones schema des grandes voies” dated 1942; “Anteplane” dated 1945; Two undated pieces: one referenced as “Planta das Zonas” and one last one as “Planta de Apresentação”.

The constitution of circulation axes, inside the walled space, along with the constructive reinforcement along its paths would, according to Gröer, create an urban image more intense and adapted to the demands of the new times. At the level of housing typology, the State promoted social housing projects built at a height, contrary to the initial spirit of the 40's of 20th century. In the interstitial spaces between the walled zone and the new urban perimeter surrounding the walls were foreseen for residents' use in both Spaces, equipment zones, at key points. These spaces would always be located next to structural axes, near the main doors of the walled enclosure located either inside or immediately in the surrounding area also invariably possess parking areas that would complement them.

Conclusion

The development of these cities took place during the same moments of history, through the intervention of the populations that influenced the shape of the urban space. However, their respective urban genres based on geo-environmental influence persisted and differentiated these cities. Despite their idiosyncrasies the vestiges that subsisted are different. We can confirm that these characteristics have been maintained throughout the history, through the reading of the cartographic and iconographic documents that accompany it.

This can be seen in the Roman influence that defined the still-existing grid pattern in the initial walled nucleus of Évora. This Roman organizational structure was changed in medieval times, and from the 16th century onwards, having maintained the urban occupation bounded by the walls until the expansion in the 20th century. In the 19th century, the city began its adaptation to the car, with the extension of existing roads and the consequent tearing of the walls. A road ring was created from which the new roadways began, in continuity of the previous structure of the city that continued to play a dominant role, with its polarizing center in the Praça de Giraldo.

In the case of Setúbal, the location and its geomorphology ensured the conditions of defense, sustainability and development of the urban fabric that was being formed and designed, under the orientation of roadways parallel to the coastline and the progressive emergence of Squares, taking an elongated shape. It began to change his morphological organization in the 16th century, having maintained the medieval layout and the urban consolidation limited by the 16th century fortification concerning the 17th century until the end of the 19th century, at which time the new lines of urban intervention began and the breakup of this structure was verified for the establishment of points of connection to new areas of expansion and especially in the following century with the urban areas arisen.

In the two cities, Setúbal and Évora, we verified the existence of an urban morphology with different designs depending on its origin, its relationship with the city, its urban center and the technologies and urban trends that are part of its diachronic history.

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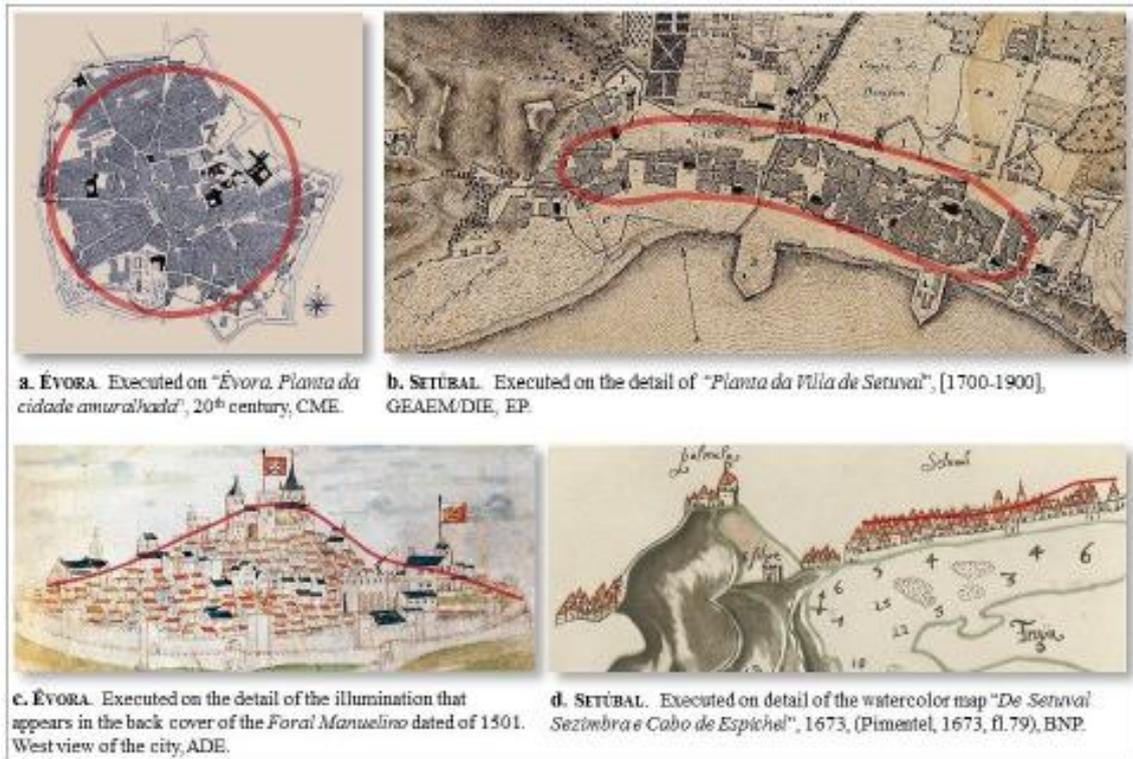


Fig. 1 Drawing and urban image forms of Évora and Setúbal.

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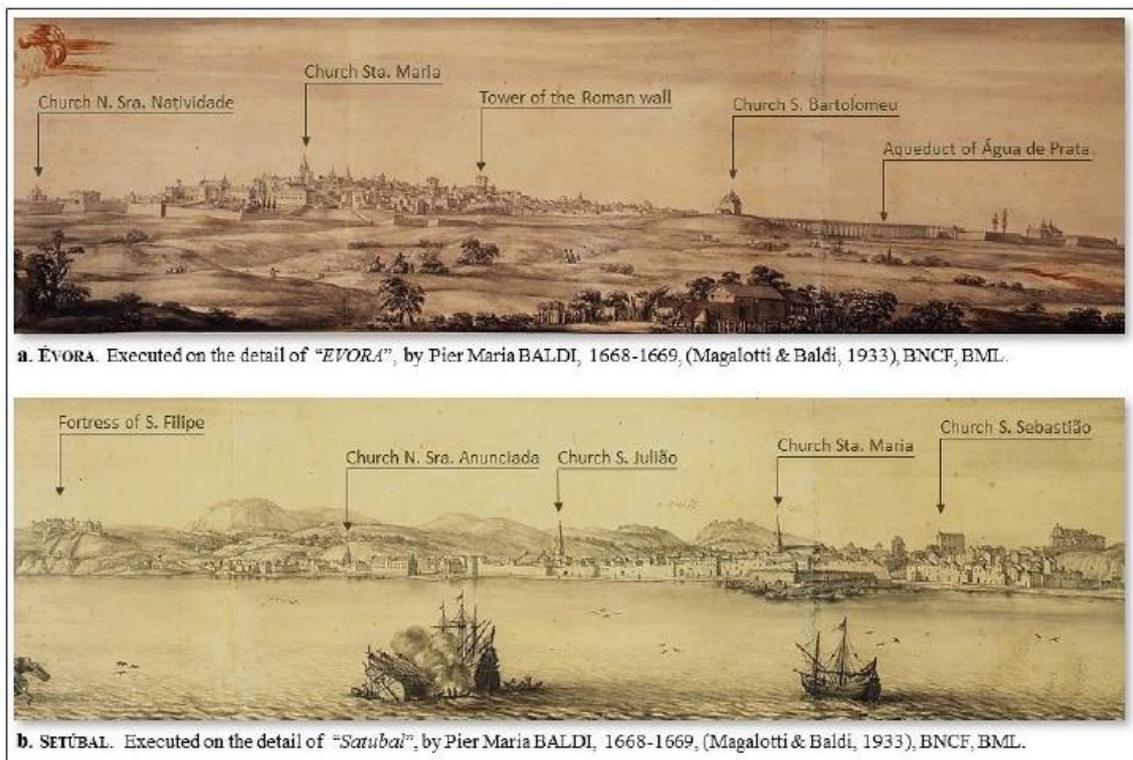
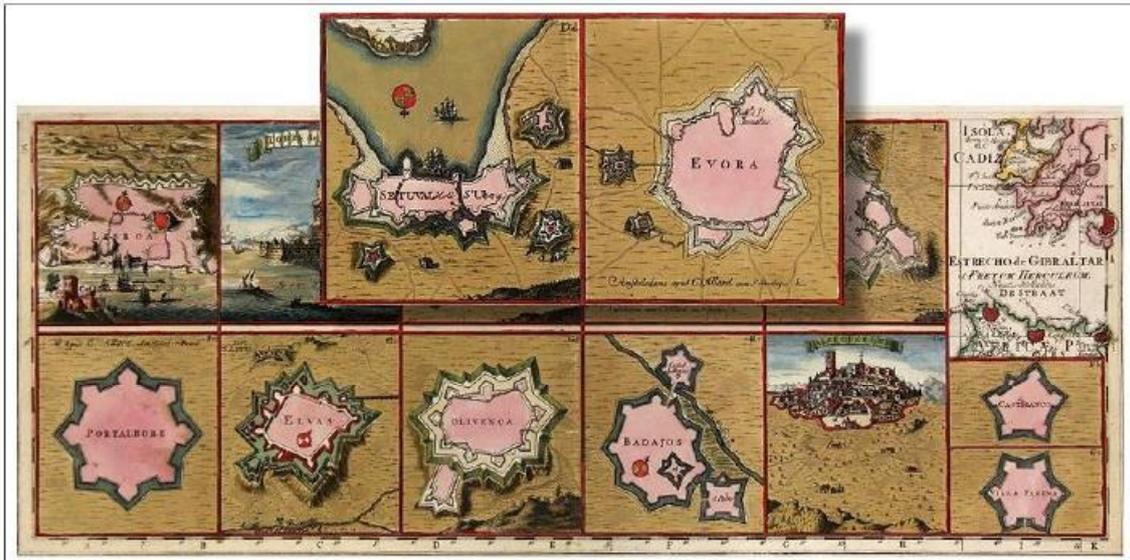


Fig. 2 Main references of medieval times, in the urban image of Évora and Setúbal.



202 Fig. 3 Representation of several fortifications: "Lisboa e Cacilhas"; "Torre de Belém"; "Setúbal"; "Evora"; "Estremoz"; Map with the "Estrecho de Gibraltar"; "Portalegre"; "Elvas"; "Olivença"; "Badajoz"; "Albuquerque"; "Castel Branco" and "Villa Franca", n.a., n.d., MC / CML. We pointed out the detail corresponding to "Setúbal" and "Evora".

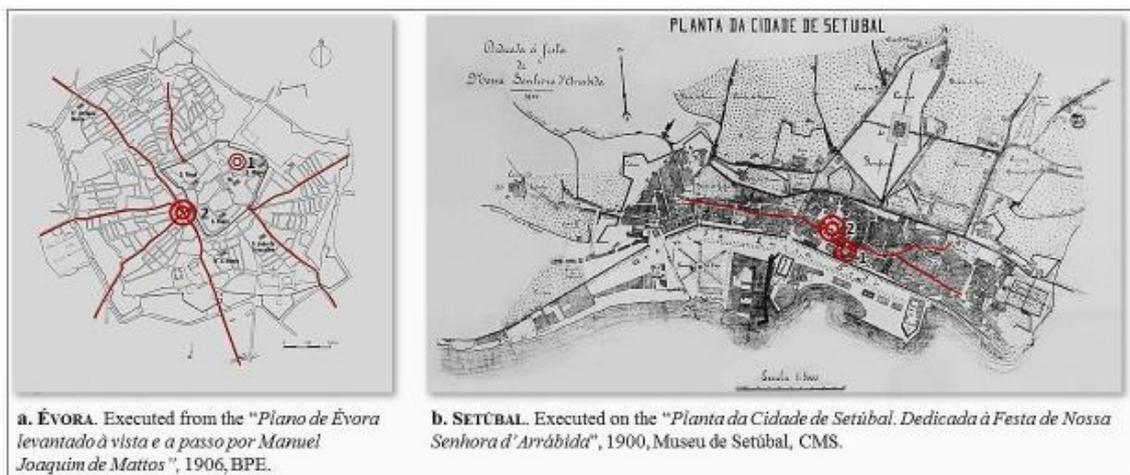


Fig. 4 Plant with the indication of the urban centers (1: Center initial, 2: Center from the 16th century), the main roads in medieval times and the waist of ramparts of modern times.

The formation process of public space: from urban fabric to palaces and squares

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Keywords: Urban Morphology, squares, palaces

Abstract

204 The formation process of public spaces within the modern city has ancient origins: although generally referenced to the model of the great public spaces of Republican and imperial Rome (forum), the "common" urban space of Italian cities bears a different juridical nature from that of the "public" space of the imperial Rome. The latter was fenced and equipped with gates, it was a personal property of the imperial family, with access governed in time and dedicated to the worship of the imperial family and its tutelary deities. This urban space was therefore not "public" in the sense we understand today. The "common" space (squares) of the Italian cities came into being in the Middle Ages hence the deliberate action of the free "Communes" that decided it to build by subtraction, demolishing residential blocks - as in Florence - of factional losers in the struggle for power. It became a space for free civic aggregation, for the meeting and the election of the council and the podestà. There are some earlier squares next to the cathedrals, where meetings were necessary for the election of the archbishop since the tenth century, but the "common" space acquires its complete form and its civic role only since the thirteenth century with the more mature phase of the municipal experience. In these squares, bishopric, municipal (and later ducal and lordly), we can recognize the presence of a market place: the "common space" here takes on the double meaning of place for business and place for civic meetings. This manner of designing public spaces consolidates in the following centuries with several cases in mannerist age and beyond. The birth of the modern theater stood initially in these spaces through wooden stalls mounted temporarily, before knotting in the form of a closed theater building (Strappa, 1995). The design of the public spaces within the city used specific design skills to shape the urban voids in a "theatrical" manner. In parallel with the rise of the bourgeois mansion (Palazzo) and the recast and aggregation of basic building types, often adjacent to the palazzo, an empty space arises assuming the character of a "building without roof".

«E d'otto chase n'ò fatte una, chè tre rispondevano
in Via della Vigna e cinque drieto»

«And out of eight houses I made one, as three were
in Via della Vigna and five behind»

(Rucellai, 1457)

Introduction

The *querelle* between modern and traditional urban design has alimented in the past decades diverging phenomena such as the new urbanism, the so-called vernacular architecture and the landscape urbanism on one hand, and the extreme radical neo or ultra-modernist approaches on the other side, each establishing clearly a different and diverging position within the international debate. The urban morphology approach, as developed in time by the Italian school of Saverio Muratori and Gianfranco Caniggia and their followers, has developed a methodology for architectural and urban design, which is neither the radical reproposal of the ultra-modernist style, nor the nostalgic reference to vernacular forms. The Italian school of Urban Morphology proposes a methodology for urban and architectural design based on the reconstruction of the formation process of the built organism, the types, the aggregates, and the territorial cycles. Upon the full understanding of these multi scalar processes, it is then possible to develop the project as the last phase of an ongoing process. A last phase, conceived as contemporary on one hand, but not opposing itself to history on the other, deriving its vitality from the understanding of the formation process of building types and urban tissues so to be the continuation of the past into the future. The paper illustrates briefly the formation process of palaces and public squares through some well-known examples, and proposes a project that applied the same methodology of the design.

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The formation process of urban blocks

According to the Italian school of Urban Morphology, every building type is the result of a diachronic process that starts with basic buildings; also every part of the city is the result of the transformation of urban tissues comprising basic buildings. So are churches, palaces, and also public squares. As an example of this process, the flat apartment building, or in-line house, the type mostly used today for housing, is the result of the merging of two row-houses. This transformation starts in the late XVIII century when the urban accumulation processes lead private landlords to own more than one adjacent row house, with the need to rent the space to different families. We can see many examples in the drawings filed in the title 54 of the Municipal Archive in Rome, where every architect had to file the survey of the existing building and the proposed transformation so to have the permission for the construction. In the example in Figure 1 the architect in 1870 designed for two row-houses in Vicolo dello Struzzo 12-14 in Rome,

the replacement of the gable roof with one more storey and a flat roof, the demolition of the two existing staircases, the construction of a new staircase to distribute vertically the building, and a new facade. The new facade in a neo classical style used fake windows to obtain the rhythmical design *à la mode*, and inserted a fake doorway to achieve the symmetry of the composition.

The formation process of urban tissues according to the Italian school of Urban Morphology (Muratori, 1959), (Caniggia, Maffei, 2001) follows the repetition of a building type along a system of urban routes. These routes are hierarchized diachronically in matrix, planned construction and connection or restructuring routes. The repetition of the same type along the routes follows certain rules from which it is possible to recognise the different phases of the growth. In the first phase row houses are built along both sides of the matrix route; once the space therein is filled, planned construction routes stem on the sides of the matrix route and a new row of houses is built. This process happens in time, and not necessarily is planned. At the intersection of the matrix route and the planned construction route, the construction in the backyards of the corner houses determines a synchronic variant by position of the type. After the tissue along the planned route is completed, a connecting route can follow in two different ways: as a planned one, leaving the empty space for the urban tissue, or spontaneously, with buildings growing inside the backyards of the row-houses, determining the typical stepped pattern. The formation of the urban block is the premise for its transformation, by demolition, into a public square.

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The formation process of squares

The formation process of public spaces within the modern city has ancient roots: although referenced to the model of the great public spaces of Republican and Imperial Rome, the “common” urban space of Italian cities has a different juridical nature from that of the “public” space of the imperial Roman. The latter was fenced and equipped with gates, it was a personal property of the imperial family, its access was governed in time and it was dedicated to the worship of the imperial family and its tutelary deities. This space was therefore not “public” in the sense we understand today. The “common” space of the Italian cities came into being in the middle Ages hence the deliberate action of the free “Communes” who decided to build by subtraction such a space for the public assembly of citizens. In time it became a space for free civic aggregation, for the election of the council and the *podestà*. Although there are earlier examples of squares built by subtraction next to the cathedrals, where meetings were necessary for the election of the archbishop, (Camiz, 2007), we can say, that the “common” space acquires its complete form and its civic role only since the thirteenth century with the more mature phase of the municipal experience. In these squares, bishopric, municipal (and later ducal and lordly), very often we can recognize the presence of a market place: the “common space” here takes on the double

meaning of place for business and place for civic meetings. This manner of designing public spaces consolidated in the following centuries and can be seen in many examples even in mannerist age and beyond. The birth of the modern theatre stood initially in these spaces through wooden stalls mounted temporarily at the edges, before *knotting* in the form of a closed theatre (Strappa, 1995). The design of the common spaces within the city, therefore, used specific design skills, which involved the shaping of urban voids in a “theatrical” manner. One of the most meaningful examples is the urban project for Zagarolo as related to the comic scene of Serlio's Treaty. In parallel with the rise of the bourgeois mansion and the recast and aggregation of basic building types, often adjacent to the same building, an empty space arises assuming the character of a “building without roof”. This happens in the site of the nodal simultaneous concentration of capital (building) and goods (market).

Piazza Maggiore in Bologna, even though located in the same position of the *Forum of Bononia* at the intersection of the *Kardo Maximus* of the *Via Aemilia* with the *Decumanus Maximus*, has no relation with the Roman Forum, which sits several meters below the ground level of the city. The area where the square is today was entirely built in the middle-ages, until the commune of Bologna decided to demolish some blocks to determine a public space for meetings. In 1294 the commune of Bologna bought a large number of buildings, to create the space for the public market. A termination was designed, including many residential buildings contained in the blocks of the area surrounding the communal palace, and all the buildings therein were demolished (Guidoni & Zolla 2002) determining by subtraction the square as we can experience it today. Therefore that public square is not the continuation of the Roman Forum, but the result of a communal design, the planned transformation of a part of the residential tissue of Bologna so to determine the most important part of its political programme, the space for the assembly of citizens. Figure 3 shows the termination perimeter and the demolished blocks. Piazza della Signoria in Florence is another eloquent example of the same process, the formation of public squares by the demolition of blocks of residential buildings for the deliberate action of the medieval commune. In Florence the struggle for power of the two competing factions, Guelfs and Ghibellines, fighting for the full control of the commune, ended with a strong prevalence of the Guelfs. The losing Ghibelline faction, whose members lived prevalently in the area surrounding the Palazzo della Signoria, was exiled from the city, and the houses were demolished so to leave space for a new square in front of the communal palace. A space for the display of power, and for the triumph of the winning faction, the Guelfs. Piazza della Signoria is therefore the result of such a demolition, which happened in different phases, starting with the *Platea Ubertorum* that existed since 1299 next to the Palazzo della Signoria, and continued expanding that space in 1307, 1319 and 1343, by demolishing one block at the time (Guidoni 2002). Further demolitions were accomplished in 1362 and 1374 when the Loggia dei Lanzi was built and others later in 1386 on the western side of

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the square. (Fig. 4). It is possible to recognise this process clearly in Piazza della Signoria as all the sides of the urban void follow the direction of a street, and the shape of the square is that of the missing residential blocks. The Florentine palace, square and Loggia, determined a model for the design of public spaces that we will see employed one century later by Leon Battista Alberti for the project of Palazzo Rucellai, the loggia Rucellai and the square. Piazza Farnese in Rome is another example of the same type of urban transformation, the design of a public square by demolishing blocks of residential tissue. Here the construction of the palace begun in 1514 under the direction of Antonio da Sangallo the younger, commissioned by Alessandro Farnese and continued until 1536. Following the election of Alessandro as Pope Paul the III in 1534, the palace assumed a different meaning and Michelangelo became the director of the project. It is in this phase that the necessity to demolish the two blocks in front of the building arose. The last storey of the palace introduced by Michelangelo, and the new papal rank of the owner required a space from where it was possible to see the facade of the palace. Starting from 1546 one block is demolished, and it is shown as missing in Leonardo Bufalini's Pianta di Roma depicted in 1551, and in the following years the second block was removed leaving space for the square with the two symmetrical fountains. This square though is not a public space for the market and assembly of citizens, as it was not commissioned by the commune, rather it is a space for the display of power as commissioned by the pope, the lord or Rome. A space from which it is possible to gaze entirely at the facade of the huge palazzo, and recognise the importance of its owner, the pope Paul III. In this same public space we can notice the birth of the modern theatre, as the space was used for games and spectacles mounting wooden provisional stalls around it. The façade of the Renaissance palace became the *frons scenae* of the modern theatre, a place from where gaze at the spectacle, but also a space to be seen from the spectacle. The modern theatre is not the transformation of the Greek theatre, but rather the transformation of an urban void, which in time was covered and became the modern theatre. It is possible to notice in many of the XVIII century examples the presence of windows and doors in the interior facades, as those of buildings facing an urban square, (Strappa, 1995).

The formation process of palaces

The transformation of the block into a palace, by recasting the different row houses into a unitary organism, is another example of how the special building types originate from the basic types. Starting from the Renaissance, the bourgeois capitalistic accumulation, lead some families to be rich enough to be able to buy an entire block of row houses. Once the houses were bought it was necessary to transform them for the new needs of a larger and richer family including the necessity to display the social status of the owner. For this purpose a new role emerged, that of the architect. In the middle-ages very rarely the author of the project was known since the building was a collective work, but starting from the Renaissance the

individual role of the designer exploited. The case of Palazzo Rucellai represents emblematically this new design process. The owner of the Palace, Giovanni di Paolo Rucellai, was a rich Florentine wool merchant that became rich with his business. As an educated man he kept a diary, the *Zibaldone quadragesimale*, a hand written book including personal notes as well as the translation of Greek and Latin classical texts. In this book he noted that the Palace was the transformation of eight houses into one building, showing clearly the specialisation of the palace as derived from the knotting of a part of urban tissue comprising row houses. We must now understand the process, showing the transformations and the role of the architects, Leon Battista Alberti and his executor Bernardo Rossellino. To redistribute horizontally and vertically the eight row houses, each one having originally one independent entrance and one staircase, it was necessary to reverse inside the built organism the two external routes: the matrix route on the front, and the planned construction route on the left side. The row houses were originally accessible directly from these streets, but following the transformation into a palace, they had to be distributed from the inside. The two routes outside the building were replicated into the two porticoes determining the asymmetric courtyard. At the node determined by the intersection of these two porticoes the new staircase was built, substituting the individual staircases of each row house. The new organism is based on the same structures of the older one, the walls, with very few changes. A new façade was designed covering with a stone cladding, composed with the classical orders, the former walls. This façade followed the principles of rhythm and symmetry, redefining the position and the measure of the window openings and the main door. The solution to this problem provided by Alberti, is similar to that one we considered in Figure 1, a double entrance door, with the axis of symmetry in the middle of the two doors, where the door on the left led into the courtyard and the door on the right not being a real entrance to the palace, was a fake entrance door. This axis of symmetry determined the composition of the entire façade, with its rhythmical openings and superimposed classical orders. It must be noted that the last row house on the right, even though included in the transformation, as distributed by the portico on the second floor and not having its own staircase, is not covered by the new façade on the main street. Some may suggest that the unfinished composition of this building front derived from an interruption of the construction, but we believe firmly that it was intentional. Alberti froze the transformation of row houses into a palace by leaving one of the houses uncovered by the new façade, as a mark of the ongoing process. A mark that could be read only by a specialist, an architect, like he was.

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As in the other examples shown, where the existence of the square is strictly connected with the palazzo facing it, even here, some years later, the owner decided he wanted a square in front of his palace. The palace was completed in 1451, and in 1456 Ugolino di Francesco Rucellai donated to Giovanni other houses within the block in front of the façade of the Palazzo. To establish a public square, in the form of triangle, delimited

on the eastern side by a Loggia, once again Leon Battista Alberti was in charge of the project with the help of Antonio del Migliorino Guidotti. Demolishing the four houses, the project was completed, in the site of the last one a Loggia was built to delimit with a portico the public square. The overall model for the project is the same of that used for Piazza della Signoria, with the Palazzo and the Loggia, at a smaller scale, so to express the power of the family Rucellai, and to have a space from where it was possible to see clearly the new architecture of the building. Without this last operation the palace would have faced a narrow street and its composition could not have been perceived properly.

Application of the theory to design

The project here shown was presented for a public design contest organized in 2012 by the municipality of Carezzano Maggiore, a small town of 429 inhabitants in the Province of Alessandria, in the Piemonte region of Italy. The purpose of the competition was to select design ideas for the redesign of an area to be transformed into municipal facilities. A design team was established in Rome, under the direction of Prof. Giuseppe Strappa; the team comprised Paolo Carlotti, Giancarlo Galassi, Martina Longo, Marco Maretto, Pina Ciotoli and myself. We decided to join this competition to experiment our theoretical approach to architectural design and see if it was effective. As a matter of fact it proved to be quite effective as we won the first prize of the design competition. The group proposed a redevelopment of the area believing that the contemporary design should continue the ongoing historical process of urban transformation. The project involved the re-use and partial transformation of the buildings indicated by the competition announcement along the road axis of via Cinque Martiri. The buildings to be transformed overlooking Via Cinque Martiri had features that clearly indicated their origin as three rural courtyard houses, according to a building type diffused in many other areas of northern Italy (Strappa, 1995) . Two of these original houses were merged in time into a larger organism, with the addition of a stable in the back.

The project therefore, as shown in Figure 9, built the processual sequence of this transformation and determined the new idea by continuing that process (Strappa, 2013). The different phases were hypothesized through the following succession. A first phase was characterized by the presence of a tissue of rural courtyard houses with the access from the main road. In the second stage part of these courtyards was infilled with the construction of smaller rural volumes such as stables, rustic buildings etc. In the third phase some of the courtyards, originally belonging to a single owner, were merged determining a larger organism. The fourth phase is the project, with the internal reversal of the matrix route, just like in palazzo Rucellai, and the knotting of the internal paths to form the new complex according to the palace building type. The fourth and final formation phase corresponds to the contemporary project, as a result of a process in progress. The new building is representative of a palace as derived from the evolution of the

existing building fabric, highlighted by the interior courtyard, where the pavement design expresses the hierarchy of routes connecting the inside with the existing square in front of the church. The project was based on refurbishing, without demolishing, the existing buildings, determining a new horizontal distribution given by the portico and a new vertical connection given by the staircase.

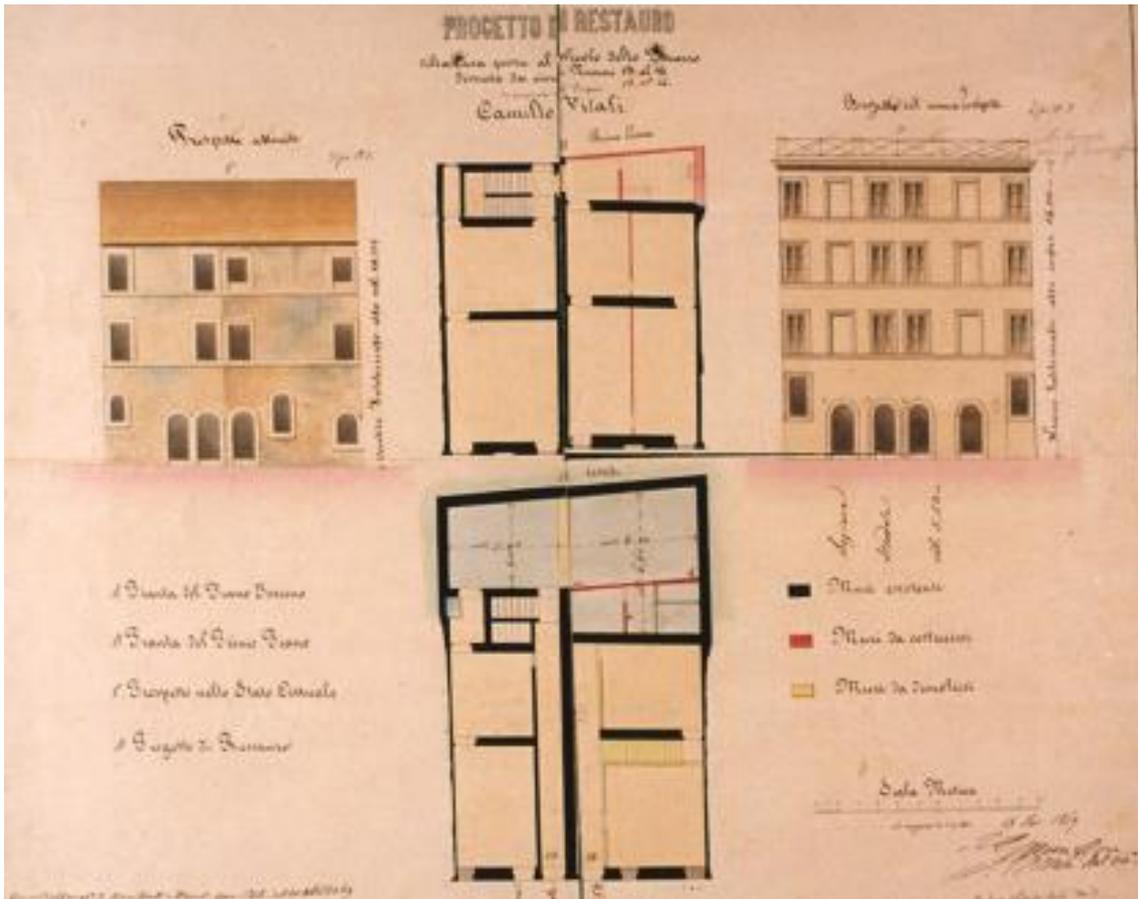
Inside the new civic centre a portico unifies the spaces of the different building units by connecting them and is served by a main staircase placed to the left of the entrance. The portico is constituted by reinforced concrete pilasters clad in bricks and is, together with the new staircase, the only addition to the pre-existing volumes. This addition also performs an energy saving task, through the presence of horizontal shingles that provide the passive protection of the façade facing the south. The entrance to the inner square is redefined so to allow pedestrian access as well as the occasional use for vehicles, both for functional and architectural reasons. The definition of the entrance in architectural terms becomes the visible indication of the transformation of a part of the urban fabric into a public building. The new public space inside the perimeter of the civic centre is designed as an inner square, paved in local stone slabs as a public space, and can be used for public events, along with the urban system of public spaces connecting to St. Eusebius existing public square and to the square in front of the City Hall, by the use of the same design and materials. The language, the technology and the materials with which this project was expressed are sincerely modern, with no mimicry of vernacular or classical forms, with no post-modernist accent.

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The transformation process adopted in Carezzano though is the same of that of Palazzo Rucellai, by recasting existing residential units, courtyard houses in this case, row houses in Florence, into a new organism, the palace, by keeping and updating the existing bearing walls, and adding only a portico, a staircase and a façade. In this case it was not possible to define by demolition a square in front of the new organism, but the existing public spaces were connected using the design of a new floor, conceived to unify the system of public spaces of the city of Carezzano Maggiore. This project demonstrates clearly how it is possible today to apply the methodology of urban morphology and building typology to an architectural design. Within the contemporary debate of architecture, characterised on one side by the star architecture, conceived to serve as a spectacular object for the media, rather than an organism useful for the city, and on the other side by the multiplication of radical organic forms, this approach constitutes a rigorous example of the application of a theory to a praxis. Based on the consolidated researches of the Italian school on urban morphology, this approach is continuously developing through the research of the urban tissues in different parts of the world conducted by various researchers. It is not therefore a static methodology based on given rules, but rather a field in continuous development.

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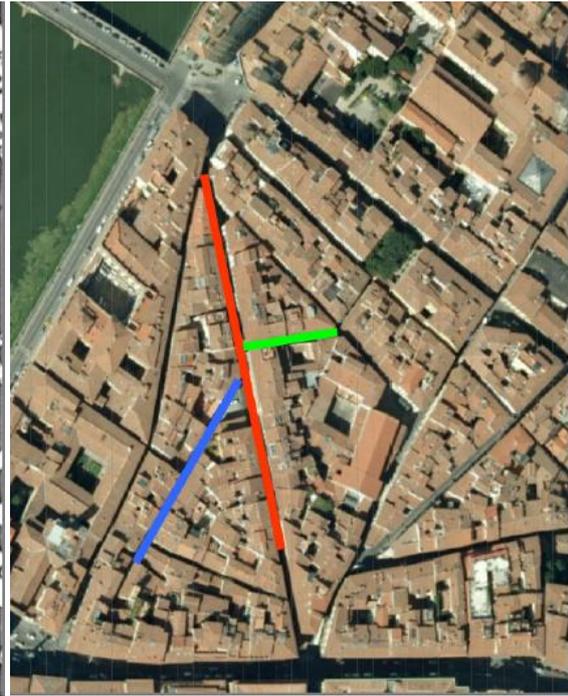
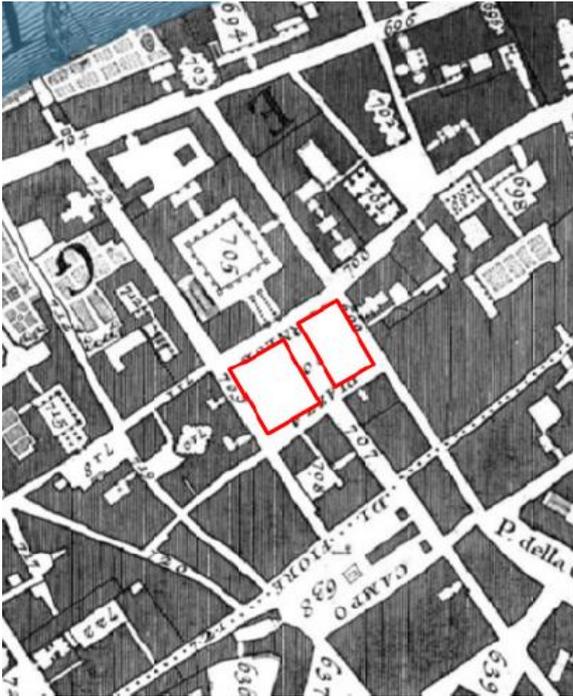
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Fig. 1. A project merging two row-houses into one in-line house, Archivio Capitolino di Roma, titolo Fig. 2. Aggregation of row houses on matrix route (1), planned construction route (2), spontaneous connection route (3 above), planned connection route (3 below), (Strappa, 1995).

Fig. 3. Reconstruction of the Curia Communis Bononiae, at the time of the terminatio of 1294, in red the blocks that were demolished (Guidoni & Zolla 2000).

Fig. 4. The different phases of the definition of Piazza della Signoria in Florence by demolishing urban blocks, (Guidoni, 2002).



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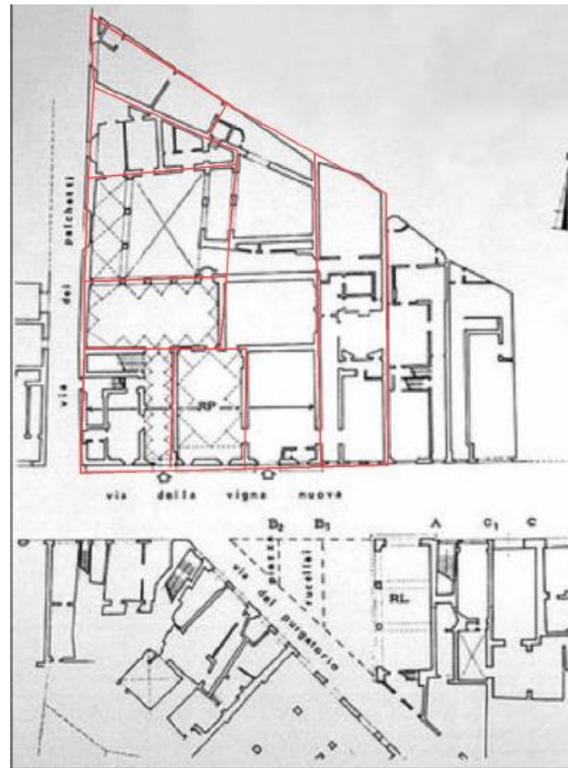
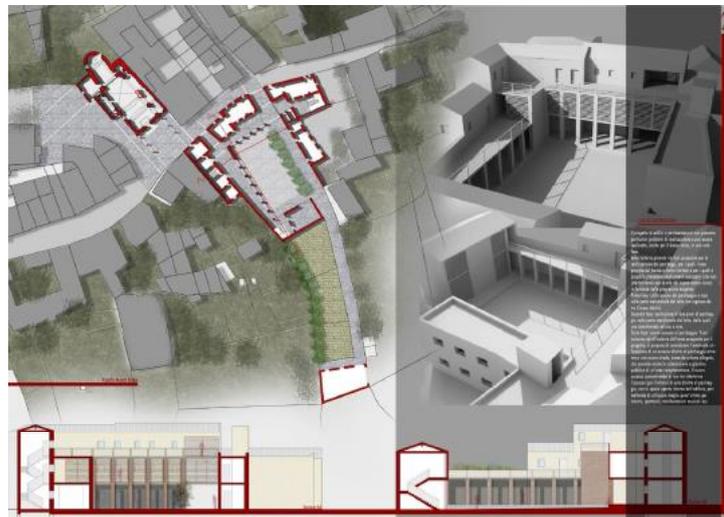


Fig. 5. The two blocks demolished for Piazza Farnese outlined in red over a detail of G.B. Nolli, Pianta grande di Roma, 1748.

Fig. 6. Palazzo Rucellai, matrix route (red), planned construction route (green), restructuring route (blue).

Fig. 7. Alberti froze the transformation of row houses into a palace by leaving one of the houses uncovered by the new facade.

Fig. 8. Palazzo Rucellai, Florence, ground plan of the palace, the square and the Loggia, outlined in red the property limits of the former eight row houses.



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Fig. 9. G. Strappa, A. Camiz, P. Carlotti, G. Galassi, M. Longo, M. Mareto, P. Ciotoli, Riqualificazione di un'area del centro storico di Carezzano Maggiore, international design competition, 2012, first prize.

Fig. 10. G. Strappa, A. Camiz, P. Carlotti, G. Galassi, M. Longo, M. Mareto, P. Ciotoli, Riqualificazione di un'area del centro storico di Carezzano Maggiore, international design competition, 2012, first prize.

Fig. 11. G. Strappa, A. Camiz, P. Carlotti, G. Galassi, M. Longo, M. Mareto, P. Ciotoli, Riqualificazione di un'area del centro storico di Carezzano Maggiore, international design competition, 2012, first prize.

Using typo-morphology to save formal quality in historic districts of countries with private land ownership systems

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Keywords: Typo-morphology, Private land tenure, conservation, type

Abstract

216 *In some countries, private land ownership system allows the owners to build buildings in the way they want. The extent of such a freedom is based on the right of property laws in each country. Although there are many kinds of regulations, policy guidelines, and coding documents in each country, the result of a private land ownership system can be the same. This legitimacy can lead the building process to bypassing the regulations and any kind of avoidances, such as self-interpreting the guidelines, neglect of design review, ignoring the regulations and paying more taxes. This complexity will end to the worst results possible in historic fabrics, where the matter of formal quality, cultural identity and historical character, and most of all the matter of continuity is the main point. This paper proposes a framework for saving formal, historical and identical aspects of old fabrics using typo-morphology. It argues that the conception of type, as the essence of repeated and distributed forms, and a formal reduction of existing formal diversities can be the kernel of saving the formal-historical quality in the way which after all kinds of misinterpretation of laws, controlling neglects, and ignorance in using regulations, still the essence of a preferred and prescribed form can express itself in the final form. This paper fundamentally tries to find a solution for freedom-control dichotomy of urban reconstruction by using typo-morphology. Methodologically, this paper passes an interpretive way throughout the references and actual experiences and design coding and regulations in historic districts.*

Introduction

In legal contexts with private land ownership system urban fabric conservation process can be so problematic. The respected freedom in formal aspects of construction denies any kind of value for coherence in urban fabric. In other controlled land markets and ownership systems, rules and regulations can lead the process to a well integrated urban fabric. But in private system, the result is anarchy of forms and physical elements. Using typo-morphology in controlled systems led to respective results. But what can be the place of typo-morphology in private systems? To find the answer, the notion of type must be analyzed in the way the concepts can be applicable for private systems. Developing an approach like this can provide requirements for consolidation of typo-morphological methods in a unitary comprehensive method for all contexts.

Methodology

The method applied in this work is largely hermeneutical i.e. interpretive. The Urban morphology literature about conception of type (by Argan (1963), Calquhoun (1969), Vidler (1977) and Moneo (1978), typology and morphology is reviewed and the result of application of these concepts is analyzed mutually in restricted regulatory process and private land ownership system legal bypassed. Returning to the root concepts of type is a way to remove all applicative developments of type in contexts different from private ownership contexts. The results of this comparison is gathered and combined in a framework which deals with the duality of freedom-control in design codes and planning regulations.

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Problem definition

Land ownership system (LOS) can be seen as one of the main layers for a platform which urban development is based on. Different LOS' will end to different conditions and processes for urban development, as it can be imagined clearly. Diversity of LOS's in every country defines an institution of laws and regulation for using lands called land tenure (LT). According contextual conditions land legal goals of a government, LT's can be one of these types:

Customary tenure: which in the land has no definite economic values and the role of citizens is to protect the quality of land from one generation to the other

Private tenure: The system permits the almost unrestricted use and exchange of land and is intended to ensure the most intense and efficient use. Its primary limitation is the difficulty of access by lower income groups.

Public/ State/Communal tenure: The concept of public land ownership is largely a reaction to the perceived limitations of private ownership in that it seeks to enable all sections of society to obtain access to land under conditions of increasing competition. Although it has frequently achieved higher levels of equity than private systems, it has rarely achieved high levels of efficiency due to bureaucratic inefficiency or systems of patronage and clientelism.

Religious land tenure (Almost Islamic): this system is not even established in all Islamic countries but Iraq and Lebanon. In this system there are 4 kinds of legal right for land development. From totally private, to totally common, from totally sacred to totally administrative.

Non-formal tenure: As stated above, these include a wide range of categories with varying degrees of legality or illegality. They include regularized and un-regularized squatting, unauthorized subdivisions on legally owned land and various forms of unofficial rental arrangements. In some cases, several forms of tenure may co-exist on the same plot (Payne 2001).

Private ownership implies that the community recognizes the right of the owner to exclude others from exercising the owner's private rights. Public/ State ownership implies that the state may exclude anyone from the use of a right as long as the state follows accepted political procedures for determining who may not use state-owned property (Demsetz 1974). The dichotomy of private-public ownership deals with the right of the individual owner to build up and use the land in the way he wants, or use or built up the land according to state, governmental and public rules and regulation. It's obvious that many urban planning and design actions are based on rules and regulations inside a territory. So using the planning codes within a private land ownership system will make a contradiction. This fact can be tolerated in many new districts which no built character can be found as a priori. But historical districts are totally different.

218 Private land ownership system allows the owners to build their buildings in the way they want. The extent of such a freedom is based on the right of property laws in each country, and although there are many kinds of regulations, policy guidelines, and coding documents in each country, but the result of a private land ownership system can be the same. The result of such a condition in historic districts is not in the way of theoretical concepts of planning and urban design. Many kinds of bypassing the regulations, such as self-interpreting the guidelines, neglect of design review, ignoring the regulations and pay more taxes, and so on, is the result of private land ownership legitimacy. Here, urban historical fabrics suffer the most, where the matter of formal quality, cultural identity and historical character, and most of all the matter of continuity is the main point.

Preserving and managing historical cities and districts for many years are one of the subjects that United Nations Educational, Scientific and Cultural Organization (UNESCO) and International Council on Monuments and Sites (ICOMUS), is focused on. The new definition of holistic approach of historic cities and districts gathers many action form "the protection of their visual image; though the conservation of their historic built environment and its enhancement by way of appropriate contemporary interventions; to continuity of the socio-cultural human activities that constitute an indispensable component if it' sense (or spirit) of place (Van Oers, 2006; in Rodwell 2009). It does not need to explain how European countries are, at least, working of application on of urban morphology in managing historic sites and, ultimately, executing plans based on morphology. But legal systems of ownership in most of European countries are non private systems,

and overall control by local governments can lead the process of implementation of many plans, whether based on urban morphology, or not. Here, this article argues that developing codes and management guidelines based on urban morphology, in countries with private land ownership systems, can end to better results.

Discussion

As a 20th century pioneer of typo-morphology Saverio Muratori seeks the value of architecture, not in Modern concepts, But in the continuity of endless tradition of city construction. He and after him Cannigia studied several cities in Italy, first from a chronologic and diachronic lens to reveal the morphogenetic structure of these cities and then they classified building and spaces to have a methodic framework to design typo-morphologically (Moudon 1994). As a sample of this process Cataldi have studied urban life cycles of Rome and Florence (Cataldi 2016a, Cataldi 2016b) to recover the main morphological structure of these cities and cleaned up a way for systematic understanding of building and space typologies. As a result of this studies in real life design we can see The Barene di San Giuliano in Venice, The Ina-Casa neighbourhood of La Loggetta, Napoli, Project model of the Ina-Casa neighbourhood of Magliana I, Ina-Casa and neighbourhood of Valco S. Paolo in Rome (Maretto 2013). It's obvious that the place of typo-morphological concepts in conservation process is more definite that 'design from the scratch' process. (Larkham 1996, Cannigia and Maffei 1979).

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The urban codes in such projects are based on the conception of type. Regardless of genealogy of the word, type, which is not so crucial for practical actions, reviewing this concept must be started from mid 20th century conceptualization of Argan (1963), Colquhoun (1969), Vidler (1977), and Moneo (1978), Although all these are based upon thoughts of Quatremere de Quincy, Abbe Laugier and first of all Goethe, which built up the concept of type, in architecture, which is applicable in urban design and planning now. Argan used the word "type" versus "prototype" which means a configurative form exist a priori to all designed examples derived from it. But "type" is result of a reduction process of all existing forms of a defined function, use, or configuration. So type is a root form, which stemmed from a knowingly study and observation process, reducing all existing forms with a commons subject (Argan 1963). So recognizing 'types' is result of refining, reduction and summarizing definite forms to a root. The root form is not like a structural grid, but internal configuration of a form or a principle which provide possibility of endless formal diversity. According to Argan types must be defined in a hierarchy which these types should have longitudinal and latitudinal relation with each other.

Vidler (1977) seeks the meaning of typology in the context of city as a repertoire for architectural and urban forms. Here, urban fabric can be seen as a whole which it's past and present is embedded in his body. The typological approach which he described as 'third typology' (versus Nature-oriented typology of Laugier and Mechanical typology of Le Corbu-

sier) deals with themes remained on pre-existed types, themes which are common between types and themes resulted by combining these types (Vidler 1977). This approach is neither utopian and nor nostalgic, neither ancient and nor avant-garde. The urban fabric is stack of city's experience, and in this stack we can find fundamental rules of designing spaces and buildings. By choosing forms (basically their types) from the past, although the forms are disconnected from their temporal period, but still bring their social and political meanings from past to present. So we can see the continuity of urban form during temporal changes.

Calquhoun (1969) extracted the innovative capacity of 'type' in design process. He argues that every act of design deals with a pre-assumptions and there is no way to see our pure intuition at the beginning of design process. So using types will not bind our hands to design, but just makes us to start faster. Because the respond to each design problem can be found in a definite type and any other methods, tools and applications (like all quantitative analytic tools, interpretive and intuitional ecstasy, and problem solving diagrams) can only lead us to a framework which shows us the way how to pass the process, and no final forms can be gained from this methods, tools and applications. Here, using a typological hierarchical repertoire can bring us at the first step of designing absolute final form.

220 Moneo (1978) excavated the notion of type and defined type as 'a concept which describes a group of objects characterized by the same formal structure'. As he argues type is not a spatial diagram of an average of a serial list, but based on the possibility of grouping objects by certain inherent structural similarities. The idea of type which 'ostensibly rules out individuality, in the end has to return to its origins in a single work'. Moneo expressed that types are not only tools for describing architecture, but architecture is always produced through types. The architecture can be produced through types because types are open to the process of change. The type can be thought as the frame within which change can be operated. So type is not a frozen mechanism but in can deny the past and looking to future.

All these can be seen as viewpoint extremely rooted in the words of Quatremere as defined "type" versus "model"

the model understood as a part of the practical execution of art is an object which should be imitated for what it is the "Type" on the other is something in relation to which different people may conceive works of art having no obvious resemblance to each other. All is exact and defined in the model; in the "type" everything is more or less vague. The imitation of "types" therefore has nothing about it which defies the operation of sentiment and intelligence (agan 1963).

According to Argan (1963), Quatremere see type as a vague and neutral entity that brings only an idea of a form and do not dictate a form. So type always transfers a content of past projects but this content have not a direct impact on design process of new building. So all these buildings are

refined of their formal qualities in a type and designer can create a new building free from historical indicators.

As an outcome for this conceptual review, key points that introduce the notion of type can be summarized which any practical action deriving from typo-morphological thoughts should be founded upon them

Consideration of 'type' as a vague and neutral entity that brings only an idea of a form but not dictating it

The process of reducing existing form to a root configuration of a type

Embedded historical content within the type and the ability of type to be free from historical contents.

The commitment of developing hierarchy of types which have longitudinal and latitudinal relations with each other

The ability of types to be used independently of in relation or combination with each other

Using a contextual repertoire of types as a beginning stage of design process

The role of types in producing further architectures (maybe also avant-garde forms)

Developing the framework

Developing design codes for conservation in controlled land market, based on typo-morphology of context needs no explanation. As a brief, identifying fundamental types and their hierarchy, designing and writing conservation or design codes, and organizing a review committee for piecemeal changes is the main steps. Changing process of urban fabric will be canalized in the way planners/designers want to gain the most formal/iconographical quality. But in a private ownership market everything can be changed. Financial outcome of development, lead to a hunger to gain more from a piece of land and any controlling rule can assumed as a barrier for profitable and desired development. The question is how a typo-morphological understanding of urban context can help this condition?

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As a matter of fact in a private ownership system, all rules can be broken in favor of more financial outcome. The rules just in punish/carrot system can be used to lead the situation into a better environmental quality. Of course encouragements and restrictions should be organized in a way make the development process faster and it they should ensure the final formal quality. These two can be reached only in a way that rules convince developers that they can find more with obeying rules. Contradiction of rules and owner's benefits mean an obvious 'no' to controlled changing process.

These rules must provide a spectral condition between "irreversible adherence" and "deliberate neglect". This is obtainable just when rules define a spectrum of available options not a rigid package. In this way, a land/building owner is empowered to choose between diverse combinations of different values. So he can find his place between absolute return of in-

vestment, or acting as a responsible citizen. This can be seen as what Davidoff and Reiner called “widening of choices” (Davidoff and Reiner 1962) or a little bit recently Richardson “reflexive practice” (Richardson 2002). The question is what role of Typo-morphology can play here? Returning to the notion of type and an interpretation of it can clarify the answer. Type, as a vague and neutral entity that brings only an idea of a form but not dictating it, can be seen as a basis for designing rules and regulations for conservation and design codes. But the interpretation of type to a code needs deriving a root form with minimum configurative appointment from the root type.

A definite and complete typo-morphological rule can include a basic type, its derivations, relational codes and details. But during any disobedience a part of this comprehensiveness will be removed. So the most little part of rules and codes will remain and here were typo-morphological approach can play an effective role.

222 “Type” is considered as a vague and neutral entity that brings only an idea of a form but not dictating it. So it seems that the notion of type has an internal capacity to bring freedom to codes, while in can save the root connection between a new form and its context (fig. 1). To maintain continuity of a new form in changing process of urban fabric, a line can be drawn from the most detailed code to the most vague and neutral code. It is a line between control and freedom, and between “profitable participation” and “environmental responsibility”. In fact a less controlling code can be developed by moving form a root type to a form “just configured” based on the root type. If we reduce the code to a simple configuration will maximum freedom it donates to a designer/constructor/developer, every single act of design cannot be out of the whole coherence we expect from conservation/design process. Every single building with all drifts from formal appreciation for a historical context will be bounded to the main atmosphere and character of the place. Using the least formal limitation to design and place this limitation in the ventricle of development rules can lead the changing process to a better formal quality. Of course with all disobedience against the codes and regulations, part of them always remains, and these remained parts are the place which typo-morphological approach must be injected.

Conclusion

Accepting type as a main key of conservation regulations and codes can provide conditions to take benefits which are stemmed from the essence of type. This approach leads us to a context free mechanism of conservation and coding. The Usage of type-morphology in many ownership systems is obvious and clear. But planning and design act as a context-oriented field of knowledge necessitates localizing any kind of theoretical knowledge to a practical application. Of course any theoretical knowledge has layers of applicability and a single practical method cannot be used in other contexts so far. Developing diverse practical methods based on a single theory (as a divergence) and again remodeling the theory ac-

ording to practical methods (convergence) can enrich the theories and paradigms of design and planning.

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Spectrum of typo-morphological rules to widening choice

freedom-----control
deliberate neglect-----irreversible adherence
codes near the root type-----detailed code

Fig 1. Spectrum of typo-morphological rules to widening of choice

Learning from the built city

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Keywords: Urban Morphology; Urban Form; Urban-Layout;
Urban-Composition; Portuguese City

Abstract

This communication focuses on the morphological interpretation of the urban form, and addresses the utility of the urban-layout as a tool for reading the urban form as well as for the city design.

Departing from the subject of the urban-layout composition with streets, in particular concerning the "ordinary streets" which are the primary evidence of the city, the aim is to discover in the built city the spatial logic behind the streets disposition, i.e. understanding the long tradition of practice of building (Portuguese) cities and also the role of the streets as main urban element within the composition of the urban layout.

From the urban-layout analysis based on a partial and abstract sample, it was possible to recognize and consequently deduct the urban-element types - streets, intersections and blocks - and, more importantly, how they are combined in a (regular) grid system to produce a coherent composition.

From a conjectural point of view we reconstituted a set of "rules" based on a theoretical composition system that demonstrates the relationship between the streets, and how they, together design the urban-layout as: (1) a system of alignments, (2) a grid system with modular-blocks, (3) a system of hierarchized axes, (4) an intersections-type system.

With the classification of the urban composition rules we distinguished the possible answers to the subject of the urban-layout production with streets, whose debate, is not new but remains as a challenge within the actual urban production which the city faces. The reading concludes four formulas to design the urban layout. These cannot be taken as prescriptions neither ideal recipes, but can be understood as a lesson from the built city to the urban-layout project of today.

Introduction: The art of designing cities with streets

This communication focuses on the morphological interpretation of the urban form, and addresses the utility of the urban-layout as a tool for reading the urban form as well as for the city design.

Departing from the subject of the urban-layout composition with streets, in particular concerning the “ordinary streets” which are the primary evidence of the city, the aim is to discover in the built city the spatial logic behind the streets disposition, i.e. understanding the long tradition of practice, of building (Portuguese) cities, and also the role of the streets as main urban element within the composition of the urban-layout.

Arruar is an old term of the Portuguese language which definition refers to the ancestral practice of building cities with streets, an action or act of “disposing, dividing into streets or tracing” the territory that presupposes the production of the urban space. This procedure expresses the purpose of urbanization as a pragmatic operation connected to the act of building, but also the mental mechanism of designing that relies on the relation of a set of elements according to certain logic. Therefore, as a conceptualization of the city, “*arruar*” is the implicit procedure on the urban-layout composition, if we understand it as an abstract act of designing a set of streets, articulated among them according to a certain order.

Returning of to the built city as an object of study and to the fascination for the traditional urban forms, nowadays understood as timeless, is made with the intention of recovering the elements of composition based on the blocks and the streets, and of the concept of building cities with streets or “*arruar*”. The aim is not to create new urban fabrics similar to the ones we already know, imitating the shapes of the past, but rather to demonstrate the importance of using the common elements and the multiple combinations they admit in the construction of original fabrics. Thus, it is assumed as hypothesis, that the built city principles can be a creative reference or even an inspiration for a composition process supported by the renewed vision of the street, block and urban-layout concepts.

The recovery of the concept “*arruar*” implies the need of the project act to establish a form, but also to make compatible different levels of uncertainty that allows coding the production of an object that is constantly evolving. For this reason, the composition of an urban fragment or morphological homogeneous unit should relativize the urban fabric final configuration according to the creation of mechanisms that regulates the urban form. Thus, the initial character of the city can be determined through a public structure, a design or an abstract system of relations that determines the urban fabric morphological genesis and serves as a support for the formation process. In addition to this, a parameter system can regulate the aggregation of the building, its volumetry or even their evolution over time.

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Methodology: The meaning of urban reading for design process

The research developed since the second half of the 20th century has led

to the recovery of the historic city values after the critical revision of the Modern Movement urban model.

The aesthetic revaluation of the built city legitimized the urban-layout as a matrix of the city public form, which adopted from history the idea of continuity and human persistence, the sense of place and urban landscape value, recovering the traditional urban forms.

The urban-layout reading from fragments made generally by common streets is done with the intention of establishing an interpretative mechanism. It allows decoding the city composition rules, conception principles and production processes, or simply the city designs. This act of will can be previously supported or not by drawings but always materialized a mental image of order or hierarchy that is expressed in the street composition and, consequently, in the city shape.

The analysis focuses on the morphologically homogeneous units of the city urban-layout, areas usually also referred as neighborhoods (Lynch, 1960), and that from the study of form point of view, it matters to confine to parts of the city where the coherence of the ensemble, or even the uniformity of the composition, is transmitted through the existence of elements with identical characteristics that combine each other according to the same logic and the same order.

228 Each of the urban fragments is assumed as a representative sample of a more complex entity where it belongs. These partial elements are generic pieces, they don't explain the global characterization of the urban whole, but attenuate the facts legibility that act on the creation of the layout and brings to light the result of an urban configuration where it is possible to deduct a theoretical model of composition.

The analysis of the morphologically homogeneous urban-layouts begins with the individual observation of the street and with the characterization of the composition principles of its main components. After, it is possible to establish an interpretive matrix, able to be transposed into the reading of the urban ensemble and to the comprehension of the order that regulates the streets arrangement in the urban-layout constitution. It is also from the perception of the street nature that becomes possible to decode the nature of the whole composition process and, mainly, the differences between the urban forms that configure apparently similar urban-layouts. Thus, beyond the individual identification of the axes production principles, we decoded the rules that, based in a composition system serve as a reference to the ordinary street combination. From the conjectural point of view, the urban-layout composition rules were reconstituted based on a theoretical composition system that demonstrates the relation of the streets among each other in the creation of (1) Multiple Alignments, (2) Modular Urban-Blocks, (3) Hierarchized Axes, (4) Streets Intersections.

The “ordinary street” and the urban-layout composition principles

The street production process, individually, influences but does not determine the composition of the urban-layout. Streets that are constructed from the same logic can be conjugated to each other in very different

ways and, as a consequence, originate also different urban-layouts. Thus, when we discuss the urban-layout production as an ensemble system where the street is the common denominator and also the fundamental element of an articulated morphological structure, the objective is to distinguish compositional procedures that frame the street and its delineation strategies of this urban element in the abstract conceptualization of a homogeneous morphological unit - the urban-layout.

The observation of the city morphological units through the urban-layout allowed reconstituting the layout underlying construction logic and to create conjecturally a theoretical model where, from a partial and abstract sample, it was possible to recognize and consequently deduce the types of urban elements (streets, blocks and intersections) and, more importantly, how they combine in a coherent composition based on the grid application.

The analysis allowed us to assume four formulas to the urban-layout construction. These cannot be taken as prescriptions or ideal methods, but rather rules that represent logics or principles about the act of "arruar" or design the urban-layout.

With the classification of composition rules, different possible answers appeared to the questions of the urban-layout production based on the street, whose debate, that isn't new, remains a permanent problem that the city production faces.

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The established logics represent abstract operations that frame the layout production diversity. This does not mean that all possibilities have been exhausted, but the main variants of street combination in the urban-layout production were revealed. Principles were distinguished and four types of project were discovered coexisting sometimes within the same context and sometimes with similar characteristics in very different territorial and temporal contexts. This allowed showing a long tradition inherent to the city construction practice (Portuguese) and to the street use as a fundamental element in the urban-layout composition.

Multiple Alignments

The urban-layout production based on a system of alignment presupposes that a theoretical grid regulates the streets repetition according to a preferential direction. It supports the relation between the streets diversity, which are not necessarily the same, but they must be articulated with each other to constitute a homogeneous unit. The urban-layout composition is fundamentally based on the combination of a street-type, defining a dominant orientation, with a grid, characterizing an assembly order.

When an urban nucleus is produced in phases through the individualized construction of its elements and the streets are autonomously constituted, repeating similar processes, as for example in Óbidos, its urban-layout can also produce a homogeneous structure. In this sense, it is also possible to deduce a theoretical model of the street layout composition process. In these layouts the set of streets juxtapose themselves in successive actions

and reproduce always the same orientation, multiplying the alignments in the formation process of an articulated morphological unit that having very different morphological expressions, they have the same conceptual support, an abstract idea or at least an intent of materialization of the urban form that expresses itself through a matrix scheme of axes competing with each other – an orthogonal grid.

The Praia da Nazaré nucleus was formed by a fishermen group, where the huts preceded the consolidation of an elongated blocks and narrow streets structure, arranged from the coast to connect the urban space directly with the bay. (Table 1)

A partial sample of the urban-layout reveals the orthogonal grid used as a support for the repetition of streets with the same alignment in successive and equidistant juxtapositions and the same predominant direction. These main alignments are defined by a street-type, perpendicular to the sea, intersected by transversal streets, which can be based on the crossing of competing routes or on trunk roads which are not aligned with the axes and that tend to highlight a main direction.

230 From a theoretical point of view, the urban-layout composition is informed by a system of axes hierarchized between them, where the main direction is emphasized by the blocks orientation that reveals an unusual configuration. These urban composition elements are based on a very narrow and elongated module with no free spaces. It is totally occupied by edification that invariably has two public fronts on the block greater sides.

The Nazaré block-type has a constant width of 10 meters and varying lengths between 170 and 45 meters. These dimensions regulate the blocks diversity that is possible to reproduce from a base module and, in a way, also establish the limits for randomness in the urban-layout composition.

Modular Urban-Blocks

When we approach the urban-layout composition based on the dialectic relationship between the street and the block, a first system is distinguished, in which the combination of intersecting axes defines modules where plots and buildings are aggregated.

This urban composition unit - the modular urban block - can establish a conceptual reference for the alignment of the street built fronts, determining only a fixed perimeter. But the urban-layout composition can be established in an inverse way, focusing preferentially on the conception of the city private component and not on its public component. In this case, from a pattern of modular plots is possible to establish a block internal organization according to certain logic. Extrapolating the same system, the blocks between them also established a certain organization, relating the set of these units with the streets that define them in the homogeneous unit constitution.

When the (urban) composition is based on a modular plot multiplication repeated in aggregation within a common boundary also defines,

therefore, a modular characteristics of the urban-block.

The plots aggregation nature in the block constitution can influence the urban-layout organization and also the streets role that bound the block, especially its meaning in relation to the urban ensemble.

The most elementary form of plots aggregation presupposes a block construction that results from the lateral juxtaposition of narrow plots, each one served by two streets. In this principle emerges a composition system matrix based on the relationship between the main street and the service street.

In the most usual situation the plots have only one front street and are organized in rows that are joint by the plot bottom bordering line. The block also has a rectangular configuration and is defined, on the major sides, by main streets giving access to the plots and, on the smaller sides, by secondary streets. This is the urban-layout matrix of Viana do Castelo, a city in northwestern Portugal, founded in the Rio Lima mouth in the middle of the 13th century. An analogous modular system is at the origin of many different urban-layouts from such different times, as Angra (16th century), Vila Real de Santo António (18th century) or Malagueira in Évora (20th century). All these different cities have an urban-layout that is possible to report to the same composition theoretical model that relates streets, blocks and plots. (Table 2)

In the Viana medieval urban fabric a grid of intersecting streets defines the blocks composition, adopting as a reference measure width, streets with 4.4 meters (20 spans). Once identified the street-type section it is also possible to deduce the plots geometric partition from the street front. In this case, the plots are grouped in elongated blocks with a front of 4.4 meters and a depth of 17.6 meters (20 spans by 80 spans), defined by a single row of 20 plots distributed by the block larger front that develops along the street. 231

The grid axes combination distinguishes the main and secondary streets according to the block configuration and the respective plots dimensioning. In this urban-layout, the blocks orientation suggests a clear hierarchy street system, where the main and secondary streets are defined according to different orientations. Two streets serve each plot and define the block larger sides while the transversal streets assume a secondary role (bystreets), connecting the main streets with each other and articulating the more significant streets set of the urban-layout.

Hierarchized Axes

The street use in the urban-layout hierarchy presupposes a distinct valuation of elements with an identical nature. This principle can be understood as a rule variant in which the street defines a system of alignments or even a block system. In this case the streets assume different calibers to emphasize a logic of organization. Considering the hierarchy as an order principle of the urban-layout production is possible to distinguish compositional systems where the streets combination, based on the uneven valuation of the

urban axes, is reflected in the contrast between absolute dimensions, in the urban role of complementary street systems or even in the exceptionality of one urban element compared to the others.

Although much has already been said about the capital reconstruction process during the eighteenth century in the ideological, artistic, as well as political and social scopes, here we focus on the structural relations that are established between the streets. This allows us to approach, through a set of samples, the composition principle underlying the theoretical model that informs the urban-layout composition.

In Baixa, the urban-layout composition is based on the gradual staggering of the street profile. The different calibres of the streets further accentuate the orthogonal grid hierarchy, determined by the dominant orientation of rectangular blocks. Thus, three types of street or three different sections are combined with an ordered axes system to define the urban-layout: the main streets with 12.2 meters (55 spans), the transversal streets with 9.5 meters (43 spans) and the secondary streets or less important streets. Those having a narrower profile are arranged alternately with the main streets and have 7.3 meters (33 feet). (Table 3)

232 The integral composition process of this urban ensemble establishes the correspondence between different street widths, hierarchized sections-type, and the respective height regulation through the façades design. The emphasis of the hierarchy underlying the urban axes combination is also reflected in the distinct valuation of the building public expression, mainly through façades-type that varies according to the streets nature and, in a way, also varies with the block-type fronts.

As the street, the block is also a fundamental composition element of this urban-layout whose modular nature is inseparable from the three streets order that have conceptually uniform and symmetrical developments. The street façade-type is supported by common regulation parameters that define three levels: a commercial basement, a body of windows corresponding to the dwelling floors and a cover with attic waters framed in the composition of the whole (France, 1965). But the erudition of the constructive elements and their compositional complexity varies, according to the streets, in each of the façades-type. They are more sophisticated in the main arteries with balconies on the first floor and details in the masonry works, losing gradually the masonry design cutouts. They become more austere and without balconies when the streets lose importance within the hierarchy.

This system establishes an ideal logic of hierarchical principles where the urban fabric theoretical model emerges. After 250 years, despite the multiple variations, exceptions and adjustments inherent to the plan implementation or even the contradictions that characterize the normal evolution of the city, Baixa still clearly reflects the rules that are in their typo-morphological genesis.

Streets Intersections

In a reflection on the nature of the urban-layout composition, Manuel de

Solà-Morales distinguished the regular square shapes, grids and regular matrixes to explain that “among the urban plants families in chess - which could be grouped according to dominant morphological aspects - we would place the Barcelona case as the most perfect and complete to demonstrate the idea of intersection and crossroads as the urban-layout genesis “(Solà-Morales, 2010).

The streets intersection constitutes one of the layout composition principles, but the potentiality of this element is not exclusive to the orthogonal grids and can also be revealed in less geometrized systems with a similar logic. When, for example, the crossing space incorporates a set of singularities, morphologically autonomous of the street, that allow to determine the cross street place and the space that confines it as a determining factor of the urban-layout identity and of its production process.

When the crossing between two streets is exacerbated as an exceptional condition can become a composition unit, capable of printing an urban-layout order and of characterizing it as a homogeneous unit if that specific spatial configuration is repeated successively with the same logic.

The difficulty of accurately ascertaining the Olhão morphological genesis is associated with the progressive fixation of the population in one of the Ria Formosa beaches and the built forms perpetuation over time in this site, a process that gradually developed from the huts built there since the century XVII.(Table 4)

Morphologically, the Barreta/Levante urban-layout is geometrically irregular. The compact blocks, almost without free spaces inside have very different dimensions and shapes. The streets that delimit them are constituted by rectilinear sections of short extension. These vary in extent and sometimes develop in a sequential logic of extensions that articulate through discontinuous alignments, the effect of which is caused by the deviation of the street threading is termed locally by “elbows”. The sudden inflections in the direction of the streets imply the interruption of the perspectives of the street, giving rise to visual sequences marked by the cadence of the places where the directions of the routes change. The elbows articulate peculiar streets and form exceptional crosses that result from the enlargement of the public space in the place where the arteries intersect and of their conjugation with the axis misalignment.

In the context of an extremely dense urban fabric, the elbows form a constellation of small squares indirectly articulated with each other. These urban-layout reference spaces are mainly small widenings of the street channel that have a domestic character, often appropriate and shared by the inhabitants, assuming itself as an extension of the dwelling functions. The elbows morphological nature is based on common composition principles that, although structurally identical, assume a variety of configurations. Although the intersections constitute exceptional urban elements of the urban-layout, their repeated and combined use with the streets structure is the origin of the Olhão composition urban-layout. The Barreta and Levante homogeneity is mainly dependent on the morphological nature of the intersections and their identical repetition, being this composition

unit conjugated with a system of ordered alignments, a theoretical grid that articulates the street segments with elbows associated spaces.

Conclusion: Reading and Design Process

From a conjectural point of view, we reconstituted a set of “rules” based on a theoretical composition system that demonstrates the relationship between the streets, and how they, together design the urban-layout. With the classification process of the urban composition rules we distinguished the possible answers to the subject of the urban-layout production with streets, whose debate, is not new but remains as a challenge within the actual urban production which the city faces. The reading concludes four formulas to design the urban-layout. These cannot be taken as prescriptions neither ideal recipes, but can be understood as a lesson from the built city to the urban composition of today.

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Table 1 – Nazaré, Urban-Layout

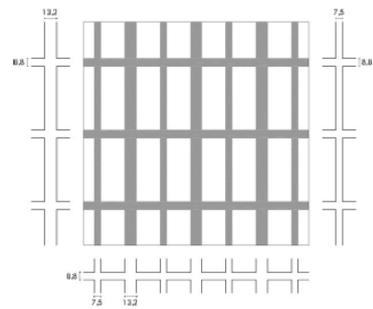
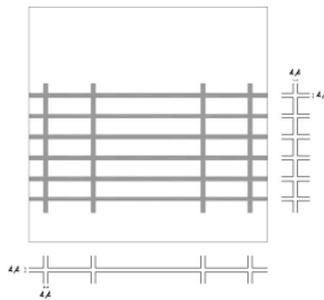
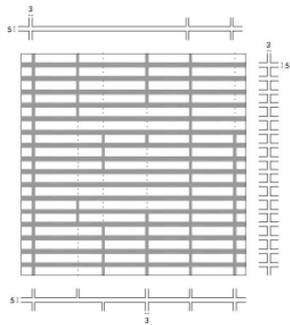
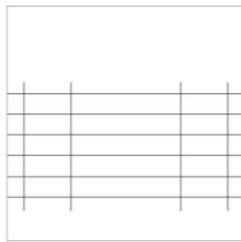
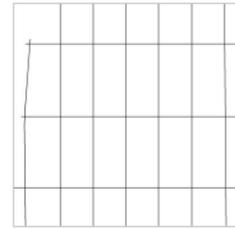
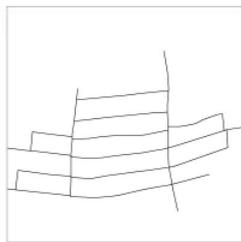
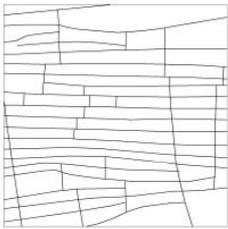
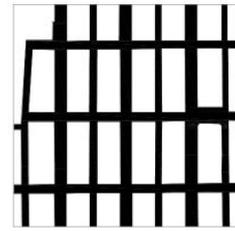
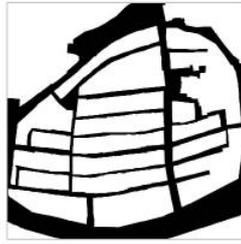
Urban-Layout sample + Grid + Conjectural Grid + Conjectural Urban-Layout + Urban Elements Type

Table 2 – Viana do Castelo, Urban-Layout

Urban-Layout sample + Grid + Conjectural Grid + Conjectural Urban-Layout + Urban Elements Type

Table 3 – Lisbon/Baixa, Urban-Layout

Urban-Layout sample + Grid + Conjectural Grid + Conjectural Urban-Layout + Urban Elements Type



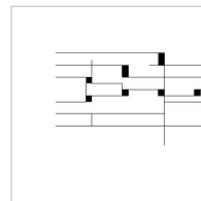
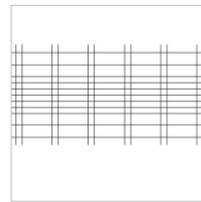
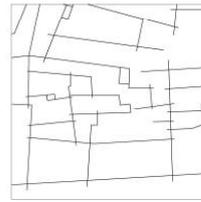
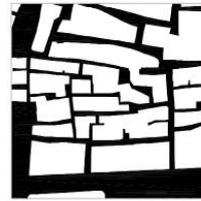
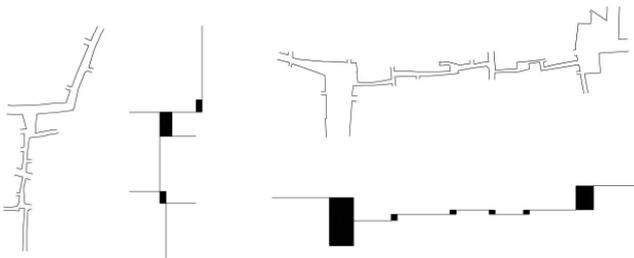
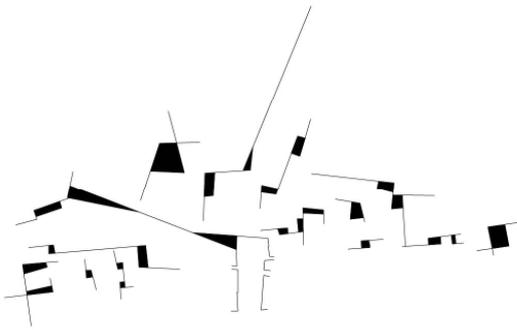
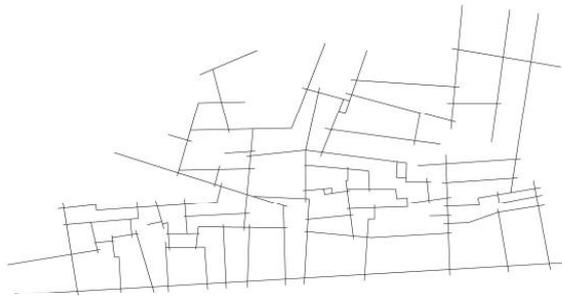
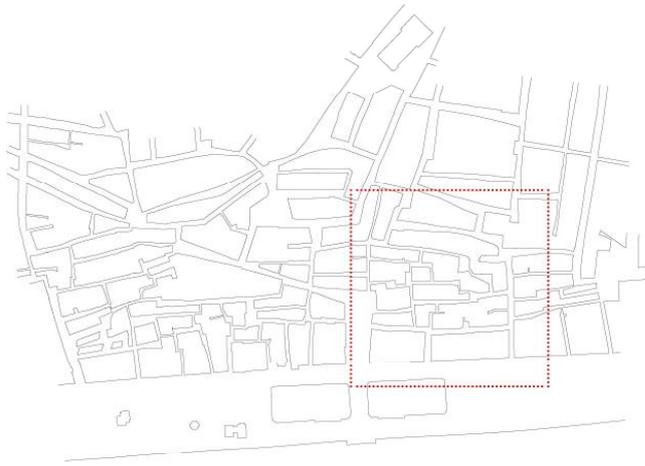


Table 4 – Olhão, Urban-Layout + Grid + Intersections Type + Streets Type
 Urban-Layout sample + Grid + Conjectural Grid + Conjectural Urban-Layout + Urban Elements
 Type

The Block and Street dialectic Lisbon as a lab for reading and designing the contemporary city

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Keywords: Urban Block, Morphological Decomposition, Transformations Process,
Urban Renewal

Abstract

The urban form results from the permanent confrontation between the need for change and, at the same time, preserving the existing urban and architectural tradition and matrix, in order to maintain the existing city, coherent to the people that use it.

238 *Now, more than ever, the manifestations of change in the city shape point towards the preservation of our urban resources, which are vast and very rich, but need to, above all, be suited to the city current and future needs. So, the historical or consolidated urban fabric should be interpreted as a didactic tool in the production of new spaces.*

In Lisbon, particularly if our focus is on the dialectical built between the block and the street, we realize that, in fact, the urban fabric heterogeneous nature is the result of the accumulation of different urban processes, crystalized in their formal characteristics. This fact reveals a great capacity for reinvention.

Thus and having as reference a set of contemporary interventions in blocks of Lisbon, associated with different urban axes of the city, this work tries, through a morphological reading to realize the importance that these elements - block and street - can play in restructuring the urban fabric or even as conceptual support for the city of sedimentation process.

Introduction

In Lisbon the tension between diversity and unity is evident; urban fabrics that have suffered long processes of sedimentation (Alfama) and others designed as an integral unit (Baixa Pombalina); operations who reject the idea of block and street (Olivais); others more recent representing the recovery of these elements in the city urban production (Parque das Nações); between different development phases of the city; and even between different natural supports (hills, valleys, river front).

Within this complex framework that accurately describes the city form, the street and the block have always adapted, with mutual give ins, to the constant changes of urban and architectural models that builds most of the common city urban fabric. It is also true that these elements have lost some space in the city project, in a posture promoted by the modern movement that raises many questions about the formal effectiveness of the presented solutions. Even so, the most recent trend of the city (re)design points to a new dynamic of dialogue between the block and the street presenting a set of new relations that must be explored.

This article assumes that we should not overlook one of the most important design tools available –time. Thus, using the Lisbon urban fabric diversity, we look to decode and to systematize the most elementary composition rules that characterized the block and street relationship over the time in the city. This analytical perspective is significant for a second approach dedicated to contemporary design solutions that allow us to realize the creative capacity of these elements in the search for new formal solutions. Complementarily, we will establish parallels with international contexts where the diversity of formal relations contributes to optimize the search for alternative solutions of organization and restructuring the city urban fabrics.

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Decoding the ordinary city

When the focus is on the decoding of the urban fabric complexity, the dialectical relationship between the street and the block invariably emerges, because they allowed to structure the city according to a more, or less, thoughtful order. In this recognized ordering role of the city urban fabrics, it is possible to differentiate two opposite approaches of urban production. The first refers to an idea of composition that starts from the conception of the city public component based on a great detail given to the public space design. The second is focused on the conception of its private component, which may result from the definition of a plot type, a building type or even a façade type. In this case, these elements present modular characteristics that are repeated within the block perimeter according to an aggregation order that determines the set and street formal coherence. In fact, and although we clearly recognize the existence of these approaches, they are recurrently thought out in an integrated way revealing great affinities, above all, in the scope of the relations between the street and the block as we will demonstrate.

Combined streets define blocks

The urban fabric composition based on the urban layout design, in which the streets combine with each other with competing orientations, configures units of land available for building through the definition of a perimeter that clearly divides the public and private space of the city.

This elementary rule, which tells us that streets create the urban layout and the urban layout define blocks, referring through its perimeter the plots and buildings aggregation, gains in the city reality a greater complexity. There is a set of essential factors that explain it such as the topography that can function as a urban layout generator or deforming element; its order or hierarchy; the action of time on its production; or even singular elements, normally associated with main streets, which by their importance function as an urban fabric generator.

In Lisbon, this urban composition process becomes evident, for example, in early twentiethcentury operations such as Campo de Ourique. The formation of this homogeneous region benefited from singular topographic conditions, occupying one of the few city planar areas, which allowed the establishment of an orthogonal urban layout structure. The streets are organized perpendicularly to each other forming modular land units clearly defined by a perimeter.

The street and the block plot structure

240 When we approach the affinities between the street and the block plots structure, a first correspondence is distinguished, as it is transversal to the different urban fabrics that compose the city: the tendentially perpendicular orientation of the plots in relation to the street, regardless of its form. The aggregation of these plots presumes, in turn, a street front partition through a metric that can be regular, in which the equal fronts result from a modular plots aggregation, or irregular, where the fronts present different dimensions.

According to Hélder Carita (1990) the modular metric system is in the Bairro Alto genesis based on a plot dimension of 60 by 30 spans (13.5 m by 6.75 m) that is multiplied within the block boundary. This principle of modular composition is in the genesis of several city urban fabrics such as Madragoa and Bica.

When the composition is based on a metric system with unequal dimensions, it is usually associated with the gradual action of time in the evolution process of the city, which, although true, does not explain the generality of occurrences. In fact, time can explain it, if we look at the blocks that assume an articulating role in the city urban fabric usually composed by metric systems established in different city development phases.

But if we take as an example the Baixa Pombalina, plots structuration it accuses, within a very disciplined unit, significant variations in the metric of the street fronts. This is associated to a redistribution process of properties proportional to the losses that the owners suffered following the earthquake that affected this part of the city. On the other hand, we find occurrences where the size variation of the street front is justified by a principle

of urban layout hierarchy. Using the Bairro de Alvalade as an example we can verify blocks where unequal metrics coexist associated with streets that play different roles in the city.

Thus, one further correspondence remains to be established, the street fronts number that the plots have, taking into account the aggregation process and its position within the block. In this context, we distinguish in the first place the more common situation, plots with one street front usually associated with main streets and secondary streets or bystreets. This system assumes that the block width is determined by a top-up aggregation of two plots, joined by the side opposite to the street, and the length by its repetition in a lateral aggregation process. In situations where the plot occupies a corner position, it has two street fronts. However, this possibility of contact with two fronts is also verified in more elementary systems where the plots are aggregated only laterally being served by two streets in a logic that relates the main street with a service street. In this case, the corner position refers to the existence of three street fronts. In Bairro Alto it is possible to find these two systems of plot aggregation, being nevertheless more common the first situation.

The street and the block built structure

When we approach the relationship between the street and the block built structure, the control of the city third dimension necessarily arises, where the buildings aggregation gives shape to the block and at the same time to the street public space. In the current composition system of the city the buildings stand on the block perimeter defining the alignment of the built fronts that form the street longitudinal profile. The street section is, in this case, determined by the combination of two tendentially parallel built fronts.

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But the building can, rather than serve as a limit to the street shape, be the focus of its design, presenting usually exceptional features in relation to the other buildings that compose the block. An example of this is the relationship between Rua Garrett and the warehouse building of Chiado, between Rua da Conceição and Madalena Church, or between Avenida de Roma and the block corner building of Guerra Junqueiro.

The principles that link the block built volumetry to the street can start from situations where the buildings set up regular volumes defined from a type building design that determines the block and the street composition. Not being the most usual situation in the city, it is possible to find this compositional system, for example, in Bairro de Alvalade. Most common are the situations where the block shape results from the aggregation of buildings with different volumetries normally associated with a gradual formation process of the city setting up street profiles with great variations. After all, these differences can result in volumetrically homogeneous units by fixing, for example, a height as it happens in Bairro Alto. In Bairro do Areeiro, for example, the block defined between the Avenida de Madrid and the Avenida João XXI, has its volumetric difference associated to an urban layout hierarchy. In this case, the buildings with the highest volume are

associated with Avenida João XXI, an important circulation street of the city, and the smaller ones with local influence streets as the Avenida de Madrid.

The correspondence established between the street and the building façade is also distinguishable, which can autonomously be assumed as an element of composition and does not necessarily have to be associated with modular systems made up from plots type or buildings type. In this case it is obvious to refer to the Baixa Pombalina whose facade design follows the urban layout hierarchy. The longitudinal profile of the street reveals a modular metric interrupted only by the height variation of the buildings.(Figure 1)

The variation as a trend in the contemporary city design

Knowing the fundamental rules that relate the street and the block in the composition of the city current urban fabric we can distinguish in a more informed way the situations that constitute variations to the rule. The interest of it is sustained by the richness and multiplicity of new formal relations that were introduced in Lisbon in the middle of the 20th century, and particularly, because it became a trend in the context of the contemporary city project.

One of the most recent trends is the renovation and rehabilitation of the city interior space.

242 In this context, the block plays a crucial role because it allows by its scale and designs the appearance of new densities. This is a complex process from the point of view of the agreements that are necessary yet interesting by the dynamics that it introduces.

One of the paradigmatic examples of this type of approach is the project Casas em Santa Isabel (2010) designed by Bak Gordon within a block in Santa Isabel, between Campo de Ourique and Rato. The block assumes in relation to the context a position of urban articulation configuring a perimeter with an irregular shape and significant size. Taking advantage of these characteristics and a compositional system based on the perimeter aggregation of the building, the architect gives form to a program that contemplates the implantation of two houses accessible only by a garage or door. These are only developed at the level of the ground floor against to the verticality of the surrounding buildings. It's important in this context to retain, apart from the trend, the detachment between the private space of the dwelling and the public of the street.

There are, on the other hand, examples of cases that start from the same block densification process, but where inner streets serve the interior buildings. In one of the blocks next to Rua das Janelas Verdes in Lapa, a project designed by Ana Costa is being developed with these characteristics that remind the environment of the Vilas and Pátios of Lisbon, also built many times inside the blocks. Likewise, although the different drawing scale, it is possible to establish a parallel with some of the blocks of Alvalade where the inner street has a public character.

The block perimeter fragmentation

Another trend is related with interventions that foresee a fragmentation of the block perimeter through an urban layout extension to its interior, in a system of passage and building support or even permanence. This principle of breaking the block perimeter creating a secondary system of urban layout that complements the main system is possible to be experienced, for example, in some blocks of Chiado intervened by Siza Vieira and Gonçalo Byrne in the aftermath of the fire (1988) that destroyed them. These blocks, where the courtyard is the path base that rips the block, suggesting alternative directions supported by commercial activities that influence the local experiences.

Another curious example, due to the building singularity, is the intervention in the Convento das Bernardas block (2001) that resulted from an intention of the Lisbon Municipality to reconvert a property occupied by a population with poor economic resources that lived in fragile economic conditions. This project, in addition to the renovation of the living space, introduces a dynamic that links the convent cloister and the street space through secondary paths, duly supported by commercial units and equipments.

This block opening process is not recent in Lisbon, because there are blocks from the mid-twentieth century with this formal variant, namely in Avenidas Novas, Campo de Ourique and in Areeiro that marked in some way the beginning of the traditional block mutation in the city.

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The urban layout defines a conceptual block perimeter

Within this fragmentation system of the block perimeter or open block as defined by Christian de Portzamparc (2010), there is another compositional variant with particular incidence in Parque das Nações, located in the eastern riverfront of Lisbon.

Its central segment formed under the Exposition 98 is based on an orthogonal urban layout design that defines a system of modular blocks through the definition of an ordering perimeter. The difference, in this case, lies in the understanding of the perimeter as a limit that is not physical and that can be transposed freely but also presents a regulating role of both street circulation and the local influence spaces. It is, therefore, a limit that is permeable to the public circulation, establishing a secondary system of connections and complementary spaces to the street that can function as passage, building support or permanence.

The perimeter, contrasting what happens in the current block where it is enclosed by the buildings aggregation, appears in this case as an aggregation unit of isolated buildings rejecting the notion of courtyard. These buildings present different volumetries regulated by the street alignment. The building as an urban layout extension

The relationship between the street and the block is often full of ambiguities in the separation between the public and private domains. One of the tendencies that has been affirmed in the city urban fabric relates the street circulation space with the building commercial space within a per-

meability logic and urban continuity similar to the variant of the fragmented perimeter. In this case, the urban layout extension is not carried out by the exterior but rather by the buildings interior. This system, whose main vocation is commercial activity, often takes advantage of the context in which it is inserted to establish a logic of secondary paths that connects the main street system in a role similar to that of the bystreets.

In Lisbon, there are several examples of this phenomenon, as attested by Alessia Allegri (2016), with a particular focus in Avenidas Novas, between Marquês de Pombal and Saldanha. Nevertheless, it is important to point out, first, the block of Armazéns Grandella that is based on an effective design of a path mechanically assisted, establishing the connection between streets that are developed at different levels. Second, in the same block, the Armazéns Chiado, or the Pollux block, next to Rua da Madalena, which serve the same purpose but where there is not a manifest intention of design. (Figure 2)

The contemporary cities design

The turn of the twentieth century to the twenty-first century has revealed several examples of urban interventions that seek to test innovative concepts of space appropriation by working directly or indirectly the dialectic between the block and the street.

244 The disintegration process incorporated by the block and the street under the influence of the modernist principles conducted to an effort of the urban thought for its formal reconstitution (Rossi, 1966).

In this way, the intention is to recover an urban project based on a structure that worked the tension and the dialogue between the block (as a private unit) and the street (as a public unit). The resumption of this historical dialectic did not mean an absence of critical thinking and a demand for the production of innovative spaces and environments.

Opening the block

The operation of Massena, Paris, started in 1994, represents an emblematic project design. The innovative design introduced by Christian Portzamparc reveals a new block structure that synthesizes the qualities of the traditional block model and the modernist model that represents its total disintegration in isolated buildings.

From these models confrontation results a block design full of visual openings defined by the break of the built perimeter that is organized in individual pieces with different volumetries. These buildings are regulated by the clear existence of a perimeter that divides the structure and belongs to the aggregation unit (block) and to the urban layout (public space). The built structure is related to each other through an intermediate space of collective use that visually contacts with the street public space. (Figure 3)

Another aspect that assumes a particular interest relates to the idea of the block design as a threedimensional object following a thought of the French school where the reflection of each fragment in its various dimen-

sions can contribute to the development of the city as a whole (Panerai; Mangin, 1999). The volumetric diversity in the Massena block type allows not only rich spatial solutions, but also a better benefit of solar exposure, program variety and different plastic and material options.

This spatial syntax conceived by Portzamparc recovers formal solutions executed at the beginning of the century, as was the case of the Rockefeller Center complex (1932-1940) in New York. Even breaking with the rule established by the New York grid the solution composing a coherent and balanced threedimensional system (Busquets, 2006). Complementarily, it points the way to others derivations as those that happened in Breda, Holland, where Rem Koolhaas conceives a built basement that defines simultaneously the block perimeter and confers unit to the architectural set. Thus, the Massena case can be understood as the first phase of a broader trend that seeks to work the opening of the block by extending the public space from the street to its interior. In this context, interventions that are reportedly looking for secondary paths through the block interior appear to promote greater flexibility of circulation in the city.

In Buenos Aires, these street extensions to the interior of the block space are very usual. Several blocks of the city orthogonal grid reveal internal passages covered by commercial galleries that lead the strong commercial activity from the street to the inner space of the block. The pedestrian flows are diversified, filling the modular and regulated block of Buenos Aires with life and, at the same time, making possible to build a second network of spaces that bring together public and collective environments.

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Herzog & de Meuron works this conceptual model in the Funf Hofe project (2001-2003) located in Munich. The intervention uses a city common block to transform significantly its interior space. Through a compositional system based on the articulation between the passage and the courtyard, the architects create a new path network that crosses the block perimeter in five points. The street space is extended to the interior of the block through passages of collective use enriched by the courtyards formal diversity. These passages have along their lengths different widths that connect with the exterior (using the courtyards) and are composed by commercial galleries. The Funf Hofe project is particularly interesting in its ability to reinvent historical models with the recuperation of the royal courtyard memory and with a contemporary design of the nineteenth-century commercial galleries.

It is evident in the last years the tendency to interpret the empty or the unqualified interior space of the block as an opportunity for the urban project, offering to the city, and its citizens, more public space.

This strategy has been used several times in cities such as Barcelona with the ProEixample program and other operations of urban regeneration, offering a greater spatial diversity to the Barcelona urban fabric and releasing its dense interior. New crossing paths are established, breaking and opening the block modular system imposed by the orthogonal grid and, at the same time, introducing new exceptional spaces in the urban layout. This type of spaces assumes particular relevance in an Ensanche

urban system strongly marked by the urban element street. One of these exceptional types of spaces in Barcelona is the Rambla. So, this opening operation of the block perimeter enriches the urban fabric heterogenic nature becoming more diverse and flexible the urban appropriation without implying a deconstruction of the place image and identity.

Dissolving the limits

The contemporary urban space has incorporated some urban operations that consciously or unconsciously test the perception of the block boundary. Examples such as the Shimbashi area in Tokyo, deeply transformed in the first decade of the 21st century, present a set of collective use spaces that makes difficult the perception of the boundary defining private and public component of the city. Lobbies and platforms of public transportation stations, commercial areas and passages are added to the main streetsystem (sometimes even in different levels). The boundaries and the formal definition of each urban element become more ambivalent, making a complex but extremely rich and diverse urban system.

246 If Shimbashi represents a space where the street multiplies at different levels (Silva Leite, 2016) and the block presents several dimensions and boundaries perceptions, Hong Kong in turn extends this complexity by several kilometers. The Hong Kong urban space has a long network of aerial passages that multiplies the street circulation space and builds new relations with the block, breaking the block boundary perception. The street space penetrates the interior of the building, crossing it and using it as an articulation element between different topographic points.

Cities such as Toronto, Montreal or Tokyo (through a network of subterranean passages), among others, allow us to understand this boundary as a membrane space that can expand in both directions inspiring the creation of new innovative urban spaces and projecting the block and street dialectic to another dimension. (Figure 4)

Some lessons for historical and emergent urban fabrics

The urban project of the last decades has acted on an intermediate scale. The block as an intermediation element of the street public space and the dwelling private space assumes a fundamental role in the contemporary city design. The formal relationship between the built and the empty space or the public and the private space, offers an enormous compositional and conceptual flexibility in the creative design process.

The contemporary urban production has the opportunity to articulate these relations in an intelligent way, creating spaces that answer to the needs of today's society.

One of the greatest difficulties is precisely in the balance between the creation of new innovative spaces and, at the same time, respectful of the pre-existences and the identities of the place. In this sense, the historical city and, fundamentally, the consolidated urban fabric must be regarded as a didactic object of knowledge, a laboratory where the type functions as a tool for the production of new urban forms (Rossi, 1966).

The understanding of this morphological dialogue between the street and the block allows to conceive more qualified urban spaces in the mediation between the private and public space. In addition, it makes possible to create or act on hybrid space that fluctuates between these two domains.

The intervention on these ambiguous spaces between the public and private domains appears also with particular relevance in non-consolidated urban fabrics. This interstitial spaces or membranes emerge in the relation between several mobility infrastructures and the urban fabric configuring a set of voids. If we understand these emerging urban elements as street morphological tendencies in the contemporaneity (Silva Leite, 2016) we verified that this voids represents a design opportunity that possible can contribute to the sedimentation of these structures.

Finally, it is important to emphasize the potential of the block and its relation with the street public space in the contemporary urban design, allowing the construction of transitions, articulations and aggregations in both consolidated and non-consolidated urban fabrics.

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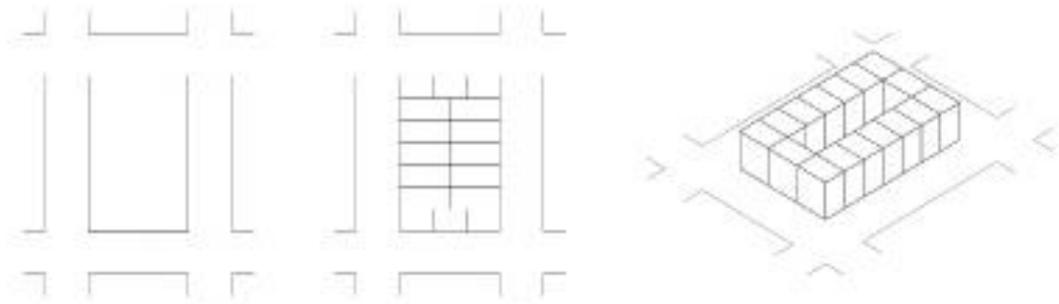


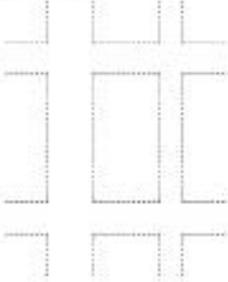
Fig. 1



The building as an urban layout extension
Block extension in Chiado by Serra Vieira



The urban layout defines a conceptual block perimeter
Block in Praga by Tompkins



The block perimeter fragmentation
Block extension in Vila Verde by Serra Vieira



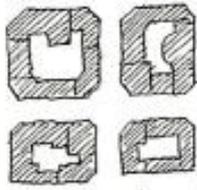
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The block densification
Extension in Vila Verde by Serra Vieira

Fig. 2

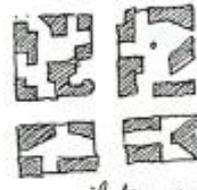
next page
Fig. 3
Fig. 4



ilot fermé



open planning



*ilot ouvert
immeubles
presque libres*



Massena, Paris



Funf Hofe, Munich



Shimbashi, Tokyo



Hong Kong



Conference topic

B.2) Historical Cities I

Poundbury: example of Sustainable Urbanism signed by a traditional formalism

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Keywords: Poundbury, traditional formalism, urban sustainability, urban morphology

Abstract

One aspect of this essay will consider the Poundbury design experience an holistic approach to planning as a result of a multidisciplinary vision of a "localized" sustainability a vision that has overcome the limits of an analytical consideration of the problem of sustainability that emerged from the debate of the 1990s, after the Brundtland report. Another aspect will attempt to explore the urban form of Poundbury as evidence of a settlement that has derived from a purely formal interpretation of consolidate historic towns. An analysis of the responses both in terms of urban morphology and architecture to those principles proclaimed by the movement of New Traditionalism in the sign of "Urban Sustainability", reveals them as ideal models that misrepresent the true nature of built reality. In fact it isn't enough to consider the historic town as evidence of urban conditions in the sign of a sustainable livability if those conditions are merely perceived and transmitted as consolidated forms, rather than principles which have led to configure those forms themselves and so able to define a design methodology as guarantor of continuity.

On the basis of the above assessments, the critical inquiry into Poundbury will focus on the following binomial: the research for an Urban Sustainability and its impact in terms of urban and architectural morphemes. This binomial will be analyzed in the essay from a multifiscal vision of Poundbury: urban organism (Dorchester and Poundbury), urban tissue and architectural organism. The multifiscal approach rooted on the idea one of the characteristics of urban form is that it divides into distinct levels. The patterns found at different levels such as street/block, plot series, plot, building, cell and structure are not interchangeable and the long term success of a design depends on understanding not only the differences but also the relationships between levels. The levels are interdependent (Kropf, 2005).

Sustainable urban growth: polycentrism and organic extension

Looking to Poundbury as an extension of Dorchester it is evident how Leon Krier experimented with his

his motto 'City Within The City' (Krier, 2009): an urban planning principle which tends to control the 'hypertrophy' of cities - in this case the existing town of Dorchester - by means of concluded settlements duplication. The Masterplan for Poundbury is based on the idea of a 'polycentric development' which arises both from the need to control the use of soil as a resource and by recognizing a general settlements self-sufficiency - mainly in order to reduce movements. In that sense the entire urban design has been configured in the form of four phases, each of them with a concluded and almost frozen shape, and related for size and image to the historic core of Dorchester.

The fact to consider Dorchester as a town with an ideal shape, size and finished state, has led to conceive Poundbury as an urban expansion made by settlements simply juxtaposed to each other and to the urban edge of the existing medieval town. In this way, the problem to link the four phases with the medieval nucleus it seems has been faced only "*from the car driver's perspective*" (Watson, Bentley, Roaf, Smith, 2004), i.e. by linking parts through cars fast-flowing arteries.

In other words Poundbury's four phases apparently replicate the current image of Dorchester's medieval town. This by overlooking the fact that the present configuration of the historic town is essentially the result of formative and transformative processes occurred within its urban fabric throughout history: urban processes which should be recognized, analysed and re-interpreted in order to ensure an organic control of the urban growth.

This aspect does not intend to contradict the idea to conceive the urban growth in the form of self-sufficient urban parts. Rather the question should be the following one: in terms of urban morphology, what are those compositional principles which are able to ensure a functional/formal autonomy of the urban aggregate, without denying the nature of the urban organism?

With regard to this latter question, both in Indian and Ottoman cities there are very significant examples of urban aggregates characterized by a sort of autonomy within the entire urban fabrics. These aggregates are known as *pol* within Indian's urban fabric (see the paper written by the author on '*Pol's morphology*'), and as *mahalla* within the Ottoman town (Cerasi, 1988). Particularly the type of Turkish aggregate is representative of small communities or neighborhoods. Despite the degree of self-sufficiency, (even emphasized by homogeneity of ethnic and tribal communities that live there), in terms of urban morphology, they share those principles (in terms of building typology and hierarchical orders between urban parts) that characterize the entire urban organism. In other terms, both the *pol* and the *mahalla* should be studied

in order to understand how to pursue the ideal paradigm of self-sufficient settlement, afferent to a single urban organism.

Sustainable urban tissue: real complexity vs forced spontaneity

Essentially the masterplan for Poundbury demonstrates how town planning could be used to create a thriving new community where people could live and work in close proximity. This theoretical principle has been materialized in the form of research for a formal complexity which is typical of the consolidated historic town. Particularly, Krier tries to design Poundbury as mixed uses settlements where houses, work places, shops, schools, leisure and community buildings coexist together. Such a research of a '*mixité*' reflects principles which are at the base of an urban sustainability: the reduction of distances and hence mobility (vehicular and pedestrian), an increase of connections through a hierarchy of paths that facilitate walking and cycling, a densification both in terms of functions and built. Now, considering the years when the masterplan was conceived (the 90's), the attempt to densify functions within an urban settlement represents a quite unique experiment, if compared with 'zoning practice' that characterize many that period urban planning: a practice that has led to the segregation of private and social housing and to the creation of isolated out-of-town shopping areas and business parks; all factors that reduce the sense of living within a community, erode towns commercial vitality and force greater car dependency.

256 All-founded the legitimacy to conceive Poundbury as a sustainable settlement characterized by a 'mixed use' practice, a fundamental question is: what has been the response to this need in terms of urban morphology?

Essentially, with the idea to combine the traditional architecture with the ideal principles of a New Urbanism, Poundbury's urban fabric has been conceived in the form of small urban episodes that, imbued with historicisms and eclecticism, denote an interdependency between architecture/ building type and urban form: a binomial which had an absolute value within historical urban realities.

The attempt to provide design solutions oriented to solve car-mobility and car-parking issues seem symptomatic of an analytical rather than organic approach to the urban design. In fact: streets are - in part - deliberately contorted in order to reduce car-speed; plots with inner courtyard are devoted to parking in "*order to keep narrow enclosed street spaces, with a traditional character*" and at the same time

"*gaining some degree of special sentinel houses to overlook from*" (Watson, Bentley, Roaf, Smith, 2004). If on the one hand these choices have pursued practical needs of a sustainable urban planning, on the other hand it seems both 'streets' and 'plots' have been considered in a purely functionalist and formal sense. This neglecting the fact that 'the image' of historical cities is mainly the result of spontaneous urban process i.e. urban transformations which are the result of continuous adaptations to inherited 'build forms', with these latter conceived at different scales: building type, urban aggregate and urban organism. (Caniggia, Maffei, 2001).

Now, assuming the configuration of Dorchester as a merely concluded formal data, the search for a spontaneity in Poundbury it has been essentially configured as a programmatic act. For example: both to force the tortuosity of paths and the persistent pursuit of misalignments between buildings, are two of the main compositional principles which have characterize this design experience. The idea to restore the binomial street-plot through morphemes which allude to spontaneous processes - by staging a formalism masked by a nostalgic view of an unchangeable past - leads Poundbury's urban fabric to be characterized for a substantial fragmentation.

By contrast, what should arouse interest about spontaneity is not its formal outcome, but rather, those formative and transformative principles which are at the base of the typological processes as well as hierarchical levels and logics of aggregation between urban elements. That's what actually should reveal the morphological analysis of a spontaneous built reality - and in the case for the Poundbury urban design, the morphological analysis of Dorchester town or of towns within the Dorset region. In other words, when we talk about urban design, the aim should always be that to operate according to a 'design method' able to re-establish links between tradition and contemporaneity, and to fulfill the need for an 'urban resilience' over years: that is, ensuring the adaptability to the urban form itself (mainly due to economic and social new needs) which has in the metamorphosis its *raison d'etre*.

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Sustainable architecture in the sign of a 'no name' but 'true' Architecture

Confirming the fact that a "*misinterpretation of the concept of sustainability deriving from a crisis of-perception*" (Cadman, 2009), the current architectural panorama seems to interpret the idea of sustainable architecture mainly through lens of technology and energy performance, relying on limited

models and paradigms to ensure standards performative (Scardigno, 2014). By contrast to this current attitude, the Poundbury experience demonstrate how questions concerning sustainable architecture needs to be related to the study of the architecture itself. In fact in the sign of an architecture 'no-name', the Poundbury architectural experience refers to Dorset's vernacular architecture and in general to classical architecture morphemes.

Now, although this behavior testifies a particular attitude to consider the study of the architecture (mostly in terms of language) as the only means able to ensure 'authentic' reflections in terms of sustainability, it would also be necessary that this attention towards the traditional architecture are supported by evaluation oriented to emphasize the inseparable Vitruvian triad: *utilitas*, *firmitas* and *venustas*.

In fact disputed that one of the sustainability roots lies in the 'beauty', as David Cadman says, it must be also considered that "*Beauty is the splendor of True*" (Cadman, 2009).

In other words, a question to extend to those who have realized many

of Poundbury buildings might be the following one: What does mean research principles of sustainable architecture by studying the traditional or classical architecture, if then then the attempt to pursuit a certain type of *venustas* has lead to betray both *firmitas* and *utilitas*?

Conclusion

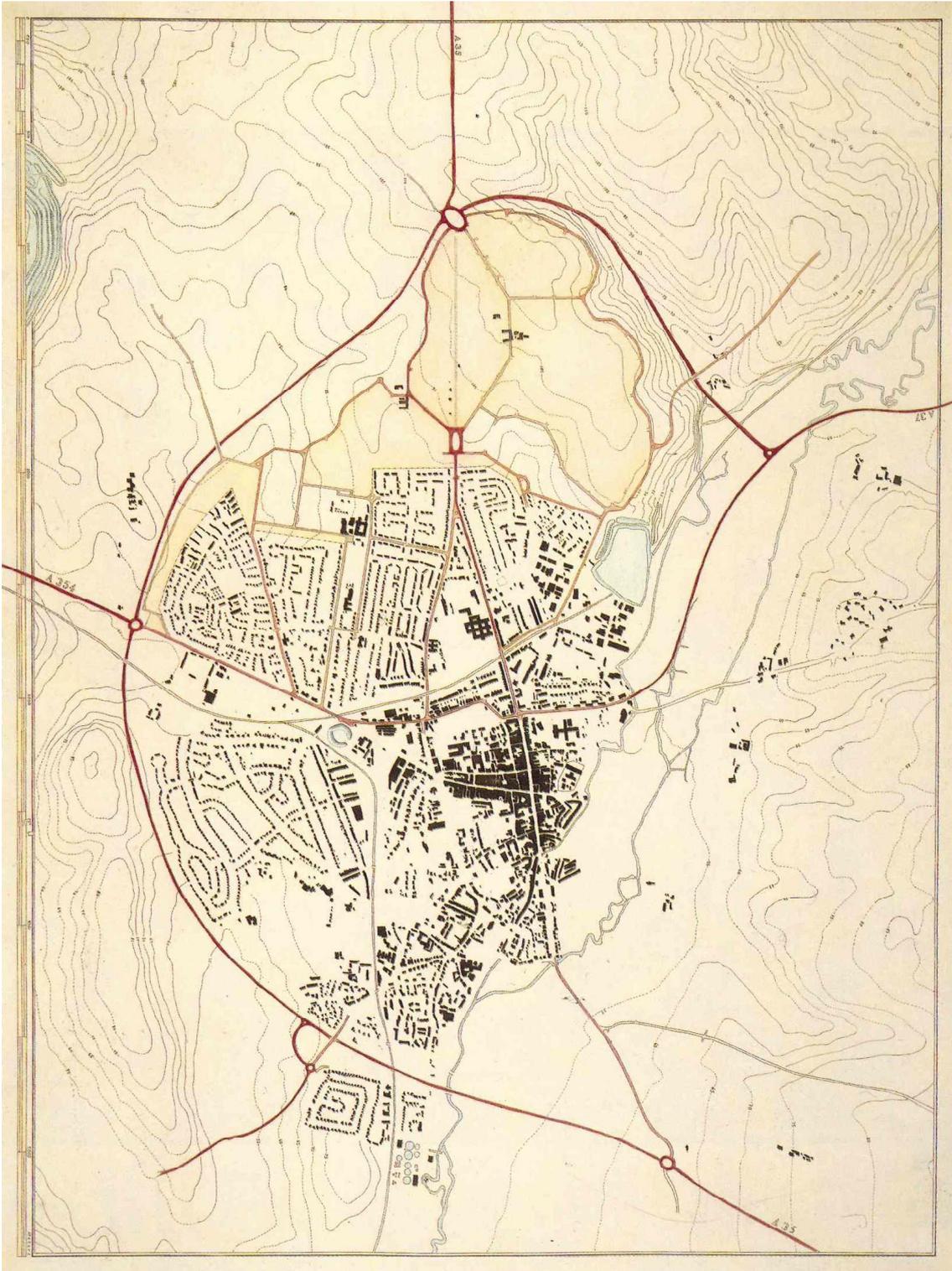
Why the mirage for a sustainable traditional urbanism has led to conceive the urban design of Poundbury in the sign of a research of a traditional-formalism (at different scales: entire urban settlements, urban fabrics and architecture)?

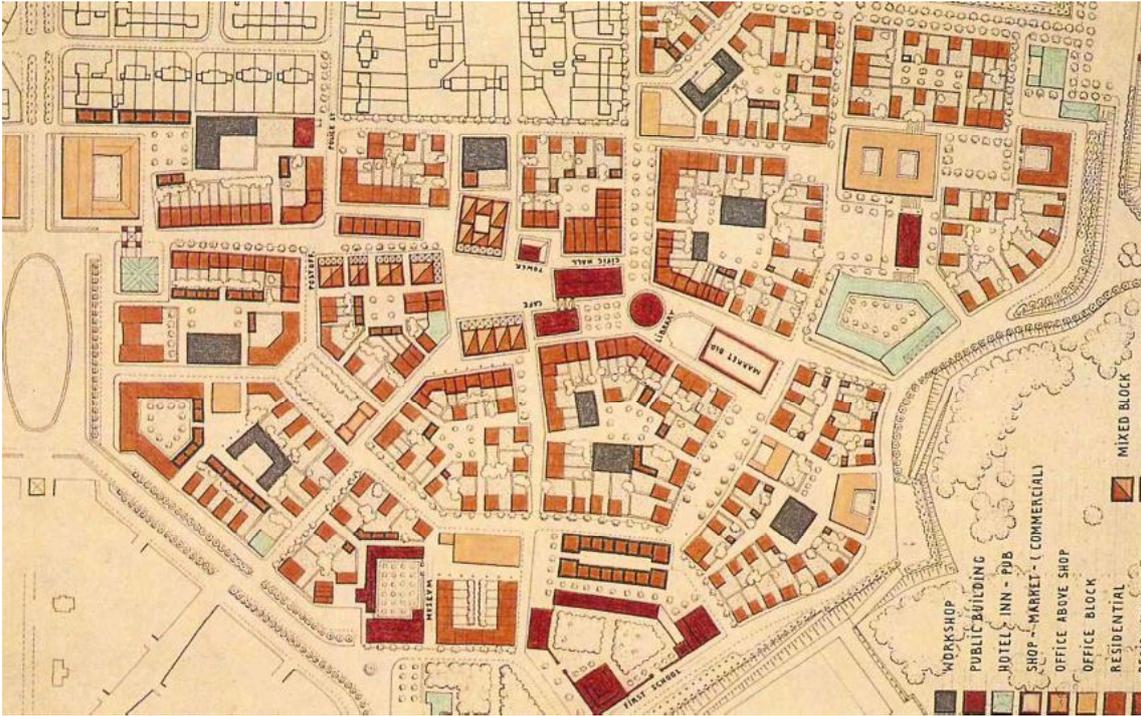
Probably because the analyzed case study could be considered an experience of urban design dictated by an empirical approach, i.e. an approach that has considered the medieval town as a heritage of forms to replicate rather than to be understood in terms of typo-morphological criteria and re-interpreted in a contemporary way. In other terms: Should the research for a sustainable urban design be conceived as mimetical reproduction of the 'pure' historical image, or rather be the manifestation of those compositional urban principles that an '*operational history*' (*storia operante*) has handed down?

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Florentia-Clepardia, the former town and historic district of Cracovia (Krakow)

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Keywords: Kleparz, medieval town, satellite town

Abstract

The city of Cracovia, chartered in 1257, was adjoined by two towns: Casimiria (Kazimierz), to its south, chartered in 1335, and to its north Florentia, chartered in 1366 (or in the 1320s - the dates are disputed), which in the 15th century was renamed Clepardia (Kleparz). For over four centuries, the satellite town of Clepardia remained limited in size and with a population which barely exceeded a thousand. In 1791, Both Clepardia and Casimiria became districts of Krakow.

In research terms, the town of Clepardia has always been overshadowed by its more famous counterparts i.e. Cracovia and Casimiria. With time, however, Clepardia's urban history has attracted increasing interest, which has led to the appearance of various publications, the most recent of which came out on the recent 650th anniversary of its charter.

This article discusses the urban form of Florentia-Clepardia by analysing it at three main levels: the town plan with its regular market square and street pattern; the urban land-use pattern and lots, which were in part regular; and the characteristic building fabric. The town's urban history stretches from the 12th-century pre-charter irregular-plan settlement around the parish church, through to the height of its importance as a separate semi-grid town, and from then to its existence as a district of Krakow. Along with the typical features of Clepardia, the following features are also considered: the town's highly specialised functions (wholesale grain trade, provision of inns and stables), the striking disproportion between this small town and its vast market square, plus its permanent lack of defense walls, all of which factors contributed to its urban form.

Introduction

The urban history of Kleparz can be divided into three major stages: pre-charter settlement from its beginning until c. 1321 (or 1366); charter town from 1321 (or 1366) till 1791; district of Krakow from 1791 till 1973 when the name Kleparz lost all formal recognition.

The paper is also divided into three main chronological parts. Territorial scope is determined by the medieval Florentia-Clepardia town limits, with some necessary adjustments being made for its suburbs and the context of Krakow in general. As far as terminology is concerned the Latin names, Florentia and Clepardia, Cracovia and Casimiria (the equivalents of the Polish names of Florencja and Kleparz, Krakow and Kazimierz, respectively) are used when referring to independent urban structures founded according to the Magdeburg Law.

Street village and market street. The St. Florian market settlement before 1321

The organized settlement in the area under discussion had its origins in the 12th century, or possibly even in the 11th century. It was one of the northernmost settlements of the Krakow's early medieval urban agglomeration. At this time the Krakow agglomeration consisted of a number of unfortified settlements, which surrounded the Wawel Hill, the site of the cathedral and the royal castle, as well as the large fortified Okol settlement at the foot of the Wawel Hill. All the settlement plans were irregular and 'organic'. In the area of interest here, i.e., the site of the future town of Florentia-Clepardia town – a linear market settlement formed along the north-south trade route leading from the salt mines southeast of Krakow to the Baltic Sea coast in northern Poland. This settlement plan was probably of the street village type, the market street may have also developed there. There were three main types of such plans in use in early medieval Poland depending on the shape of the market area along the tract: the street one, the oval one and the fork one (Munch, 1946). It is assumed that the St. Florian market settlement was of the oval-type plan. It is similar to the form distinguished also as "anger" (Gutkind, 1964).

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This settlement increased in importance with the foundation of St. Florian's church in 1184 or 1185, after the holy relics of Saint Florian (Florianus, the early 4th-century Roman soldier and martyr) were brought to Krakow Cathedral in 1184. According to tradition, on its way into Krakow the horse-drawn cart transporting these relics stopped at the site of the future church. Medieval churches were built, with very few exceptions, in areas which were already developed and populated [Wyrozumski, 2016]. St. Florian's church, which was soon raised to the status of a collegiate church, was completed and consecrated c. 1216. It was located near the hypothesized oval-shaped market street. The St. Florian market settlement existed for several decades, developing along the oval-shape widening market as part of the Krakow agglomeration. In general terms, it took the form of a northern continuation of the Krakow chain of settlements, even after the city of Cracovia was chartered in 1257 since the construction of the city walls

around Cracovia did not actually start until 1285.

The issuing of the Cracovia charter by Prince Boleslaw (often referred to as the Great Charter) was one of the most important events in the entire urban history of Krakow as it provided the emerging city with economic, legal and planning regulations. Economic regulation relied upon the numerous and extensive privileges accorded to settlers, while legal regulation depended on the establishment of self-government and a local justice system in the city. Planning regulation meant the introduction of a grid of blocks, subdivided into mostly equal lots, surrounding the market square. The Cracovia charter was one of the oldest in the Malopolska region, preceded only by the 1253 charter of the salt town, Bochnia, and, most probably by Cracovia's first and unsuccessful attempt to be chartered in the 1220s. The 1257 Cracovia charter was destined to become the biggest in Poland as the town served as the capital city of Poland (until 1609).

Since the charter did not provide a precise description of the plan, there are various opinions as to its origin, usually reached by tracing its pattern directly back to that of Wroclaw (Vratislavia), which was laid out in 1242 (Borowiejska-Birkenmajerowa, 1975). Nevertheless the Cracovia plan was of somewhat atypical, archaic character (Krasnowolski, 2004), while, hypothetically, its Market Square may have been originally half-size only (Kozaczewski, 2004). One should also take into account the impact of the 1257 charter in establishing an urban pattern for later charters in Poland (over 200 charters were issued by 1300), including Florentia's. Finally, late medieval grid plans may have originated in several distant countries and regions quite independently (Nitz, 2001).

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The chartered city of Cracovia continued to grow gradually until its city walls delimited its final shape (Krasnowolski, 2004). This took place c. 1300 on its northern side. These made a clear barrier between *intra muros* Cracovia and the *extra muros* street village called "de sancti Floriani", in the process separating the communities of citizens and peasants, which was a typical case at the time (Hofmeister, 2004), though craftsmen also settled near St. Florian. One of the Cracovia streets, which linked its 200 x 200 m Market Square, via the city gate (St. Florian Gate), with the St. Florian oval-shape square area and further to the north, was named Florianska Street, after the church of the same name, which served the St. Florian settlement and was now suburban. At that time, c. 1310, the St. Florian settlement might well have been expected to remain just an important suburb of Cracovia, but this situation changed when it obtained the Florentia charter, or rather a series of charters, issued by Polish kings in the 14th century.

Grid town. Florentia-Clepardia as independent city from 1321 to 1791

The first charter to be granted to the St. Florian settlement was probably issued in 1321, or slightly earlier. Its whereabouts and details have been a hotly disputed subject among researchers for a long time. Most researchers, however, have recently favoured this event as the trigger which started the town (Wyrozumski, 2016). A final charter for Florentia, which confirmed and referred to the first unspecified charter, was issued in 1366 by King

Kazimierz, who had been earlier responsible for chartering the town of Casimiria, south of Cracovia, in 1335/1336. In between those dates, c. 1347, the new town near St. Florian's church (called the Alta Civitas, i.e., High Town due to its altitude being c. 7 m higher than Cracovia) somehow took over the charter that had originally been destined for another nearby town, that of the New Town in Okol, a newly regulated settlement (1335) near Wawel Hill, south of Cracovia. Irrespective of these alleged transfers of charter documents, the 1366 charter completed the process of the legal formation of the town, including its name, which was then confirmed as Florentia (or Florencia, Florencja). By the 16th century this had given way to Clepardia (Kleparz). The finally successful chartering of Florentia resulted from a compromise between the needs of the citizens of Cracovia and those of the much smaller adjoining community. The town of Florentia was relatively small when compared to the size of Cracovia and, like Casimiria, it posed no real challenge to Cracovia, not simply because of its smaller size but also because of the limited scope of its economic privileges, although the latter did guarantee its chances for development (Dzikowna, 1932). As the urban plan of Florentia, like that of Cracovia, was not specified in the charter, therefore its shape is based on the cartographic and iconographic sources and on reconstructions carried out by researchers. In general terms, it consisted of the town proper plus its suburbs, some of which formally belonged to the town. The town proper consisted of the market square and little more – most probably, a single row of blocks surrounding the market square as suggested by Beiersdorf (Beiersdorf, 2016), according to whose recent hypothetical reconstruction the theoretical size of the market square could have measured c. 190 by 190 m while the dimension of the lots, which surrounded the market square, could have been slightly over 20 x 60 m. The dimensions of the whole square-shape town could have been c. 315 x 315 m. Apart from the market square and blocks, short streets run between the blocks. The Florentia plan itself is similar to the plan of Lipnica Murowana, a town chartered in 1326, c. 48 km east-southeast of Cracovia and Florentia (Krasnowolski, 2004). Although Lipnica was smaller than Florentia (130 x 130 m), their urban forms bear a strong similarity, and both of them included previous settlements with an irregular settlements and a market street.

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There was a considerable difference between the original sizes of the small town Florentia (c. 10 ha) and the large city and capital Cracovia (c. 36 ha). Despite this a number of similar features in Cracovia and Florentia may be noted. The size of the Florentia market square (c. 36,500 m²) was near to that of its Cracovia counterpart (c. 40,000 m²). Both market square plans were tilted 26° towards the north-south axis. Their respective parish churches, St. Mary's in Cracovia and St. Florian's in Florentia, were adjacent to their market squares. In addition, both churches were built before the chartering; and had similar orientations, i.e., the main axis running east-west, which all led to an overall striking similarity in their plans.

The town of Florentia was enlarged by a settlement to the west, which had developed along the Długa St. (another trade route, which ran

north-northwest from Cracovia). It had also a number of suburbs which were spatially much less separate than those of Cracovia since Florentia, despite the promise expressed in its 1366 charter, was never encircled by city walls. As a result, the suburbs, which emerged on all sides of Florentia apart from the south side, were often associated with the town proper. These include the suburb of Kurniki to the east, the suburb of Szlak to the north, that of Pedzichow to the north, of Blonie to the northwest, and Biskupie to the west. To the south, Florentia's neighbour was the city of Cracovia, with its city walls and moat. In addition, a powerful Barbican was constructed 1498 next to the St. Florian Gate, facing the southern frontage of the Florentia market square.

The plan of Florentia was certainly intended to be a grid-system but in fact it became a semi-grid-system, due to a number of irregularities resulting from the pre-charter settlement and the lack of defense walls, the latter resulting in a closer relation between the town proper and its suburbs, which in some place almost entirely obliterated the borderlines between the two (Figure 1).

266 An important feature of Florentia, renamed Clepardia in the 15th-16th centuries, was the stability it enjoyed for many centuries. The town remained in existence within the practically same boundaries, and its population hardly exceeded 1,000, for over 400 years, despite numerous local disasters such as fires (e.g. in 1476, 1528, 1539, 1589-1590, 1615, 1655, 1755, 1768), through various periods of regional and/or national prosperity or decline. Fires caused substantial damage to the town as the vast majority of its buildings were wooden constructions. For instance, while there were 130 wooden houses and 30 masonry houses before the biggest destruction of all in 1655, there were only 103 wooden houses and 17 masonry houses in 1790 (Wencel-Homecka and Wojas, 1968). Most of the Florentian-Clepardian burgher houses were low but nevertheless quite large as, apart from homes and workshops, many lots also housed inns and stables offering temporary accommodation to hundreds of people and horses (Figure 2b).

Masonry public buildings stood out both by virtue of their sizes and the sophistication of their image. In the late 16th century these included the town-hall, five churches, the parish school, two hospitals and perhaps a meat market in the market square. The townhall, meathall and several stalls were built within the large market square, as part of a typical inner block, with the rest of the space used as an open-air market specialising in grain, wholesale and horse trading (Figure 2a).

Part of the growing city. Krakow's District of Kleparz from 1791 till 1973

The Commonwealth of Poland and Lithuania, loosely united since 1386 and more closely united since 1569, came to an end in the late 18th century. In 1772, 1793 and 1795 the large state of Poland was partitioned by the three neighbouring powers of Russia, Prussia and Austria (which acquired the Krakow area), disappearing entirely from the maps of Europe for 123 years. Efforts to reform the state had been taken to stop the destruction of the state

but to no avail. These included the establishment of a Constitution in 1791, which was accompanied by a Law on the Cities (Free Royal Cities Act), according to which Clepardia became a district of Krakow. Its borderlines were subsequently changed a number of times during the periods of Austrian occupation (1795-1809) and the independent City of Krakow (1815-1846) before they became permanent, which was only in 1858, when Kleparz became one of Krakow's eight cadaster administration units. District V Kleparz had an area of c. 0,97 km² as the former town Clepardia had merged with its suburbs and some adjacent areas. The urban form of Kleparz remained almost unaltered until the mid-19th century, when Krakow was designated as an important Austrian fortress (1850). As a result of the construction of this fortress Kleparz was squeezed in between the Old Town, (the former Cracovia whose moat and and most city walls were converted into a ring of gardens, known as the *Planty*) in the south, and a first line of fortifications in the north. A newly opened north-south railway (built in 1844-1847), marked the district's eastern edge, while the former town boundary was retained on the western side. As the construction of housing beyond the first line of fortifications was severely limited, the area of Kleparz became a very attractive area for construction.

There was intense building activity in this district, especially in Galicia's autonomous period (1866-1918): the number of houses increasing from 150 in 1867 to 278 in 1910. These were mostly built within existing blocks and lots of the former town and its suburbs, which adhered to a semi-grid street pattern. The large gardens were subdivided to be built up in a typical way. A few new areas were laid out to fill in the northern part of the district and short streets were also added to the district's plan. The most substantial change in the urban form of the district occurred in the former Clepardia market square (Figure 2a). In the first part of the 19th century the still large Kleparz Market Square (Rynek Kleparski) was the subject of two plans (1809, 1836), which both aimed at its re-modelling, sub-dividing and then limited building (Motak, 1992). The 1809 Regulation Plan plan is of most interest as it drew upon the Renaissance idea of a small though very regular city square adjusted to the existing plan (Figure 2b). The 1836 plan by Ignacy Hercok, part of the Krakow Beautifying Plan, was more realistic and, with some corrections, was laid out in the latter part of the century, mostly in the 1870s (Figure 2c). The large square was cleansed of all existing structures, such as the already much-reduced former townhall and meathall, so that it could be divided into two smaller squares and two new blocks (Figure 2d). The new squares were intended to differ from each other: the eastern one, which kept the name of Rynek Kleparski, became the food market (Figure 3c), while the western one (named Matejki Square in 1882), became a ceremonial space, further enhanced in 1910 by having placed at its centre a large monument to Poland's victory at the Battle of Grunwald. The elongated Matejki Square was also graced a subtle composition; it widenes slightly towards the north, which is reminiscent of certain Renaissance or Baroque compositions (San Marco and Piazzetta in Venice; Campidoglio or St. Peter's Square in Rome), although it is difficult

to state whether the compositional effect was originally intended to look the way it does.

With time the Kleparz area was built up not only with residential buildings but also with outstanding public buildings. The latter were built mostly on Matejki Square (Academy of Fine Arts, Regional Railway Headquarters), in Basztowa Street (National Bank, Figure 3d) and in the northern part of the district (Helcel House for the Elderly), where the military barracks were also constructed. Following World War II, these were adapted to house the Cracow University of Technology.

From 1973. Part of history

In 1973, the large administration districts of Krakow, which in 1954 had replaced the small cadaster districts, underwent reorganisation. The number of districts was reduced from six to four and in the process the name of Kleparz disappeared. While such administration changes had little meaning in the Communist period, with its centralised economy and lack of local self-governance, when they were restored in democratic Poland in 1990, a new division of Krakow into 18 self-governing districts failed to recognise either Kleparz or Kazimierz, which both founded themselves included into the Old Town district.

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Apart from the general modernisation, the Kleparz area has not changed much in that period. Its urban form, formed largely in the second half of the 19th century in line with its medieval origins, and completed in the Interwar Period (Figure 4) has remained almost intact through the most recent period as well. The eastern edge of Kleparz was most altered following the modernisation of railway station combined with a large commercial complex. This development was even called “The New City” when announced in the late 20th century, although both the original project and proposed spatial transformations were reduced.

Since 1973, the historic name of Kleparz has virtually lost any formal recognition, although the name has not disappeared from the common language. Apart from its historical meaning the word “Kleparz” (officially Rynek Kleparski) is often used when referring to the popular daily food market occupying part of the former town’s market square. It is sometimes called Stary (Old) Kleparz to distinguish it from the Nowy (New) Kleparz – another square with a food market established c. 1910 in the northwest part of District V, after the former line of fortification ceased to exist. And the Clepardia football club has been active in Krakow since 1967.

In 2016, the 650th-year anniversary of Clepardia/Kleparz was marked in Krakow, by the appearance of several publications, an exhibition in the Museum of History of Krakow, and various popular events. The date of the final charter has now been so well-established that it would not now be possible to replace with the date 1321. This is also the case in the Casimiria/Kazimierz town/district, although in the latter the difference is minimal, that of only single year.

Conclusions

Despite its small size, the original plan of Florentia is one of the least reconstructible Polish medieval towns, which in the author's opinion only makes it more interesting. The Florentia-Clepardia town is an example of a medieval satellite town complementing the functions of the larger city; its urban form, *toutes proportions gardées*, both draws upon the bigger city and differs from it in specific aspects.

To a large extent the urban transformations of the Kleparz area reflect the transformations of entire Krakow. The four decisions which affected the development of Krakow (Motak, 2012) took place in 1257 (the Great Charter, which introduced regularity), 1335 (the charter of Casimiria, which saw the beginning of the complex of towns running along a north-south axis), 1850 (the Fortress of Krakow, which introduced the radial form), and 1949 (the creation of Nowa Huta industrial and residential complex, which elongated Krakow in an east-west direction). These four decisions divide the urban history of Krakow into five main periods. All of them are reflected in the urban history of Kleparz, although to a various extent while some paired dates may not exactly match each other. The 1257 Cracovia Great Charter obviously influenced the shape of the St. Florian Market settlement as well providing it with a new limit and context. The date 1335 may be found to fit either 1321 or 1366, the date of Florentia charter. The 1850 beginning of the fortress construction was also responsible for the shape of Kleparz as one of the districts of Krakow. The 1949 construction of Nowa Huta meant the start of the rapid development of Krakow, of which Kleparz became a tiny part. It also turned out to be a forerunner of Kleparz losing its distinct character, and becoming exclusively just a part of the history and tradition of the large city of Krakow.

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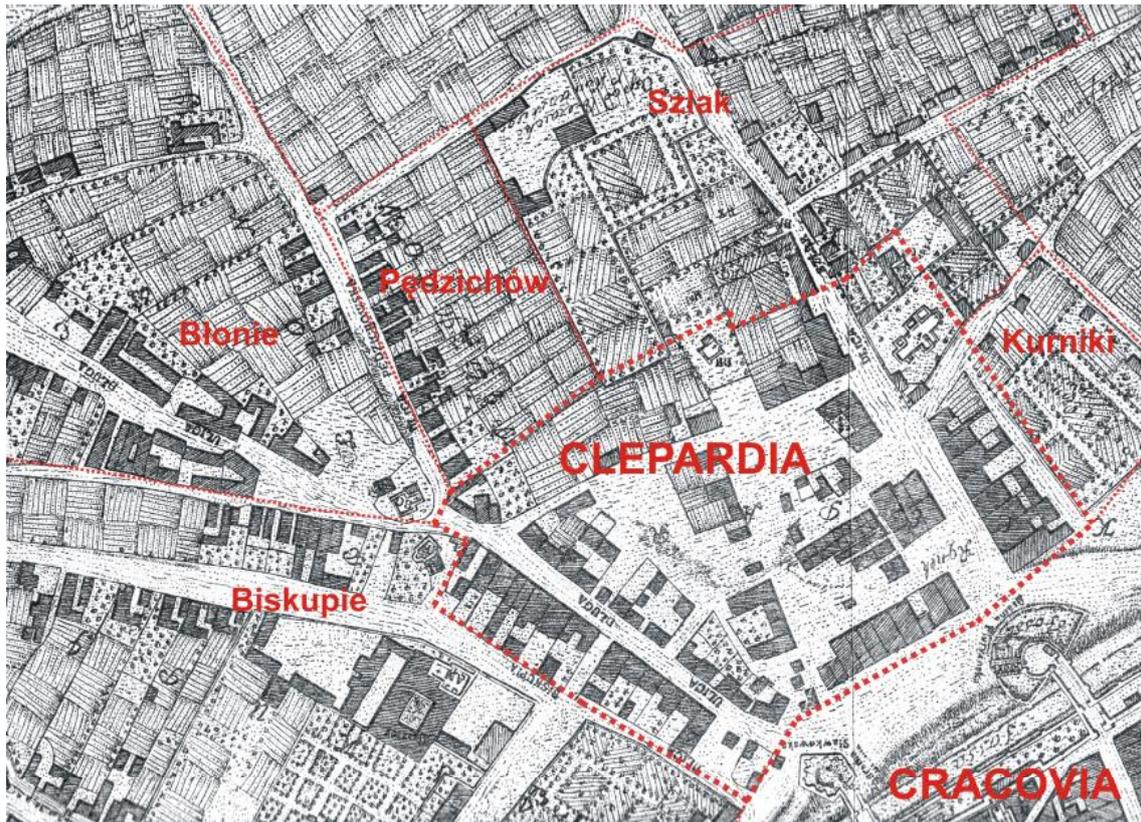
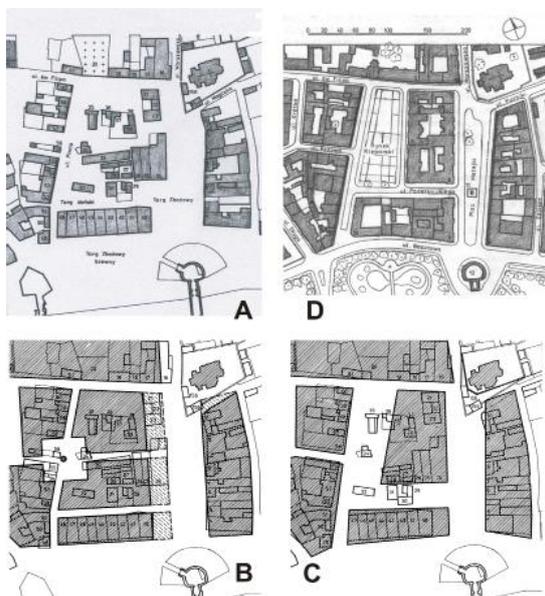


Fig. 1 Part of the Kollatajowski Plan, made in 1785, the oldest fully reliable plan of Krakow. The borderlines of the town of Clepardia and its suburbs (Biskupie, Blonie, Pedzichow, Szlak, Kurniki) are marked. The original plan is stored in the Museum of History of Krakow and was published a number of times.

Fig. 2 Spatial transformation of the Clepardia Market Square into two squares and two blocks. Schemes evaluated by the author according to, anticlockwise: A – part of the Senate Plan of Krakow by Ignacy Enderle (1808); B – the Kleparz Suburb Regulating Plan (1809); C – part of the Beautifying Plan for the Piasek, Kleparz and Wesola suburbs (1836); D – part of the contemporary plan of Krakow (2017).





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Fig. 3 Characteristic examples of Cleparzia/Kleparz urban fabric in particular periods: A – St. Florian's church and part of the Market Square's eastern side in the late 17th century (part of the oil painting by Jan Tretko in the St. Florian's high altar, c. 1700); B – a house in the Długa Street in western Kleparz (the watercolour by Juliusz Holzmüller c. 1900, published as a postcard c. 1900); C – Rynek Kleparz as a much diminished square, the photograph c. 1900, published as a postcard in 1906); D – the Basztowa Street with a bank building, the photograph c. 1926, published as a postcard in 1927). Sources: the author's photograph (A), the author's archive (B, C, D).

Fig. 4 District V Kleparz on the 1934 map of Krakow. Source: the author's archive.



Evoluzione della città di Liegi

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Abstract

Lo studio si propone di indagare i caratteri dell'organismo urbano della città di Liegi nelle sue fasi evolutive, soffermandosi su quelle otto-novecentesche, significative al fine di spiegare l'apparente complessità morfologica dei tessuti urbani, causata da una serie di strutturazioni diacroniche differenti, spesso condizionate dalla particolare morfologia del fiume Mosa.

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Avvalendosi del metodo analitico derivante dal pensiero di S. Muratori, G. Caniggia e G. Strappa, l'indagine presenta un'ipotesi ricostruttiva delle fasi di formazione del tessuto esterno alla città murata, fino all'assetto contemporaneo, mostrandone le gerarchie relative che hanno mutato l'organicità della città storica.

L'analisi tipologica dei nuovi sobborghi, nati nel XIX secolo, per il fenomeno di industrializzazione della città, mostra una dinamica atta a ridurre il sovrappollamento di alcune aree, spesso in prossimità di stabilimenti industriali collocati sul lungofiume o presso stazioni ferroviarie.

La morfologia di tali quartieri, nati spontaneamente come realtà autonome rispetto al nucleo antico della città ed, in seguito, oggetto di intervento critico-pianificato, ne risulta fortemente condizionata dato che lo sviluppo iniziale, costituito da una strutturazione lineare del tipo lungo i percorsi, viene, nel tempo, integrato da percorrenze e tessuti che collegano quelli esistenti alle polarità urbane, produttive o di trasporto ferroviario.

Tale studio analitico e tipologico del tessuto storico ottocentesco, eseguito su cinque quartieri periferici, oltre che ambire ad una conoscenza scientifica della struttura formativa della città nordeuropea, mira a trasmettere una diversa sensibilità verso il patrimonio ereditato, soggiogato regolarmente da una forma di disinteresse collettivo che si traduce troppo spesso in pesanti ristrutturazioni del tessuto storico.

Introduzione

Lo studio si propone di indagare i caratteri dell'organismo urbano della città di Liegi nelle sue fasi evolutive, soffermandosi in particolare su quelle otto-novecentesche attraverso cui spiegare l'apparente complessità morfologica dei tessuti urbani che sembra causata, costantemente, da una serie di strutturazioni diacroniche differenti, spesso condizionate dalla particolare morfologia del fiume Mosa.

Avvalendosi del metodo analitico proposto dalla scuola italiana di tipologia processuale derivante dal pensiero di S. Muratori, G. Caniggia e G. Strappa, l'indagine (dopo aver compreso l'evoluzione della città, dalla nascita del primo insediamento) presenta un'ipotesi ricostruttiva delle fasi di formazione del tessuto esterno alla città murata, mostrando le gerarchie relative che hanno mutato l'organicità della città storica.

L'analisi tipologica eseguita sui nuovi sobborghi, nati nel XIX secolo grazie al crescente fenomeno di industrializzazione della città, mostra una dinamica urbana che giunge a mutare gradualmente le aree a ridosso della Mosa su cui si collocano gli stabilimenti industriali.

La morfologia di tali quartieri, nati spontaneamente come realtà autonome rispetto al nucleo antico della città e, in seguito, oggetto di intervento critico-pianificato, risulta fortemente condizionata dallo sviluppo iniziale costituito da una strutturazione lineare del tipo abitativo impiantato lungo i percorsi preesistenti, in progresso di tempo integrato da tessuti trasversali sorti su nuove percorrenze che collegano l'esistente alle polarità urbane, produttive o di trasporto ferroviario.

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Metodo

Il sostrato di informazioni storiche acquisite durante la fase di ricerca, è stato intrecciato con i dati offerti dalla lettura della cartografia a disposizione che varia da carte storiche ai catastali, ottocentesco e in alcuni casi odierno. Ad avvalorare la veridicità delle informazioni già acquisite, è stata la comprensione delle gerarchie dei percorsi che si sono strutturati nel tempo, attraverso la lettura delle fasce di pertinenza, le quali rappresentano l'insieme dei fronti costruiti di lotti che si affacciano su un percorso da cui sono serviti. In seguito la classificazione, attraverso l'osservazione di tali fasce e delle corrispettive aree di pertinenza (porzione di lotto inizialmente non costruita e accessoria rispetto alla fascia su percorso), dei percorsi, distinti in Matrice, Impianto, Collegamento, ha permesso di individuare i percorsi con la medesima vocazione, e cioè quelli caratterizzati da una fascia di pertinenza di uguale profondità poiché tutte realizzate nello stesso intervallo di tempo. Tale approccio si basa sul metodo di lettura dell'organismo urbano formulato da S. Muratori, G. Caniggia e G. Strappa. L'identificazione di un percorso come più o meno antico è stata letta contemporaneamente con un altro importante dato, cioè quello delle nodalità e polarità urbane - fase di studio importante del metodo già pocanzi citato - che servono ad individuare quali edifici, soprattutto con funzione specialistica, possano aver rivestito nelle varie fasi evolutive questi ruoli e determinato quindi la formazione e l'orientamento di certi percorsi rispetto a certi altri e la conseguente formazione del tessuto edilizio e delle fasce di pertinenza dei vari percorsi. In sintesi l'acquisizione di dati

storici, la lettura della cartografia, la comparazione e l'individuazione in contemporanea di più fenomeni urbani ha reso possibile una ricostruzione delle fasi di evoluzione della città di Liegi, permettendo di dare un volto il più preciso possibile alla città nel corso dei secoli.

Il processo di formazione della città storica: dal primo insediamento romano al XVIII secolo¹

La formazione di Liegi è tributaria della conformazione morfologica del territorio su cui sorge l'insediamento. Collocata in posizione strategica all'interno del contesto della Vallonia, nella valle del promontorio di Sainte Walburge e del Publemont, la città nasce in adiacenza al fiume Mosa, da sempre importantissima risorsa naturale per tutti gli stanziamenti sorti nella sua prossimità. La presenza di un nodo di percorsi territoriali nella zona di attraversamento del corso d'acqua ha contribuito, nel tempo, a far acquisire nelle popolazioni con cui ha stabilito il suo rapporto di dipendenza la condizione di essenzialità da cui dipendono la nascita dell'insediamento e le attività produttive ad esso associate. I percorsi di collegamento con le città antiche più importanti del Nord Europa, tra cui quelli per Maastricht, Aquisgrana, Huy, Tongres, sono stati assunti come matrice dell'insediamento e utilizzati per impiantarvi parte del tessuto.

Un fattore primario che ha portato alla nascita del primitivo insediamento di Liegi è proprio la vicinanza al guado della Mosa (verso la Germania e verso Huy), in prossimità di un agevole attraversamento del fiume.

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Alcune testimonianze archeologiche dimostrano la presenza di un asse di percorrenza, consolidato in età romana, che costeggia il fiume, collega i principali insediamenti dell'epoca e giunge a Maastricht. A confermarlo è la presenza di una villa risalente al I sec. d.C. sotto l'attuale Piazza Saint Lambert. L'edificio costituisce, tra i ritrovamenti simili databili in questo periodo, un esempio isolato che ha rappresentato per secoli il polo principale per lo sviluppo della città, avendo assunto, con ogni probabilità, funzione di rappresentanza ed essendo legato ad attività di tipo mercantile.

Lo spostamento della sede della diocesi a Liegi nell'VIII secolo accresce a livello territoriale l'importanza del luogo, che viene fortificato. La diffusione del cristianesimo contribuirà alla formazione dei primi edifici religiosi che assumeranno, gradualmente, funzione polarizzante e incentiveranno la crescita urbana.

Nel XII secolo sarà ampliato il circuito murario in previsione di una crescita dell'insediamento. Il palazzo dei Principi-Vescovi rappresenterà, insieme alla cattedrale di Saint Lambert (nata sulle rovine della preesistenza romana) e a cui è strettamente connesso, la principale polarità di Liegi. Il tessuto urbano si espande in maniera lineare lungo le principali percorrenze che collegano la città ad Aachen e Maastricht.

Nei secoli successivi, le mura della città, ampliate, si espandono cingendo

¹ Le presenti considerazioni sull'evoluzione urbana e sulla struttura dei tessuti di Liegi si basano sul lavoro di analisi eseguito nel Laboratorio di Laurea promosso dal prof. M. Ieva, nell'A.A. 2014-2015 presso il Dipartimento di CAR del Politecnico di Bari, che ha coordinato le attività di ricerca pubblicate in sintesi nei due saggi riportati nei proceedings del convegno ISUF 2015, citati in bibliografia.

all' interno, sia la città posta in altura, sia la parte oltre il fiume inglobando parte dell'isola dell'Outremeuse. Il tessuto occupa gradualmente i percorsi in prossimità delle porte di accesso della città, sulle vie di attraversamento territoriale, ed in adiacenza alle mura.

Per comprendere la dinamica formativa dell'organismo urbano contemporaneo è importante soffermarsi sull'evoluzione iniziata nel XVIII secolo, quando la città subisce una forte crescita caratterizzata da un assetto del tessuto differente dalle espansioni dei secoli precedenti. Con l'abbattimento delle mura si avvia la progressiva occupazione delle aree a ridosso dell'insediamento pre-moderno, lungo i percorsi territoriali e sulle alture di Saint Leonard. Allo stesso tempo, l'area della Cattedrale di Saint Lambert, distrutta nel 1793, resta un enorme spazio libero all'interno di quello che per secoli era stato il polo specialistico più importante del sistema urbano.

A questa fase risalgono le modifiche agli argini del fiume Mosa, ridefinendone la configurazione al fine di ridurre le aree paludose e dar spazio al tessuto, insieme alla graduale tombatura del braccio della Sauveniere ed alla rettifica dei canali dell'Outremeuse. Si costruiscono i grandi complessi specialistici che caratterizzeranno tipicamente l'architettura dell'800. Saranno, inoltre, pianificate nuove aree all'interno del tessuto e ridefiniti spazi esistenti: sulla riva sinistra, la costruzione della stazione di Longdoz nel 1851 rende possibile il collegamento di Liegi con Maastricht, incrementando g. 1]

La prima metà del '900 rappresenta un periodo di grande sviluppo urbano. L'esposizione Universale del 1905 conferma l'importanza che la città, divenuta una grande potenza industriale, vanta nel campo delle scoperte tecnologiche. Si tratta di un evento che apporta cambiamenti significativi all'interno di tutto l'ambito urbano, specie con la realizzazione di ponti e nuovi edifici, facendo diventare Liegi una tra le più importanti città europee di inizio secolo. L'Outremeuse, totalmente libera dai canali, assume una configurazione (quasi) di isola, costeggiata dai due bracci di fiume e progettata inserendo grandi assi e piazze centrali secondo i modelli haussmaniani.

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La polarità specialistica che un tempo era concentrata esclusivamente nel sito del *Martyrium* di Saint Lambert si sposta gradualmente verso nuove centralità urbane costruite in questa fase, il teatro, l'università, la nuova cattedrale di Saint Paul, la stazione di Guillemins e l'ospedale.

Altre due esposizioni, organizzate nel 1930 e nel 1939 (quest'ultima nell'area della Coronmeuse e della Cité de Droix), non conseguiranno lo stesso successo.

Come in gran parte dei Paesi europei, anche a Liegi la guerra provocherà un'inevitabile battuta di arresto nell'evoluzione urbana. Alla fine del secondo conflitto mondiale, la città si ritroverà un assetto urbano ampiamente mutato.

La successiva espansione postbellica darà spazio a sperimentazioni avanguardistiche, spesso fondate sui principi corbuseriani, in cui i quartieri sono costituiti da edifici in linea isolati ed a molti piani. La produzione industriale e l'estrazione mineraria, diversamente dalla prosperità dell'attività del secolo precedente, subiranno un declino che porterà al

graduale abbandono ed alla conseguente trasformazione dei complessi industriali compresi nel tessuto. Le parti inedificate della città saranno ben presto saturate e si andranno a completare i grandi assi. Inoltre, con la diffusione del cemento armato le case in linea iniziano a concentrarsi nell'espansione moderna mostrando una nuova estetica urbana.

Il volto della città attuale si mostra soprattutto lungo il waterfront Mosa, interessato da profondi cambiamenti nella seconda metà del '900. Trasformazioni anche traumatiche, come ad esempio quella generata dall'autostrada ad alta velocità che interrompe ogni rapporto tra il fiume e l'edificato esistente. Il costruito storico della città murata sarà deturpato, nella stessa fase, dall'inserzione di nuovo tessuto che andrà, talvolta, ad alterare pesantemente la *facies* urbana consolidata e l'equilibrio conquistato nel tempo. Oltre a ciò, le periferie, non sconfiggendo la meccanica critica che ha investito l'intera cultura architettonica europea, mostreranno un edificato fortemente parcellizzato e frammentario, confermando peraltro il fenomeno tipico dello *sprawl*. A fronte di questa dinamica urbana, si registra un'amplificazione della fenomenica che riconosce la presenza di popolazione con un maggior tasso di senilità nel nucleo più centrale, insieme ad universitari e turisti, mentre, le famiglie scelgono case unifamiliari isolate, proiettate verso la campagna.

Ulteriore trasformazione, del sistema infrastrutturale, è quella che si registra con la costruzione nel 1995 della nuova stazione di Guillemins, progettata da Calatrava, per la linea ad alta velocità TGV che ha traumatizzato parte del tessuto antecedente con pesanti demolizioni, ma allo stesso tempo ha dato inizio ad un veloce processo di riqualificazione di tutta la zona. [Fig. 2]

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A conclusione di questa breve premessa, che annota le mutazioni diacroniche intervenute a modificare il tessuto urbano di Liegi, occorre ricordare anche la questione -ancora irrisolta- della famosa Place Saint Lambert divenuta, unicamente, nodo della viabilità urbana privo di qualificazione congruente al valore che il luogo rappresenta per la comunità. Ossia, un'ampia "cavità urbana" che, organizzata su due livelli, si limita a celebrare -nella parte superiore- l'originaria Cattedrale attraverso una serie di pilastri di acciaio che evocano l'assetto della navata centrale, e ospitare -in quella inferiore- un parcheggio ed il museo della villa romana.

Organismo aggregativo. Analisi della struttura dei quartieri di Liegi

Osservando la conformazione attuale di Liegi, è possibile notare la formazione di numerosi quartieri nati prevalentemente nel XIX secolo. Fino alla fine del XVIII secolo, Liegi era un nucleo compatto e unitario all'interno delle mura antiche, contornato direttamente dalla campagna disabitata, ad eccezione delle strade territoriali su cui si sono formati tessuti lineari. Si delineano i primi sobborghi, ancora a carattere prevalentemente rurale. Nel XIX secolo, come detto in precedenza, la struttura della città si trasforma a seguito dei profondi cambiamenti prodotti dalla rivoluzione industriale. Dopo il 1850 le città della Vallonia sono investite da un cospicuo incremento demografico che produrrà trasformazioni anche degli antichi borghi medioevali. Le fonti descrivono nella maggior parte dei centri urbani

condizioni di vita insostenibili a causa del sovraffollamento degli alloggi e dell'inquinamento acustico ed atmosferico. In molte città i quartieri considerati insalubri vengono risanati o sventrati, analogamente ad altri paesi europei. La nuova viabilità, ampia ed ordinata, si proporzionerà alle nuove dinamiche residenziali e produttive.

Molte città di questo contesto territoriale vengono ridisegnate a partire dalla distruzione delle mura e dalla eliminazione superficiale dei bracci d'acqua che le attraversano sostituiti da grandi boulevard conformi alle necessità del tempo. Fenomeno tipico nelle zone industriali, sarà la concentrazione di manodopera che influenzerà la formazione di quartieri intorno ai nuclei urbani esistenti, spesso in prossimità delle miniere di carbone, come pure in prossimità di stazioni o linee ferroviarie commerciali che rappresentano le polarità più importanti del tempo.

Contrariamente al fenomeno tipico della gran parte delle città europee, che eleggono la casa in linea come concetto di casa più diffuso, in Vallonia si registra un'alta concentrazione di abitazioni unifamiliari, favorita dall'enorme disponibilità di suoli al di fuori delle antiche fortificazioni. Il nucleo storico della città medievale subirà, specie negli spazi ad uso collettivo, le maggiori trasformazioni attraverso i piani di allineamento viario, disciplinati dai regolamenti edilizi emanati dalle municipalità locali. I nuovi assi, tracciati o risultanti dai fenomeni di risanamento urbano, risultano essere rettilinei e sufficientemente larghi per favorire la circolazione ed il migliore soleggiamento delle abitazioni. Peraltro, lo spazio pubblico è concepito secondo i nuovi criteri estetici della società liberale, con una marcata mutazione della *facies* visibile dell'architettura urbana che riflette il bisogno di autocelebrazione del proprio status della nuova borghesia industriale.

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La crescita insediativa continuerà nel XX secolo. La formazione di nuovi quartieri che satureranno le valli e gli spazi ancora ineditati configurerà la morfologia della città odierna. Non estranea a questo processo, è nel primo dopoguerra la produzione di edilizia basata sui principi della città giardino, concomitantemente alla nascita di alloggi sociali. Le unità abitative costruite sul modello howardiano risultano spesso arretrate dal fronte principale della strada pubblica e munite di giardino posteriore.

L'approfondimento sui quartieri di Liegi è stato condotto con le stesse modalità teorico-operative adottate per lo studio dell'intera città di Liegi. La comparazione delle carte storiche e di quelle catastali, unitamente alla conoscenza degli eventi documentati, ha permesso di ricostruire, per ogni quartiere, la sequenza delle fasi evolutive che hanno fornito indicazioni circa l'individuazione dei percorsi territoriali preesistenti e decisivi per la strutturazione del successivo tessuto urbano. Parallelamente, sono state individuate le gerarchie costituite dalle nodalità e polarità che, lette alla scala ridotta del quartiere, assumono caratteri e ruoli differenti rispetto al tessuto urbano dell'intera città. Questa lettura ha permesso di capire anche le dinamiche che spesso hanno mutato il ruolo di alcune strutture speciali importanti, inducendo condizionamenti nel tessuto. Ad esempio, la stazione ferroviaria, che in sé rappresenta una strutturale antinodalità a causa del limite generato dalla strada ferrata, ha qui assunto il ruolo di

polo accentrante. Fenomeno che ha reso indispensabile il collegamento di essa con una polarità già esistente nel tessuto.

Tuttavia, come di consueto negli studi che ricostruiscono la graduazione di valenza nel costruito, e a fronte di scarse informazioni pervenute dalla cartografia a disposizione, è stato necessario eseguire uno studio sulle fasce di pertinenza. Questa operazione ha permesso di confermare l'importanza di percorsi già presenti nelle carte e individuare il carattere di *percorso matrice* di altri, giungendo a chiarire lo sviluppo del quartiere. Inoltre, percorsi preesistenti alla formazione del tessuto, assunti come percorsi matrice, hanno dimostrato la loro essenza di strutture territoriali odierne percorrenze di ambito rurale sulle quali si sono attestati i primi nuclei di costruito. Il loro andamento si adatta alla morfologia del terreno e influenza la costituzione geometrica dei lotti. Le fasce di pertinenza dei lotti che si attestano perpendicolarmente sui percorsi matrice hanno dimensioni maggiori, salvo i casi in cui sono condizionati da altri fattori, ad esempio la struttura del terreno a cui si adattano. La seconda fase di edificazione presenta le stesse caratteristiche strutturali degli aggregati premoderni: dal percorso matrice gemma il *percorso d'impianto*. La profondità delle fasce di pertinenza di due percorsi d'impianto, tra loro paralleli, determina la dimensione e la struttura dell'isolato che in una terza fase viene concluso dall'edificato che si attesta sul *percorso di collegamento*. L'isolato che ne deriva subisce, poi, trasformazioni dovute ai fenomeni di progressivo intasamento. Le pertinenze dei lotti sul percorso matrice iniziano a ridursi, fino (talvolta) a scomparire del tutto, in favore del costruito sui percorsi d'impianto. Partendo quindi dall'angolo, questo perde la sua area di pertinenza potendo usufruire del doppio affaccio su entrambi i percorsi (matrice e impianto). Tuttavia a Liegi, la struttura degli isolati mostra poche trasformazioni di questo tipo e l'isolato tende a costituirsi chiudendosi del tutto in una fase –per così dire- ritardata, mostrando la preferenza ad attestarsi in maniera seriale e lineare lungo i percorsi preesistenti prima che questi vengano interrotti da nuovi percorsi. Un quarto tipo di percorso, che qui si presenta con una formula variata, è quello di ristrutturazione. Esso interrompe il tessuto esistente e mostra caratteristiche dimensionali e strutturali diverse dai precedenti. Di norma, ha sezione maggiore e andamento rettilineo che nasce dalla necessità di dover collegare un polo di recente formazione con uno preesistente, determinando la formazione di lotti trapezoidali che meglio si adattano ad ospitare l'*edilizia speciale*. Si tratta di percorsi ricorrenti nei tessuti analizzati di Liegi che non demoliscono costruito preesistente ma incidono solo su una fitta maglia che, oltre a dividere i campi agricoli, costituisce il modulo del costruito che, in seguito, andrà a stanziarsi. Per capire meglio questi fenomeni è stata proposta una ipotesi ricostruttiva di una porzione di tessuto per ogni quartiere, che fosse coerente con le nozioni e le previsioni del metodo sopra enunciato.

Caso studio: Lettura delle fasi formative e del sistema gerarchico del quartiere di S. Leonard

Saint Leonard è un quartiere caratterizzato da un tessuto seriale, la cui gemmazione parte da due percorsi ad andamento irregolare, matrice

di questo quartiere. Rue Vivegnis e Rue Saint Leonard, prolungamento di Rue Feronstree, sono antichi percorsi di passaggio e di collegamento con Aachen. I primi nuclei urbani si riconoscono in maniera lineare lungo questi assi che vedono nell'Abbazia di S. Foy, posta su Rue Saint Leonard, attualmente all'intersezione con Rue du Commandant Marchand, il polo aggregativo, in posizione nodale rispetto alle prime fasce di costruito. Successivamente i due percorsi matrice sono collegati tra loro da percorsi di impianto trasversali che regolarizzano e riprendono le giaciture delle stradine di campagna già presenti nell'area. In particolare, Rue Franchimontois che continua in rue Marengo sulla quale si attestano nuovi edifici di tipo industriale. A seguire, Rue du Ruisseau che continua con Rue du Pommier che collega Rue Vivegnis, passando per Rue Saint Leonard, all'Èglise di S. Foy. Terzo importante percorso di impianto, più periferico rispetto al centro della città, è Rue des Bayards che dalla collina del Tribouillet arriva direttamente al braccio della Mosa, tombato per un tratto e ridotto a un canale. Nello stesso periodo si definiscono nuove gerarchie che mutano l'assetto morfologico del quartiere. Subito fuori le mura, in posizione antinodale, sorge la prigione di Saint Leonard, seguita da complessi industriali che occupano i campi, successivamente sventrati dall'asse Rue Maghin.

Altri complessi industriali sorgono in prossimità di Rue du Ruisseau, anch'essi in posizione di forte antinodalità, collocandosi verso l'esterno del quartiere nascente. Il costruito continua a svilupparsi linearmente lungo percorsi minori che mano a mano vengono a determinarsi, senza chiudere immediatamente l'isolato ma continuando lungo l'estensione dei percorsi. Le prime forme di isolato cominciano a notarsi quando i percorsi di impianto vengono collegati da percorsi minori di collegamento, come Rue Regnier Poncelet che collega Rue Vivegnis a Rue des Franchimontois disegnando i primi isolati triangolari. Il tessuto appare a questo stadio abbastanza disomogeneo, con la compresenza di edilizia residenziale che definisce il quartiere industriale in formazione. Fase evolutiva della prima metà dell'Ottocento è quella dei complessi industriali e relative case operaie sorte nelle immediate vicinanze.

Nella seconda metà dell'Ottocento si forma una nuova polarità, la stazione di Vivegnis, che porta con sé la linea ferroviaria, cioè una linearità antinodale e dividente fra il centro e la periferia dei campi sulle colline. La nascita della stazione, lungo la Rue Vivegnis, determina la costruzione dell'asse di ristrutturazione di Rue Maghin. Il termine "ristrutturazione" è tuttavia improprio poiché la strada non sventra parte di costruito ma investe solo lottizzazioni agricole, definendo un tracciato che collega la stazione al ponte Saint Leonard. L'unico edificio demolito è il complesso industriale situato sull'attuale giacitura dell'asse, su cui si attesta un nuovo edificio specialistico in posizione nodale, l'Ecole d'Hotellerie et de Tourisme de la ville de Liege. Viene costruita anche l'Ecole Communale Vieille Montagne, anch'essa in posizione nodale, collocata sul percorso d'impianto Rue Mosselman. Progressivamente, gli isolati si chiudono, inglobando al loro interno edifici speciali o industriali che spesso occupano l'intera grandezza dell'isolato. Fase evolutiva relativa alla seconda metà dell'Ottocento, è la formazione dei due assi: Rue Bonne Nouvelle, prima, a riprendere l'antico tracciato, e Rue Maghin, dopo, influenzanti la morfologia degli isolati che da questi si sono definiti, e dividendo così

un macro-isolato, nel Novecento ancora racchiuso tra i due percorsi matrice di Rue Vivegnis e Rue Saint Leonard e quelli di impianto di Rue des Franchimontois e Rue des Bayards. Quale conseguenza dell'edificazione, i nascenti isolati hanno prevalentemente forma triangolare o al più irregolare ad assecondare i nuovi tracciati. La formazione di questi nuovi assi diagonali e delle rispettive diramazioni minori successive, modifica l'assetto delle fasce di pertinenza. Dall'analisi di queste, eseguite sul catastale attuale, valutando l'orientamento degli affacci del costruito, si nota che, se Rue Franchimontois continua ad avere l'importanza di un percorso d'impianto, Rue des Bayards si connota come un percorso di collegamento con l'apertura di Rue Jean Baptiste Cools. L'edificio della prigione inizia a perdere il suo carattere di antinodalità nel momento in cui, col successivo sviluppo del quartiere verso est, l'edificio non può più essere considerato in posizione periferica, ma "nodo". [Fig. 3]

282 Anche la linea ferroviaria non è più dividente ma lascia spazio ad incrementi del costruito sulle colline; in particolar modo sul Tribouillet che nel 1930 ospita sperimentazioni moderne per gli alloggi operai. Seppur si tratti di pianificazione, è possibile rilevare gerarchie definite anche in questa porzione di tessuto. La struttura generale ruota attorno ad una piazza accentrante, tagliata longitudinalmente da due assi che, assieme ai successivi percorsi trasversali, daranno una configurazione "a svastica". I due percorsi matrice sono Rue Nicola Pietkin e Rue de Valenciennes che confluiscono nella piazza centrale. Da qui, partono una serie di percorsi trasversali che, dall'analisi delle fasce di pertinenza, hanno carattere di collegamento e uniscono il centro alle due strade che percorrono perimetralmente la collina: Rue Charles Gothier e Boulevard Ernest Solvay, sulla quale si affacciano gli altri lati corti dell'isolato. Al termine della seconda guerra mondiale, l'assetto degli isolati cambia ulteriormente con il progressivo abbandono delle industrie.

[Fig. 4]

Conclusioni

La ricerca vuole fornire un utile contributo alle conoscenze storiche della città otto-novecentesca di Liegi. Dato rilevante emerso con lo studio sul tessuto urbano di tale porzione di città è l'acquisita cognizione che non si tratta di pianificazioni tanto estese da mostrare, già nella fase di impianto, una generale organicità. Si deduce, infatti, che i tessuti sono nati, pressoché sistematicamente, in concomitanza alla formazione degli impianti industriali collocati lungo le sponde della Mosa. Il processo formativo registra un'iniziale formazione lineare lungo i percorsi preesistenti, con i lotti si dispongono in aderenza ai tracciati - spontanei o pianificati - di collegamento, che viene gradualmente integrata da percorrenze di collegamento su cui si impiantano ulteriori aggregati residenziali che portano, mano a mano, al completamento dell'isolato. Ne consegue che, trattandosi spesso di aggregazioni che si formano più o meno spontaneamente, essi risultano avere un notevole sviluppo lineare interrotto, talvolta, da percorsi taglianti (alle volte di ristrutturazione) che si formano in concomitanza alla nascita di nuovi poli territoriali come, ad esempio, le stazioni ferroviarie.

Tale approfondimento si inserisce nel quadro di interessi della Scuola di

tipologia italiana volto a riconoscere i diversi caratteri strutturanti il costruito alla scala territoriale/urbana/aggregativa/edilizia in ambito europeo. Ricerca analitica riletta attraverso la "lente" critica del significato areale dell'architettura intesa come "lingua", di cui si osservano i tratti identitari tipici dell'essenza strutturale del nord Europa.

L'area culturale seriale-lignea definita da sistemi discreti, leggeri, portanti e non chiudenti, è all'opposto della "lingua" della mediterraneità, che ha mostrato - come spiega in molti suoi scritti Giuseppe Strappa - il carattere murario di architettura qualificata da sistemi pesanti, plastici, contemporaneamente portanti e chiudenti. La conoscenza del carattere che identifica i due sistemi lessicologico-identitari, messi dialetticamente a confronto, spiega le differenze linguistiche della struttura grammaticale e della sintassi di ciascuna area culturale. Aspetto epistemico che, lontano dall'essere considerato mera esigenza didattico-speculativa, diventa sostrato di nozioni necessarie all'attività critica del progetto.

Si fa, infine, notare che lo studio, oltre che ambire ad una conoscenza scientifica della struttura formativa della città industriale in ambito nordeuropeo, mira a trasmettere una diversa sensibilità verso il patrimonio ereditato, sottomesso regolarmente al disinteresse collettivo che si traduce troppo spesso in pesanti ristrutturazioni del tessuto storico.

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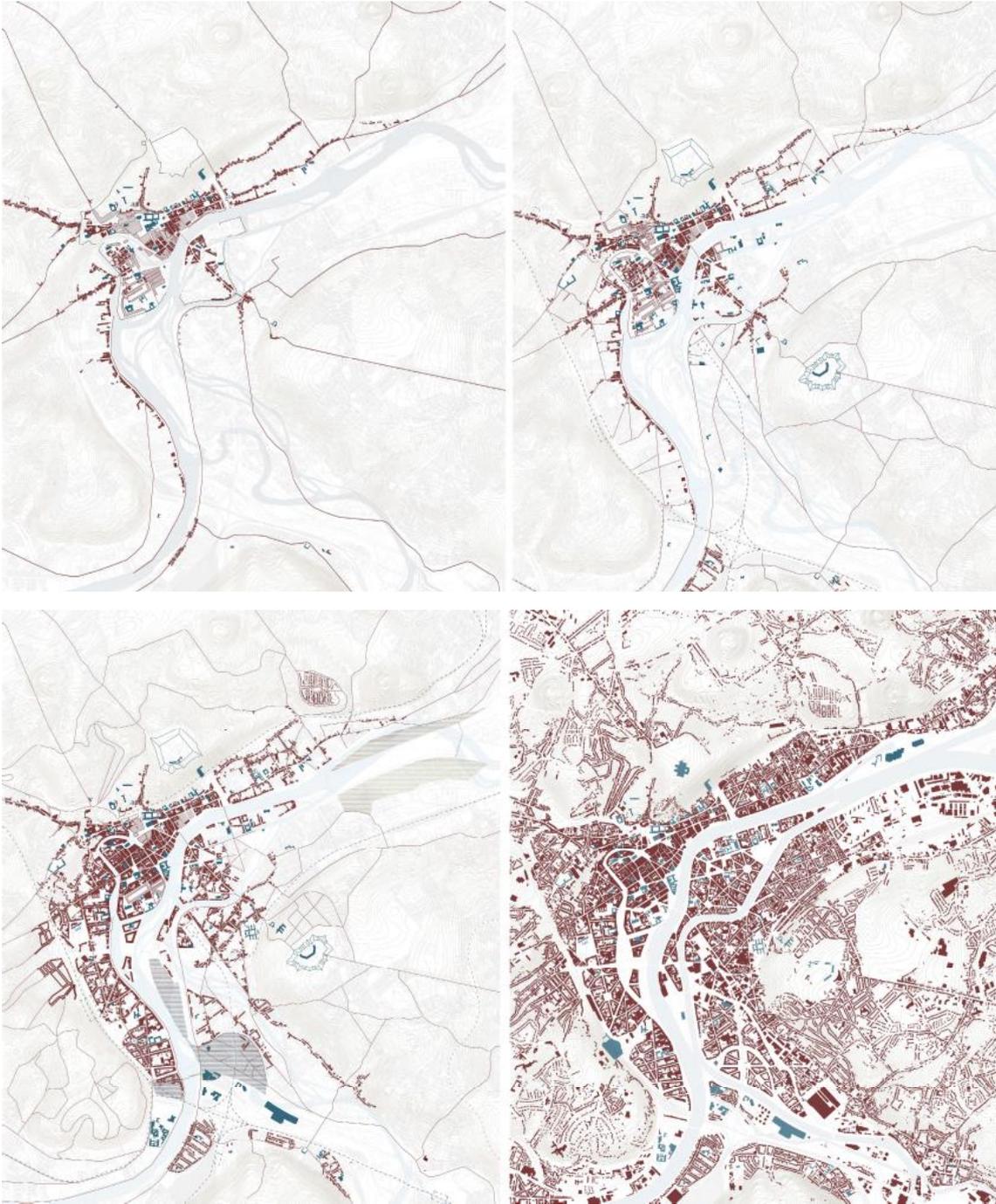
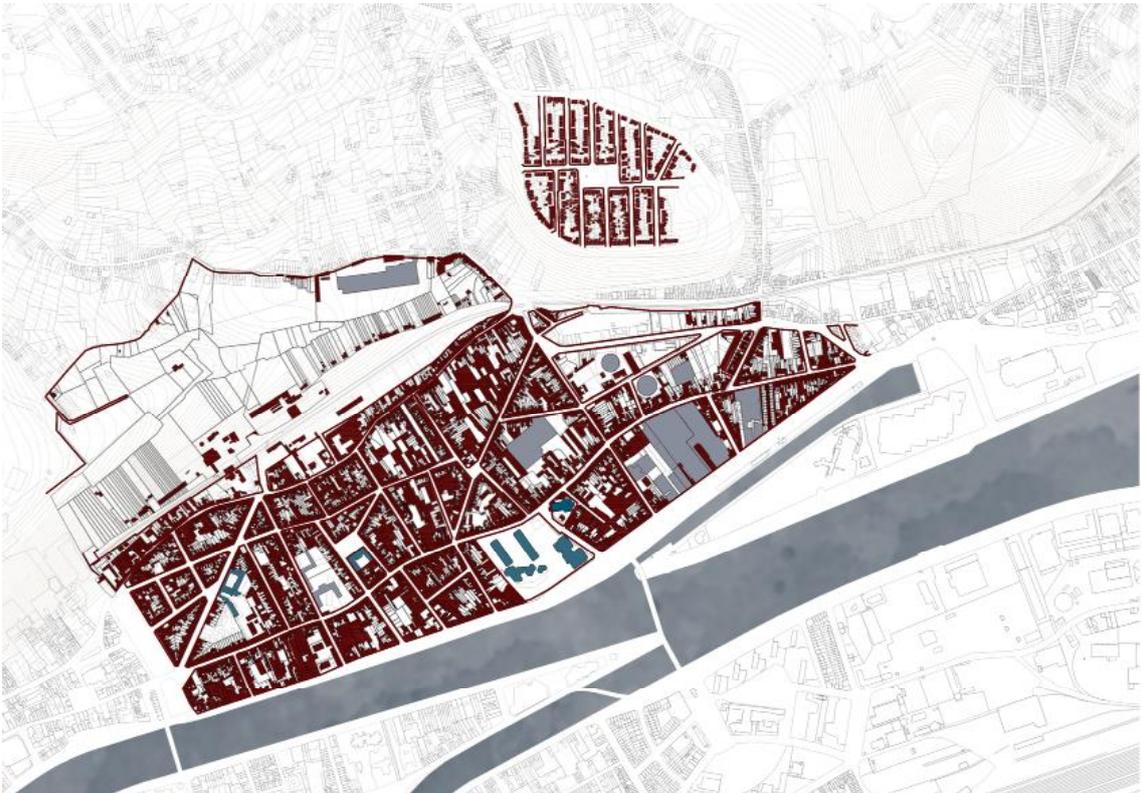


Fig. 1 Sviluppo dell'aggregato urbano di Liegi nel XVII secolo e nel 1800.
Fig. 2 Sviluppo dell'aggregato urbano di Liegi nel 1900 e nel 2015.



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Fig. 3 Quartiere Saint Leonard, ricostruzioni relative alla prima e alla seconda metà dell'Ottocento.
Fig. 4 Quartiere Saint Leonard, ricostruzione relativa alla seconda metà del Novecento

Napoli, tra analisi e progetto Il caso di Largo Barracche

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Abstract

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Looking at the map of Naples it is still possible to read an articulation of formally defined parts: the ancient centre and its Greek-Roman urban fabric based on decumani and cardini; what remains of the 'quartieri bassi' behind the waterfront after the demolition of Risanamento; the grid of quartieri spagnoli, between via Toledo and the foot of Sant'Elmo hill; to the west Chiaia, its public garden and the system of streets orthogonal to the coast built on the slope where the water descended to the sea; to the east the via per le Calabrie where it is still possible to recognize the system of ville vesuviane, placed orthogonally to the street with their gardens facing the gulf or Vesuvius; the expansion of the seventeenth and eighteenth centuries to the east and on Vomero hill. These parts, synchronically, define a city of extraordinary wealth in its relationship with geography and with a history that roots its origins in myths. The relationship between architectural typology and urban morphology is clear, in each part, even if the stratification was not always responsive to the urban values but thanks to the clarity of urban fabrics and the reference to precise 'ideas of city'. Among others, the case of quartieri spagnoli is certainly one of the clearest and most representative. The paper will present a reading of this 'part' and a proposal of urban regeneration, through the demolition and rebuilding of eight blocks around an open space.

Napoli è, forse più di altre, definibile come una 'città per parti'. La sua configurazione contemporanea sfugge alla possibilità di individuare una *forma urbis* che risponda a una sola, univoca, idea di città ma, guardando la sua pianta, diverse parti formalmente definite sono chiaramente leggibili e individuabili.

Innanzitutto il centro 'antico': la città di impianto greco-romano regolata dai decumani – strade orientate est-ovest – e dai cardini – strade di minore sezione orientate nord-sud – a costruire una griglia di isolati rettangolari stretti e allungati nel rapporto di uno a cinque circa, una città densa, praticamente priva di spazi pubblici, ma 'porosa' con vuoti piccoli – all'interno dei palazzi – e grandi – all'interno degli isolati di rifusione doppi o tripli dei complessi conventuali – ben visibili come carattere precipuo della forma della città già nella Mappa del Duca di Noja.

Poi la griglia dei Quartieri Spagnoli, apparentemente isotropa ma adagiata sul ripido pendio che dalle pendici della collina di Sant'Elmo conduce all'asse di via Toledo. Qui il blocco, di dimensioni circa 18X18 metri è, forse non a caso, una unità minima che costituisce l'isolato del centro antico, quando esso si organizza 'a spina' e declina, al di là delle numerosissime manomissioni subite, il tipo del blocco con cortile.

Ancora sono distintamente osservabili le espansioni otto-novecentesche a est o sulla collina del Vomero, anch'esse fondate sulla griglia e su una perfetta aderenza tra tipologia edilizia e morfologia urbana.

Altre 'parti urbane' rispondono invece a una logica di impianto che si relaziona, in misura maggiore, alle particolari condizioni topografiche della città. È quanto avviene nel quartiere Chiaia dove l'edificazione si attesta lungo le 'calate' che, da una quota intermedia della città, vanno verso il mare, ortogonalmente alla linea di costa e che corrispondono alle naturali linee di deflusso delle acque o, in maniera ancora più interessante, è il caso della costruzione del sistema delle ville vesuviane lungo la omonima costa che, ai due lati della strada Regia per le Calabrie, si dispongono ad essa ortogonali nella successione portale-androne-corte-giardino-belvedere che guarda al mare, se costruite verso sud, o al Vesuvio, se costruite verso nord.

Queste parti, sincronicamente, costituiscono oggi una città di straordinaria ricchezza nel suo rapporto con la geografia – il golfo e il sistema collinare – e con una storia lunga oltre venticinque secoli e che affonda le sue origini nel mito. Grazie alla chiarezza del loro impianto e al loro riferirsi, come detto, a precise idee di città, e nonostante la stratificazione, non sempre sensibile ai valori architettonici e urbani in campo, la relazione tra tipologia edilizia e morfologia urbana, per ciascuna di queste parti, è evidente: tra tutti il caso dei quartieri spagnoli è sicuramente uno dei più chiari ed esemplificativi e per questo è stato oggetto di approfondimento nell'ambito del progetto di ricerca METRICS "METodologie e Tecnologie per la gestione e RIqualificazione dei Centri Storici e degli edifici di pregio" coordinato dal distretto STRESS S.c.a.r.l. cui il DiARC_Dipartimento di Architettura della Università degli studi di Napoli "Federico II" ha partecipato sotto la direzione scientifica del prof. Renato Capozzi (Visconti,

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2016; Capozzi, 2018).

I Quartieri Spagnoli si adagiano sul pendio che dal Corso Vittorio Emanuele degrada verso l'asse di via Toledo, con un dislivello di circa cinquanta metri, e si costruiscono su una griglia fondata su un modulo di circa 5/6 metri che governa sia la costruzione del tracciato stradale (con strade ortogonali larghe appunto 5/6 metri) sia quella dei blocchi edilizi quadrati di circa 15/18 metri di lato che hanno la loro eccezione più significativa su via Toledo dove, in una delle due direzioni, il blocco raddoppia la sua dimensione attestandosi sull'asse urbano con la facciata corta. Lo *Straßenbau* evidenzia questa regola della griglia isotropa che si differenzia, in tal senso, da quella del centro antico, fondata invece su isolati stretti e allungati nel rapporto di circa 1/5 e su una gerarchia del tracciato tra decumani e cardini assente nei quartieri spagnoli mentre lo *Schwarzplan* restituisce una parte di città densa con pochissime 'smagliature' in corrispondenza dei grandi elementi primari o, nel caso di Largo Barracche, per 'assenza del blocco'. Proprio l'osservazione del rapporto tra tracciato stradale, elementi primari e tessuti consente di leggere i quartieri spagnoli propriamente detti come una sotto-parte di un sistema più ampio che include tutta la parte di città tra il Corso Vittorio Emanuele e via Toledo e tra via Tarsia e vico D'Affitto con significative rotazioni del tracciato che si attestano intorno ai capisaldi costituiti dai grandi elementi primari dell'area – la Chiesa della SS. Trinità degli Spagnoli, il Complesso di Santa Maria della Mercede a Montecalvario, l'ex-convento della Trinità delle Monache, il Complesso dello Spirito Santo – in stretta relazione con la morfologia del suolo: si individuano così quelle che già Salvatore Bisogni (Bisogni, 1994) aveva nominato come le sottoparti 'centrale', 'raddoppio', 'Magnocavallo' e 'Pignasecca' all'interno del più ampio perimetro di Montecalvario. Nell'area centrale, come detto, praticamente l'unico vuoto che non sia in relazione con uno dei grandi complessi monumentali dell'area è quello di Largo Barracche, corrispondente alla assenza di un blocco nella griglia. Importanti storici dell'architettura napoletani hanno avanzato ipotesi differenti sulle origini di questo vuoto urbano: che esso derivi da un crollo o demolizione di un edificio o che il blocco non sia mai stato costruito (Castagnaro, 2012). In ogni caso, intorno a questo vuoto, i blocchi edilizi costituiscono una significativa campionatura delle tipologie edilizie dei quartieri spagnoli: blocchi con cortile e blocchi costituiti in parte da edifici a blocco con cortile e in parte da porzioni 'a schiera'. Ancora intorno a Largo Barracche si rileva come la griglia teorica abbia in realtà variazioni piuttosto significative con blocchi edilizi 3X3, 4X3, 3X4 e 4X4 moduli.

Questo tipo di lettura fa riferimento agli strumenti metodologici messi a punto all'interno della cultura architettonica italiana negli anni Sessanta del secolo scorso quando, al centro della elaborazione teorica, vi è stata l'attenzione alla città intesa come manufatto costruitosi nel tempo, come accumulazione fisica e materiale, sintetica e sincronica, della storia e quindi come patrimonio di forme dalle quali attingere e alle quali riferirsi per il progetto contemporaneo. All'interno di tale dibattito, volto soprattutto a

definire per l'Architettura uno statuto disciplinare autonomo, un ruolo non solo dominante ma anche propulsivo di successive elaborazioni teoriche originali venne assunto dagli studi tipo-morfologici.

Occorre innanzitutto definire i due termini di base – tipologia per lo più riferito all'organismo architettonico e morfologia riferito alla forma urbana – per poter poi discutere del perché gli studi tipo-morfologici, e meglio ancora la cosiddetta “analisi urbana”, abbiano giocato un ruolo così importante non solo nella costruzione di una linea identitaria della teoria architettonica italiana ma anche nel più ampio quadro di un progetto culturale, che ha riguardato anche gli ordinamenti universitari, volto a affermare la trasmissibilità del sapere disciplinare in quanto fondato su un *corpus* condiviso e in quanto applicazione di una teoria, cioè di un punto di vista orientato su uno specifico campo di osservazione che è quello delle forme, dell'architettura e della città, anche nelle loro indissolubili relazioni.

Il termine tipologia, dal greco “τύπος” e “λόγος”, indica lo studio dei tipi, laddove, in termini estensivi, per tipo si intende uno schema ideale, una forma generale, cui può ri-condursi, per astrazione, una moltitudine di oggetti/individui, in virtù del loro avere caratteri comuni.

Il termine morfologia, invece, dal greco “μορφή” e “λόγος”, coniato da Goethe (ted. Morphologie) nel 1785 per indicare l'anatomia comparata, significa studio delle forme: ulteriormente aggettivata come urbana, la morfologia studia le forme della città.

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Lo studio delle tipologie edilizie e della morfologia urbana, nonché delle connessioni che tra i due “livelli” concorrono alla formazione della struttura di una città o di una parte di essa, sono oggetto specifico della “analisi urbana”, definibile come la disciplina che affronta lo studio della città per elementi costitutivi e sistemi di relazioni che intercorrono, appunto, tra le tipologie edilizie e la morfologia urbana. Portato originale della cultura architettonica italiana della seconda metà del novecento, le sue origini risiedono in quel patrimonio di studi e ricerche sui caratteri degli spazi urbani intorno ai monumenti che caratterizzò il dibattito culturale in Italia a partire dalla fine del XIX secolo e fino alla riforma degli studi universitari che ebbe come ispiratore, negli anni Venti, Gustavo Giovannoni. Sono gli anni nei quali comincia a farsi strada, nel campo della conservazione, l'idea della necessità di riconoscere un “valore ambientale” da riferirsi alla cosiddetta edilizia minore, non più da intendersi in una posizione di necessario subordine rispetto alla emergenza monumentale architettonica. Anche la ricerca in campo urbanistico asserisce, nello stesso periodo, l'opportunità che le operazioni progettuali, alla scala della città, siano precedute, e quindi indirizzate, da un'analisi di tipo storico-urbano, anticipando la creazione di quel nesso tra analisi e progetto che, per essere applicato anche alla scala architettonico-urbana, dovrà attendere una fase più matura di sistematizzazione del *corpus* disciplinare. Nella concezione espressa nel testo di Saverio Muratori del 1953, *Per un'operante storia urbana di Venezia*, l'analisi delle regole compositive rilevabili nei tessuti della città storica viene intesa, per la prima volta con chiarezza, come uno strumento applicabile,

come riferimento, anche ai progetti di espansione urbana. Nei decenni successivi la riflessione sull'analisi urbana si muove lungo filoni distinti, i cui esiti arrivano anche a divergere. L'interpretazione, che si riferisce alle posizioni muratoriane, identifica sostanzialmente l'analisi urbana con una analisi storica applicata alla scala urbana. Gli studi di Gianfranco Caniggia e dei suoi allievi tendono a definire una lettura processuale del contesto, a partire dai concetti di tipo, matrice, trasformazione diacronica e variante sincronica, e a ipotizzare una sorta di possibile gradazione del progetto tipologico definibile anche in relazione alla differente storicità del contesto. In parte differente la ricerca le cui linee sono tracciate nei testi *L'architettura della città* di Aldo Rossi del 1966 e *La città di Padova. Saggio di analisi urbana* (di Aymonino, Brusatin, Fabbri, Lena, Lovero, Lucianetti, Rossi, 1970), resoconto della attività del corso di "Caratteri distributivi degli edifici" tenuto all'IUAV da Carlo Aymonino con, tra gli altri, Aldo Rossi e Gianni Fabbri. La posizione esprime un nesso fortissimo tra la interpretazione dei fatti urbani e gli strumenti formali del progetto e propone l'analisi urbana come una analisi strutturale e formale che, nettamente distinta dalla analisi storica, si applica alla città intesa come manufatto e opera collettiva. L'analisi urbana non mira cioè a definire la cronologia dei fatti urbani ma contiene un atteggiamento strutturalista e si pone quindi come obiettivo quello di individuare i caratteri - strutturali appunto - delle forme: applicato alla scala urbana ciò significa leggere trame, tessuti, tipologie e loro aggregazioni anche al fine di trasformare questi elementi in strumenti e repertori formali per il progetto urbano nella città, intesa come luogo statistico delle forme e quindi cosa umana per eccellenza¹.

Seguendo questo approccio che vede un nesso ineludibile tra analisi e progetto, il 'vuoto' di Largo Barracche, con le caratteristiche descritte, è stato individuato, nell'ambito di un Accordo di Cooperazione Internazionale tra la Rheinisch-Westfälische Technische Hochschule Aachen (RWTH Aquisgrana) e il Dipartimento di Architettura della Università degli Studi di Napoli "Federico II"², come area-progetto sulla quale condurre una significativa sperimentazione comparando letture urbane e ipotesi di trasformazione. Alle analisi tipo-morfologiche prima descritte si è aggiunta così la lettura della spazialità urbana che il gruppo tedesco guidato dal prof. Schröder ha messo a punto con il progetto *Pardié*³. Il

1 Si tratta della ben nota definizione che, ne *L'architettura della città*, Aldo Rossi riprende da Levi-Strauss per il quale la città è «oggetto di natura e soggetto di cultura, individuo e gruppo, vissuta e sognata, cosa umana per eccellenza». Così in Levi-Strauss, C. (1968) *Tristi tropici* (il Saggiatore, Milano).

2 L'accordo di cooperazione scientifica, vigente dal 2015, ha come responsabili scientifici il professore Uwe Schröder per la Rheinisch-Westfälische Technische Hochschule di Aachen e i professori Renato Capozzi e Federica Visconti per la Università degli Studi di Napoli "Federico II". Nell'ambito dell'accordo sono già state realizzate numerose attività di scambio studenti e docenti, un workshop progettuale su Piazza Mercato a Napoli ed è stato pubblicato il libro Schröder, U. (ed.) (2016) *Neapel* (Ernst Wasmuth Verlag, Tübingen/Berlin).

3 Schröder, U. (2015) *Pardié. Konzept für eine Stadt nach dem Zeitregime der Moderne A Concept for a City after the Time Regime of Modernity* (Verlag der Buchhandlung Walther König, Köln).

titolo della ricerca Pardié è la crasi tra Parma e Saint-Dié e, partendo dal celebre confronto di Colin Rowe tra il modello della città compatta della storia e quello della città del moderno, propone una lettura e classificazione dei caratteri degli spazi aperti e tra gli edifici o negli edifici, quando questi assumano i caratteri di spazio urbano collettivo – come nel caso delle corti dei palazzi napoletani o degli invasi delle chiese nelle città gotiche tedesche –, distinguendo tra spazi ‘caldi’ e spazi ‘freddi’, spazi aperti come residui di natura e spazi aperti come costruzione architettonica. Si tratta di una analisi di natura spazialista-percettiva che ha una forte vocazione progettuale nel senso che implica un giudizio sulla qualità degli spazi esistenti all’interno della città e permette di prefigurare, con il progetto, la possibilità di modificarne la natura. L’idea che la ricerca di Schröder propone è quella di lavorare su una integrazione tra i due modelli – la città compatta come contesto imprescindibile e la città moderna in rapporto con la natura e lo spazio aperto – e questa idea è stata assunta a riferimento per la elaborazione di alcune proposte di progetti di rigenerazione urbana dell’area intorno a Largo Barracche. Piuttosto che ipotizzare di ‘occupare il vuoto’ o di ‘arredare’ architettonicamente il largo, si è ipotizzato un più ampio intervento di rigenerazione attraverso la sostituzione degli otto blocchi che definiscono i bordi dello spazio aperto, anche al fine di migliorare la condizione asfittica derivante dalle continue sopraelevazioni che si sono realizzate nel tempo e che hanno profondamente mutato il carattere degli spazi urbani dei quartieri spagnoli laddove risulta oggi difficile traguardare verso la collina di Sant’Elmo e talvolta neanche vedere il cielo. In tal senso le ipotesi progettuali che sono state proposte sono tre, alternative, ma tutte fortemente connesse a quanto fin qui discusso⁴.

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Una prima ipotesi è quella che individua la possibilità di sostituire sette degli otto edifici intorno a Largo Barracche introducendo delle variazioni tipologiche sui singoli blocchi che possano migliorarne le condizioni di distanza e, in tal modo, allargare lo spazio tra essi. Il rispetto della regola di impianto è garantita da un piano basamentale che conferma il rapporto strada-isolato, accoglie funzioni di natura collettiva e raccorda le diverse quote del largo; su questi basamenti gli edifici si elevano poi in forma di H, di C, di corte aperta ‘lasciando spazio’ tra i diversi edifici e costruendo condizioni di maggiore vivibilità per le case al loro interno. Si tratta, in questo caso, di una sperimentazione di variazione tipologica sul blocco che però ribadisce le regole dell’impianto urbano alla quota dello spazio pubblico della città.

Una seconda ipotesi lavora su tutti gli otto isolati intorno a Largo Barracche, aggregando a due a due quelli che definiscono la parte superiore est e ovest del largo stesso. Si tratta sostanzialmente di una ipotesi che prova a dar conto di una non totale isotropia della griglia ma di una direzionalità

4 I progetti sono stati elaborati con gli studenti del Laboratorio di Composizione Architettonica e Urbana 2 del Corso di Studio in Architettura 5UE del Dipartimento di Architettura della Università degli Studi di Napoli “Federico II”, a.a. 2015-16, prof. Federica Visconti.

che, alla scala urbana, deriva fatto che la maglia ortogonale è in realtà appoggiata su un pendio e che, salendo da via Toledo verso il corso Vittorio Emanuele, la visione della collina di Sant'Elmo costituiva un imprescindibile riferimento visivo. In questo senso i due edifici dei due isolati centrali hanno una forma che deriva da una sorta di 'incastro' dell'uno nell'altro, i due edifici dei blocchi laterali, lato basso, declinano in maniere differenti la tipologia 'base' del blocco con cortile mentre a est e ovest i due edifici che occupano ciascuno due isolati 'doppi' si dispongono a cavallo delle strade e sottolineano questa direzionalità dello spazio urbano che rafforzano anche architettonicamente attraverso l'utilizzo di un porticato.

La terza ipotesi è quella che maggiormente infrange, almeno in apparenza, la regola di impianto dei quartieri spagnoli. Tutti gli edifici scelgono una tipologia a terrazza con altezze degradanti dall'esterno verso l'interno del largo, adottando regole comuni non solo per quanto riguarda gli allineamenti di basamento e coronamento ma anche per alcune soluzioni alla scala architettonica come, ad esempio, l'utilizzo delle pergole o la posizione comune di ingressi e blocchi scala. Nel complesso è come se, di fronte alla condizione compressa degli isolati dei quartieri, si proponesse una sorta di amplificazione della maglia per cui è il sistema dei nove blocchi – otto più il vuoto centrale – che di fatto ripropone la regola di assetto tipo-morfologico rinvenibile nell'area-studio laddove il cortile del blocco diventa il largo e gli otto blocchi circostanti diventano il blocco originario dei quartieri. Questa ipotesi ambisce in tal modo a superare la condizione troppo densa che si riscontra nell'area interpretando la regola generale di impianto e proponendo una reale interscalarità tra forma della pianta dell'edificio e forma della pianta della città.

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Le tre ipotesi, pur nei limiti di una esperienza didattica e di ricerca, intendono tuttavia proporre dei ragionamenti su questa parte di città, nella quale così forte è il rapporto tra tipologie edilizie e forma urbana, che si fonda sulla continuità da un lato e sul carattere progressivo del nostro specifico disciplinare dall'altro. Certamente, parlando di continuità, le ipotesi progettuali sono state fondate su una lettura tipo-morfologica di ascendenza caniggiana, provando cioè a capire quali fossero le 'regole' che hanno determinato il processo di formazione di questa parte e quali fossero i diversi tipi che hanno costituito varianti sincroniche dei blocchi dei quartieri rispetto alle alterazioni, più o meno recenti, che hanno invece compromesso non solo la riconoscibilità dei blocchi originari ma anche l'assetto complessivo di questa città prima 'terrazzata' ad accompagnare la vista verso la collina e a offrire vedute panoramiche verso il mare. Ma oltre questa prima lettura, nella convinzione che oggi l'intervento sui quartieri non necessiti solo di una comprensione e di un proseguimento del processo di formazione della edilizia di base, ma piuttosto nella introduzione di una discontinuità, di un elemento primario, si è guardato anche ad altre esperienze che testimoniano della possibilità di un lavoro progressivo e della stretta relazione tra analisi e progetto. A distanza di pochi anni, Giuseppe Samonà e Saverio Muratori sono i

capigruppo in due differenti esperienze progettuali – condotta all'interno della Scuola e realizzata la prima, un progetto di concorso la seconda – per Venezia⁵, una città dove la forma urbana è prepotente nel suo rapporto con la geografia e con la storia almeno quanto a Napoli, anche se in forme diverse legate alle specificità dei luoghi. In entrambi i casi, in un progetto per la città in estensione, il tipo urbano del campiello viene riproposto come possibile unità minima di intervento che deriva dalla storia della città ed è ancora in grado di rappresentarne una cultura urbana e dell'abitare. In entrambi i casi, lo spazio tra le unità minime non è il tessuto denso della città compatta ma la natura: il verde nel progetto del “Villaggio San Marco” di Samonà, l'acqua della laguna in “Estuario I”, progetto presentato da Saverio Muratori al Concorso per le Barene di San Giuliano. Il progetto di Samonà è però ancora timido nel riproporre per i campielli forme organiche che risentono probabilmente di influssi neorealisti mentre punteggia poi con alte torri l'insediamento, quasi a costruire dei landmark, punti di riferimento visivi all'interno di un paesaggio orizzontale quale quello veneziano. All'opposto, il progetto di Muratori ripropone le condizioni spaziali del campiello attraverso un processo di astrazione e il rapporto che si stabilisce non è di omologia delle forme ma piuttosto di analogia del senso.

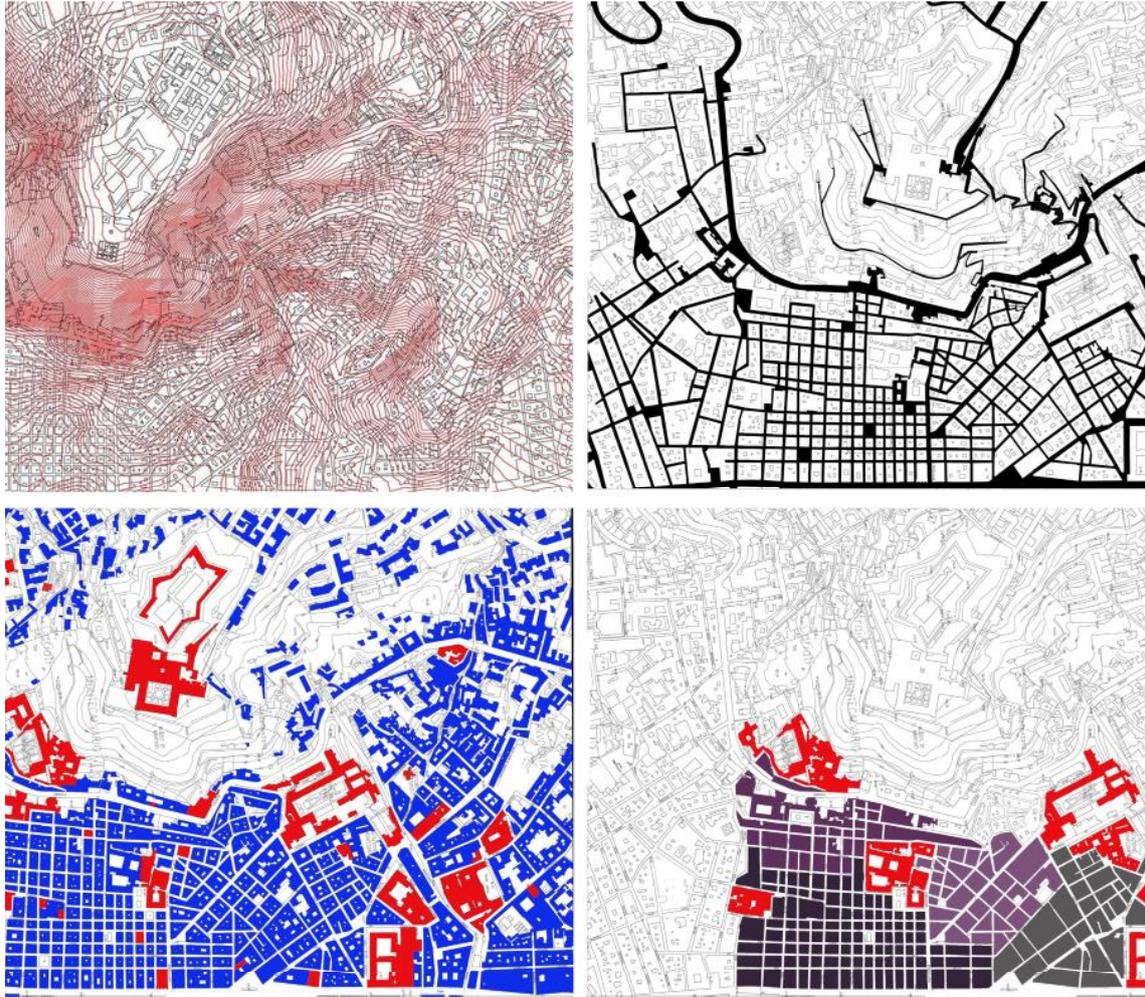
Provando a far proprio tutto questo patrimonio di studi e ricerche che appartiene alla tradizione italiana della seconda metà del Novecento, le ipotesi progettuali per Largo Barracche hanno lavorato sulla innovazione tipologica, la prima e la seconda, e sulla analogia interscalare, la terza, con l'obiettivo di coniugare conoscenza dell'area, attraverso l'analisi, e creazione di nuove e migliori condizioni urbane e architettoniche, attraverso il progetto.

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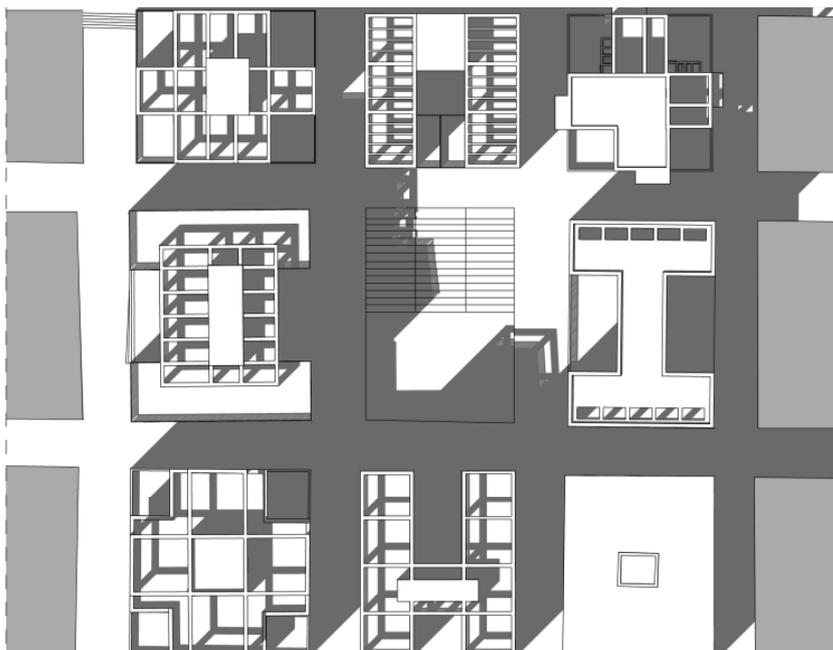
5 Ci si riferisce al progetto di Giuseppe Samonà con Luigi Piccinato e altri per il Villaggio San Marco, Quartiere INA-Casa San Giuliano, Venezia-Mestre (1950-1962) e al progetto *Estuario I* presentato da Saverio Muratori (capogruppo) al Concorso per le Barene di San Giuliano (1959).



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Fig. 1 Quartieri Spagnoli. Analisi Urbana

Fig. 2 Progetto per Largo Barracche. Variazione tipologica sul blocco con cortile



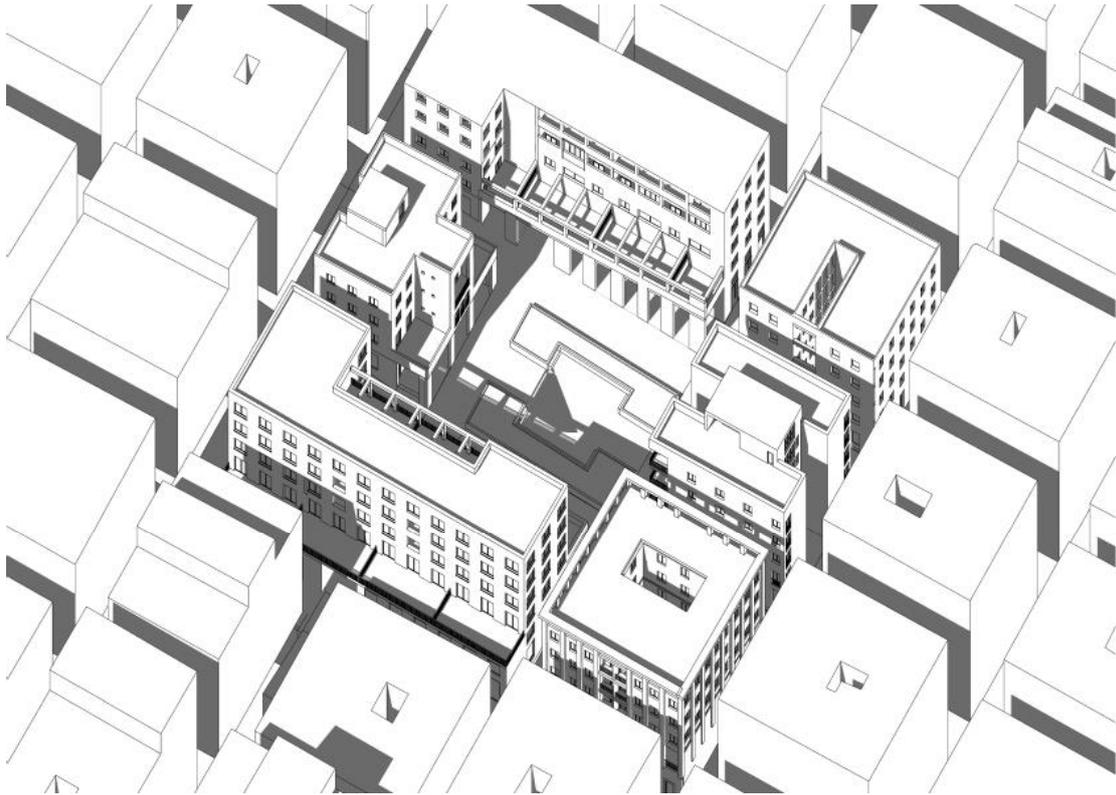
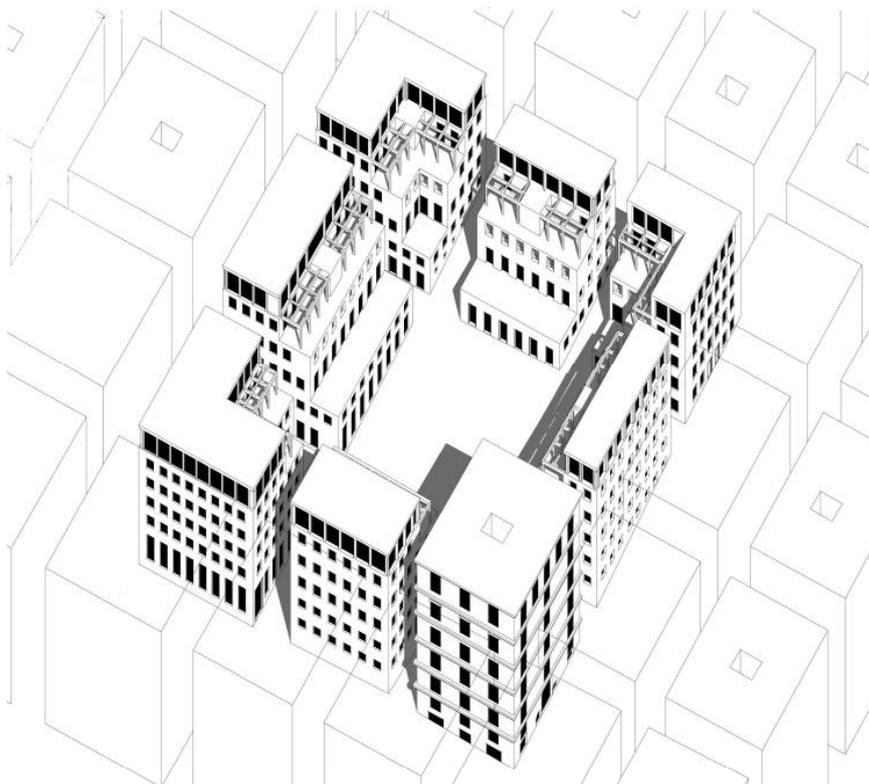


Fig. 3 Progetto per Largo Barracche. Aggregazione dei blocchi

Fig. 4. Progetto per Largo Barracche. L'amplificazione del blocco



Climate examination of roofed alley as an architectural element of Yazd city, Iran

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Keywords: Urban form, roofed alley, Yazd city, wind

Abstract

298 *Mostly, cities with vernacular and compact form are resulted to being sustainable. In most studies, features of compact city are defined, mention to life quality, accessibility, neighborhood satisfaction also improvement of outdoor spaces. Compact cities have some structures to reach these goals such as roofed alleys with high rate of popularity in Middle East cities. This study specifically explores the role of roofed alleys and their function in development of sustainability in compact cities. Objective of this paper is on examination the function of roofed alley to keep cool outdoor spaces by their specific form. In this regard, data is collected by mechanical software, CFD (Star-CCM+), to reach that how wind will find changes in this passage. Findings of this study show that how roofed alleys of compact city could be useful to provide cooler outdoor space with specific shape. In this regard, Yazd city of Iran that has compact city form is established to analyze on roofed alleys of this city. .*

Introduction

The awareness on sustainability development became more pronounced in the 1980s, this created more environmental awareness around the world. Though there is no generally accepted definition of sustainable development as up to twenty four different definitions can be seen in the book “*blueprint for a Green Economy*” (Kim, 1998). Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. ‘Sustainable’ development ties together the concern for the carrying capacity of natural systems with the social challenges facing humanity (OBE, 2012). Always, cities are major human’s outdoor spaces as a symbol of sustainable design.

Research into the various types of urban design theories has produced similarities and differences accounting for the quality of the urban space and the major criteria given by those who set the standards for defining good urban design. In order to address the economic, social and environmental ills, city and regional planning bodies embodying urban sustainability needs to be put in place. Though, there is no universal model to follow in achieving a sustainable city, but with various sustainable cities emerging each with its peculiar approach for each city with its own unique cultural, environmental, historic, and political situations. However, planning bodies focused towards ‘urban sustainability’ can be adapted from approaches formulated in cities and regions where problems of infrastructure, social equity, and urbanization of the environment have been creatively addressed (Balbo, 2006).

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According to “Jane Jacobs” In her classic book “*Death and Life of Great American Cities*” in analyzing the structural characteristics of the urban environment particularly the streets as a sociologist she expressed her worries over the lack of social interaction openness and security.

In this regard, this study is going to examine the function of roofed alleys as an architectural element of sustainable design in vernacular architecture. Roofed alleys are one of popular strategies in the structure of compact cities of Iran to reach cooler outdoor space by making more shadow and changes in wind direction that this issue is originating from mention to environmental and social subjects. This study by establishment of CFD method will reach the temperature differences between passages without roof and roof as a conclusion by examining the wind changes in these conditions. Yazd city of Iran by live historical texture is chosen as a case study of this paper.

Sustainability and Vernacular Architecture

Sustainable design starts with a proper understanding of place. It is possible for humans to live in a place without damaging it if they are sensitive to it. A good understanding of the environment helps the practice of architecture in a lot of ways, this includes solar orientation of the site, accessibility and preservation of the natural environment. Regardless of where the building site is whether in the city or elsewhere it is a known fact that intimate relationship with nature brings life to the built environment (Balbo, 2006).

Lately, there has been an immense increase in the level of studies and research into sustainable architecture. Sustainability aims at focusing on the natural surrounding conditions to achieve a designed output with maximum internal attributes of environment so that it can minimize the undesirable aspects of these constructions. Buildings must reply to environment from design stage and settling when they are to decrease confronting with nature. The aim of sustainability in environmental design as follows (Barnett, 1982):

- “Maximizing the human comfort”
- “Efficient planning”
- “Design for change”
- “Minimizing waste of spaces”
- “Minimizing construction expenses”
- “Minimizing buildings maintenance expenses”
- “Protecting (keeping) and improving natural values”

One great influence on a community's economy, environment and quality of life is the process of designing, developing and inhabiting of the built environment. Sustainable design of the built environment poses a challenge to the planners, developers, and architects who are tasked with the responsibility create the link between their buildings, the environment and the community.

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Vernacular architecture

The Latin word “VERNACULUS” means native. Architecture is vernacular when it exhibits all of its criteria related to the ‘native context’ in the sense that it can only be acceptable and recognizable within any particular society by applying some particular technology, materials, social rules and systems (Rapoport, 1990). When people within a locality construct their dwelling using local materials and traditional methods of construction, this is Vernacular architecture (Singh, 2009). The design and construction of vernacular buildings is a product of ideas gained overtime through trial and error approach. This kind of architecture tends to proffer solutions to the climatic challenges and gives the highest possible level of adaptability and flexibility. These attributes make the architecture unique, hence creates an identity for that community that is tied to their culture (Plemenka, 1982). By a step by step process they are able to adjust their architecture to the micro climate to achieve human thermal comfort conditions through bioclimatic integration (Gaitani, 2007). The outcome of several research have proven that bioclimatic are an integral part of vernacular buildings (Ancell, 2008).

Desert vernacular architecture has a unique natural identity and character that has evolved from the amalgamation of influences such as natural desert topography, climate, and geography, along with cumulative cultural, social, religious and historical factors (Correa, 2009). All of these factors contribute significantly to how they live and also add to the uniqueness of their building forms and patterns. The harmony buildings have with nature

when natural resources and local materials are used in construction is awesome (Dabaieh, 2011). The researchers of vernacular architecture tried to elaborate the idea of vernacular in different ways. Some tried to give a specific definition so that vernacular architecture can be distinguished from the other types of architecture. There are also some definitions, which are basically elaborating the features of vernacular architecture. Some of these conventional definitions of vernacular architecture are mentioned in the following texts: "*Vernacular architecture comprises the dwellings and all other buildings of the people. Related to their environmental contexts and available resources, they are customarily owner or community-built, utilizing traditional technologies. All forms of vernacular architecture are built to meet specific needs, accommodating values, economics and ways of living of the cultures that produces them*" (Oliver, 2003).

Sustainability in desert vernacular architecture

Desert vernacular in the oases has a unique identity and character which is the combination of natural desert topography, climate, and geography, along with accumulation of cultural, social, religious and historical factors (Correa, 2009). All these criteria effect on their way of life and create particular distinction in the building patterns and forms as well.

Dwellers for overcoming the negative impacts of the harsh desert climate created suitable forms for their buildings and used in digamous material. The forms were developed by experimentation through the age. Based on Givoni's studies of thermal control in desert buildings (Givoni, 1994), he observed that vernacular dwellings in the African desert areas were built to prevent heat gain, maximize heat loss and control removal of excess heat by using cooling air circulation. For example they utilized prevailing wind to minimize the effects of heat. They constructed their towns and villages with shaded and roofed alley, which protect pedestrians from direct sun and provide maximum shade for their buildings. These roofed alleys, also inbreed wind circulation and filtration of sand particles especially during sandstorm. Social formation in the oases is based on family and kin-oriented. Most families prefer to live in the same neighborhood as relative (Jencks, 1998). The social structure of desert societies and evidence of the community strength is shown in the organizing of space. A strong architectural base has evolved to enrich the life of inhabitants through reflecting their socio-cultural structures and values.

The compact organization of space, with high density, narrow streets and small buildings, was a response to the society and climate (Hakim, 2000). In addition compact uses of urban space provide maximum shades and protection of walls from sun radiation and sandy winds (Kennedy, 2004). The compact organization also determines the distinction between public, semi-public, semi-private and private areas, which is established by varying the degree of accessibility and enclosure. This urban layout was used in a way that even a tight city plan can be expanded. For example when there is a need for extra functional spaces for a family, a room or more can be built on top of existing ones often overlapping rooms of their

neighbors' roof. These extensions may be built over a part of a street (King, W. J. Harding, 2000).

Case study description

Yazd city is an important example of Iranian urban history. With thousands of historical buildings and a large number of traditional structures, it contains the largest uninterrupted historical and sustainable urban fabric which is well adapted to regions with dry and hot climates.

The urban and architectural features of Yazd also expresses the particular life style which is an initial principle of architectural and urban planning, and to which adaptation has been taken place with the specific climate conditions in the relevant areas. The urban form of Yazd traditional city is highly centralized or inward looking. Certainly, the orientation and its relation to the environment were of high importance in the formation of city (Forsat, 2004). It is clear that the particular climatic problems had led the people of the hot arid zone to find solutions through their especially settled architecture.

302 The roofed lane and porch passage called roofed alley, is one of the outstanding and important elements of urban planning in old areas of cities with hot-dry climates. A roofed alley is designed in order to protect human beings against direct radiation of sunlight by providing shadow for some periods of the day, especially in desert areas. Especially in the case of Iranian cities and towns, architects have constructed houses on lanes with one or more protruding rooms with the same eaves, under which the passage let the pedestrian to move. A Roofed alley can adjust a transient temperature in such a way that any pedestrian can benefit from the shadows somehow on his/her way to a destination. There are several connected entrances in most of the roofed alleys which are important in creating sense of neighborhood and local continuity (Shahraki, 2011) (Figure 1).

Result

This examination is about climatically survey of roofed alley in historical urban texture of Yazd, Iran. This examination is employed by CFD (Star-CCM+) software of Mechanical engineering. The chosen passage of this study has 34m length and 2.5 wide with continuity and individual roofs as a features of roofed alley. The first part of this passage has continuity roof with 10m length and this passage is continued by four individual beams with 0.50 Cm thickness and 5m space with the next beam.

The red part of passage is wind entrance and passers also yellow part is as an exhaust of wind to outdoor space. For surveying of all façades, all part divided to small space, to exact exam of each point to reach the reaction of temperature differences and wind changes. For more survey spatially around edge of two different parts, each part divided to four more small parts to catch more result for chancing of each point that this dividing is around $\frac{1}{4}$ the other part, figure 4.

In this examination, the considered temperature of wind is around 350k.

In figure 5; it is clear, wind temperature in entrance is highlighted by warm color by temperature of 442K to 413K but by wind pass in passage length, the temperature decreased to 299.79K to 328.25K. By these changes, two faces of wall temperature will be appearing, inside and outside of passage. As figure 6 shows, the internal temperature is cooler than outer because of direct touch of wind to internal passage wall.

In wall section, as figure 7 shows, the wall's cool height of passage with pass of wind is coming down to be more in human scale. In Figure 8, there is reaching to internal face of passage wall to reflect temperature changes of passage length that how cool part is distributing in face of wall. It shows, wind pass in passage has caused to lose solar energy in wall material and wind is successful to take out this saved energy. In this regard, the difference between the warmer part and cooler part of passage is around 36K.

Wind pass in tested roofed alley found changes in speed and direction. As figure 10 shows, there are some compact red parts under each of individual roofed alley because of wind collision with each of individual beam, wind speed will find change. With focus to wind changes, there are three main groups; the first one is goes up with clash to beams, the second part has changes direction and turn back to inside of passage. The third part has not any touch to beams and has continues in straight direction. But as figure 9 and 10 are show, the first group could carry out the hot air that has a lighter weight. Also the second group could change the wind speed by their direction change and turned back to main wind corridor. This issue could inject to third wind part that has a straight direction to pass the passage. Combination of second and third group is resulted wind keep the most first speed in whole of passage to take out solar energy that saved in wall material of roofed alley.

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In follow this issue, as figure 11 and 12 show, the wind speed could kept in human scale that this issue resulted to provide comfortable condition for passers to face wind to be cooler also, as in figure 11 is clear, the bold red part has meaning about speed injection to wind corridor.

Conclusion

The sustainability of desert vernacular is about managing the balance between preservation and use. Dwellers of desert vernacular were aware of use of local materials which means they had ability to inspire the forms by the nature.

Roofed alley as one of sustainable and vernacular architecture has a bold role in development of sustainability by specific architectural shape. As it mentioned about the passive design of roofed alley, this specific passage could keep passers comfortable condition with mention to wind speed and environment temperature. Wind speed in roofed alley, could kept the most of first speed in human scale. This is resulted to take out solar energy that saved in surrounded wall to be cool.

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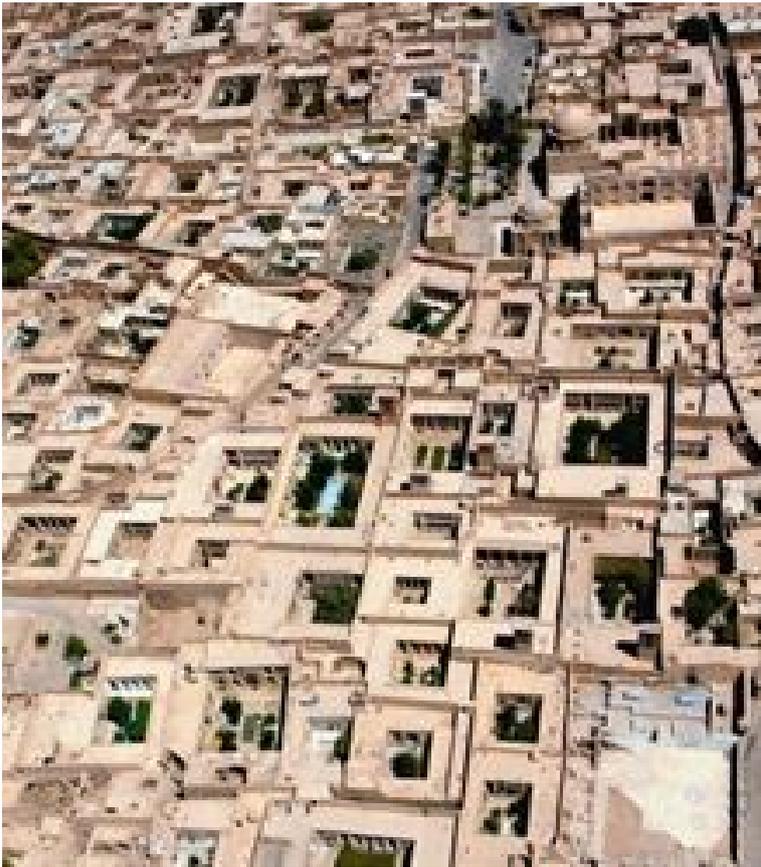
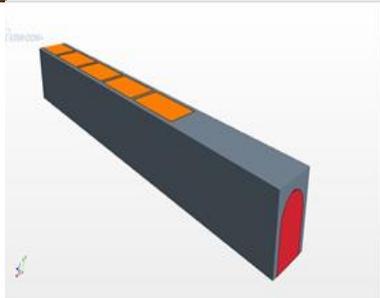


Fig. 1: Roofed alley of Yazd city, Iran
Fig. 2: The case study roofed alley, Yazd, Iran
Fig. 3: Simulated selected passage by CFD method



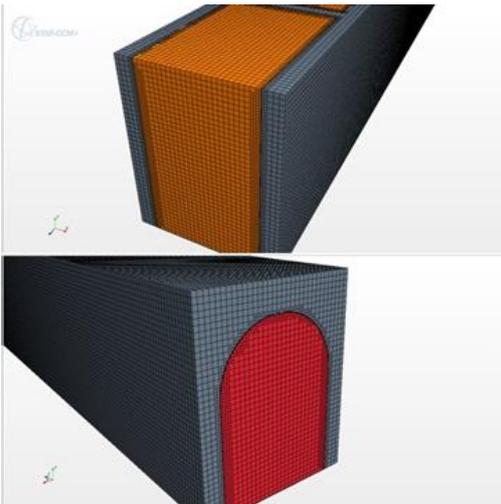
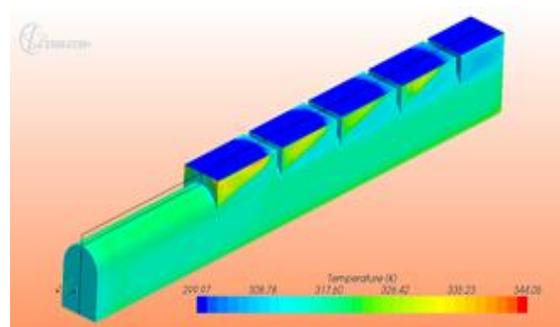
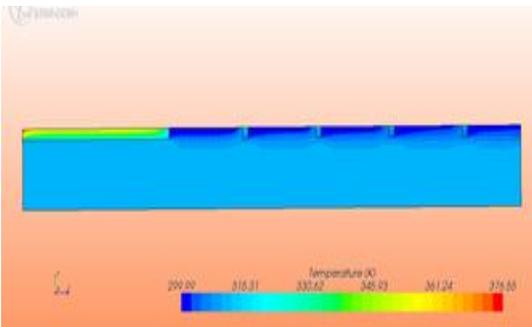
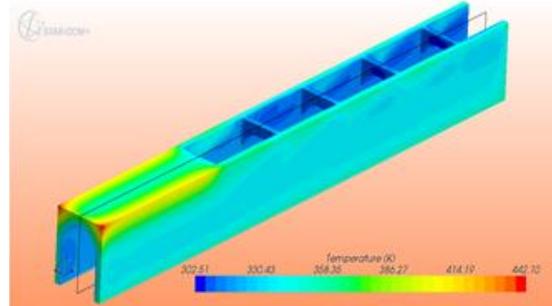
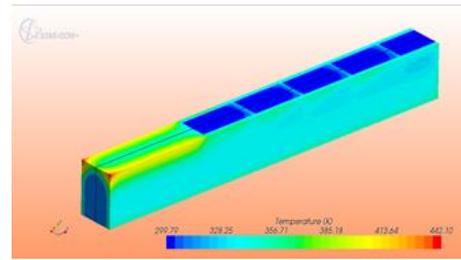


Fig. 4 Edge division to small points
Fig. 5 Temperature changes of passage
Fig. 6 Internal temperature differences



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Fig. 7 Climatically section of roofed alley
Fig. 8 Internal temperature changes of roofed alley
Fig. 9 Wind direction changes in roofed alley
Fig. 10 Wind direction changes in roofed alley

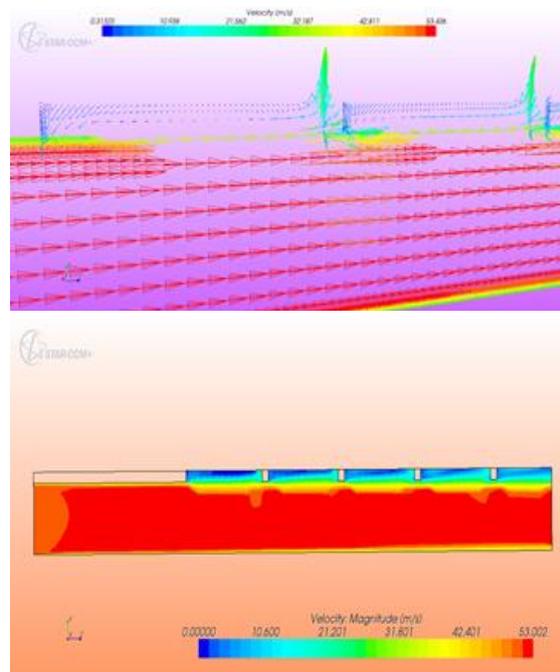
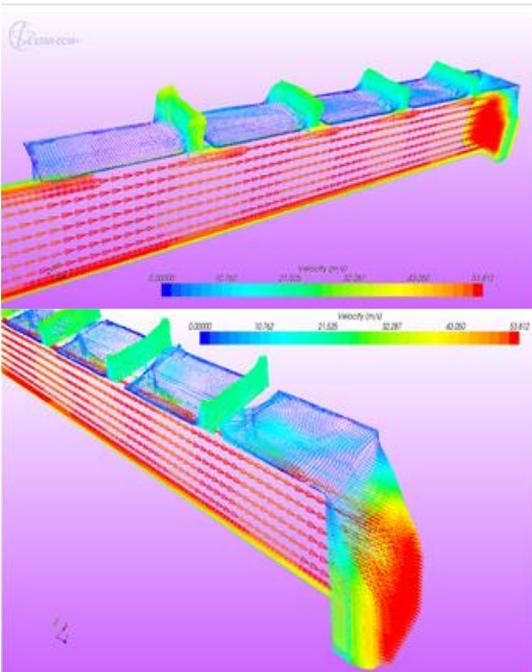


Fig. 11 Wind speed changes of roofed alley
Fig. 12 Roofed alley section by wind speed changes

Conference topic

B.2) Historical Cities II

Salvaguardare la città. Nicola Salvi e la perdita cappella Bolognetti di Roma

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Keywords: Salvi, Bolognetti, Roma, Cappella Palatina, Tardobarocco

Abstract

According to a universally shared idea, designing the city implies making some choices. In fact, the evolution of living standards suggests a continuous and constant transformation of the urban environment, which never remains in the same conditions.

For that reason the architect cannot just play the role of a sectoral professional but he must inevitably achieve a critical ability, in order to interpret the context in which he has to intervene. After all, the comparison with the historical constructions is now a necessary condition of contemporary architectural design.

Facing this complexity, the Bolognetti Chapel in Rome (1738-42) nowadays still lost due to the twentieth century enlargement of Nomentana street and one of the most interesting work by Nicola Salvi (1697-1751) after the Trevi Fountain may be a case study.

Therefore, a three-dimensional reconstruction of the Chapel may be hoped for a reflection upon the concept of private building with a public accessibility and, at the same time, to deepen the debate concerning the relationship between historical memory and the modern need of mobility adjustments.

Introduction

Di recente, la vicenda della Chiesa di S. Maria della Natività – normalmente nota come ‘Cappella Bolognetti’ – è stata oggetto di grande interesse da parte della storiografia¹,i principalmente in virtù della sua doppia valenza quale oratorio privato e, al contempo, luogo di culto aperto al pubblico. Infatti, affacciata sulla via Nomentana²(fig.01) – fuori dalla cinta muraria e inserita in un sistema di ville allora appartenenti per lo più alle nobili famiglie patrizie romane – questa piccola costruzione costituì uno dei più interessanti esiti della ricerca architettonica di Nicola Salvi (1697-1751), seppure sia annoverabile fra le sue opere meno conosciute.³ Purtroppo, la sua integrità venne compromessa agli albori del XX secolo, quando l'improvvida politica speculativa della Roma sabauda ne impose l'abbattimento al fine di ampliare l'antica strada consolare, senza lasciarne alcun rilievo. Tuttavia, nuove acquisizioni grafiche hanno consentito ora di ampliare le conoscenze su questo manufatto, facilitandone la comprensione e suggerendone altresì una più completa ipotesi ricostruttiva.

Appunti per una più completa conoscenza

Secondo un'interpretazione ormai consolidata della critica,⁴ l'intervento dell'architetto romano nella villa Bolognetti sarebbe da circoscrivere al periodo che va dal 1738 al 1742, momento in cui venne consacrato l'altare maggiore della cappella: un'ipotesi questa che, in effetti, potrebbe essere suffragata anche da alcune circostanze favorevoli. Anzitutto, la scomparsa nel 1737 del Conte Ferdinando (1661ca-1737) – «possessore della primogenitura» di casa Bolognetti – aprì all'interno della famiglia un acceso dibattito sull'eredità che vide accordarsi i due figli Giacomo e Mario e che, probabilmente, veicolò un necessario adeguamento della proprietà, in virtù delle posizioni cardine allora ricoperte dai due fratelli nella Corte pontificia.⁵ In particolare, proprio il secondogenito – Mons.

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1 *Si ringrazia soprattutto l'architetto Alexis De Rose per il suo aiuto nella realizzazione del modello 3D della Cappella. Inoltre grande riconoscenza va prof. Augusto Roca De Amicis per l'esortazione ad affrontare questo tema e i preziosi consigli e alla Dott.ssa Federica Giovannini dell'Archivio Storico Diocesano di Rimini (ASDRn) per l'assistenza fornita.

Sulla Cappella esiste una contenuta bibliografia a cui si rimanda; in particolare vedi SPESSO, 2000, pp. 47-80, in particolare p. 65; PICCARRETA, PACHECO, 2000, pp. 39-60.

2 Archivio di Stato di Roma (ASR), Notai A.C., vol. 4143, Franciscus Martorellus, Instrumenta Anni 1756, cc. 306r-306v [inventario dei beni di Villa Bolognetti datato Roma, 4 marzo 1756]: «Una villa posta fuori di porta Pia nella strada maestra che da detta Porta conduce a Sant'Agnesse confinante da una parte con d.a strada, dall'altra con la villa dell'Ill.ma Casa Patrizj, dall'altra con il collegio de' Marroniti e da piedi confinante con la vigna dell'Ill.mo Sig.r March.e Massimi di capacità di peze num.o cinquantatré in circa comprensivi le Fabriche, Orto, Viali, e Boschetto, ed un pezzo di canneto con Casino nobile, stanza per l'Ortolano, capannone di muro per li vasi, lavatore, finello, gobinaro, e Casino Vecchio della vigna già del Sig.r Duca Altemps, stalla nuova con granaro sopra, rimessa, e fienile a parte, et una cappella publica con stanze dietro per la saggrestia, e stanze superiori per commodo del Cappellano [...]».

3 Su Nicola Salvi e la sua attività esiste un'ampia bibliografia a cui si rimanda. In particolare vedi MATTHIAE, 1954, pp. 161-169; SCHIAVO, 1956, pp. 225-237; KIEVEN, 2000a, pp. 53-78. Un efficace riassunto si trova in PORTOGHESI, 2011, p. 738.

4 KIEVEN, 1991, p. 75.

5 La villa, infine, venne ceduta a Mario (MAZZARELLI, 1998, p. 161, nota 16).

Mario Bolognetti (1690-1756)⁶ – rappresentava allora una figura in ascesa nella curia, come testimonia la sua nomina nel 1739 a Tesoriere Generale della Reverenda Camera Apostolica in sostituzione di Mons. Carlo Maria Sacripante (1689-1758),⁷ elevato proprio in quell'anno al rango di Cardinale. Inoltre, lo stesso prelato fu partecipe della costruzione della nuova Mostra dell'Acqua Vergine (dal 1732), di cui – come noto – Nicola Salvi ne fu l'autore.⁸

Pertanto, non appare strana la selezione proprio di questo professionista per l'erezione della nuova cappella di famiglia, la cui edificazione avrebbe dovuto certamente rispondere alle istanze di magnificenza del committente, plausibilmente speranzoso di essere anch'egli eletto 'Principe' della Chiesa. E, forse, proprio questa sollecitazione sovrintese alla rapidità dei lavori che si conclusero in tempo per la sua elezione.

Da allora, la cappella rimase sostanzialmente inalterata nel tempo sino a che, nel 1902, non si procedette al suo abbattimento nell'ambito dei lavori di espansione di Roma che seguirono l'approvazione delle prime proposte di piano regolatore cittadino. ⁹Infatti, fin dal 1883 era stata individuata la necessità di ampliare la via Nomentana, e già nel 1892 l'amministrazione capitolina aveva stabilito il perimetro di arretramento delle ville prospicienti l'asse stradale, includendo nell'intervento anche quella

6 Raffinato collezionista come il padre, Mario fu avviato alla carriera ecclesiastica, come era generalmente tipico procede per i figli cadetti. Infatti, i Bolognetti erano allora all'apice della propria fortuna economica e intenti a consolidare il loro prestigio all'interno del contesto romano dove le famiglie forestiere, da sempre, non erano viste di buon occhio. Del resto, il Papato – caratterizzato da sempre da un forte accentramento statale – tendeva ad assegnare a Roma non soltanto la creazione ma anche l'interpretazione delle norme disciplinari della Chiesa. In tal senso, quindi, matrimoni prestigiosi e importanti cariche prelatizie all'interno dello Stato Ecclesiastico costituivano l'obiettivo principale a cui tendere per intrecciare rapporti duraturi con gli apparati di governo: traguardo che il religioso centrò appieno, arrivando a ricoprire importanti cariche sotto sia Clemente XII Corsini (1730-40) sia Benedetto XIV Lambertini (1740-58) che gli consegnò il berretto cardinalizio nel 1743. Vedi MAZZARELLI, 2008, pp. 189-190; MAZZARELLI, MERCORELLI, 2012, pp. 87-88. Sul potere papale in epoca moderna vedi PRODI, 1982, passim, in particolare p. 134.

7 Originario di Narni, questo nobile prelato romano nipote del Card. Giuseppe Sacripante fu Tesoriere Generale di Papa Clemente XII (1730-40) dal 1730 al 1739, quando venne promosso cardinal diacono di S. Maria in Aquiro e fu ascritto alla Congregazione dei Riti, del Concilio, del Buon Governo e della Sanità e Propaganda (concistoro del 30 settembre 1739). Vedi L. CARDELLA, Memorie storiche de' cardinali della Santa Romana Chiesa, VIII, Roma 1794, pp. 299-300. Il cardinale fu anche accademico d'onore di San Luca. Cfr. Archivio Storico dell'Accademia Nazionale di San Luca (ASL), Registri, vol. 50, cc. 171r-171v [seduta 5 luglio 1750].

8 Opera che lo stesso Milizia definì 'strepitosa'. Il giudizio poi che questi diede sull'architetto appare in questo frangente interessante. Infatti, Salvi è descritto come un artista versatile, erudito, studioso di Vitruvio nonché istruito «della Matematica, ed ebbe una tintura di Medicina e di Anatomia»: tutte caratteristiche proprie del moderno intellettuale. Vedi F. MILIZIA, Memorie degli architetti antichi e moderni, II, Venezia 1785, pp. 251-254. Salvi era dal 1733 [7 dicembre 1732] accademico di merito a San Luca, istituzione culturale del cui ambiente faceva parte anche il Card. Bolognetti ammessovi il 16 aprile 1747. Cfr. ASL, Registri, vol.50, c. 99r: «Sono stati à unica voce acclamati per Accad.ci [...] l'Em.o Sig.r Card. Mario Bolognetti [...]».

9 Sulle politiche di trasformazione dei primi anni dopo l'Unità d'Italia attorno all'antica via Pia (oggi via XX settembre) dove all'epoca sorgevano per lo più ancora vigne vedi INSOLERA, 1993, pp. 62, 69-79; TABARRINI, 2011, pp. 31-38.

porzione dell'antica «vigna Bolognetti» in cui si trovava la cappella.¹⁰ Tuttavia, i lavori attesero a cominciare e la demolizione tardò alcuni anni, sia perché ancora non urgente, sia verosimilmente per questioni legate alla costruzione dell'attuale Parrocchia di San Giuseppe (1902-1905). Difatti, all'epoca, i canonici regolari lateranensi stavano cercando di individuare una possibile area dove erigere la loro nuova chiesa: una 'succursale' della vicina Sant' Agnese, utile allo smaltimento del numero di fedeli in aumento per via dell'impennata edilizia, altrimenti gravitante solo sull'antica basilica.¹¹ Di conseguenza, la scelta era caduta proprio sul terreno di S. Maria della Natività che, in attesa di reperire sufficienti fondi, si presentava come una perfetta soluzione transitoria.¹² L'inizio però dell'allargamento del secondo tratto della via Nomentana impose inderogabilmente il suo smantellamento.

Così, con l'atterramento della cappella Bolognetti, la città venne a perdere – senza nemmeno prima produrne un adeguato repertorio di informazioni grafiche – un pregiato exemplar sui d'architettura. Ciononostante, le ricerche degli ultimi anni hanno permesso di avvicinarsi ad una ricostruzione 'abbastanza' fedele delle effettive forme, sebbene il limite insormontabile dato dalla mancanza di un alzato sufficientemente chiaro che indicasse con precisione l'organizzazione spaziale degli ambienti, che rimaneva dunque solo ipotizzabile.¹³ In tal senso, la fortunata individuazione di un rilievo – seppure non particolarmente dettagliato – dell'opera di Salvi, getta nuova luce sull'edificio e consente di integrare un discorso altrimenti ancora incompleto.¹⁴

Si tratta di due disegni, rispettivamente una pianta e una sezione (fig.02),

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10 Fino al 1869, la Cappella appartenne alla famiglia Cenci Bolognetti che proprio in quell'anno – a causa dei forti debiti e delle spese occorrenti per il suo mantenimento – la cedette ai marchesi Patrizi. Successivamente, a seguito del Regio Decreto del 14 febbraio 1889, si cominciò a pensare alla sua vendita che incontrò la favorevole ricerca dei padri lateranensi che la acquistarono il 21 luglio 1899. QUINTAVALLE, 2000, pp. 439-440.

11 Sulla storia di San Giuseppe a Via Nomentana – eretta su disegno di Carlo Busiri Vici è officiata ancora oggi dai Padri Canonici Regolari Lateranensi vedi QUINTAVALLE, 2007a, pp. 579-592, in particolare pp. 580, 586.

12 Infatti, in un memoriale sulle origini della Parrocchia di San Giuseppe si riporta che «mentre si raccoglievano le offerte, si vagliarono le varie proposte di terreni offerti nella zona, finché il Marchese Patrizi non acconsentì a vendere a prezzo favorevole, parte del terreno della sua villa su via Nomentana ove sorgeva una sua cappella dedicata alla Natività di Maria costruita nel 1742 e che, finché non fu demolita per l'allargamento della strada, il che avvenne nel giugno del 1902, servì da succursale per le esigenze parrocchiali della zona». Archivio Parrocchiale di San Giuseppe a via Nomentana (APSG), cart. H, L. LOSCHIAVO, La chiesa di S. Giuseppe in Via Nomentana, memoria dattilografata non datata, f. 1r.

13 M. Spesso, infatti, lamentava che «la conservazione di un solo disegno relativo alla sezione trasversale non consente di sciogliere completamente i dubbi sull'organizzazione spaziale dell'interno. [...] ma non è dato conoscere compiutamente l'articolazione spaziale e volumetrica tra i diversi ambienti, con relative altezze e coordinate membrature, [...]». Cfr. SPESSO, 2000, p. 65.

14 I due disegni, datati 1781, sono stati segnalati per la prima ed unica volta da Pier Giorgio Pasini nel 1974 nell'ambito dei disegni costituenti il taccuino dell'architetto Ruffillo Righini. Vedi PASINI, 1974, p. 131. Le informazioni principali sull'architetto e il taccuino che seguono nelle successive note fanno capo a questo singolo fondamentale contributo sul tema.

15 parte di un più cospicuo corpus di appunti¹⁶ risalenti all'ultimi anni del Settecento ed appartenuti a Ruffillo Righini (1757-c.1833), architetto originario di Forlimpopoli attivo principalmente a cavallo fra il XVIII e il XIX secolo. Interessante, ai fini dell'approfondimento del progetto della cappella in esame appare soprattutto la sezione. Infatti, dalla sua osservazione è possibile comprendere come l'edificio si articolasse in una grande aula centrale cinta da un deambulatorio accessorio organizzato su due livelli, secondo uno schema consolidato tipico delle cappelle palatine.¹⁷ In realtà, però, il percorso superiore non perimetrava tutto lo spazio centrale (fig.03). Altresì la balconata interessava solo tre lati del quadrato entro cui era iscritta l'aula, liberando a tutt'altezza la parete dedicata ad ospitare l'altare privilegiato.¹⁸ Di conseguenza, la centralizzazione era conseguita attraverso una serrata scansione degli spazi secondari che, chiaramente delimitati attraverso diaframmi colonnati tuscanici, permanevano nella loro condizione sussidiaria: una gerarchia accentuata anche dal gioco delle luci, concentrato solo sull'ambiente principale attraverso due grandi finestre termali. Pertanto, obiettivo probabile della composizione era quello di indirizzare tutta l'attenzione dell'osservatore sull'altare maggiore, in modo in parte memore di modalità berniniane, ma usato in un contesto in cui le componenti apparivano ben distinguibili e disponibili ad un nuovo assemblaggio condotto secondo i criteri della semplicità, dell'efficienza e dell'assoluta chiarezza compositiva. L'austera decorazione sottolineava questo atteggiamento come, del resto, l'ordine tuscanico applicato alle paraste dell'aula e la scelta di scavare gli angoli smussati attraverso unicamente quattro nicchie poste su rilievi riquadrati.

314 E anche la copertura appariva avallare questo indirizzo progettuale, configurandosi come una volta liscia articolata da otto sobri spicchi: una soluzione non estranea alla progettualità di Salvi in quanto già variamente declinata in Santa Maria in Gradi a Viterbo (dal 1736), e generalmente diffusa nella provincia romana.¹⁹ Inoltre – convalidando una prassi tradi-

15 ASDRn, R. RIGHINI, Schizzi architettonici e ornamentali, cc. 58v (Bolognetti fuori Porta Pia, Roma 1781) [pianta], 59r (villa Bolognetti, 1781) [sezione]. Il taccuino è conservato nella biblioteca del Seminario Vescovile di Rimini, seppure senza una collocazione precisa. I disegni sono stati individuati da chi scrive nell'ambito nella sua ricerca di dottorato di prossima pubblicazione.

16 Il volume si compone di 122 carte e copre un arco cronologico che spazia dal 1780 al 1827. All'interno sono contenuti diversi disegni che spaziano dal rilievo di chiese – a Roma come in Romagna – alla rappresentazione di particolari decorativi, tratti da diverse fonti. Sono presenti, a titolo esemplificativo, dettagli dell'apparato della cupola di Sant'Andrea al Quirinale [cc. 38v-39r], una raffigurazione di una finestra di Palazzo Falconieri [c.82r] e lo schema della volta della Sagrestia di S. Agostino [c.81r].

17 Il doppio livello si presenta come una reminiscenza risalente addirittura all'epoca carolingia. Infatti, fin da quell'epoca questo modello era molto diffuso (vedi ad esempio la Cappella Palatina di Aquisgrana) essendo la corte errante e avendo necessità il Sovrano di assistere alle funzioni religiose in via separata. In tempi più recenti, un tale artificio venne adottato anche da Filippo Juvarra (1678-1736) nella chiesa di S. Uberto a Venaria Reale (dal 1716). Vedi GRITTELLA, 1992, pp. 328-353, in particolare pp. 336-337.

18 Sull'altare vedi QUINTAVALLE, 2007b, pp. 38-40.

19 In alcuni casi, questo modo di articolare la calotta interna prevedeva anche l'uso di fasciature diagonali, dando luogo ad una soluzione che, al posto della più consueta cupola, si ritrova in diversi luoghi del Lazio: ad esempio, nella chiesa della SS. Trinità di Soriano nel Cimino (1765-76) – costruita nelle sue forme attuali dall'architetto Nicola Fagioli – o nella Chiesa e Monastero

zionale risalente già all'opera di Vignola (1507-73) – l'esterno non accusava l'interno e così, al di fuori, la chiesa si delineava come un lineare parallelepipedo sormontato da un basso tiburio, il tutto ritmato da severe paraste poste ad intervalli regolari. Dunque, l'impaginato di questo edificio biomorfico si risolveva in una struttura statica e massiva, in cui il valore tettonico si ergeva ad elemento espressivo e discriminante della composizione, mentre il vocabolario classico, stringato ed efficace, segnalava una ricerca di equilibrio e naturalezza, intesa quest'ultima quale razionalità di struttura e funzionalità di disposizione.

Infine, la timida impostazione del prospetto a trittico (fig.04) – altro eco berniniano – testimoniava le capacità di sintesi di Salvi che, formatosi nell'ambiente romano del primo Settecento, cercava un suo personale compromesso fra le trascorse esperienze del Barocco e la necessità di regolarizzare tali acquisizioni seguendo quel tracciato indicato dalla scuola di Carlo Fontana:²⁰ un risultato perfettamente conseguito nella Cappella Bolognetti.

Verso una più precisa ricostruzione

Appurata quindi l'importanza ricoperta dal manufatto all'interno del dibattito artistico che ha caratterizzato la Roma della prima metà del XVIII secolo, appare opportuno procedere a questo punto ad un nuovo tentativo di ricostruzione dello stesso.

Tale compito, però, non si è configurato come un'agevole operazione di trasposizione tridimensionale di disegni bidimensionali, giacché non poche sono state le incongruenze riscontrate fra i vari rilievi ad oggi pervenuti. Infatti, tralasciando gli aspetti strettamente connessi alle misure – nel complesso relativamente coerenti fra loro – la vera difficoltà si è identificata nella stessa riproduzione virtuale delle parti dell'edificio, del quale alcuni elementi appaiono non completamente definiti nei loro dettagli. In tal senso, quindi, si è rivelato assolutamente necessario e propedeutico un lavoro di ricognizione visiva di tutte le fonti grafiche che – poste in reciproca relazione – ha consentito di procedere ad una rielaborazione il più possibile aderente alla realtà riconoscibile dai documenti. Del resto, trattandosi a volte di appunti rapidi poi 'messi in pulito', sembra normale che si siano presentate delle piccole incoerenze formali, specialmente nell'ambito delle planimetrie. Fortunatamente, le possibilità offerte dagli

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della Sacra Famiglia di Sezze (1715-18), opera di Giuseppe Sardi. AZZARO, COCCIOLI, GALLAVOTTI CAVALLERO, ROCA DE AMICIS, 2014, pp. 138, 220, 290-291. In particolare la Chiesa di S. Maria in Gradi a Viterbo (rielaborazione di Salvi dal 1736) si presenta come un immediato precedente per la Cappella in esame. Infatti, punti di contatto sono rintracciabili anche nell'uso di un tiburio chiuso e nel sintagma delle due colonne sostenenti una porzione di trabeazione ribattute con paraste sulle murature laterali: un espediente per filtrare lo spazio presente anche nel piccolo oratorio Bolognetti. Sulla chiesa viterbese vedi VARAGNOLI, 2008, pp. 13-22.

²⁰ Su Carlo Fontana, architetto accademico di merito di San Luca dal 1667, e la professione architettonica dell'epoca vedi principalmente BRAHAM, HAGER, 1977, Introduction; HAGER, 2003, pp. 238-261; KIEVEN, 2000b, p. XLIII. Sulla formazione presso lo studio di Fontana vedi soprattutto BONACCORSO, 1998, pp. 104-107.

strumenti digitali hanno permesso di confrontare i diversi apparati, razionalizzare i disegni e correggere alcune imperfezioni dovute alla rappresentazione a mano libera.

Tuttavia, grande ostacolo ha comunque ricoperto la comprensione e la modellazione di alcune componenti dell'opera come, ad esempio, le cornici della trabeazione principale e quelle secondarie poste in corrispondenza degli affacci dei ballatoi, per via dell'assenza di profili adeguatamente particolareggiati a cui riferirsi.²¹ Lo stesso si può affermare per le parti non approfondite dalla sezione del Righini – come la copertura – o stilemi, come la tipologia dei balaustrini appena abbozzati.

Pertanto, la restituzione tridimensionale si è dunque configurata quale risultato di un minuzioso lavoro di analisi e riflessione su tutte le parti costituenti la cappella che, studiate singolarmente, sono state successivamente nuovamente assemblate, secondo criteri ragionati di analisi critica.²² A tal fine, hanno contribuito a questa serrata verifica le tavole pubblicate da Laterouilly²³ e Cipriani,²⁴ indispensabili per completare i pochi autografi di Salvi.²⁵ Un aiuto inaspettato è poi giunto dai disegni di Giuseppe Toma²⁶ e da una foto di fine Ottocento già nota.²⁷ Purtroppo, nessuna valida notizia è finora emersa da resoconti o relazioni di viaggio, probabilmente in ragione della stessa posizione della struttura che – defilata rispetto il contesto cittadino – si localizzava lungo un'arteria poco frequentata dai pellegrini, generalmente affluenti in città attraverso la via Salaria; condizione

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aggravata anche dalla destinazione a vigne della zona. Dunque, se dal punto di vista grafico le fonti non mancano, lo stesso non si può sostenere quanto alle descrizioni. Attualmente, infatti, nulla è anche possibile affermare sulle coloriture o eventuali trattamenti specifici

21 A tal proposito, si segnala che si è cercato di seguire al meglio la sezione del Righini, piuttosto che cercare di applicare per la redazione dei profili del cornicione modelli noti desunti ad esempio dal Vignola. In tal senso, dunque, la loro definizione non appare molto precisa ma quanto meno rispettosa del disegno di rilievo.

22 Del resto, il rilievo 3D sta sempre più diventando uno strumento fondamentale per lo studio dei manufatti architettonici e la diagnostica degli stessi al fine di procedere con restauri il più possibile mirati.

23 P. LETAROUILLY, *Edifices de Rome Moderne*, VI, London 1928, tav. 354: Plan de la Chapelle Bolognetti via Nomentana

24 G. B. CIPRIANI, *Itinerario figurato degli edifici più rimarchevoli di Roma* compilato da Giovan Battista Cipriani secondo il metodo del Vasi, Roma 1835, p.53

25 KIEVEN, 1991, pp. 77-78. Salvi non si occupò solo della Chiesa ma mise mano a tutta la villa Bolognetti: ad oggi della Cappella restano suoi un progetto per la facciata laterale (1738) e un disegno ritraente l'altare maggiore (1738). L'autrice segnala poi un ulteriore disegno dell'architetto riferendolo ad una soluzione alternativa per l'altare maggiore. In effetti, l'ordine appare coerente anche se le semicolonne addossate alla muratura confliggono con il resto della composizione.

26 Ivi, pp. 75-76. Allievo di Salvi, nato nel 1738 ca., fu maestro di Giuseppe Valadier. Questi realizzò un rilievo della Chiesa di S. Natività di Maria, un prospetto della facciata, una sezione trasversale con relativo prospetto.

27 Si tratta di una immagine denominata "Villa Massimo" e pubblicata in TOMASSETTI, 1979, p. 114; vedi per riproduzione QUINTAVALLE, 2000, p. 433. Vedi anche PICCARRETA, PACHECO, 2000, p. 54.

delle murature. Del resto, le poche indicazioni reperibili sulla Cappella non hanno ancora lasciato affiorare evidenze utili alla loro definizione. Ciononostante, appare verosimile ipotizzare che l'edificio fosse stato realizzato anche al suo interno in muratura, e successivamente intonacato. Ciò, parrebbe suggerito dal fatto che, al momento dell'atterramento, non è testimoniato il riutilizzo di nessun materiale della precedente chiesa come, d'altronde, non si sono conservate notizie riguardanti la vendita di marmi pregiati: della soppressione è noto che furono fatte salve solo tre lapidi e l'altare, ad oggi riconfigurati nella Sacrestia della parrocchia di San Giuseppe.²⁸ Lo stesso ragionamento è valido per il pavimento e tutte le altre rifiniture²⁹.

In ultima analisi, appare opportuno specificare che le novità riconoscibili da questa rielaborazione tridimensionale non hanno la pretesa di esaurire il discorso sulla Cappella Bolognetti. Tuttavia, le conoscenze offerte dal rilievo di Ruffillo Righini, coordinate con le note informazioni afferenti l'oratorio, consentono ora una più completa riflessione su questo edificio, il cui valore, probabilmente, non venne inizialmente riconosciuto dalle amministrazioni statali. Maggiori dettagli, plausibilmente, potranno in futuro rintracciarsi nei resoconti dei visitatori stranieri i quali, in viaggio verso Roma per tutto il Settecento in adempimento dei loro Grand Tour, magari avranno fatto tappa anche sulla via Nomentana, forse invitati in qualcuna delle ville fuori porta della nobiltà e forse avvisati dell'esistenza di un bel pezzo d'architettura.

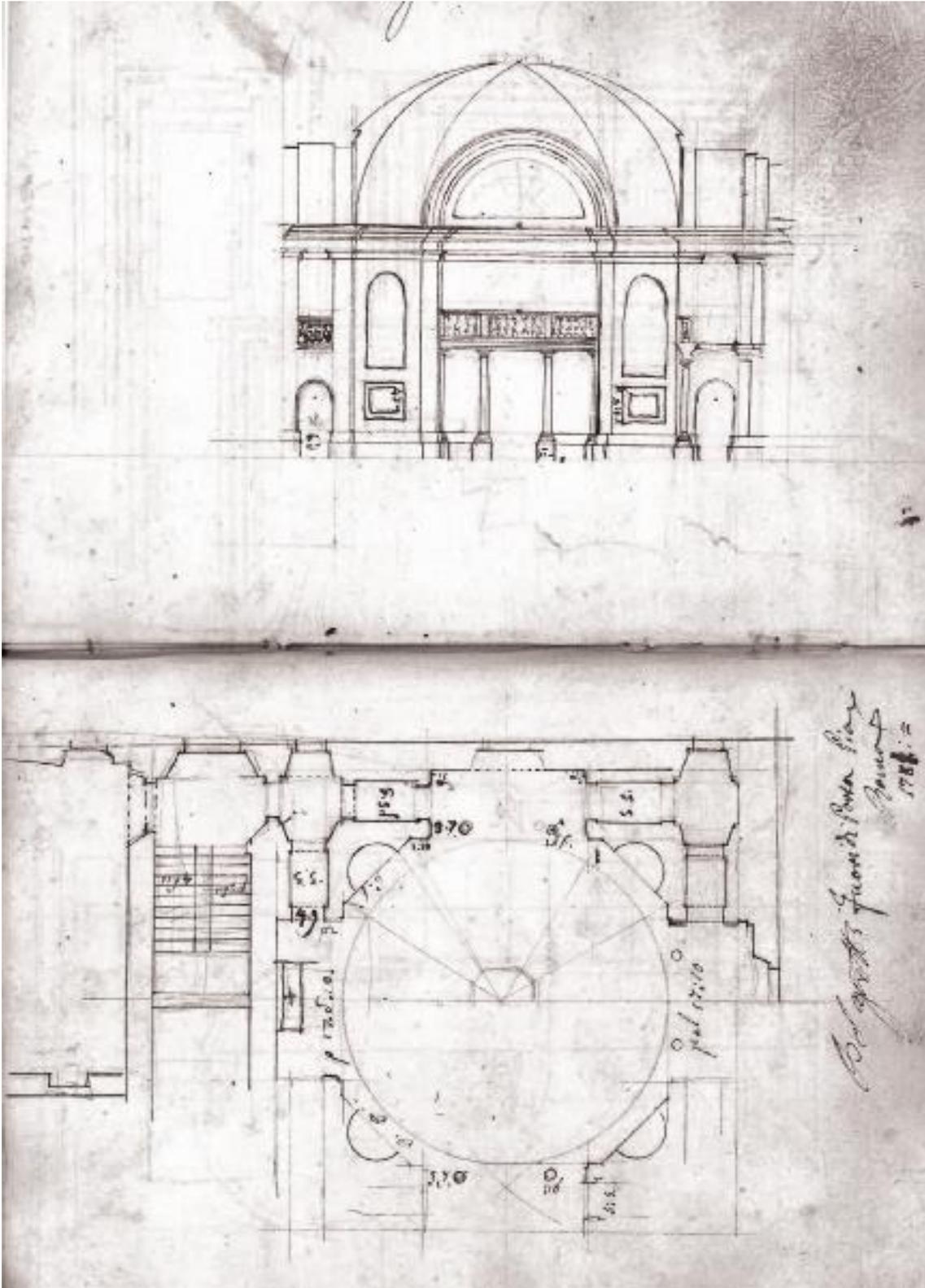
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28 Le tre epigrafi, però, non danno informazioni in merito alla costruzione o alla datazione dell'opera. Altresì si limitano a celebrare il committente ed a segnalare la sua consacrazione. Per il testo delle stesse vedi Cfr PICCARRETA, PACHECO, 2000, p. 59, nota 43.

29 Tuttavia, dalla lettura dell'inventario dei beni del Cardinale, redatto il 4 marzo 1756, è possibile sapere quali suppellettili fossero all'interno dell'edificio, nonché avere maggiori informazioni sulla Chiesa in sé. Vedi ASR, Notai A.C., vol. 4143, Franciscus Martorellus, Instrumenta Anni 1756, cc. 317v-318r: «Nella Cappella. Un'Altare stabile con ovato nel mezzo con grata à fogliami di lastra di rame dorato con sua gradella di legno svenato color di pietra diversa con sopra quattro candelieri, e croce compagna di legno dorato, e si stima la sola robba amovibile, s.6.. Una nicchia sopra detto Altare con dentro una statua di legno rappresentante la SS.ma Concezione con zoccolo simile svenato à verde antico con vetrata avanti, e [cambio carta] cornice attorno di legno intagliata e dorata». Cfr. MAZZARELLI, 1998, p. 165.

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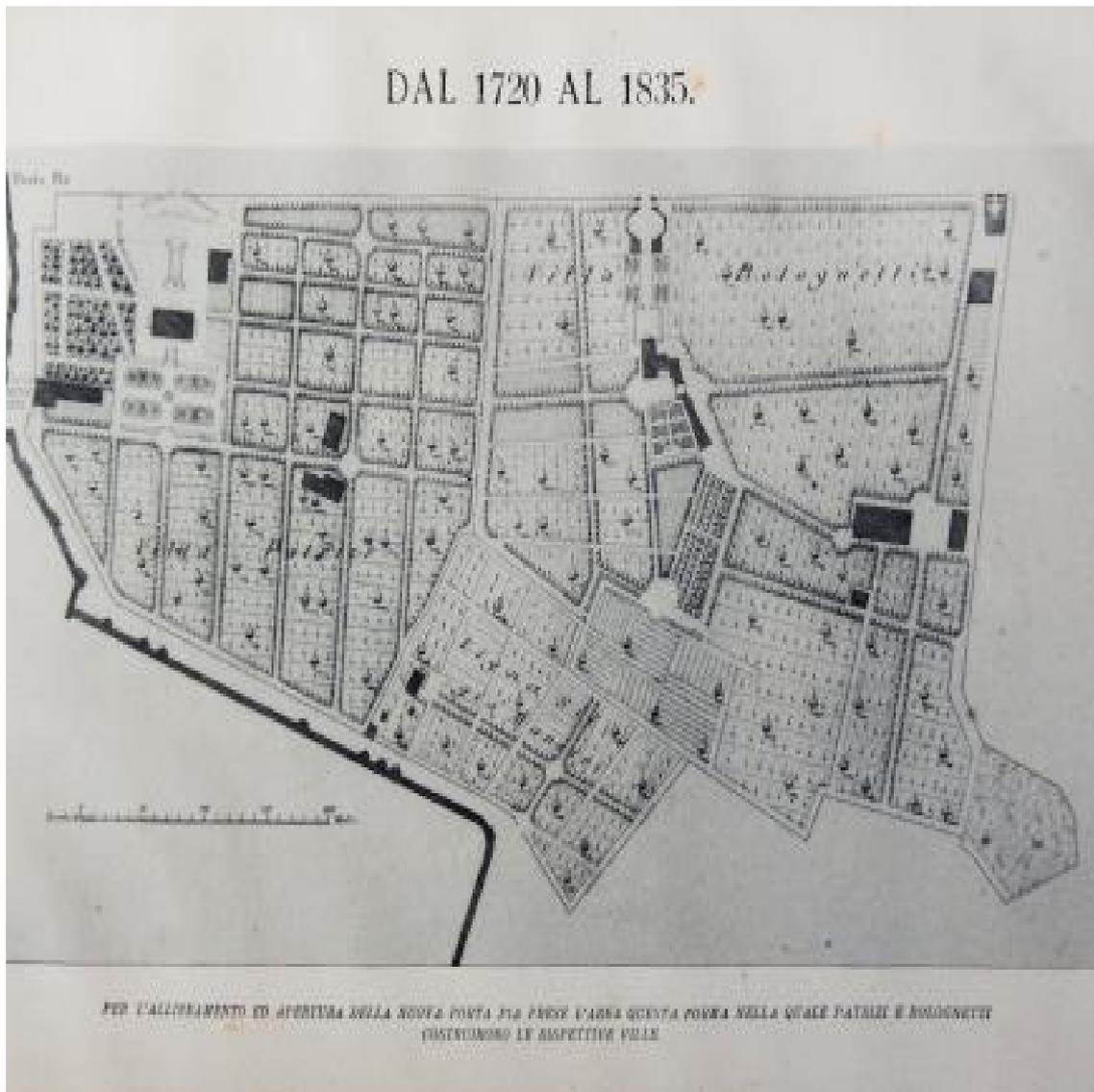
Fig. 1 Archivio Parrocchiale di San Giuseppe a Roma, cart. G, fasc. Atto capitolare per l'acquisto del terreno della succursale, volume inserito, p. II: Ignoto, Pianta delle proprietà Patrizi e Bolognetti, fase 1720-1835.



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Fig. 2 Archivio Storico Dicesano di Rimini, R. Righini, Schizzi architettonici e ornamentali, c. 58v: Bolognetti fuori Porta Pia, Roma 1781, pianta (1781); ASDRn, R. Righini, Schizzi architettonici e ornamentali, c. 59r: villa Bolognetti, 1781, sezione (1781)

Fig. 3 N. Salvi, Chiesa di S. Maria della Natività, Roma, 1738-42, vista dell'interno, ricostruzione tridimensionale (elaborazione di I. Benincampi e A. De Rose)

Fig. 4 N. Salvi, Chiesa di S. Maria della Natività, Roma, 1738-42, vista dell'esterno, ricostruzione tridimensionale (elaborazione di I. Benincampi e A. De Rose)

Rome. Archaeology's places and contemporary uses

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Keywords: Rome, urban archaeology, historical city, margin, urban fabric

Abstract

322 *The relationship between old and new, architecture and archeology, tradition and innovation is now a central theme in the history and practice of occidental architecture. The city of Rome represent the most important case in the world regarding the co-existence of archaeological remains within the consolidated urban fabric. The two reality live in a dichotomy that determines urban outcomes that can be divided into two main categories. The first one, nearest to the present days, is the musealization due to the presence of the many legal restrictions that isolate in someways the archaeological remains from the urban life and leave them in a sort of romantic contemplation made of solitude. The second one is the integration of the archaeological substrate with the fabric of the modern city. Exemplary is the case of Palazzo Savelli on the Teatro di Marcello where the historic legacy, determine the structure of the present building and produce the urban fabric of this part of city. In both cases the discovery of archaeological remains within the urban fabric change the existing spatial relationships and would require that these be reformulated through an architectural project. The intervention in an archaeological urban area should first define the margin; secondly entail a critical choice, that is a selection as to determine a hierarchy that allows the reading of these; finally ensure resemanticization and reintegration of archaeological artifact within the contemporary city through the inclusion of new uses. The aim of the research is to analyze this methodology in the city of Rome through the study of significant projects that have explored this issue.*

Urban archaeology: the Roman case

The treatment of archaeology in Rome is a major issue for several reasons. If we go deeper into the division between expert and common knowledge, from the specialists' point of view ruins often constitute exclusive and irreplaceable evidence for past societies and for history. This very attribute tends to focus on the past and can obscure ongoing relationships between past and present, especially when dealing with remains brought to light by excavation. The 'documentary' or evidential value afforded by archaeological remains, however, only rarely attracts a general or public rather than a specialist audience. This is the case for the thousands of visible, still 'silent', remains that occupy the metropolitan area of Rome. Paradoxically such plenitude allows for indifference. Despite or perhaps because of being surrounded by such plentiful heritage, Italian people, and notably Romans, seem unaware of the values and potentialities of their legacy. At the same time, a crucial aspect of our regulatory framework is the fact that protection is conceived and perceived as a system of regulations set up in order to avoid almost all new development according to a conformative approach, rather than to achieve a better living environment in consonance with a performative one.

The treatment of physical remains from the past should in fact go far beyond their material survival into the realms of intangible heritage related to cultural and symbolic values. Monuments can provide communities with a new sense of memory while keeping alive the awareness of present times, but an interruption in the use and functionality of archaeological remains can be a major obstacle to this. Individual and collective perceptions of what has vanished and what still remains, are at stake along with new learning experiences, and of course other dimensions such as critical interpretation and communication. The conservation theories of Brandi (1963) and Manieri Elia (1998) have been influential in Italy; in these, the interpretation, restoration and planning of archaeological heritage is seen as a possible solution to the problem. This starts by recognising the irreducible ambiguity of the 'ruin', that is always a fragment but has inherent *imageability*, that is, 'the quality of a physical object, which gives an observer a strong, vivid image'¹. When perceived as part of landscape, the artefact somehow becomes involved in the natural aging processes of its environment. Such an association between ruins and nature only works if the ruin has an appropriately defined surrounding area that can act as its *contesto di accoglienza*, its 'welcoming frame' or 'setting'.

On a different conceptual level, the complexity of dealing with archaeological remains in a city such as Rome arises primarily from the uncertain location and unpredictable physicality of the remains. Even though indirect, remote and noninvasive techniques such as photo-interpretation and geophysical prospecting now exist, and preventive knowledge can keep risk within limits (Palazzo 2008), unexpected remains can still suddenly force new choices and costs 'archaeological risk' is

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¹ Lynch, K. (1960) *The Image of the City* (MIT Press, Cambridge), p.67.

therefore a crucial issue in any urban planning or development process. Another factor is that the intrinsic complexity of urban places through time requires 'urban archaeology' to be a 'global archaeological research that deals with a living city, or an entire settlement sequence, from its foundation to the present day, without privileging one period over another'². Such an approach requires contributions from many disciplines and the engagement of civil society within a participatory approach. In practice, however, the distinctive and sometimes conflicting perspectives and philosophies of different specialists such as archaeologists, restorers and urban planners can create a major arena for ambiguity. Each professional group can have a different role in the same project, with differing opinions on the inherent relevance of archaeological remains or of their formal and functional value, on conservation measures and on their future treatment in the urban fabric. This segmentation of knowledge is deeply rooted in positivism but although the different action fields and competences may appear to be exclusive, they are in practice overlapping or contradictory, with resultant potentially negative effects on decision-making.

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The successful combination of expert and common knowledge to help find a balance between continuity and innovation remains a challenge, and especially so in urban contexts. In this chapter, our overview of Roman experience is framed in the light of the European Landscape Convention - the 'Florence Convention', of which Italy is one of the instigators and a great champion - that notably defines 'the aspirations of the public with regard to the landscape features of their surroundings' as being critical to the management and planning of well-functioning, socially responsive landscapes.

Historic centre

For Rome's core area, there is a long history of trying to come to terms with the archaeological heritage. In 1813, during the Napoleonic occupation, the architect Louis-Martin Berthault drew up ambitious plans for a large area of Rome next to the Italian garden of Horti Farnesiani on the norther side of the Palatine Hill. He was loosely inspired by the principles of English landscape gardens by following the instructions of the Minister of the Interior, Jean-Pierre de Montalivet, to take into consideration all the monuments and those which provided their setting, to manage access to the most celebrated from their most picturesque viewpoints without neglecting the lesser monuments - already, therefore an impossibly large task³. His grand proposal was to carry out a large-scale and extensive clearance to create a new promenade - 'un Jardin du Capitole' - that would connect all the monuments in the Forum area between the Capitoline Hill and the Colosseum. Berthault began his work with extensive

² Francovich, R. and Manacorda, D. (2000) *Dizionario di Archeologia, Voce 'Archeologia Urbana'* (Laterza, Rome and Bari), p.43. Translation by author.

³ Boyer, F. (1943) La conservation des monuments antiques à Rome sous Napoléon. *Comptes Rendus des Séances de l'Académie des Inscriptions et Belles-Lettres*, 87 e année, 1, p.101-108.

clearance and excavations, but the project was never completed. In 1887, however, after the proclamation in 1870 of Rome as the capital of the new Italian nation, a series of programs were launched to clear away the later layers of the city, including streets and houses, and to incorporate the resultant isolated classical-period ruins within a so-called 'Monumental Area'. By then, there had been major steps towards a sensible treatment of memories linked to the value of complexity and recognition of heritage as a 'palimpsest'. Such assumptions, although exposed to radical reversals during the Fascist period, were reflected in the archaeologist Rodolfo Lanciani's *Forma Urbis Romae* (1901) created in the late nineteenth century, an outstanding and detailed representation of ancient Rome within the Aurelian walls, laid out on the modern city map at a scale of 1:1.000. Lanciani's main source for this map - the surviving fragments of the massive Severan (early third century) 'Marble Plan' - was matched with a meticulous documentation of the archaeological discoveries that had come to light during hectic construction activities. Soon after, in the early twentieth century, stratigraphic excavation methods and extensive restoration techniques (anastylosis) were introduced into the Monumental Area by archaeologist Giacomo Boni. This included the didactic use of plants and greenery to support a virtual reconstruction of the layout and structure of buildings that had been entirely or partly lost.

The 'liberation' of the major ruins of the ancient city from everyday life by creating the Monumental Area, however, was in fact also an 'exile', separating past from present. It caused major destruction of the urban fabric and the deportation of thousands of inhabitants from the centre of the city to distant suburbs, the so-called *borgate*. After the Second World War, increasing social awareness led to a cultural debate more focused on the 'use of history', within the broad range of options and positions between the treatment of the Monumental Area's archaeological remains as 'monuments' to be preserved as a civic or national symbol, and their interpretation as 'documents' to be handed over to public enjoyment under specific rules and conditions. The cleavage between the two options has gradually softened, according to the shared statement that 'the modern city must connect with, but not damage the ancient city, enabling the two cities, the old and modern, to touch and communicate with each other'⁴. 325

During the 1980s and 1990s, municipal initiatives led to a much more radical conflict. A competition for the re-arrangement of the Monumental Area was the occasion for a strong debate between the needs of the living city and arguments for protecting archaeological remains. A proposal to expand the Forum area by 'restoring' - or, more accurately, reconstructing - the Velia Hill, that had been 'cleared' in the Mussolini period during the construction of the *Via dei Fori Imperiali*, would have meant sacrificing this great monumental artery of the city, and further damaging mobility

4 Panella R. (2014) *Roma la città dei Fori. Progetto di sistemazione dell'area archeologica tra piazza Venezia e il Colosseo* (Prospettive Edizioni, Rome), p.98. Translation by author.

throughout the municipality⁵. Almost thirty years later, construction sites of the new C-line of the metro, excavated below the archaeological levels, invade the spaces of a busy, if not chaotic city. Interruptions and changes to the building of the metro caused by unexpected archaeological discoveries take the discussion back years.

The suburbs and the Agro Romano

In the 1960s, the entire municipal area was for the first time placed under zoning regulations focused on protective restrictions affecting not only single sites and ruins but also their wider settings and contexts. Despite this, the planning process was manifestly careless with regards even to documented remains such as the numerous structures of the Roman era along main roads from the city. Compulsory alignments and 'non-buildability' constraints were defined but have seldom been enforced. This is despite a series of inventories and cartographic and topographic studies focusing on the Roman countryside, culminating in the 1980s with the *Historical Archaeological Monumental Map of the Suburbs and Roman Countryside* (known as the *Carta dell'Agro*, or the *Agro Map*).

326 The *Agro Map* inventoried at a scale of 1:10.000 several thousand artefacts of historical monumental, natural and/or landscape interest, both above ground and buried, and formally controlled or not. It offered some protection even to elements at high risk of being transformed or destroyed, such as sites with pottery fragments. Just as Lanciani's *Forma* nearly a hundred years earlier, the *Agro Map* makes immediately visible the coincidence between the pre-existing archaeological elements and new proposals and provisions. Coloured symbols defined site type, period, condition and conservation status. For ancient linear elements such as paths and aqueducts (often only visible intermittently, even on aerial photos), a 'hypothetical' - or predictive - factor was introduced reflecting reliability of knowledge. In 2008, a new city plan, supported by a *Map for Quality* (2008), combined information from the *Agro Map* with a *New Forma Urbis Romae* (2001) that had been produced for the area within the Aurelian walls. The *Map for Quality*, which was intended to address the main weaknesses of previous legislation, was not limited to a census of cultural heritage. It also provided criteria and guidelines for a range of possible interventions according to preservation needs and transformation criteria. It laid out, by means of a handbook, the case-by-case transformation processes needed, subject to differing site conditions -public land or private areas- and the legibility of ruins; further, pre-approval processes were specially conceived to reduce the impact of new development on structures that are not visible on the surface. In real practice, the biggest discrepancies between conservation and transformation occurred in a number of social housing neighborhoods. Archaeological risk played a part in ongoing development processes by

⁵ Insolera, I. and Perego, F. (1983). *Storia Moderna dei Fori di Roma: Archeologia e Città*, (Laterza, Rome and Bari), p.79.

determining 'compromise solutions' in alignments and layouts of urban fabric. In the case of urban gaps in the suburbs recently incorporated into the city, there has been some disruption in the continuity of the remains and a loss of coherence, and some more or less accidental demolitions of minor finds. Trivial solutions are common, almost routine, however: so far, mostly within the urban fringe, when remains are secured, often in a fragmentary state, they are fenced off and isolated from 'real life' this broadly ensures physical preservation and avoids degradation, but diminishes other, social and cultural, values.

When ruins are preserved in squares, plazas and public gardens, they do not always have a true dialogue with their surroundings. Their locations may even represent a deterrent to good preservation as they are often associated with urban decay rather than with urban regeneration. Where monuments are not integrated with their surroundings, there is a risk that in the absence of pro-active conservation the degradation process may paradoxically intensify, as shown by a series of cases. In the late 1990s, in order to overcome these difficulties, the Municipality of Rome enacted the so-called 'Programma Centopiazze' with the intention of creating or recovering several public spaces. This initiative ought to have taken an overview of the entire urban context in both historic and current functional and access terms, but in practice it was little more than a series of unconnected ideas, which mostly proved that a bench, some trees and a memorial stone do not create a sustainable plaza. Even when a good design concept was found, implementation fell short of planning, as in the Piazza Castano in the deprived neighborhoods of Tor Bella Monaca far away from the city centre, which included a stretch of the ancient Via Gabina, still paved with ancient slabs but completely ignored except for vandalism and drug trafficking. The Piazza Castano concept was in fact co-produced through a series of thirty public meetings during which community hostility and distrust gradually turned into curiosity and interest, and produced a dialogue that socially validated the project and met local needs. The archaeological authorities were gradually convinced of the added value of allowing the Via Gabina to be brought back into use as a pathway, to connect the Piazza with other places in the neighborhood, while the architects borrowed form and materials (travertine and coloured concrete aggregates) from the classical period as well as utilizing traditional elements of the Roman landscape such as pines, cypresses, and Tibetan cheny (*prunus serrula*). The design worked well for a while, until undermined by poor maintenance, thus increasing the indifference of the inhabitants.

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How should heritage work in Rome.

Several proposals have been made in the past ten years for the regeneration of the central Monumental Area, but without extensive realization. One, the project 'Ancient Rome, a Value for Modern Rome: Regeneration and Enhancement of the Monumental Area', aimed to improve the use and accessibility of underused sites within an area of 107 hectares including

the Circus Maximus, the Theatre of Marcellus, the Capitol, the Imperial and Roman forums, the Palatine Hill, the Valley of the Colosseum, and the Oppian and Celio hills. The basic intention was to offer the citizens' community a wide and rich archaeological context of the centre of Rome, in compliance with the local road network that, especially in the early twentieth century, had determined the fragmentation of that archaeological site. The goal was a balanced urban structure both respectful of the archaeological background and consistent with the contemporary city and well linked to outer city areas. The latest initiative was advertised by the municipality as 'Roma Capitale' and presented to the press as a cultural plan based on educational issues. It aims at recomposing the archaeological landscape of Rome in a unitary path of utility and knowledge, addressing social issues whilst enhancing sense of place. One subprogram, the 'Rome Grand Tour European Programme' (March 2014), concerns ten sites, mostly in the city centre (the Celio Park, the Oppian Hill, the Tor de Conti, Trajan's Market, the Capitol, the theatre of Marcellus, the Via dei Cerchi and the Circus Maximus) with two (Pliny's Villa in Castelfusano and the Centocelle Park, Ad Duas Lauros and Piscina Villas) in the outskirts. The programme characterises contemporary use by defining for each location a predominant function. Thus, the Capitol represents the place for *Public Life*, Trajan's Market *Progress*, the Circus Maximus *Free Time*, the Theatre of Marcellus *Art*, the Via dei Cerchi *Identity*, the Tor de Conti *Welcoming*, the Oppian Hill *Welfare*, the Celio Park *Life Styles*, Pliny's Villa *Leisure and Meditation*, the Centocelle Park *Domestic Life and Agricultural Production*. The project, however, shows no strategy consistent with the initial hypothesis of educational purposes and recovery or strengthening of place-identity. In other words, it fails to meet the challenge of conveying within each location their multiple narratives of place, but rather threatens to impose a simulated reality rather than authentic experience.

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The main objective, in contrast, ought to be to demonstrate the cultural meaning of the environment (historic, anthropological and social) to help motivate and support particular options for enhancement. The foundations of thematic itineraries should be laid by offering to the community the historical data about formation and growth processes, the social organization of human settlements in the different periods, and by highlighting past ways of living and artistic expressiveness. That is to say, archaeologists and planners should today put the narrative potential of sites and ruins into practice. The cultural value of urban artefacts is fully understandable only when they are placed in some sort of wider context or network of related places. Understanding and appreciation, and thus use and valuing, of the Monumental Area, for example, would benefit from further exploiting its connection with the Appian Way and from a more efficient relationship with the Tiber, thus enabling fuller enjoyment and use of the cultural landscape of the ancient suburbs and countryside southwest of the city as far as the extraordinary complex of Portus and Ostia on the coast. Networks based on archaeological remains within and

outside the city, linked by tourist paths, will need to follow effective scientific and communicative behavioral models using up-to-date tools. The model will conceptually differ from past protection and conservation practices that generate a cultural distance between the ruins and the modern city that surrounds them, which ensures that ruins are isolated and inaccessible, 'silent' and unintelligible, and discouraging of community interaction. Yet, properly explained and communicated, the monumental highlights and the archaeological substrata could be re-integrated with the living city and its citizenry in perception, even though not always physically.

If the material expressions of different historical phases of the territory were thus to be enhanced, residents and visitors could more readily experience a stimulating and living environment that is emotionally and aesthetically rich and symbolically informative. In such a well-organized living environment, the vestiges of the past would no longer appear as foreign object that limit and complicate the citizens' daily life; rather, they would become the essential components of the everyday theatre of their existence. The memory of the past could play an active role in contemporary culture and citizenship. An example can be found in the Theatre of Marcellus (Figure 1), recently re-embedded in its setting, or 'welcoming frame', displaying a sequence of open spaces within the urban scene, notably by adapting the excavated remains to the urban context through an efficient pedestrian path. The Theatre area has become part of the local urban road network and is now easily usable by tourists and citizens alike. It has been given back to the city in the form of a cultural/urban site, suitable for hosting cultural events too. The richness and depth of Rome's historical and archaeological palimpsest is indeed particularly suited to such a project of reconnection (Figure 2).

Rome, like other major cities, is the expression of a highly complex evolutionary process based on the continued influence of its ancient and medieval predecessors. It has for 2,000 years been the norm in Rome for an inherited genetic code of townscape, or of urban planning, or of architectural masses, to dictate the next layer. The continual redevelopment within the constraints of the ancient street blocks - the *insulae* - has been one method; another has been the 'consumption' of monuments, metabolized or reinvented through reoccupation and overwritings, throughout the Middle Ages. In Rome, therefore, antiquity coexists with many phases and layers, creating peculiar mutations; the separation of past from present with which we have become familiar is a new, not a traditional, situation. In the history of Rome, there are numerous cases of reuse of ancient urban spaces and buildings, such as the Circus Agonalis (Piazza Navona) which was re-appropriated from the ninth century onwards by secular estates and the churches of St Nicholas of the Lorrains and St Agnes in Agone, both repeatedly transformed. Another example is the transformation process affecting the church of St Barbara of the Librarians, which owes its geometry to the fact that it is hosted by one of the Theatre of Pompey's spans, whilst the curvilinear development of the Via di Grotta Pinta has been generated by the layout of Pompey's theatre (Figure 3-4), the very

nature of the theatre thus becoming a permanence, conveyed also by the name of the street referring to its ancient vaulted and frescoed arches. The ancient city, or at least its real memory, thus lives extensively within the current one. It defines layouts of buildings and the shape of open spaces in the historical districts, where it is common to observe specific evolutions of the urban fabric that result from the presence of previous objects such as ancient structures or boundary lines. In his contribution to 'Medioevo Negato', a forum organized by the Italian Historical Institute for the Middle Ages, Michel Gras, Director of the Ecole Française de Rome, spoke for the centrality of the cultural role of the city in the context of demonstrations against the funding cuts to cultural institutions after the 2010 Stability Law⁶. He argued that the presence in Rome of so many research and cultural institutions from almost every European country is due to the city being a key point of reference in the field of archaeological, monumental and artistic heritage its primacy is also supported by the presence of invaluable public and non-public archives. Since 1946, soon after the Second World War and before the Treaty of Rome in 1957, therefore, all the non-Italian cultural institutions, together with the most representative Italian ones, met in Rome to discuss the repairing of some of the damage caused by two world wars, and to give life to an international coordination network, to which Italian universities, the monuments' curators and the large archival centers are still closely linked. Rome therefore hosts a very active microcosm from all over Europe whose aim is to foster valuable contributions to European culture and identity. From Michel Gras' words, one can understand which energies should be involved in the planning and implementation of the enhancement of Rome's heritage, and what kind of expectations from civil society, even the non-Italian one, should be addressed. The methodological basis of the initiative is the Code of Cultural Heritage and Landscape⁷, which identifies enhancement as a complex, mainly economic and regulatory system, designed to achieve greater use and social benefits from heritage, or to realize the appropriate information flow and implement experiences. Good communication is also required, to connect enhancement to potential users, and not surprisingly heritage education has recently been fully integrated within EU initiatives aimed at promoting a shared European culture. The Framework Convention on the Value of Cultural Heritage for Society⁸ is a cornerstone of future policy, emphasizing the two-way relationship between heritage education and citizenship. The Convention synthesizes all the previous elaborations in terms of culture, society and environment, from the Universal Declaration of Human Rights (1948) to the European Landscape Convention⁹. In particular, the Faro Convention sets out principles to which states may refer in order to establish a virtuous relationship between communities and

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6 Gras, M. (2011) Report in *Medioevo Negato*, ed. Istituto Storico Italiano per il Medioevo. www.isime.it/1nedioevo_negato/Gras_2011_02.03.pdf.

7 Legislative Decree of 22 January 2004, no. 42

8 Faro Convention, Council of Europe, STCE no. 199/2006

9 Florence Convention, Council of Europe, STCE no. 176/2000

their tangible and intangible culture, in space and over time. Heritage is made of history, traditions and territory, together with its components of value and significance: the territory becomes a landscape when it is recognized as a significant product coming from the interaction between populations and their natural and non-natural environment.

Conclusion

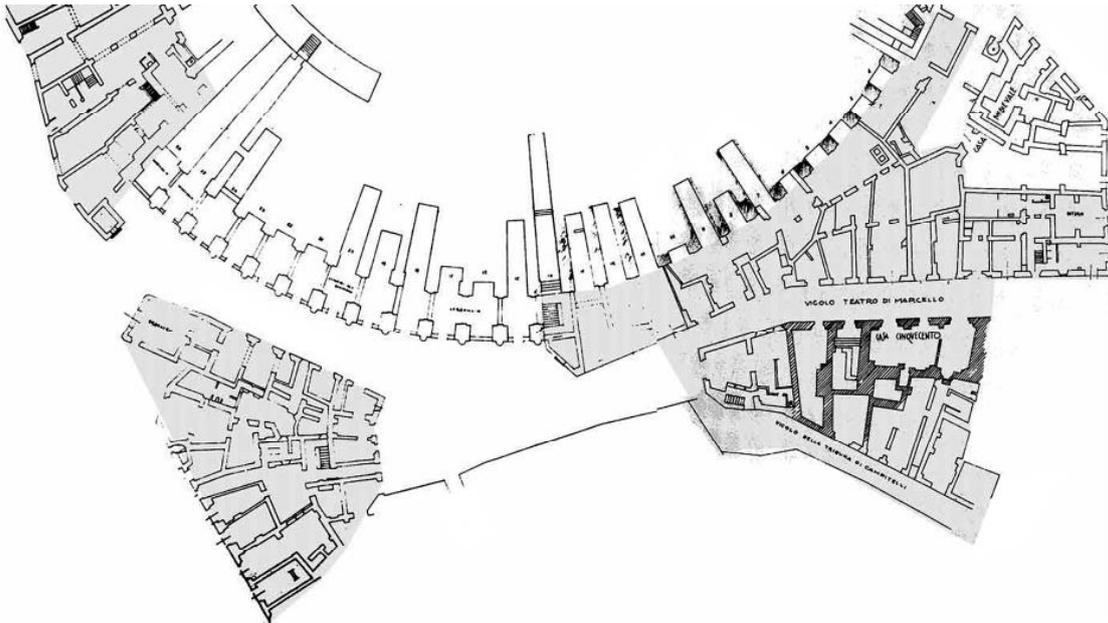
Heritage enhancement and transmission in Rome would benefit from substantial reform to make historical and cultural knowledge of the past more pervasive. It is crucial to reach the general public. Participation planning processes at the neighborhood level became mandatory in 2006, but they have not been appropriately enforced. Nor is achieving participation the only problem. We have emphasized that the enjoyment and use of historic remains is being curtailed by lack of information and the poor organization of their exhibition space or settings.

These drawbacks could be partly overcome by presenting ruins and monuments through multiple stories related to the material culture, technologies and lifestyles of our predecessors, and through place-based approaches developed from the concept of 'imageability'. By doing so, a deeper knowledge of the past could be embedded within common perceptions, and foster inherent cultural experiences. Such knowledge can be shared by transferring methods of experimental archaeology to experiential learning activities based on excavation and restoration stages and on research and documentation activities, in addition to the learning of Latin and Italian by foreigners. The institutions in charge of protection can find a synergy with national and international organizations responsible for training: educational paths are traced so that schools and universities, by adopting a part of the heritage, develop scientific knowledge about it, while providing the disclosure of cultural data, thereby facilitating protection and development practices. Communication and comprehension also depend on reuse practices, and restoration can serve this very aim, shaping and forming the most reliable interpretations of heritage. The goal is to establish a sense of familiarity with history and ancient culture, gained by familiarity with the material objects that are such a major part of heritage. This would be matched by the reconnection - as described above, following the age-old practice of reusing buildings and streets in new townscapes - of the ancient and the new, the past and the present, within Rome's cultural and social life.

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Fig. 1 From the top, the plan of Marcellus's theatre with marked in gray the areas demolished during the thirties of the twentieth century. Photos of Palazzo Savelli facade built on the ruins of the theater. Elaboration by the author.

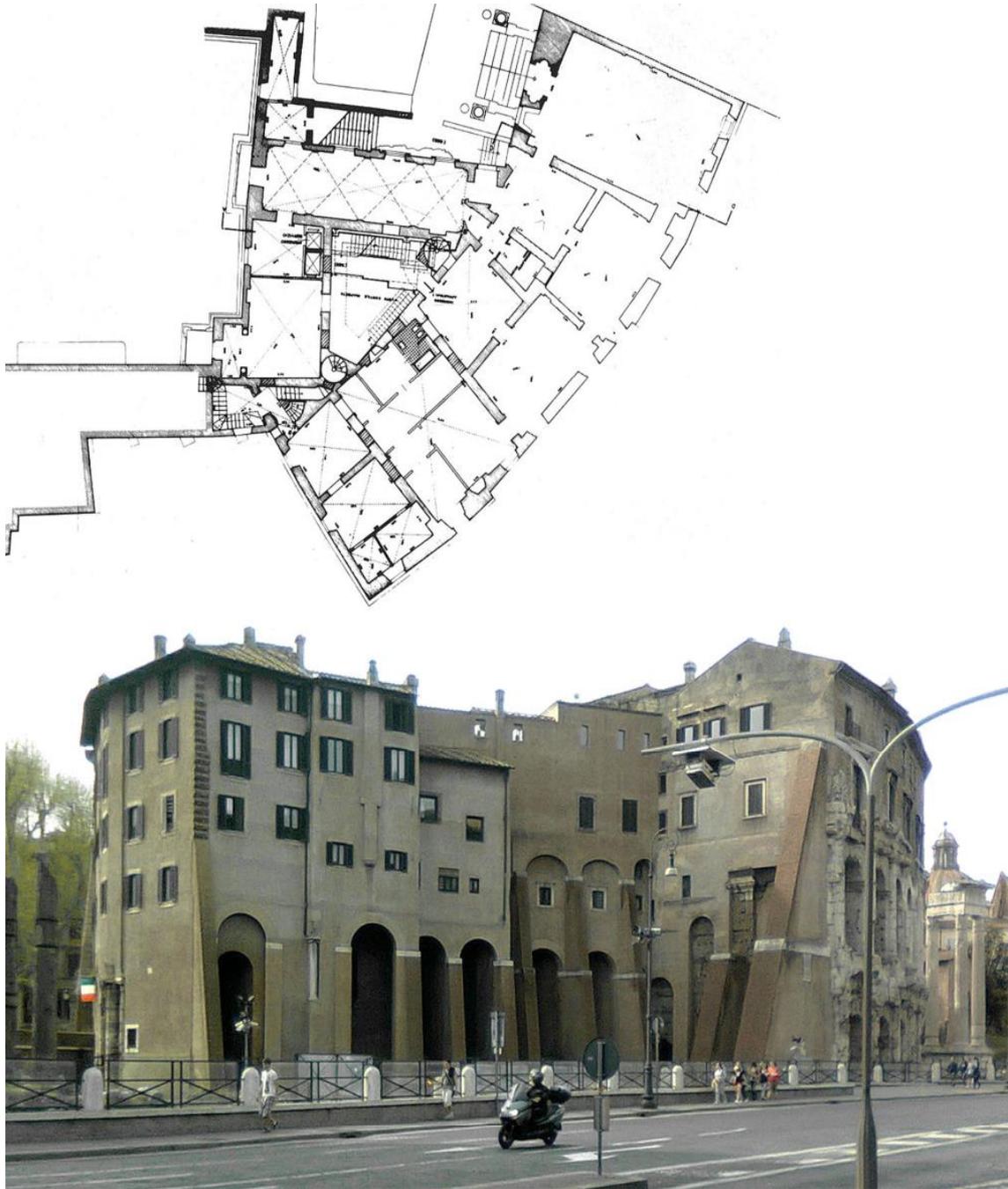
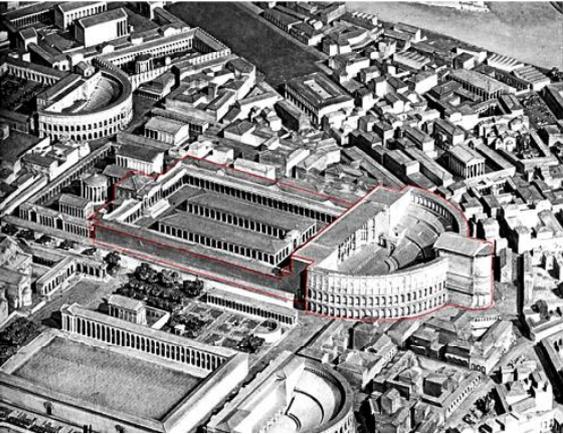
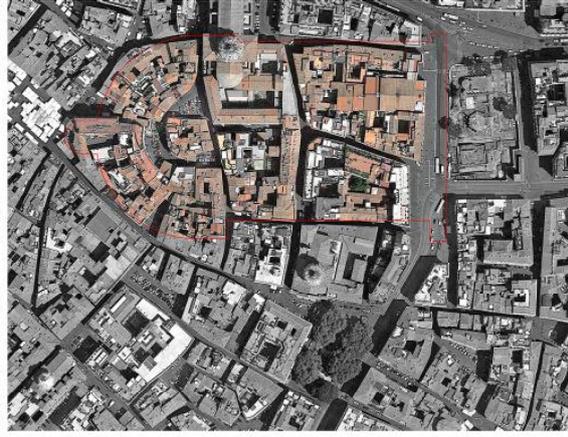
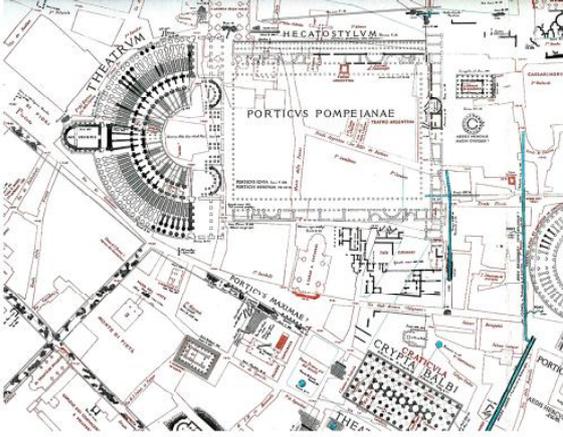


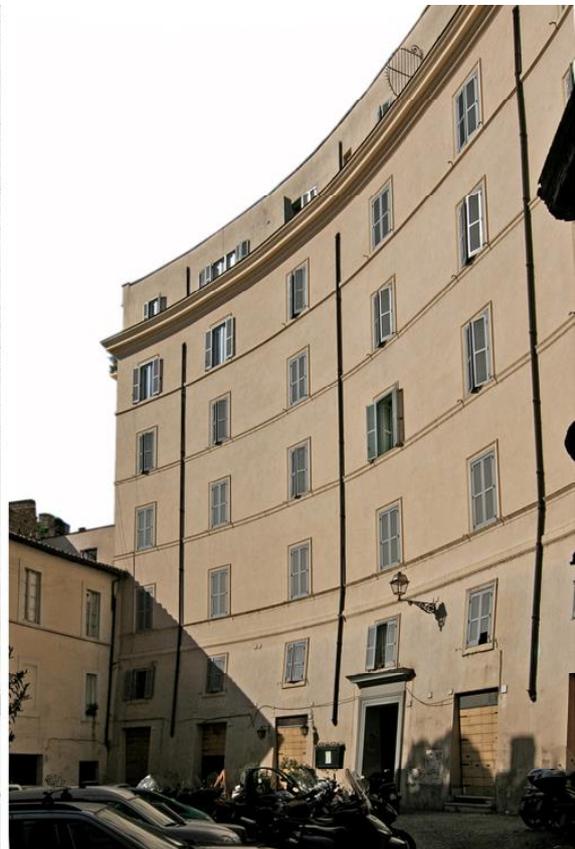
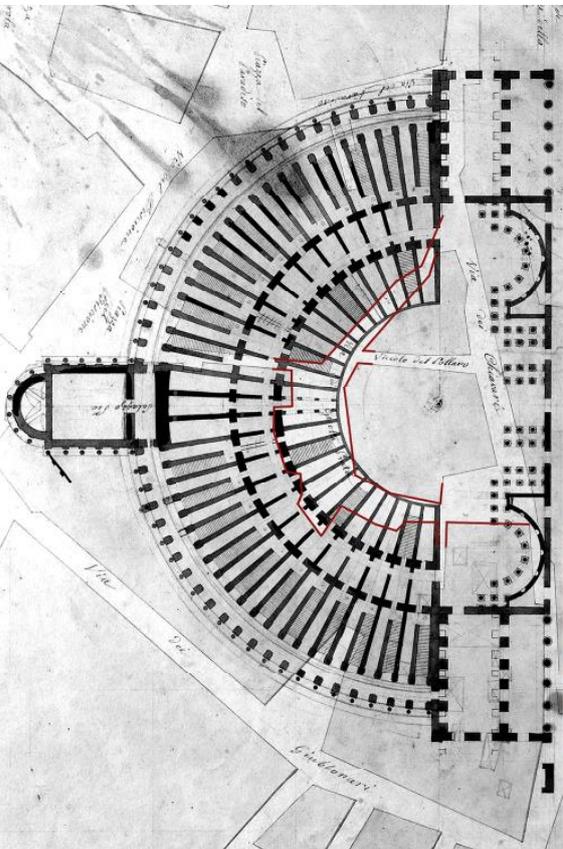
Fig. 2 From the top, the plan of the fifth floor of Palazzo Orsini. Photos of Palazzo Orsini facade built on the ruins of the theater. Elaboration by the author.

Fig. 3 From the left top in clockwise direction the maps of Forma Urbis Romae - tavola XXI (R. Lanciani 1893-1901). Aerial photos of the urban fabric with marked in red the perimeter of Pompey's theater and Forum. Axonometric view the urban fabric at the Republican age compared with the current status. Elaboration by the author.

Fig. 4 From left to right, plan of the theatre of Pompey excavation superimposed on the cadastral map, marked in red the edges of via di Grotta Pinta. Elevation of the peculiar facade of the row houses in via di Grotta Pinta derived from the massive walls of the ancient Roman theater. Elaboration by the author.



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Finding the roman amphitheater and horrea of Lisbon

Systemic Decomposition as a methodology for analyzing complex urban fabrics

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Keywords: Urban Fabric, Complexity, Decomposition, Roman Amphitheater,
Lisbon

Abstract

336 *The urban fabric in consolidated historic cities presents extremely complex forms as a result of its evolutionary process. In order to overcome and analyze this apparent incomprehensible complexity architects such as Ernesto Nathan Rogers, Carlo Aymonino or Philippe Panerai proposed the conceptual decomposition and simplification of the urban form in to several elementary systems, namely the Streets, the Plots and the Buildings. This methodological process known as Formal Decomposition allows to separate, isolate and study each urban elementary system, making them simpler, more visible and evident, and thus highlighting shapes and structures that would otherwise, diluted in the complexity of the urban fabric, be hardly perceivable.*

The communication seeks to demonstrate not only how the methodology of Formal Decomposition is a fundamental instrument in understanding the historical city morphology, but also to show how through it we can explain the genesis and evolution of the complex forms in the urban fabric. As an example we propose the study of the Moorish neighborhood of Alfama in Lisbon, whose extremely complex urban forms rather than being simply justified as a result of its Islamic origin are in fact the probable appropriation of pre-existing roman buildings, namely a large roman amphitheater and a roman Horrea.

Introduction

The urban fabric in consolidated historic cities presents extremely complex forms. In this complexity, the result of a multiplicity of factors, agents and elements competing often in a contradictory manner over time, lays the main difficulty for the morphological study of such areas as well as their appealing nature. As a methodology for overcoming and analyzing this apparent incomprehensible complexity, architects such as Ernesto Nathan Rogers or Carlo Aymonino or Philippe Panerai proposed the decomposition and simplification of the urban fabric in to several elementary systems.

According to Philippe Panerai in his work "Analyze Urbain" the term "fabric" works as a metaphor that refers either to biology or to textiles, in whose essence we must always bear in mind the notion of structure and order, a skeleton or a mesh, ie something that supports and organizes several different elementary systems (Panerai, 1999). By "elementary system" we must understand a primary system, belonging to a single order, composed of a single class of objects. In biology the human body can be understood as a complex system consisting of several elementary systems (circulatory system, lymphatic system, bone structure ...). Transposing this view to the urban fabric, elementary systems should be understood as sets of urban elements that belong to the same classification. And it is precisely in the understanding of these individualized parts that lies the key to the understanding of the complex whole which is the urban form.

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The view that it is possible to understand the urban fabric from its disassembly and synthesis in different elementary parts has its genesis in the studies realized by the Italian architects in the twentieth century as Ernesto Nathan Rogers who understands the element as "una parte che contiene il tutto cui è parte" (Rogers, 1981) or Carlo Aymonino when he affirms "la relación por tanto se encuentra por partes e en modos diversos según las partes;...la forma general, si puede tener un sentido, no se encuentra ya en su conjunto sino también por partes y algunas de éstas no tienen forma"(Pozo, 1997)

Philippe Panerai considers that, among the various possible definitions, the one that allows a better understanding of the urban fabric considers it as fundamentally constituted from the overlapping three systems composed of three orders of urban elements: The Roads, the Plots and the Buildings (Panerai, 1999). By Roads we must understand the Urban Layout, that is the system defined by the line that separates the public space from the private space defining, the streets from the blocks. The Plots constitute the private property system, that is, the structure defined by the various properties or plots that divide the interior space of each block. Finally, the Buildings constitute the built space, occupying and dividing the space inside each parcel. This definition, according to the author, evidences the characteristics that allow the different parts of the city to evolve while maintaining the cohesion of the whole and the clarity of the structure (figure 1). Given the apparently "incomprehensible" complexity of urban form, the Systemic Decomposition in three elementary systems (Urban Layout, Plots,

and Buildings) allows us to methodologically condense this complexity into its most fundamental aspects making them simpler, more noticeable and more evident. These systems materialize a conceptual process of disassembly into parts of a set that only in theory exist individually. Structures and processes that are otherwise diluted on the complexity of the urban fabric are thus more clearly presented. On the other hand, Systemic Decomposition also has the potential to emphasize relations between the various individualized systems, which, being not obvious, are obviously intrinsic since all these systems are part of the same whole, coexisting in an inseparable way. (Figure 1)

Among the elementary systems presented, we highlight the study of the Plot System as a fundamental element of understanding the urban form. This system presents the private universe, in general divided and occupied in its totality several parcels or plots, each belonging to different owners. The representation of the division between the various plots defines the structure of private property, that is, the plot elementary system. This system reflect a drawing that is occasionally merely abstract, not having a concrete or evident physical expression, often depending either on study of notary archives or on an interpretation of the urban fabric, by identifying the lines separating the different buildings as well as the walls that divide the backyard spaces.

338 The Plot System holds in its lines the interests of many different interests. This characteristic makes this system have a particular resistance to transformation, as we consider that each individual tends to oppose the alteration of his property by others, whereas on the other hand for example, the appropriation of the public space by private individuals is only conditional on the existence of a public power which guarantees its defense and care. The resistance implies that the plots tend to maintain their shape, however, through small changes over large periods of time it is natural that the plots can also be subject to significant changes. These changes are usually made from joining with other adjacent plots, or from splitting existing plots. Fractioning is particularly important since it often occurs in the transformation of large rural parcels into urban parcels along the growth of the city. This is accomplished from planned and regulated operations generating tendentially regular fabrics composed of orthogonal parcels of similar size, or through gradual and progressive division of large parcels giving rise to irregular shapes (Coelho, 2013). However the transformation of the plots is produced in such a way that it allows the reconstruction of the initial scheme of allotment as well as the process of its evolution. On the other hand, the overall shape and organization of the Plot System also tends to reflect the urban culture, that is, the moment in which it was initially established and structured. Each period establishes in the plot structure a reflection of its urban culture, which, given its resistance, is successively reinterpreted and reused by the following occupations. The study of the Plot structure thus allows identifying the initial period of implantation, as well as its subsequent evolution.

A clear example of the differences between the formal differences

between plots established at different times can be found in the city of Évora where the parcel of the oldest nucleus, composed of irregular plots with relatively similar widths and depths, contrasts strongly with the plots outside the old city wall, with a narrow and deep shape. This contrast is certainly due to the fact that the plot within the nucleus has its origin in the Mediterranean tradition of the patio house present in the Roman and Islamic culture, while on the other hand the plots outside have their origin in the northern Peninsular tradition of the so-called Gothic lot established in the post-reconquest period. It is possible to find similar but less contrasting situations in any Portuguese city, allowing, even if the original buildings have been replaced, to establish the moment of implantation of the fabric.

The contrast between the resistance to the transformation of the Plots and the Buildings relative volatility and rapid transformation capacity evidences another fundamental aspect of the Plot System: The plot articulates the scale of the building and the scale of the city, between the rapid construction time of the buildings and the slow time of the urban layout. This duality between the resistance of plots to change and the relative volatility of buildings, between permanence and change, ensures the capacity of the urban fabric to be successively renewed, while maintaining the coherence of the urban structure. That is, even altering each building, the way it is conditioned by the dimensions and shape of its parcel ensures the maintenance of the overall cohesion of the urban set. (Figure 2)

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The plots extraordinary resistance is particularly visible in moments of deep and sudden urban transformation, in which public or private actors try to impose new orders on the existing fabric. These moments produce extremely peculiar situations that dramatically illustrate the ability of an individual, of a property, to resist the change imposed by their surroundings. Classic examples can be found on the American Holdouts, typical in the first half of the twentieth century, or the Chinese Nail Houses in the early 21st century. These real enclaves may seem to have their existence, in the long run, condemned, however, it is common to find examples whose permanence ends up assuming a dynamic of its own, perpetuating itself in time and constituting authentic windows for the past of the city. A clear example of these situations can be found in the Sixth Avenue numbers 1240 and 1258 in New York, two typical early 20th-century American Row Houses that resisted the construction of the Rockefeller Center complex being preserved amidst the colossal midtown skyscrapers

Even when there is a radical change, planned and produced in a systematic way, that realizes a deep and extensive reorganization of the properties; it is common find fragments from the old plot structure in the new composition. This type of radical change can be found, for example, in the transformation of rural peripheral areas into new urban areas at the end of the 19th century, such as the Example of Barcelona (figure 2) or even the Avenidas Novas in Lisbon. In both cases we find traces of the old rural properties that were maintained and were incorporated in the new urban structure, allowing its reading. The plot study makes these situations

of contrast particularly evident, also illustrating one of its main characteristics, the capacity of the plot drawing to synthesize with great clarity the complexity of the urban fabric.

The plot resistance to transformation and the clarity with which its design represents the fabric allows in a particularly efficient way to identify in it regularities, singularities, contrasts or consonances. This piece thus presents itself as a fundamental element in the identification of particular formal structures among which stand out: Homogeneous or regular zones in which the urban fabric will often have a common origin associated with a same temporal period; separation or fracture lines between different zones, ie a definition of old boundaries like city walls, or the separation between urban areas defined in different periods; variations in the plot rhythms that allow us to understand the in wich they were established period; and finally concordances or dissonances in particular alignments, indicative of past structures who were overlapped by the urban fabric such as walls, old monumental buildings or old reformed plot structures.

The extraordinary resistance of the plots to the transformation, its capacity to structure and define the urban fabric and the synthetic clarity with which it represents the complexity of the same, makes this a fundamental element both to identify old structures as to reconstruct the whole evolutionary process that contributed to the present urban forms materialization, giving particular emphasis on the urban form reading and understanding.

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The Alfama neighborhood in Lisbon

In the study of the urban fabric of Lisbon, the neighborhood of Alfama emerges as a paradigmatic example of the almost chaotic complexity in which the urban form can sometimes present. The labyrinthine nature of Alfama is often associated with its medieval origins, namely Islamic or Moorish, such as the name "Alfama", that is to say Al-hamma (.....) from the Arabic word hammām (.....) meaning baths or spas, indicates. Given the abundance of natural water sources in the area, this toponymy can be a reference to ancient Arab baths. The Alfama neighborhood was established in its present form during the Middle Ages as the eastern suburb of the Islamic city of Lisbon. Located next to the Tagus River, it occupies the entirety of the small valley that separates the S. Jorge castle hill from the hill of São Vicente de Fora. Its marginal nature and medieval origins are well visible in the particularly irregular urban fabric, of fragmented and dense configuration, with blocks occupied almost entirely by small plots and multi-story buildings facing small, dark, winding streets and stairs. Given the formal complexity of the urban fabric, Alfama presents itself as an ideal case for the application of the systemic decomposition methodology, in particular from the standpoint of the plot system.

The initial analysis of the layout and topography reveals how the urban form of Alfama is strongly conditioned by topography. Main streets, alleys and squares follow in detail the morphology imposed by contour and water lines. This logic is particularly evident in the nascent area, however the western area although dominated by a strong topography in its limits

is composed mainly by a central area of smooth and steady slope were the urban form adopts an urban structure close to orthogonality. The study of the plot reinforces this reading, allowing the identification of two large anomalous areas in the western zone of the neighborhood. The first is associated with a peculiar semi-elliptical deviation of the S. Pedro street natural route towards the Alfama City Wall Gate. The second is associated with a set of orthogonal plots with a set cohesion that is significantly superior to the rest of the irregular urban fabric.

The semi-elliptical shaped structure presents in the plots of its neighboring blocks a set of convergent radial alignments, evidencing an anomalous compositional logic, clearly differentiated from the apparent orthogonal tendency that characterizes the rest Alfama fabric in this area. This dichotomy allows us to assume a particular origin for this area, different from that which led to the orthogonality of its surroundings. Considering the exceptional nature of the evidenced alignments, which denounce a form of elliptical nature, and through its comparison with the geometric matrix of the Roman amphitheatres, we find that this structure obeys the same principles of general composition. It is possible to find a partial concordance not only in the curvature of the perimeter of the building but also in several of the radial alignments that design its interior structure, allowing us to propose the hypothesis that its origin may be the appropriation of the Lisbon Roman amphitheater ruins, after its abandonment (Figure 3).

Roman amphitheatres are one of the most paradigmatic examples in the study of the preservation of ancient structures in urban fabrics. These buildings, generally built on the outskirts of large cities, in the face of the instability of the end of the empire and the diminution of the resources necessary for their maintenance, like other great Roman public buildings, suffer a period of abandonment, being used as quarries for the construction of new structures such as walls. With the later growth and expansion of the medieval cities these large ruined buildings are gradually occupied by dwellings. The plots of these first dwellings define a shape conditioned by the surviving architectural elements (reused foundations, abandoned old walls ...). The ancient design of the amphitheatres is thus partially preserved by the new buildings that are built on its ruins. Over time, the successive destruction and construction of new buildings on the ancient amphitheatres will gradually erase their last architectural remains, however, the plot structure defined at first by the ruins will tend to maintain its design to the present.

The close proximity between the alignments used for the design of the amphitheater geometry and the alignments present in the urban fabric is particularly evident on the west side of S. Miguel street, corresponding to the lower elevation of the building. In fact, this area, besides clearly showing the pronounced curvature corresponding to the perimeter limit of the Roman building, also shows the convergence of typical alignments of the amphitheatres, clearly standing out over the rest of the fabric. On the other hand, in the upper zone, in the old Adiça Street, the structure of the amphitheater is practically nonexistent. This divergence between

a zone at the low level, which obeys the geometrical composition of the amphitheater, and a high, fragmented area, obeying another compositional logic, may be a consequence of the amphitheater structure itself. This would probably be built according to two different structural logics. A higher zone in which the spectator seats (cavea) would be directly implanted over the slope, and a lower zone in which the seats would be supported by a sequence of radial and concentric large supporting walls. Thus, during the reoccupation of the amphitheater, the buildings erected in the higher zone would have been built directly in over the seating area, that is, on the rocky side of the slope, according their own logics, related more to the slope than to the few pre-existences remains. On the other hand, in the lower zone, even after a significant dismantling of the amphitheater, numerous remains of the supporting walls and their foundations would survive. These would significantly condition the layout of the new buildings, preserving traces of their shape to the present time

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The circular design of amphitheatres, characteristic of arenas and their spectator seats are more evident than the remains of monumental orthogonal buildings, easily camouflaged by the common fabric. On the other hand, the constructive quality and massive dimension of antitheater support foundations often persists to the destruction of time to a higher degree than simpler structures. However the reading of the Plot structure allowed to also identify a set of plots that with an orthogonal nature that stand out from their surroundings by the particular cohesion they present. This set of plots occupying two blocks define a design composed of two large central cores with a substantially quadrangular shape around which other smaller parcels aggregate. The quadrangular nuclei both have an identical dimension, so the outer boundaries tend to maintain the same distance from the central spaces. The plots define a design similar to a large rectangular structure with two central courtyards (figure 4).

The set of plots draws a plot structure with unique characteristics both by comparison to the rest the Alfama fabric as well as by comparison with other examples of Portuguese medieval fabrics. This raises the question for the origin of this unusual design. The dimension of the structure with approximately 71m by 37m denounces some monumentality presupposing the know-how and the availability of resources for its construction. A construction with these dimensions to be built in a period between the recent past and the Late Middle Ages would certainly have left records of its existence, on the other hand, an earlier construction, in the High Middle Ages, although possible, considering the peripheral reality and instability in these centuries, is unlikely. It thus seems safe to consider as the most probable hypothesis this structure also shares a Roman matrix, in whose architecture is frequent to find similar models based on central courtyards. Classical examples of such solutions can be found in Roman villas or roman domus, however, the location between the city's gates and the river as well as the large size of the structure seems to point to another type of occupation aimed at commercial uses.

The Comparison with large Roman commercial building typologies such

as the Horrea or the Macellums highlights several examples with similar designs and dimensions to the Alfama structure, namely the Macellums of Pozzuoli and Pompeii as well as the Horrea of Ostia Antica and Rome. These buildings have great quadrangular or rectangular courtyards that function like central spaces that aggregate set of divisions distributed in its periphery. Of the given examples one in particular stands out, the Horrea Vespasiani in Rome a building whose design, also structured according to two courtyards, follows with great precision the design of the structure identified in Alfama, although having a slightly higher dimension.

This building has its origins in the Neronian period as part of a profound transformation that converted the ancient, sinuous and irregular Via Sacra into a monumental access, rigorously designed in a 100 feet wide (approximately 30 meters) street flanked by porticos with various Commercial buildings behind these. With the death of Nero his palace would be divided in several public buildings by the following emperors, in particular by the Flavian dynasty. Thus the lake of the Domus would be transformed into Flavian Amphitheatre, the baths transformed into the Baths of Titus, and this section of the porticus in the Horrea Vespasiani. This building will still undergo major renovations in the Hadrian period, maintaining however a configuration very close to the initial design, defined by a rigorous disposition, similar to a large chessboard, of 18 by 9 squared modules. The modules, defined by the columns at their vertices, structure all the interior space of the building, from circulation corridors, access stairs, small rooms of 1 module, large rooms of 1x2 modules, as well as the two large courtyards of 3x3.

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Comparing the Horrea Vespasiani design with the plot structure of Alfama we verify how not only the outer perimeter and the limit of the courtyards overlap, but also how the size of several plots coincides with the boundaries of some of the Horrea interior divisions. Thus we find in the design of this building a significant parallel to the anomalous plot composition in Alfama allowing us to hypothesize that at the origin of this can be the late-Roman or medieval appropriation and reuse of a similar ancient Roman building. (Figure 4)

This hypothesis is further reinforced by the great industrial character that the city of Lisbon seems have had as has been revealed by the recent archaeological excavations and the systematic discovery of tanks (cetarias) used in the confection of fermented fish sauce known as Garum. Archeology thus draws a picture of a city apparently dominated by the existence of innumerable industrial units, making the absence of other mercantile complementary buildings notorious. The existence of such buildings as Horreas and Macelums, common in Roman port cities, is not only likely to be fundamentally necessary for the management, storage, and export of products as well as the import of raw materials. In this sense Alfama would offer a privileged place for the construction of such buildings, as they would be situated near the city main exit routes to the west and to the North (through the Mouraria valley) as well as to the coast allowing a privileged access to the Atlantic Ocean and the Tagus river

Conclusion

As a consequence of the evolutionary process, historic consolidated urban fabrics present extremely complex forms. The Systemic Decomposition of the urban fabric in three elementary systems (Urban Layout, Plots, and Buildings) allows us to methodologically condense this complexity into its most fundamental aspects making them simpler, more noticeable and more evident. Of these the Plot System evidences both a particular resistance to transformation, preserving numerous traces of past structures, as well as the ability to structure and define the whole urban fabric, presenting it with a synthetic clarity. These characteristics make this a fundamental piece for understanding the urban fabric evolution and formation process, helping us to identify areas of interest through shape regularities, singularities, contrasts or consonances.

The given methodology was used in the study of the Moorish neighborhood of Alfama in Lisbon, whose extremely complex forms rather than being simply justified as a result of its Islamic origin can in fact, through the study of the Plot System, be traced to the probable appropriation of pre-existing roman buildings, namely a large roman Amphitheater and a roman Horrea. The creation of such hypothesis based on the urban morphology study, aims at helping not only in the understanding of the city evolution, but particularly in the definition of areas of interest on which other disciplines, namely archaeology, can focus their scarce resources.

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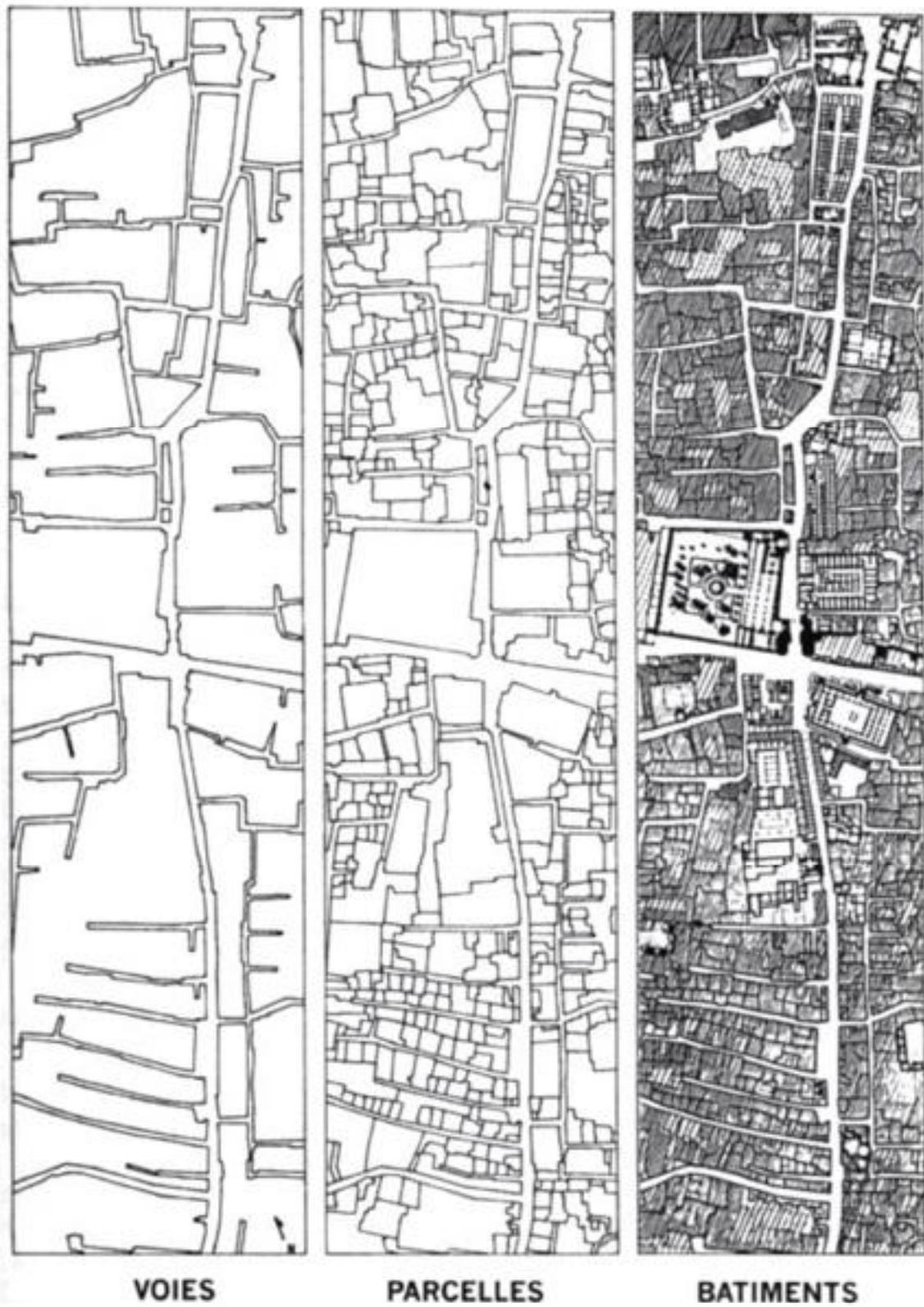


Fig. 1 Decomposition of the urban fabric in three elementary systems (Panerai, 1999).



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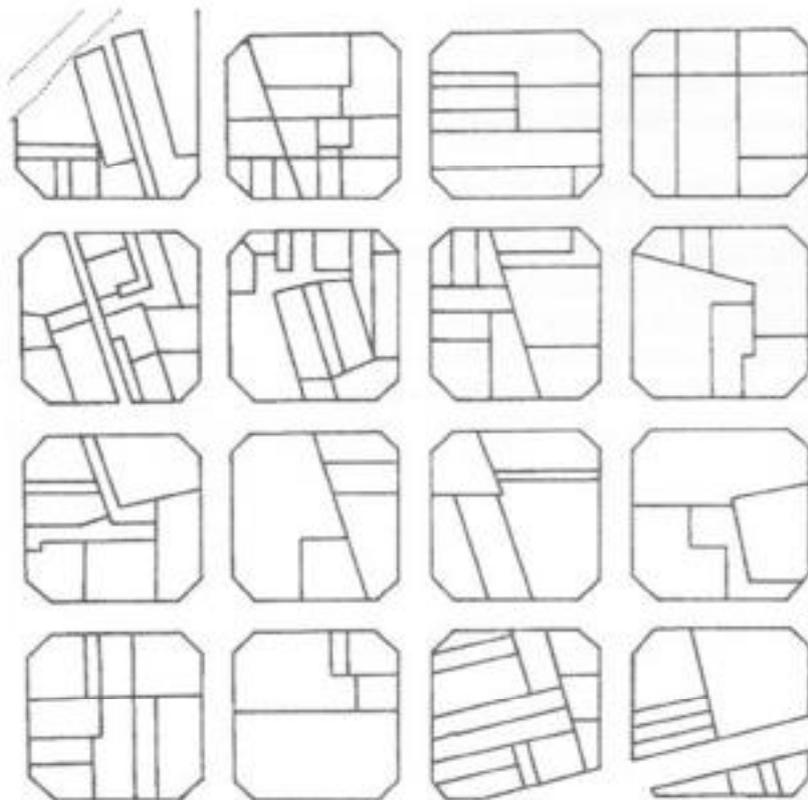


Fig. 2 Rockefeller Center holdouts (top), and traces of the rural plot structure in Barcelona (bottom).



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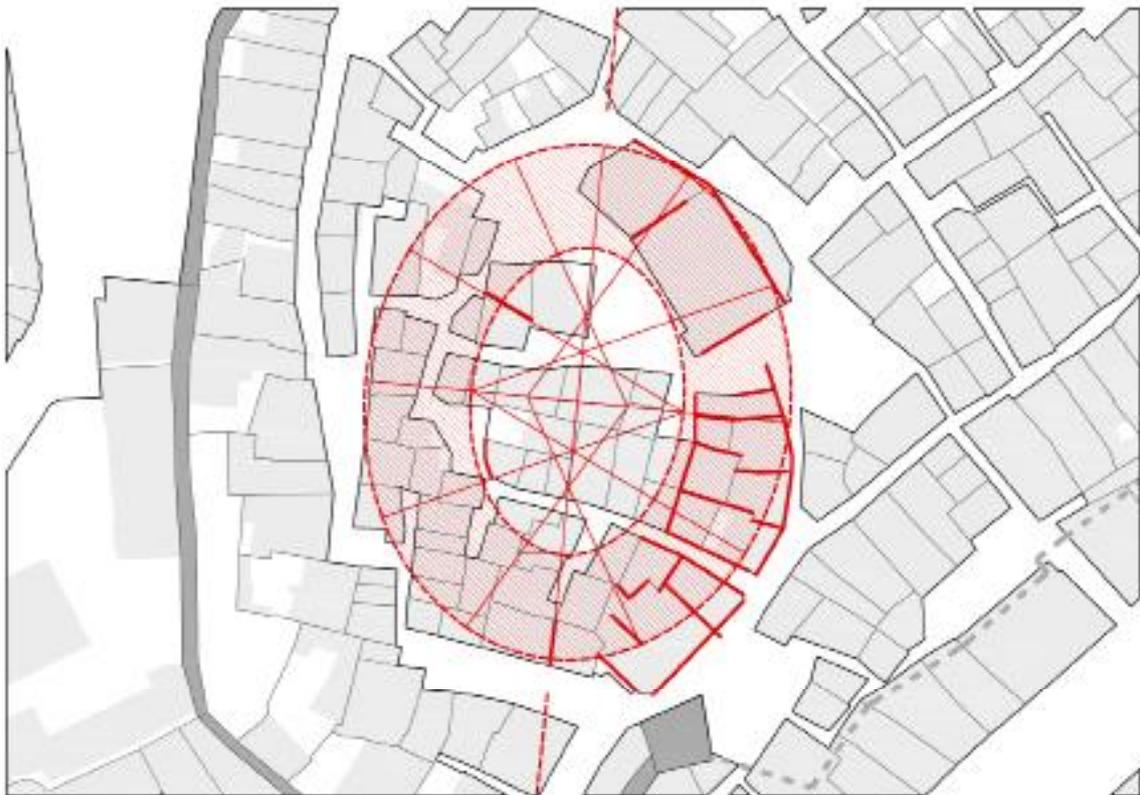
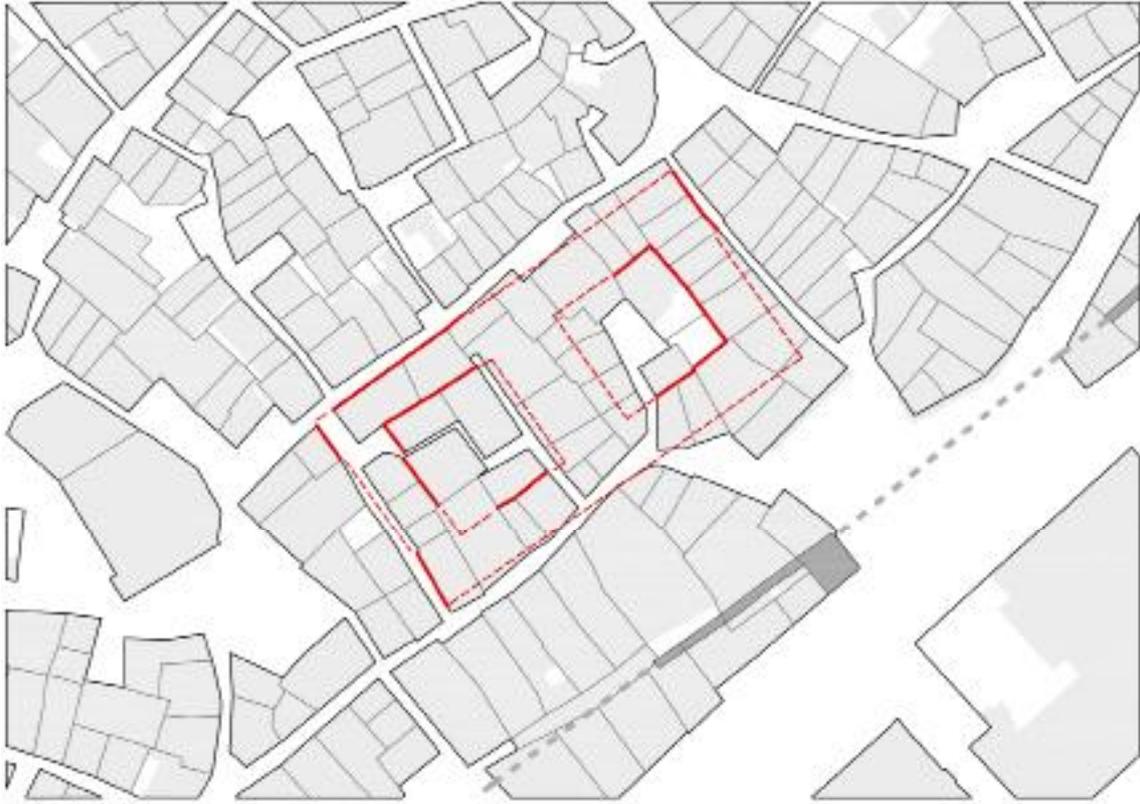


Fig. 3 – Anomalous plot structure in Alfama (top), and its comparison with a roman amphitheater layout (bottom)



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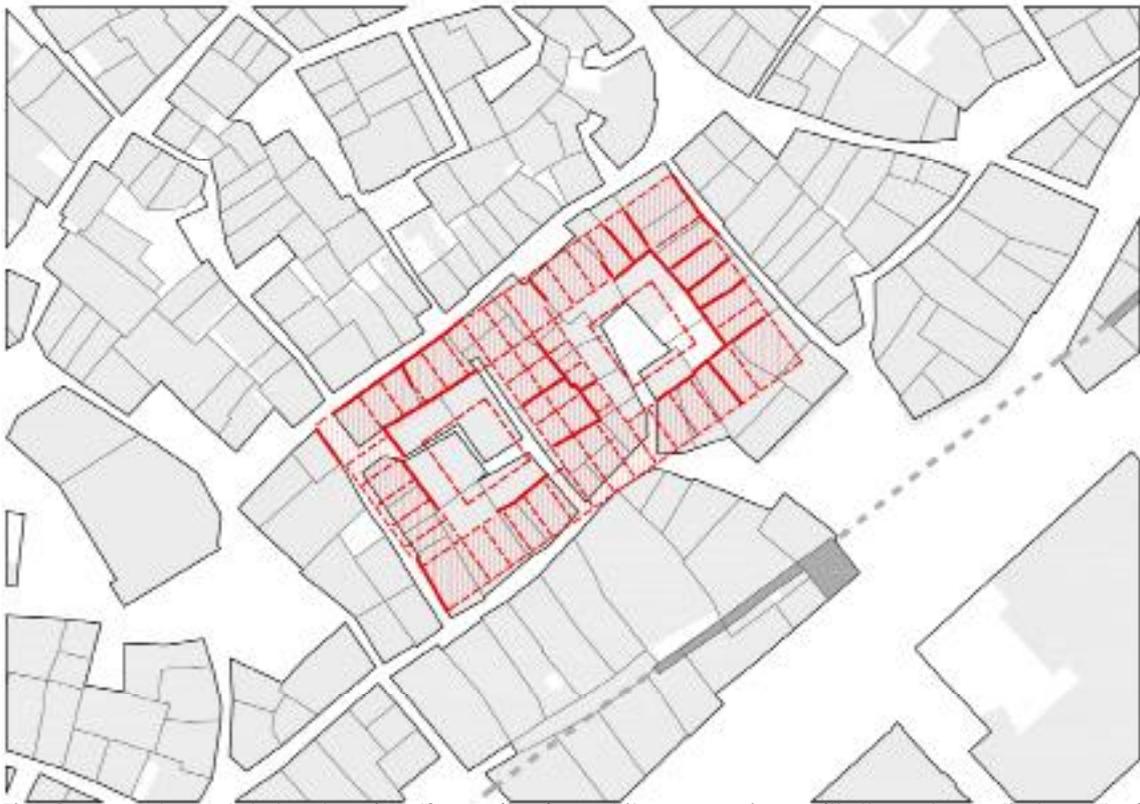


Fig. 4 Anomalous plot structure in Alfama (top), and its comparison with the schematic layout of the Horrea Vespasiani (bottom)

Forma urbana e organizzazione strutturale delle città nord europee Studio comparato di Tongeren, Aachen e Liegi

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Abstract

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Il tema proposto descrive i risultati di una ricerca eseguita nel territorio del nord Europa compreso tra il Belgio e la Germania in cui si ricostruisce la forma urbana come specchio di una civiltà che ha costruito, nel tempo, il proprio spazio vitale per svolgere tutte le attività di tipo residenziale, sociale, religioso e produttivo.

Liegi in Vallonia, Tongeren nelle Fiandre e Aachen in area tedesca sono state messe in relazione attraverso uno studio comparativo che ha permesso di chiarire le analogie e le differenze dei diversi tipi strutturali formativi compresenti nella stessa area culturale.

La raccolta dei dati storici, le risultanze degli scavi archeologici e la cartografia attuale e quella storica, costituiscono la base documentaria dello studio eseguito, integrato dalla struttura di metodo proposta dalla Scuola italiana che trova in S. Muratori, G. Caniggia e G. Strappa i principali esponenti, per la ricostruzione delle fasi di formazione e trasformazione dei tre insediamenti messi a confronto. Da cui si evince che, se negli stadi iniziali dell'insediamento la struttura sociale ed urbana sembra essere analoga perché condizionata dalle popolazioni celtiche che abitavano questi luoghi, con l'età romana compaiono già le prime concrete differenze. L'ipotesi congetturale di ricostruzione degli impianti urbani mostra, infatti, logiche formative simili per le città di Aachen e Tongeren, in cui ancora permane traccia dell'ordine pianificato, rispettivamente a vicus e (forse) a castrum, ma un assetto molto differente per Liegi che costituisce un unicum nel sistema insediativo del nord Europa per la presenza quasi contemporanea di otto collegiate. Differenza di organizzazione e di governo delle città che sembra ridursi con l'avvento dei Merovingi, e soprattutto dei Carolingi quando Tongeren si dota di una grande collegiata, mentre Aachen ristrutturava il nucleo pubblico dell'impianto romano con la costruzione della Cappella Palatina in cui sarà sepolto Carlo Magno. L'evoluzione successiva delle città rispecchia più fedelmente la struttura insediativa e sociale propria di ciascun ambito culturale. Differenze che, invece, non sussistono nei sistemi costruttivi e tecnologici espressivi del carattere elastico-ligneo che favorisce l'uso di strutture puntiformi-portanti e non chiudenti e ampie superfici diafane, come compare apertamente nell'edilizia abitativa e in quella specializzata.

Introduzione

Il tema proposto descrive i risultati di una ricerca eseguita nel territorio del nord Europa compreso tra il Belgio e la Germania, in cui si ricostruisce la forma urbana come immagine concreta di una civiltà che ha costruito, nel tempo, il proprio spazio vitale svolgendo tutte le attività di tipo residenziale, sociale, religioso e produttivo.

Partendo dalla Regione della Vallonia, e assumendo come caso studio la città di Liegi, si è cercato di stabilire un confronto con altre due città comprese nella stessa area: Tongeren, nella provincia Fiamminga del Limburgo e Aachen, nella provincia Tedesca della Renania Settentrionale - Vestfalia. La comparazione morfo-tipologica è stata indispensabile per capire l'evoluzione dei caratteri dell'organismo urbano e del tessuto edilizio delle tre città che sembrano avere genesi e sviluppo differente, non solo a livello temporale. La lettura a scala territoriale, da cui è stata avviata la ricerca mirata a comprendere la strutturazione antropica del luogo in cui ricadono le città, si è anzitutto basata sulla raccolta dei dati risultanti dalle prospezioni archeologiche eseguite in queste città e sulle ricerche condotte dagli storici dell'architettura e dagli studiosi locali. Con tali elementi documentali è stato possibile ricostruire, in molti casi, le dinamiche antropiche di tipo pianificatorio che sostanziano la struttura di questi organismi urbani e che risalgono alla fase della conquista romana della Gallia. Dedotto l'impianto iniziale, è stato quindi eseguito un confronto con i "modelli di comportamento" caratteristici delle città pianificate

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proposte in questa fase ed è stato riscontrato un comportamento analogo alla modalità strutturale tipica dei sistemi difensivi di tipo castrense. Ciò denota che, nel campo delle dinamiche di relazione tra uomo e ambiente, l'operato antropico è sempre criticamente soggetto a valutazioni che dipendono da molti fattori contemporaneamente, tra cui predominano, in questi casi, i connotati naturali del luogo e il livello civile raggiunto storicamente.

Il metodo tipologico-processuale applicato ai casi di Aachen, Tongeren, Liège

Il metodo adottato, che mostra avere una certa efficacia nella lettura del reale, è quello italiano proposto dalla scuola che fa riferimento a Saverio Muratori, Gianfranco Caniggia e Giuseppe Strappa. L'analisi dei processi che hanno portato alle stratificazioni antropiche lette nell'intorno territoriale analizzato è stata eseguita impiegando proprio la struttura teorica proposta dai citati studiosi. Essa si basa sulla lettura scalare *territorio – città – aggregato – edificio* interpretata attraverso le fondamentali nozioni di *tipo* ("patrimonio di caratteri comuni e riconoscibili che precede la formazione dell'organismo") (Strappa, 1995) e di *organismo* ("insieme di elementi legati da un rapporto di necessità e concorrenti unitariamente allo stesso fine" (Strappa, 1995).

La prima scala permette di elaborare un'ipotesi di ricostruzione delle dinamiche antropiche inverte in luogo, a partire dall'assetto originario dell'area fino alla sua attuale configurazione, quale risultato delle attività

che una cultura ha espresso nel tempo. Con la scala urbana si tenta, invece, di chiarire la meccanica formativa e trasformativa dell'intera città e con essa l'organismo aggregativo attraverso le sue fasi evolutive, quale ulteriore scala contenuta nell'organismo urbano. L'ultimo stadio dell'indagine, non estesamente trattata in questo studio, è quella dell'organismo edilizio, sia di base (abitativo), sia speciale.

Per ciascuna città, la lettura ha cercato di ricostruire strumentalmente, come di consueto negli studi di scuola, anzitutto il carattere dell'edilizia speciale, distinta per filone tipologico, per fase temporale e per il ruolo che essa svolge in rapporto all'evoluzione urbana. Tale operazione è stata correlata –data la carenza dei rilievi– alla classificazione (secondo moduli ricorrenti) dei tipi edilizi abitativi, ottenuta riportando in un quadro sinottico le dimensioni dei fronti e la profondità dei lotti degli isolati della città murata. Ciò allo scopo di definire, in base alle variazioni dimensionali dell'edilizia di base, un'ipotesi di processo sincronico e diacronico del tipo, basandosi peraltro sugli studi già eseguiti in quest'area geografico-culturale¹.

352 Mediante questa operazione si può, infatti, tentare di comprendere, sia la crescita o la riduzione dei singoli tipi, sia il rapporto che si instaura tra gli elementi di un tessuto edilizio nel corso del tempo. Allo stesso tempo si potrebbe giungere a stabilire qual è il tipo edilizio portante, perlomeno in una certa fase evolutiva dell'organismo urbano. Questa analisi è stata proposta, in particolare, per alcuni quartieri di Liegi nati tra il XIX e il XX secolo, in concomitanza alla graduale industrializzazione dell'area. Le altre due città, carenti sotto il profilo documentario, hanno in ogni modo mostrato una crescita analoga a quella di Liegi; condizione che è stata dedotta attraverso l'ipotesi congetturale della ricostruzione del tessuto. Ciascuna elaborazione è stata proposta basandosi sul concetto di città come organismo, cioè di ente urbano costituito da un insieme di elementi (edifici – di base e specialistici -, percorsi, aggregati, ecc.) che partecipano simultaneamente al fine medesimo. Le gerarchie che esso mostra, lette attraverso il rapporto di interazione e di complementarità che si stabilisce tra le diverse parti, documentano quanto permanga (nei casi studiati) la nozione di organicità che, peraltro, è molto diversa dall'essenza strutturale nota nei sistemi urbani mediterranei.

Partendo da tali postulati di metodo, quali indispensabili principi nello studio dei sistemi antropici, è stata indagata -nei tre casi studio- la dinamica di formazione e la successiva trasformazione e/o specializzazione nel tempo e, allo stesso tempo, è stato riconosciuto il differente rapporto gerarchico delle parti costituenti i sistemi urbani e i gradi di organicità acquisiti.

Parallelamente, attraverso la nozione di tipo, che è il patrimonio di caratteri presenti nella coscienza di chi opera anteriormente all'atto del

¹ Le considerazioni sull'evoluzione urbana e sulla struttura dei tessuti di Liegi si basano sul lavoro di analisi eseguito nel Laboratorio di Laurea promosso dal prof. M. Ieva, nell'A.A. 2014-2015 presso il Dipartimento di CAR del Politecnico di Bari, che ha coordinato le attività di ricerca pubblicate in sintesi nei due saggi riportati nei proceedings del convegno ISUF 2015, citati in bibliografia.

costruire, quale *sintesi a priori*, sono state spiegate le peculiarità dell'area culturale della Vallonia rappresentative dei sistemi elastico-lignei costituiti in prevalenza da strutture seriali, leggere, discrete. Il carattere del tipo (edilizio, aggregativo, urbano), la sua identificazione temporale e le variazioni spaziali hanno consentito di elaborare un'ipotesi di processo. L'indagine sulle città di Aachen, Tongeren e Liegi è stata dunque condotta mettendo a sistema tutte le informazioni acquisite, sia quelle indirette, sia quelle dirette ottenute mediante i rilievi e le osservazioni in loco. Ciò ha permesso di definire cronologicamente, in dettaglio, gli eventi principali che spiegano in maniera concreta i fenomeni che hanno contribuito alla formazione degli organismi urbani studiati. La città di Tongeren vanta la presenza di numerose testimonianze archeologiche, ampiamente documentate e ben individuate nel costruito odierno, che hanno facilitato l'interpretazione delle fasi formative, soprattutto di epoca romana; momento storico a cui si fa risalire la sua fondazione concomitantemente alla conquista della Gallia da parte dell'*Urbs*. Riguardo al sistema insediativo iniziale, la ricerca sulla documentazione esistente ha dimostrato l'interesse di alcuni studiosi locali che hanno avanzato alcune ipotesi circa il suo iniziale assetto; congetture tuttavia basate unicamente sul modello teorico di impianto romano che, da un'attenta osservazione delle tracce che permangono a livello sostrato nel tessuto odierno, non corrisponde al sistema pianificato. Queste sono state, in ogni caso, assunte solo come dato documentale per la ricostruzione delle antiche testimonianze dell'insediamento. Il riconoscimento dell'assetto originario è stato ipotizzato solo dopo aver provato a "decodificare" la struttura leggibile a livello sostrato, che ha permesso di formulare una diversa ricostruzione, certamente più rispondente ai lasciti strutturali leggibili nel costruito attuale.

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Nel caso di Aachen, invece, essendo la documentazione pressoché inesistente, e considerata la perdita cospicua del costruito più antico (specie di età medioevale) a causa dei danni causati dal II conflitto mondiale, l'attenzione si è concentrata in particolar modo sulle tracce archeologiche risalenti al I-IV sec. d.C. e sui condizionamenti idro-morfologici, da cui si è partiti per avanzare l'ipotesi dell'impianto pianificato attestato nelle fonti. Molto diversa la genesi formativa della città di Liegi, non investita da un identico processo e caratterizzata dalla singolare fenomenica insediativa determinata dalla presenza concomitante di otto collegiate, costruite in circa due secoli (IX - l'XI), cui è seguita la costruzione del tessuto all'interno delle zone di suolo contenute tra i numerosi affluenti secondari della Mosa. Lo studio delle fasi formative ha richiesto, in questo caso, una differente procedura di metodo. E infatti, si è proceduto a mettere in relazione le consistenti informazioni storiche, sia con i "dati interpretativi" ottenuti attraverso la lettura della cartografia a disposizione (carte storiche e planimetrie catastali), sia con le evidenze tipologiche aggregative e edilizie, oggetto di una specifica indagine conoscitiva.

La dinamica antropica ricostruita per ciascun organismo urbano analizzato si è basata inizialmente sul riconoscimento delle percorrenze

che strutturano il territorio (essendo il percorso, come evidenzia Caniggia, il primo atto compiuto dall'uomo in un territorio in via di antropizzazione); ciò anche per spiegare le ragioni che legano tra loro le città di tale contesto geografico.

L'operazione successiva si è concentrata sulla possibilità di identificare, ove presente, un impianto pianificato, attraverso l'uso strumentale della "tecnica" strumentale che permette di riconoscere, attraverso la ricerca degli allineamenti ortogonali presenti nella struttura del costruito odierno o ricostruiti mediante il catastale ottocentesco, la matrice geometrica regolare dell'insediamento iniziale. Parallelamente, al fine di rileggere le deformazioni all'impianto base, che nel lessico caniggiano si chiamano "medievalizzazioni", sono stati messi in evidenza gli allineamenti diagonali e curvilinei attestanti la progressiva mutazione del tessuto generata da: avanzamenti su strada, percorsi diagonali formati negli spazi liberi, deformazioni del tessuto, ecc.

354 Incrociando dunque tutti questi dati e facendo riferimento ai modelli di città pianificate ampiamente illustrate da autori quali G. Caniggia, G. Cataldi e G. Strappa, è stato possibile individuare gli elementi e i sistemi strutturali che hanno, di fase in fase, connotato l'articolazione insediativa delle città di Aachen e Tongeren. Tale ricostruzione parte *in primis* dall'idea secondo cui un territorio fortemente antropizzato, nonostante dinamiche anche (e/o pesantemente) trasformative succedutesi nel tempo, conserva sempre le tracce (seppur minime) del passato. Alla cui interpretazione si affida il riconoscimento dell'identità strutturale di ogni singola realtà urbana, e quindi –nel nostro caso- di Tongren e Aachen.

Come in precedenza accennato, la città di Liegi mostra invece uno sviluppo senza dubbio singolare proprio per la concomitante presenza dei grandi edifici religiosi, impiantato senza un tessuto che possa ad essi dirsi proporzionato, perlomeno in termini quantitativi, salvo che non si ammetta l'esistenza di un abitato costituito da strutture di materiale ligneo di cui non resta alcuna testimonianza. E tuttavia, per un maggiore approfondimento del tema della formazione della città murata, si rimanda agli articoli citati in nota 1. In questa sede, lo studio si concentra invece sulla riproduzione analitica delle fasi formative e di trasformazione dell'espansione compresa tra il XIX e il XXI secolo, basata sulle mappe catastali e su alcune testimonianze scritte e documentali reperite presso gli archivi.

Letta la gerarchia dei percorsi attraverso la lettura delle fasce di pertinenza, cioè dell'insieme dei lotti edilizi che si affacciano su ciascun fronte del percorso da cui sono serviti, è stata effettuata una classificazione, attraverso l'osservazione di esse e delle corrispettive aree di pertinenza (porzione di lotto libero retrostante l'unità abitativa), con la nota successione (suggerita in Caniggia, Maffei, 1979) che distingue i percorsi matrice, da quelli di impianto e dai collegamenti. (fig. 1-2)

Similmente importanti per la determinazione delle fasi evolutive della città sono i concetti di nodalità e polarità urbana. Cioè di quelle attribuzioni peculiari che si riconoscono agli aggregati o agli edifici in

virtù della specifica conformazione strutturale (ad esempio: intersezione o convergenza di percorsi) e della collocazione all'interno dell'organismo urbano.

Tali concetti risultano essere fondamentali, in questo genere di studi, poiché servono ad individuare quali edifici, soprattutto con funzione specialistica, possano aver rivestito nelle varie fasi evolutive ruoli esclusivi e determinato, quindi, la formazione e l'orientamento di alcuni percorsi rispetto ad altri.

Conclusioni

Uno dei principali obiettivi di questo lavoro si è concentrato sulla comparazione dei risultati della ricerca con l'intenzione di capire la meccanica strutturale della formazione degli insediamenti in questo ambito geografico; cioè la compresenza di differenti modelli formativi di organismo urbano e aggregativo all'interno della stessa area culturale.

Le differenti fenomeniche insediative analizzate nei tre casi studio producono, evidentemente, gerarchie urbane diverse. Aachen e Tongeren presentano un polo centrale costituito da un grande nucleo religioso dal quale si diramano percorsi strutturanti il tessuto.

Liegi non segue la stessa struttura gerarchica definendosi come un *unicum* nel sistema degli insediamenti nord europei. Il tessuto, infatti, non mostra tracce di alcuna volontà pianificatoria generale, estesa all'intera scala urbana. La città si sviluppa in seguito a fenomeni differenti che l'hanno interessata, perlomeno nella fase iniziale. Infatti, come accennato, è testimoniata a livello archeologico l'esistenza di una villa rurale romana nel nodo di intersezione dei principali percorsi territoriali presenti, da cui, attraverso una complessa dinamica basata sul rapporto collegiata-tessuto, si sviluppa l'organismo urbano. La presenza di otto collegiate, quasi tutte coeve, sorte a partire dal IX sec. d.C., esprime apertamente un singolare comportamento del tessuto; unicità costituita anche dalla straordinaria specializzazione dell'area centrale in cui sorge il Palazzo dei Principi e dei Vescovi accanto alla cattedrale Saint Lambert.

Tale comportamento rappresenta, dunque, una condizione di unicità, in cui la spontaneità e il controllo critico sembrano mediare i principi tipomorfologici presenti nelle città pianificate nate nel Medioevo e quelli che compaiono nei borghi formati per progressiva coesione dei tessuti nati su percorsi preesistenti o pianificati. Dato allo stesso modo esclusivo, ricorrente nel caso delle collegiate, la presenza di case molto grandi entro il vasto recinto che accompagna l'edificio religioso. Si tratta delle unità residenziali dei canonici che vantano moduli molto maggiori rispetto alle case a schiera coeve, derivanti –sembrerebbe- dalle misure tipiche delle *domus* di età romana. (fig. 3) Questa estensione di moduli è riscontrabile a Liegi e in parte ad Aachen e Tongeren. In particolare, Tongeren mostra tali dimensioni elevate solo intorno alla Basilica, cioè all'area prossima al *Monasterium* che vedrà comparire, a partire dal XIII secolo, le abitazioni dei canonici. Nel caso di questa città, non va infatti trascurata la presenza di un sistema di moduli più antichi, fondata sull'eredità romana delle due

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città, che ha di sicuro condotto al riuso e consumo dei tipi del sistema urbano iniziale, costituiti da case a corte, quindi dotati di fronti molto dilatati. In tutti e tre i casi è comunque diffuso il modulo corrispondente al tipo della casa a schiera, frutto di una de-quantificazione dell'originario tessuto o, nel caso di Tongeren, nato dalla ricostruzione dei primi aggregati medievali composti da abitazioni commerciali basate su un lotto stretto e lungo. L'indagine ha quindi evidenziato come il modulo più ricorrente di questi tipi si attesti su una dimensione di fronti edificati di circa 4.5 - 6.5 m, e sulla dimensione di fronti edificati di 3 - 4 m. (fig. 4)

L'analisi su tutte le città ha confermato la presenza di questi tipi portanti, riscontrabili generalmente nel contesto culturale della Vallonia dove, peraltro, si riscontra spesso l'esistenza di un sostrato romano.

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Fig. 1 Ranieri D., Ieva R., Savino E., Piccione C., Natale R., Pulimeno G., Tesi di ricerca: Studio dei caratteri dell'architettura nord-europea. Lettura comparata dell'organismo e del tessuto urbano di Liegi e con alcune città dello stesso intorno culturale. Politecnico di Bari, Facoltà di Architettura A.A. 2013/2014

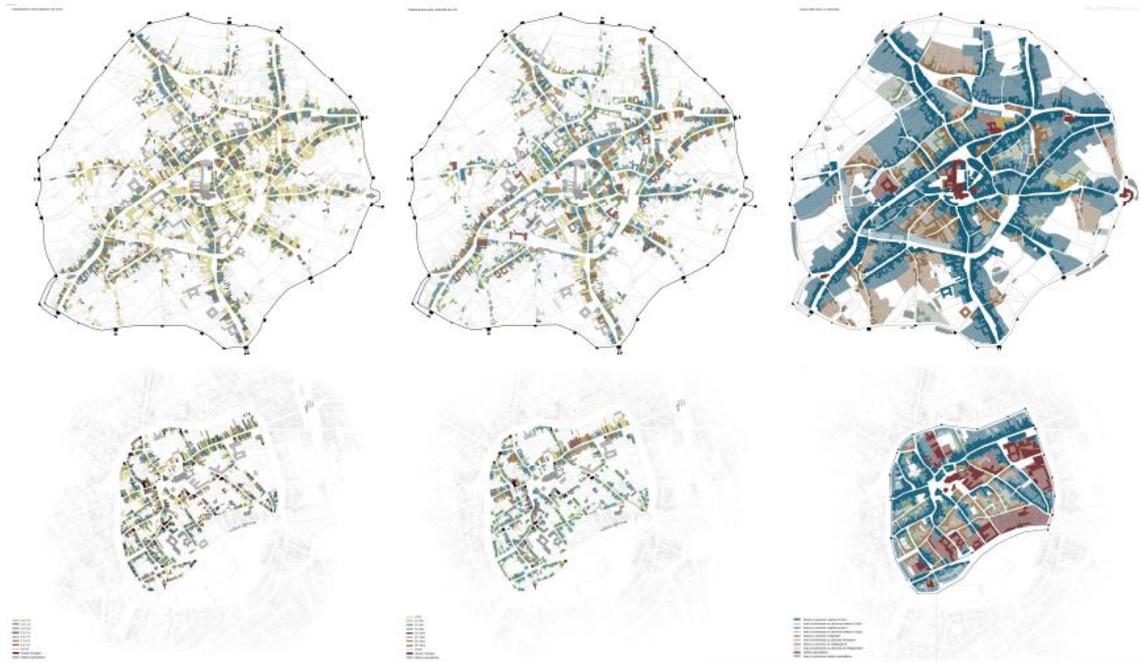
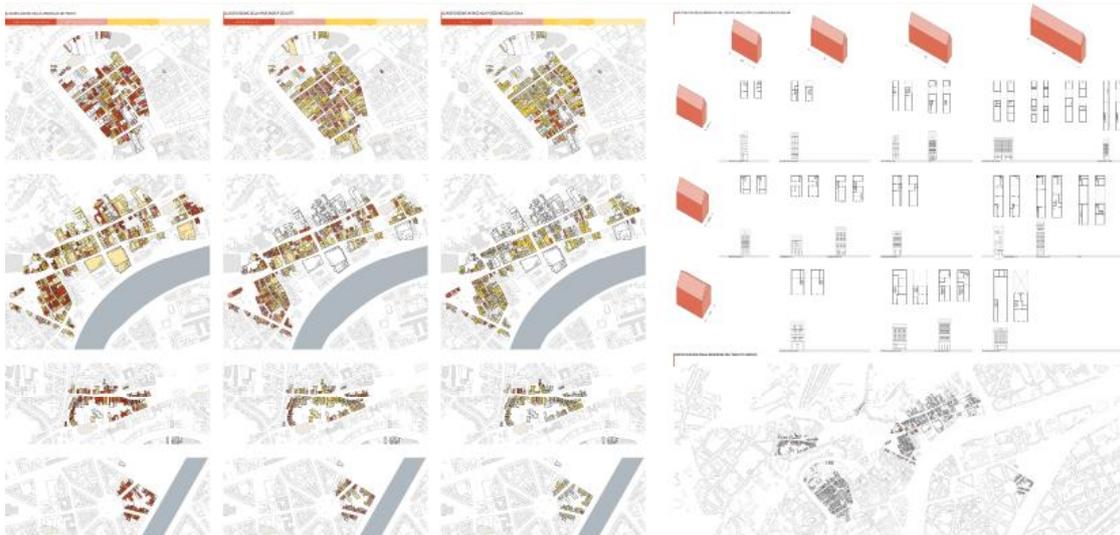


Fig. 2 Alberotanza P., Simone N., Torelli M.T., Toscano A., Tricase G.C., Zecchillo V., Tesi di ricerca: Studio dei caratteri dell'architettura nord-europea. Lettura comparata dell'organismo e del tessuto urbano di Liegi, Tongeren e Aachen. Politecnico di Bari, Facoltà di Architettura A.A. 2014/2015

Fig. 3 Ranieri D., Ieva R., Savino E., Piccione C., Natale R., Pulimeno G., Tesi di ricerca: Studio dei caratteri dell'architettura nord-europea. Lettura comparata dell'organismo e del tessuto urbano di Liegi e con alcune città dello stesso intorno culturale. Politecnico di Bari, Facoltà di Architettura A.A. 2013/2014



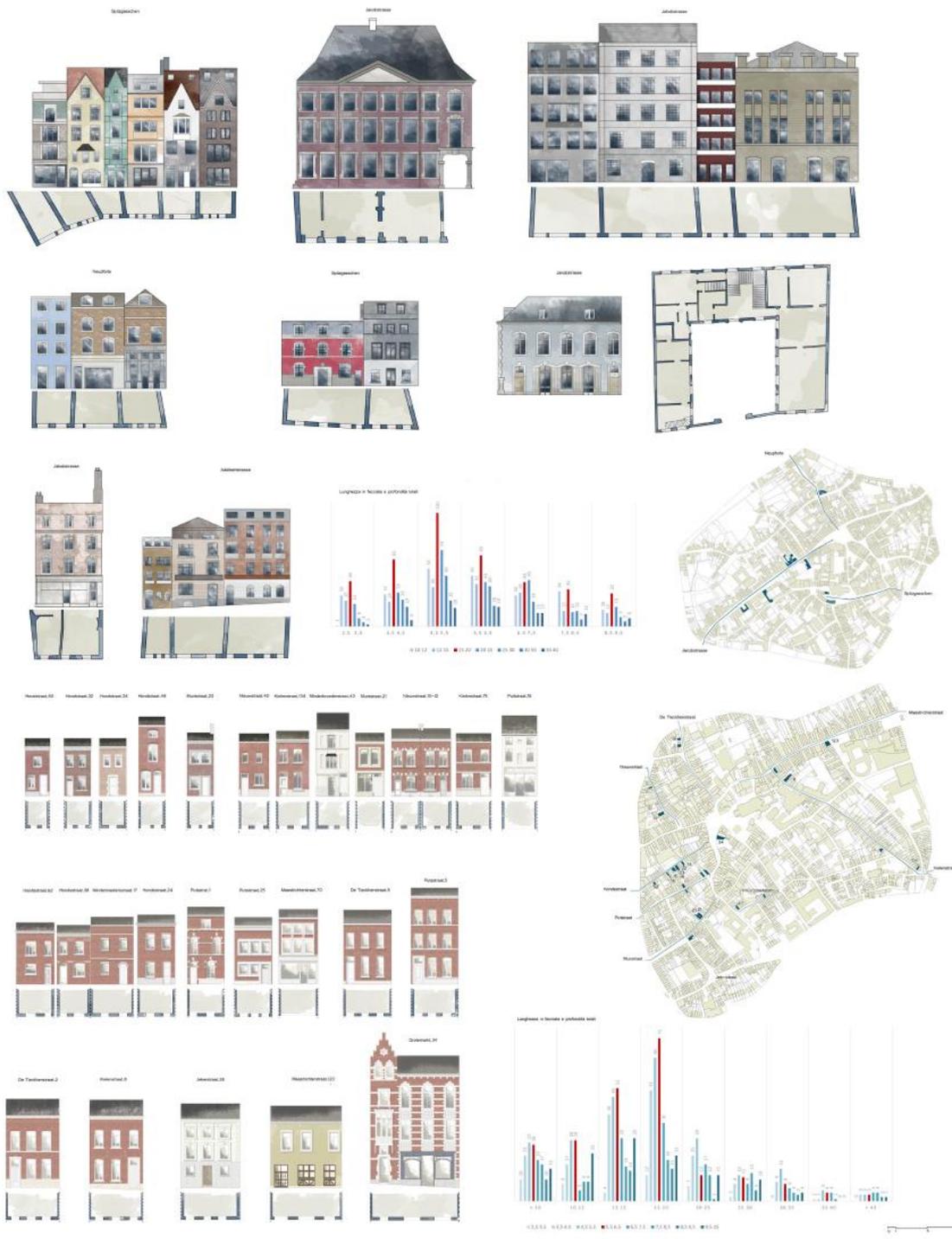


Fig.4 Alberotanza P., Simone N., Torelli M.T., Toscano A., Tricase G.C., Zecchillo V., Tesi di ricerca: Studio dei caratteri dell'architettura nord-europea. Lettura comparata dell'organismo e del tessuto urbano di Liegi, Tongeren e Aachen. Politecnico di Bari, Facoltà di Architettura A.A. 2014/2015

Conference topic

C.2) Historical Cities 3

Chromatic identity in the ancient and new architecture

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Keywords: colour, light, architectural heritage, contemporary architecture,
historic city

Abstract

362 *Light, color and textures of historic architecture are part of the identity of a city. Part of the heritage character is the material nature which is built, especially facades. Color historic is a fundamental value to study, to understand and incorporate as an essential tool for future interventions. The evocative force of chromatic characteristics leads to establish a harmony between perception and memory, emotion and location. Each city has his own color palette that we should use as a tool for analysis of the historical urban fabric, to be maintained and taken into consideration to preserve and renew the cities.*

A methodological reflection on the value of knowledge of colors features of each city is studied to incorporate projects of contemporary architecture and design in public spaces of the historic city, what provides light and beautiful colors to landscapes of cities.

Therefore we have selected examples of contemporary buildings in historic center of Seville, that as Rome, has its own chromatic identity, as result of its Roman history, Renaissance (Lleó, 1979). The analyzed buildings are Torre-Triana by Saenz de Oiza, Prevision Española by Moneo, Colegio de Arquitectos by Ruiz Cabrero and Perea, hotel EME by Tarruella and Trianas Ceramics Museum by Hernandez. These interventions show that coatings with high durability materials provide rich colors, tones and hues, luminosity, vitality, strength, vibration, transparency, authenticity and a colored light that fills the public spaces (Robador, 2015), beside adapts to Sevilles color identity.

Introduction

The identity of a city is the quality of the identical, the set of characteristics that characterize it against the others cities, which make it itself and different from the others.

Light, colour and textures of historic architecture are part of the identity of a city. Part of the heritage character is the material nature, which is built, especially facades. Colour historic is a fundamental value to study, to understand and incorporate as an essential tool for future interventions. The evocative force of chromatic characteristics leads to establish a harmony between perception and memory, emotion and location. Each city has his own colour palette that we should use as a tool for analysis of the historical urban fabric, to be maintained and taken into consideration to preserve and renew the cities.

A methodological reflection on the value of knowledge of colours' features of each city is studied to incorporate projects of contemporary architecture and design in public spaces of the historic city, what provides light and beautiful colours to landscapes of cities.

Therefore we have selected examples of contemporary buildings in Seville: Torretriana by Saenz de Oiza, Prevision Española by Moneo, Colegio de Arquitectos by Ruiz Cabrero and Perea and Canal Sur television by Diaz-Recasens. These interventions show that coatings with high durability materials provide rich colours, tones and hues, luminosity, vitality, strength, vibration, transparency, authenticity and a colored light that fills the public spaces, beside adapts to Seville's colour identity.

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Methodology

The methodology has been to analyze light, colour and textures of the city, particularly in the case of Seville, through its perceptual qualities, architectural, materials and scientific analysis, to incorporate as tools for analyzing contemporary buildings and the landscape of city. Find out the chromatic identity of the city and reflect on its current process, looking for guidelines for its application in contemporary architecture.

The investigation of the chromatic identity has included consultation of images and historic documents.

A visual analysis of the materials used, their colours, the superposition of stratum and their textures has been realized. The methodology has included the observation of chromatic richness, tones and shades, luminosity, vitality, strength, vibration, transparency, harmony, movement, sensations produced, etc. There has been an interest in the perception of colored light, which coats the space and it is transforms other colours of architecture.

Identify and differentiate historical materials from new ones, studying historical materials that contribute to the definition of the colour of the city, has been important.

Also the analysis of the influence of the colour and luminosity of the historical vegetation of the patios, streets and gardens in the course of days and seasons and their complicity with the architecture emphasise.

A scientific study has been carried out, studying luminosity and colour in specific buildings. The study was carried out in situ with colorimetric techniques, to determine L * a * b * C * HS coordinates, image analysis using colorimetric study, compared with the barium sulfate pattern and by comparison with colour chart NCS. Also the study of the techniques used and their material composition preparing stratigraphies of samples was carried out and examined by: optical microscopy, electron microscopy, elemental chemical analysis of the samples, X-ray (EDX) and SEM. We have analyzed buildings and public spaces of contemporary architecture and sought guidelines to determine when it is possible to maintain identity and contribute to enrich it.

Light, colour and textures of the city

Le Corbusier said that "Architecture is the wise, correct and magnificent game of volumes grouped under the light", this physical agent that makes objects visible contributes to the identity of the architecture of the city. And in each city the light has a different identity. We perceive colours with light. If there was no light there would be no colour.

The light in the city of Seville has a special intensity. Seville is sunny (Lopez, 2011). *(Figure 1)*

364 In Seville is perceived a lot of light, so the colours are perceived more strongly, with more intensity. Before this abundance of light and the perception of so much colour, the architecture is coated with strong colours.

The light is perceived by direct or indirect way, reflected. In Seville, reflected light enjoys a very strong and characteristic intensity, which is perceived by the intensity of the colours it transports, colouring the space in its path. And it changes of tone due to the mixture with other reflected colours; This is perceived in the atmosphere and reflected surface. Thus a rhythmic and changing colour dance is organized that varies with the hours of the day and with the times of the year, in which the inclination of the solar rays changes. This chromatic richness is especially noticeable in spaces with lining of luminous materials.

Result of the light are the shadows. Seville is a place where light is so intense that the contrast between light and shadow is much stronger than elsewhere without this abundance of light (Robador, 2008).

Pigment colour and colour light influence the space. Colour gives value to form or transforms it. The way we deal with it - light, colour, texture - is radically involved in the significance of the architectural fact. The colour of the materials and the colour of the light contribute to the qualification of the space. Colour is a fundamental element in the balance of the whole, adapting to expressive needs, to the point that colour, geometry, mass, texture and light must be conceived in a structural unit in order to achieve a formal unity in the development of the idea Germinal. When this chromatic universe transcends the exterior, the colour of the city emerges, its characteristic colour palette.

In the urban landscape, and especially in the monumental ensemble, the

qualities of the coatings and finishes, the skin of the building, its material, colour and texture influence the chromatic richness of architecture and the light and colour of the atmosphere. Cities change their skin, modify their epidermis and it is necessary to perceive the knowledge of the traditional and millennial use, the juxtaposition of mineral effects that time and talent have bequeathed us in the cities so that they remain alive while maintaining their identity.

Historically the continuous coatings of the buildings were made with the available materials, in the case of Seville mainly with ceramics and tiles in their finishes, lime mortars pigmented with minerals: stuccos, jabelgas, limestone and mortars, and albero in their pavements and as Pigment for coatings. Due to their nature, colours and textures were provided to buildings and cities, all possible colour palette filling them with life and light, enriching the space and the urban landscape.

“Like people, exploring their “skin” provides the greatest and best experience of buildings, both their surfaces and exterior volumes as well as their surfaces and interior spaces. The skin of the buildings is constituted mainly by their coatings, and in a broad sense everything that complements them, is called adornment, marinating or furniture. Here as in everything, the shape is the background, and the surface defines the substance” (Benito, 2014).

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Today, in the interventions on existing architectures and in new buildings, this coating is being replaced by materials from the polymer industry, such as resins, plastic paints, silicones, etc. Faced with this replacement of finishes with historical natural materials, such as bricks, tiles and continuous lime coatings with mineral pigments, which bring great chromatic richness and luminosity to public spaces, materials of the polymer industry and others, modifies the colour, light and life of cities (Robador, 2015).

Colour influences human behavior and affects us emotionally, enriching our perception of the world. This set of colours and textures of historical natural materials, sometimes delicate, soft and strong, in their huge range, transmit us aesthetic perceptions that influence our mood, manifesting a sensory balance, make life happier, make us feel happier; with their infinite shades form a dialogue that elevates man, making him a participant in the great harmony of nature (Robador, 2015).

“More than just beautification, colour adds the richness of the visual metaphor to the built environment. Perhaps the logic of poetics is relevant. Verbal metaphors depend on the precision of expression to convey meanings. Poetics is based on the economic and poignant articulation of language” (Swirnoff, 2009)

Making architecture more human means making architecture better. A human beauty, made by man and for man, a beauty in the qualities of space that influence psychologically and physiologically (Aalto, 1940).

Materiality

It is very different the sensitive effect that express buildings through natural materials, ceramics, limes and mineral pigments, with which the historic buildings were built, in front of the cold sensation transmitted by the artificial, the polymeric with a uniformity without soul, wearily perfect. The irregular variation of the tones with their natural colours, with their vibrations throughout the day and the seasons, variables like ourselves, transmit the message of the small irregularities of human nature provoking us to be more related, more pleasant and more familiar to us, a more human architecture.

The materials that contribute to the configuration of the colours of each city, in Seville, as everywhere, has depended on the constructive materials of easy access. In this city of the Guadalquivir Valley, due to this river, the most abundant material is the clay and in its surroundings the limestones. Due to the abundance of clay, the bricks are made and by the quality and abundance of limestone, the lime is obtained, which with the sand is made of mortars. Also, by the economy of past times, the walls were elaborated with the so-called *tapial*, mixture of earth and gravel with lime, pressed in large molds in situ. The *albero* is another gift that nature has granted to Seville. In its surroundings there are inexhaustible quarries that surprisingly are the source of a luminous yellow earth gold colour, maintaining this golden colour constantly in all its parts. Thus the architecture and its facades are constructed with these basic materials, contributing their natural colours.

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Luminous white is the predominant colour. Walking along its streets you can see the waste of the pure white of the lime on the facades of their houses, living with the yellows -*calamocha*- and the powerful reds -*almagra*-. It is unforgettable to observe how the white surfaces of your buildings are cut into the blue of the sky. These colours identify Seville contributing to its characteristic personality, especially in the succession of demure and small squares, of irregular trace and dimensions, which are surprising, enriched some by the rumor of the water of its sources, its vegetation, its silence, and the lots of streets that converge in such small squares (Robador, 2008).

(Figure 2)

Lime mortars, stucco mortars, *jabelgas* and whitewashes, and the incorporation of mineral pigments and their mixtures, with infinite textures, achieve beautiful, stable and luminous colours by the birefringence of lime and the beauty of the mixture of pigments; with them they cover many significant buildings of Seville. The mineral pigments used make the ocher colour, *calamocha*, the ferrous oxide and for the red *almagra*, the ferric oxide; Also appear blue obtained with basic carbonate of copper, *azurite* and greens with basic carbonate of copper, *malachite*, intoned with purple based on compounds of mercury, blacks with iron oxide of the *oligist*, etc.

The silico-aluminates of the ceramic give the bricks their characteristic colours, as can be observed in the *Giralda* and in almost all the historical buildings of Seville. Moreover, the pottery is dignified by covering it with

enamels, on the tiles, filling the space with colored reflections. The simple initial geometry reaches infinite variety and complexity, luminous colours and reflections, which rise to the level of poetry. The glazed pottery extends its use to the rest of the city: churches, palaces, houses, convents, squares, gardens ... until they get to label their streets. The metallic oxides and their mixtures fill with colour, dark blues with cobalt oxides, green, blue and black tones with copper oxide, iron oxide ochers, browns and reds, oxides of antimony oranges, oxides of manganese yellow, etc. The refinement of the geometric layout, the variety of colours, with the multiple reflections of the light, makes perceive an aesthetic message of perfection.

The albero, clay limestone, yellow earth luminous gold colour, in floor coverings and pigmenting the lime, contributes its aesthetic with its golden colour characteristic for being stained with iron ore Goethite. Ferrous iron is the one that brings its luminous yellow colour.

The wise use of these traditional materials with great constructive logic, art and sensibility characterize the historical architecture of this millenary city full of colour, coated with strong and clean light. Overlapping architecture of cultures, unbeatable testimony of the wealth of its past and its inhabitants. The richness of its architecture that has been produced in time, a melting pot of cultures, manifests the refinement of details, a taste for perfection, and joy with ideas in its forms and limits, influenced of the Roman, Muslim, Mudejar spirit, Gothic, Renaissance, Baroque, Neoclassical, Regionalist, Rationalist and the last architectural movements of the late 20th century and the beginning of the 21st century (Robador, 2008). There has been in the past a harmony between perception and memory, feeling and place, which must remain latent in the contemporary architecture that renews the city. Seville has its own colour identity, fruit of its rich history (Lleo, 1979). The materiality of architecture is a sign of identity. For this reason, the use of these updated traditional materials, without renouncing new materials used correctly, contributes to the enduring of their identity. Thus, the use of brick, tiles with renewed geometries, lime coatings pigmented with minerals and careful textures, and the albero contribute to the enduring of the ancient colour identity of the city, renewed by the new architecture in harmony with Old and new, enriching public spaces. These materials bring chromatic richness, shades and shades, luminosity, vitality, strength, vibration, transparency, authenticity and a colored light that invades the space of the city.

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Atmosphere

"The influence of the natural environment, the vegetation, the climate, the geography, the light and the atmosphere, the light and the particular atmosphere of each place, influence, to a great extent, the way of expressing itself of a culture. In turn, the different cultural manifestations modify the perception of the environment, in a constant interaction." (Gomez, 2010)

Seville is a very vulnerable city. It's not Florence or Venice. Its monuments have "charm" above all. That charm is made up of very evanescent things:

it can be the play of light, the environment, the atmosphere, more than architectural rigor. And that is easy to destroy. It takes a great sensitivity of the architect to capture it and not destroy it and lose it.

The play of light, the environment, the atmosphere, the shades, the extreme delicacy, poetry full of colour, is not a science. It is an art and depends on the eye and sensitivity, it is a creative act. (Lleo, 2002). This rich, immaterial inner world of space and light sequences, dense with values, forms part of the chromatic identity of the city, and requires sensitivity to capture and incorporate it into the spaces of the new architecture.

Contemporary space

Architecture as life, can be in black and white or in colour. Torretriana building, Prevision Española building, Colegio de Arquitectos building and Canal Sur television building, with the materiality of its architecture: bricks, tiles, stuccos of lime, well defined textures and colours, strong reds, intense yellows ... and reflections of light, have used the colour palette characteristic of the city and with great sensitivity have incorporated it to their projects giving chromatic beauty and light to the landscape of the city in contemporary space.

"The reflection on how contemporary architecture deals with the colour of the landscape, in short, implies an analysis that goes beyond colour. (...)

368 *All this in favor of a new attitude to the project, which takes into account more contextual variables such as those of chromatic origin, strongly rooted in our memory of a place and at the same time extremely vulnerable and easy to distort."* (Serra, 2010)

Torretriana building by Saenz de Oiza

Administrative building located in Puerta Triana. It was conceived by the union of two geometric figures: a square with a circular one, penetrating the structure of the square inner mesh in the ring.

The exterior facade of the building is a unique enclosure that closes the cylinder. The thickness reached in the outer enclosure made it possible to distinguish the exterior treatment of the interior made with red stucco. The uniform composition is broken by the large ocular openings that were located at the corresponding ends of the north-south and east-west axes, the red stucco being cut out between the stone wall. (IAPH, 2008)

In the choice of the material of the walls of enclosure and in its colour a great success is perceived, characteristic of the city, the golden yellow of the albero, where besides, being a natural material contributes its inorganic component with great variety of tones. By its colour, the protagonism that has in the views from the river makes that integrates of a harmonious way in the city this new architecture. The counterpoint of the red stucco glasses inspired by the Puerta del Leon of the Real Alcazar is in tune with the identity of Seville, being two of its characteristic colours, yellow calamocho and red almagra. And because of their materiality they contribute a natural richness of colour of great luminosity.

Prevision Española building by Rafael Moneo

It is located opposite the Torre del Oro, on the banks of the Guadalquivir, in the Arenal district. Moneo reflects on the “*formal structure*” that leads him to refer to the “so many public buildings in Seville: a horizontal tripartite structure, base-noble floor-high floor.” The project gives great importance to the facades and their apex, being configured as a monumental prowl-altarpiece. The material treatment are part of the essence of the project, where the sevillian pressed brick is the definitive protagonist (IAPH, 2008). The knowledge of the project of the facade made with brick makes the building a landmark in contemporary Seville architecture, attentive to the identity of the city. The facades are integrated in the landscape of the edges of the Guadalquivir with great success, resulting in a harmonious whole of water, vegetation, historical architecture and contemporary architecture.(Figure 3)

Colegio Oficial de Arquitectos by Ruiz Cabrero y Perea

The building is located in the historic center of Seville, occupying a trapezoidal plot. It presents its main facades to Imagen street and the Cristo de Burgos square.

The main facade and the access patio are designed as an evocation of the local architecture, making reference to the large hollows in front, to the vegetation in the patio, to its veiled relationship with the street or the awnings that cover it. The facade is made of brick with its colour and texture and the play of transparencies of the gaps, a milestone of contemporaneity in a historical space of great value.

The different plants consist of a free main rectangle and crossed by technical cores lined with white tiles that provide reflections and luminosity. The wall of the staircase varies according to the plants it relates to, which gives the building an interior journey that puts it in constant relation with its urban environment (IAPH, 2008). A ladder wall is lined with traditional tile, with white and blue geometric designs that enriches chromatic and luminous space.

The success in the materiality of the building, by the use of brick and tiles, always ancient and always new, make it an old and new, true to the identity of the city, revitalizing it.

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Canal Sur television building by Gonzalo Diaz-Recasens

Next to Seville, taking part in its landscape, in San Juan de Aznalfarache, this building is located, integrating the essence of sevillian architecture and the farmhouses, with its courtyards and gardens, all in a contemporary language. The concrete of its walls experienced its coloration with pigment of albero, obtaining the singular golden colour of the city. The tiles full of colour and reflections covered the outside of the television set. The volumes that surround the set intercalating courtyards, combine the concrete seen pigmented with albero and walls covered with stuccos of

beautiful colours.

"This taste for luminosity and reflections of the materials towards the interior with an introverted sense of architecture (...). I looked for similar effects with luminous textures in the tiled and glazed walls of the interior, in front of a dry, rough, earthy exterior, as a reinterpretation of the tapial on the thick walls of Andalusian farmhouses, where glass and tile contrast and make a pearly interior, as if recreating an inner world full of light and reflections. The main courtyard faces the access and this blind enclosure of the main set that sought to reflect the garden and provide depth to the entrance hall, adopts the tiles as the way to endow this reflective condition. The arrangement of the colours pursue, with a complicated series, that the earthy colours, red and black, start from the earth to become clear and blue when arriving at the sky. From the pit of the staircase that was introduced in the basement, to its upper limit when wall is lost in the sky, the glazed plane of small pieces, obtains a continuous texture, of dark ears down and clear up. This defines a luminous facade, where the television is produced, with a frontal view where the planes of the landing place and the hall that precede it are superimposed, transforming horizontal axis in vertical and causing a turn of the vision towards the sky." (Recasens, 2003). (Figura 4)

370 The building is an example of the deep knowledge of the architecture of city, Andalusian farmhouses, the traditional materials and their techniques and the ingenuity in its updating and development.

Conclusion

The light, colour and textures of architecture contribute to the identity of the city. A deep, scientific and sensitive knowledge of the chromatic palette of historical architecture is necessary to know how to act well in it in restorations and new architecture.

Delving into the cities: Seville, Rome ... their particular identity is perceived, overflowing texture, exterior expression, exudes colour, wisdom and talent, result of the millennial use of their materials. In the case of Seville the colour identity is found in bricks, tiles, lime coatings pigmented with minerals, in the albero, etc. The incorporation of them into contemporary architecture, in its new forms, guarantees the durability of the chromatic identity, as has been verified in the buildings analyzed.

Para que perdure la identidad cromática, junto a herramienta de la materialidad cromática se precisa captar e incorporar la inmaterialidad plena de matices, del juego de luz, del ambiente, de la atmósfera de cada lugar, un arte que deriva de los sentidos y la fina sensibilidad.

In the development of any architectural and urbanistic project, it is very important to include the personal reflection on the identification of that colour palette and develop the sensitivity to be able to interpret that characteristic repertoire of a city and incorporate it into the project.

In the interventions in historical heritage and in the new architecture the sensitivity in the design of the materiality of the architecture, with the

knowledge of the materials and their chromatic properties. It brings life, richness, tones and shades, luminosity, vitality, strength, vibration, transparency, authenticity and a colored light that floods the public spaces influencing our emotions. All this achieves an architecture more sensitive to the human being. An architecture that plays wisely with volumes grouped under the light

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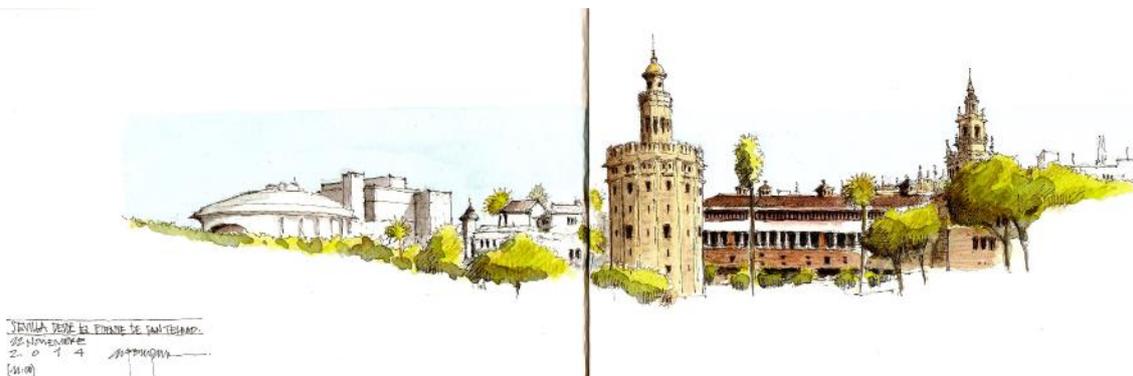


Fig. 1 Garcia, A. (2012) General view of Seville from Castilleja de la Cuesta, in Botanical Garden, Cuesta del Carambolo

Fig. 2 Garcia, A. (2015) Triunfo square

Fig. 3 Garcia, A. (2014) Prevision Española building



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Fig. 4 Canal Sur television building

Morphological transformation of main streets in a large city as a basis for their renovation

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Keywords: Open public spaces, main street, urban development, urban morphology

Abstract

376 *Main Street is a planning framework of the city and the places of public life concentration, and their design needs special attention since the Antiquity and up to our days. At present it is important to study the varieties morphological types of the main streets and their transformations in modern conditions for the understanding of their development as public spaces of city. Changing their planning structure takes place under the influence of a commercial activity, industrialization and motorization, as well as under the influence of modernist ideas. In some cases all mentioned above leads to loss of the main street as a public space. Comparative analysis of the main streets in the cities of Europe and Russia shows that the renovation with the purpose of revitalization of the main streets should be in the sphere of great importance. It is necessary to highlight some direction of their reconstruction, such as the usage of borrowed elements of the Antic architectural design; restoring the traditional medieval European street structure with a high density; saving type of representation space and strengthening the multifunctional use. In general - the creation of a functional load on the street with the aim of formation the structure and parameters of public use.*

Introduction

Main streets are a part of the city's layout framework and places of concentrated public function. Changes in socio-economic conditions have contributed to a rethinking of their appearance and value in the city. A wide range of requirements that are currently imposed on these spaces, points to a need for improved methods of their reconstruction, taking account of the development traditions, local characteristics of each city, and future use.

Studying the diversity of main streets' morphological types, and their transformation today is of great importance and can give insight into their development as public spaces of the city, as well as understanding of reconstruction strategies. The most extensive study of public urban spaces' morphotypes was presented by the German architect and city planner, R. Krier. The street structure changes under the influence of commercial activities, industrialization and motorization, and also – modernist ideas. In some cases, all the above mentioned leads to loss of the main street in a public place.

This raises the question of how to maintain and upgrade main streets for conflict-free use and enhance their attractiveness as catalysts of urban life. Revitalization of main streets for the purpose of their activation is often an integral part of a broader transformation of physical structure and social meaning of the city center. Cities of Western Europe include modernization of main streets in the city's development program.

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Methodology

This article describes a number of key points, namely: study of main streets' variety and their division into morphological types; case studies of reconstruction in order to identify common trends in their development as important public spaces of the city.

For a more detailed understanding of these issues there have been an analysis of main streets formation comprised of: historical plans and texts study, research into dynamics of functional use, density of their distribution, changes in the geometry of spaces, which generally allows to identify morphological types. These data make it possible to identify the processes, which occur under the influence of structural changes in major cities' streets. The experience of reconstruction of existing main streets in German cities allowed to formulate some vectors of their development.

Forming process

Arcade shopping streets appeared in antiquity. They served as connecting public spaces, linking forum with the main city gate, and were intended for a triumphal processions. Continuous colonnade, flanking the main street, amplifies their architectural value and generates a linear trading space. Residential buildings and apartment buildings with shops on the ground floor are continuously integrated into the street. Colonnade being an engineering structure, separating pavement from roadway and pedestrians from movement of chariots usually had a roof for weather

protection (Figure 1). Shops were separated from the roadway by pavement. This type of street was developed during the Renaissance. The project of the main street, Kaiserstrasse, reconstruction in Karlsruhe was an attempt to revive this type of public space.

Trade function in the Middle Ages contributed to the development of specific types of main streets – “Long Markets”, which, in most cases, divided the city into two parts and had a lenticular shape on the layout, and where the expansion was the largest, church or town hall was placed. “Long market” became widespread in Germany (Erfurt, Bayreuth), Czech Republic (Kraków), Poland and other European countries. (Hrůška, 1955; Bunin, 1979)

During the period of absolutism, the main street is considered an important element of the ensemble and has a presentational character, where decorative function dominates. Street serves as both leveling and visual link between significant architectural objects (Figure 2). This space is formed by the expansion of existing streets or establishment of the new on top of the existing layout of the city (Avenue in Paris, Nevsky Prospect in St. Petersburg).

378 During the period of industrialization appears a roofed Street – passage. This type was created in the 19th century, as a precursor of modern shopping centers. It is a covered linear public space with a dominant trading function. Netsch (2015) argues that this type leads to the loss of the street as an accessible public space and homogenizes the existing urban fabric. Street is roofed at the ground or at the top level of the whole building. Closed facades made streets look like shopping centers and resulted in the loss of their historic planning structure.

In search of a new urban structure, modernists spread the ideas of open-plan development and development with spaces between buildings, which eliminates the formation of a street in the classical sense.

In the 1930s under the influence of ideology in the countries with centralized urban development, as well as countries with totalitarian regimes main streets began to be perceived as places for mass parades and formed by presentational architecture. This type of space had hypertrophied size, and usually regular geometric shape. Architectural ensemble of the street serves as a decoration for political events (Figure 3). The traditional understanding of the street as a multifunctional public space has been lost.

During the creation of the city's new transport structure in the twentieth century happens a loss of the main street as a public space with social and civil functions. They begin their own development as transport arteries for rapid movement of people. Streets change their planning parameters, adapting for vehicular traffic. Trading function from main streets moved to a separate space – shopping malls, thus changing the user group, scale, design and perception of the city.

Second half of the twentieth century raises an important question of public spaces reconstruction, which led to a rethinking of planning and architectural features of main streets. Here two recovery paths should be

singled out: full reconstruction of the lost public spaces in central districts on the basis of continuity and extension and straightening of main streets to meet the different types of mobility. Restoration of the traditional street structure happens due to recreation of main streets' planning features to preserve the scale and atmosphere of the medieval city. A great attention was paid to the development of trade and tourism function in public spaces.

In the 1970s, in European cities emerged a movement for the return of open public spaces to pedestrians and restoration of their architectural beauty, contributing to the social life within them. Early strategies include the prohibition of vehicular traffic in urban centers in the 1980s, including main streets often in combination with a more thorough approach to filling historic urban areas. This was followed by the development of trade and pedestrian streets. Modernizing involves elimination of the transport function and return of street's former significance and use as the main public space in the city to ensure availability of the central part of the city for all groups of population and integration of the latter into a single system of public spaces. This is exemplified by the reconstruction of Kaiserstrasse street (Karlsruhe, Germany) in the framework of the project "The City of 2015", which includes extension of the pedestrian zone and unloading the street from excessive transport, to ensure citizens' safety by the device of underground lines of public transport.

There is a plan to create cozy cafes, different classes of stores for a comfortable atmosphere of multifunctional linear public space. 379

Pedestrian and shopping street, with public transport preservation should be classified as a separate type.

Considering the morphological types of main streets, it is necessary to highlight some vectors of their reconstruction. One of the directions is preserving their architectural qualities as a representational space. The main street is seen as a powerful impetus for the development of society, improvement of economic activity, and strengthening of regional identity. The concepts of their modernization consider main streets as a "brand" of the city.

Another important direction in the development of the main street is strengthening their multifunctional use. This process includes a clear division of functional use and distinguishing activities for certain areas in order to prevent potential conflicts of interest between public use and trade, and address the diverse needs and recreation. During the reconstruction of the main pedestrian shopping street Zeil (Frankfurt, Germany, 2002) in the middle of the street a recreation area with seating under the trees, catering halls and bicycle parking was organized. At the edges near the facades – transit traffic of visitors to shopping centers and shops. At the intersections of pedestrian flows spaces free of small architectural forms and service elements were created. Zoning found a reflection in the streets' paving design through use of various types of materials.

Upgrading the main street is paralleled by widespread use of borrowed architectural design elements from the past centuries. Transition zone

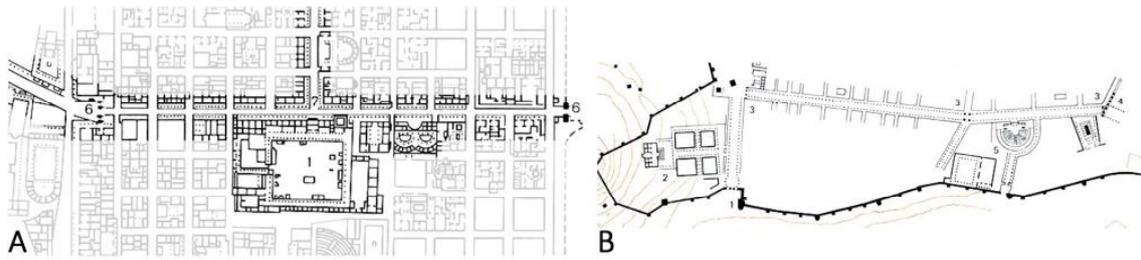
between open public space and the adjacent buildings is very important for perception of the main street. Multifunctional ground floors are considered “boundaries”, which have an impact on their functioning. The priority is the creation of “soft” and “transparent” borders between the interests through the organization of entrance and additional space for interaction between the territory and the building surface. This zone is a buffer between various functional uses and special attention should be given to its formation (design, flow-planning, landscaping, small architectural forms, etc.). Two transitions from space to the building should be highlighted: direct and through an intermediate zone. The intermediate zone is created by an arcade, space and attached to the building or through canopy (Netsch, 2015). In the formation of the intermediate zone special attention is paid to the division of facades. For example, borrowing elements of architectural design from past centuries – arcade street of ancient Rome. Roofed buffer zone, on the one hand, protects visitors from the weather and traffic; on the other hand, some small and medium-sized businesses oppose this type of street design, arguing that the goods in the arcade cannot be seen from a distance.

Conclusion

380 The main street should be considered as an important element of the socio-spatial system of open public spaces. Identified vectors of reconstruction are based on the current trends in public spaces development, various conflicts in the use of the territory, development of national and regional identity of public spaces, enhancing competitiveness and improving urban design. The development of these areas depends on their morphological identity.

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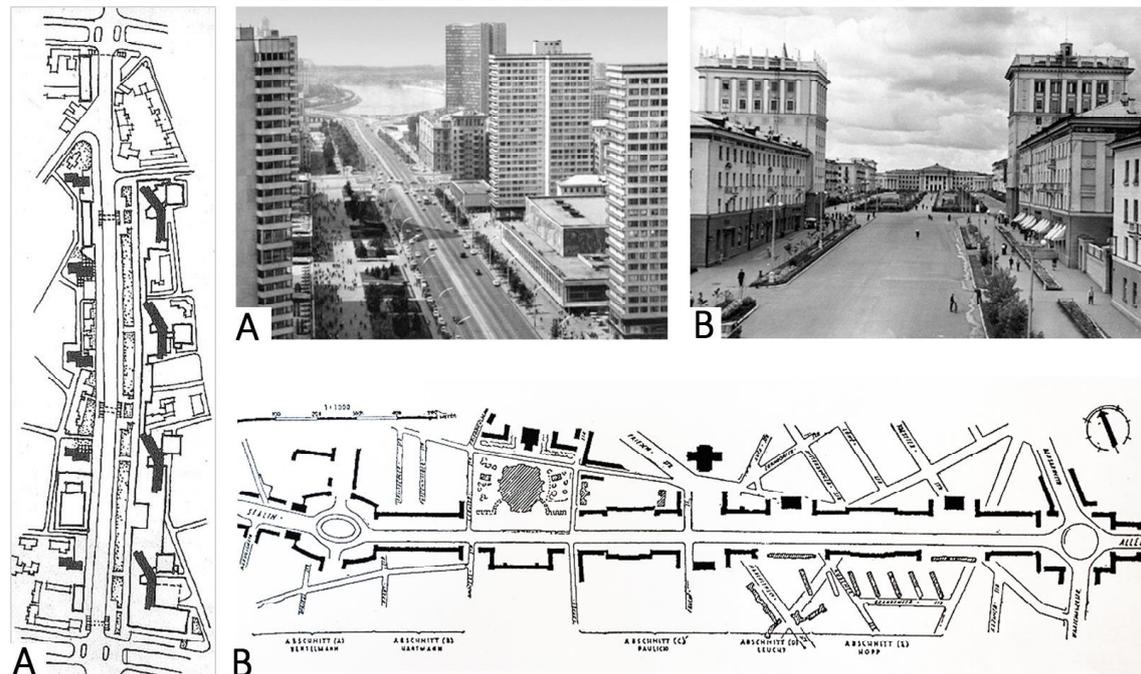


Fig. 1 Morphological type: Arcade shopping street. (A) Colonia Marciana Traiana; (B) Palmera, Ancient Rome

Fig. 2 Morphological type: Avenue. (A) Unter den Linden, 1867 (Berlin, Germany); (B) Nevskij prospekt, 1840 (St.Petersburg, Russia)

Fig. 3 Morphological type: Main Street of centralized urban planning. (A) Prospect Kalinina (Novii Arbat st.), 1963 (Moscow, Russia); (B) Karl-marx-allee, 1952 (Berlin, Germany)

Typology and Framework Analysis of Iranian Caravansaries in Four Macro Climates of Iran

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Abstract

384 Iran has Unique Climatic Diversity. That we can see from hot-arid desert to Mediterranean climate, cold and hot-humid in this country. This variety of Climates and people culture and tradition, has been made different patterns of human adaptation with environment. As Architectural styles and variety of life style is one of the most obvious features of this country. Among these climatic Architectures, caravansaray's Typology neither in Iran nor in the world is unique. Caravansaray is consequent of Iran's geographical situation. Iran country is located between Persian Gulf in South and Caspian sea in North and this country is such as a bridge between central and western Asia and has the role of link ring between those places and Asia minor and Europe. Thus Iran located at center of these connection lines that connects east of world to the west. Also is the most ancient and important world's connection mainline - The Silk Road - passes from its heart. and according to this country's dryness, aridity and separation and far distance between the towns, building establishment for passengers' accommodation is unavoidable. Concerning to the importance of this preeminent architecture, we studied construction and public elements of caravansaraies by descriptive- analytical method, we analyzed these architectural elements in four macro climates of Iran, then caravansaraies architecture's comparison showed that caravansaraies' architecture differ from each other in four climate. Finally by identifying the typologies and main spaces and elements of caravansaray in each climate, and studying the existing samples, we can do proper decision-making for their new life specially as new hotels and residential spaces, that are attractive for passengers and tourists.

Introduction

Caravansaray is One of the most important and Valuable Iranian's Architecture heritage. That it's being has been started from ancient Iran and during the centuries for several reasons such as military, commercial, religious and etc has been developed. Because of Iran country's locating in commercial mainline between east end west; from China to Mediterranean sea and for its' land spread since a long time ago, this country has been had important role in military, commercial roads and relevant buildings' construction. According to the historical documents and evidence, after government stablishing, Iranians for disturbing peace and order, to stablish security and to meet fondumantal economic needs built facilities that were unique. At first, this facilities had military founction, and at next eras were places to settle tradesmen and convoy members and named caravansaray. In Islamic eras caravansaray' construction was an important part of Iranian architecture anf in this eras several caravansaraies with different features and styles built in cities, mountain roads and deserts' margins.

Methodology

Present article with "Typology and Framework Analysis of Iranian Caravansaries in Four Macro Climates of Iran" title with descriptive – analytical, desk study and field study methods has been accompolished and includes three sessions; introduction and historical background of caravansaray, analysis the architectural typology of caravansaray, conclusion and discussion about caravansaray renovation.

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At first session caravansaray's historical construction movement until Safavian monarchy that was it's golden era, will be considered, at second session, according to the studies, caravansaraies will be classified, then will analyze every type with an example. Finally, about the renovation and new founction and life for Iranian historical caravansaraies will be discussed.

At the end, it is necessary to say that we talk about present topic to clarify the goals and the aim of caravansaraies building durig many years ago, and so understanding the social situation of this Architecture masterpiece in Iranian culture.

Caravansaray Definition and it's Historical Bachground Consideration

Caravansaray is One of the most Valuable Iranian's Architecture heritage, That has been established during the centuries for several reasons such as military, commercial, religious and etc has been developed. This word is combination of Caravan that means: a group of traveller that travel toghether and Saray that means home and place and both of them obtained from Sassanid Pahlavi (Dehkhoda Wordbook, 148-149).

Caravansaray's historical background in Iran, is from Median and achaemenian era. Herodotus; Greek historian in his booksays about facilities and buildings that have been built by Achaemenian between Susa and Sardis. He says about 110 buildings similar Caravansaray (Chaparkhane;

Post office), That have been built in 2500 kilometers distance from each other between Achaemenian capital and Sardis that caravan covers this distance in three month (Kinay, 1983, 3).

In that time, caravansaraies had mostly military founction and had been built as governmental stations to change pony express' and correspondences providing between states. Why so the most ancient and important communicating mainline in the ancient world "The Silk Road" goes on Iran's midst. And concerning this country's dryness and aridity and far townships, Achaemenid Cyrus had been ordered to build stations for pony expresses, passengers and soldiery across the country mainlines. This stations have important role in initial communications, because govermental rulers could use these facilities and buildings to know about events that take placed in farthest areas and to stop and rest travelers (Pirnia, H. 2002). In Later periods with growing pupolation and townships development theses stations developed. Therefore, from Achaemenian era onwards caravansaraies became somehow public houses, hotel and the way resorts. Usually caravansaraies' distance were regulated so that caravansaraies can circuit this distance at one day and withouth any problem. In Iran because of climatic diversity, hot weatherathon and being far from urban areas, necessity of establishing such buildings for safety and Financial Security was inevitable. And if these facilities didn't exist, in that time, travelling could be impossible (ghobadian, 1994).

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Caravansaray's Common Features in Iran

Surely caravansaraies were big robots that were built in or out of sities on the main roads for passengers' comfort and their rest, with adobe (sun-dried brick) and stone and had minimum ornaments (Chardin,1995). So that this type of architecture was bigger than other similar residential-the way buildings and had better situation (Chardin,1995). In caravansaraies there were several rooms. Also storerooms and stalls for merchandise, goods and quadrapeds' maintenance had big spaces. Caravansaraies' building usually includes palisade, that is built in the caravansaray's yard and behind this building there are quadrapeds that their entrances are in four interior corners of this buiding, and sometimes their doors open to the porch.

Because of the land's low price; suburban caravansaraies are one story. But intracity – commercial caravansaraies is two stories. In these caravansaraies also one or several rooms provided for innkeeper or officers watching. In intracity – commercial caravansaraies also on every entrance gate or in the caravansaray rooms provided for innkeeper and officers. Innkeeper appointment it's name shows; is responcebility of headship, guidance, move and stop time determining, familiarity with the roads and problem solving among caravan's people and etc. and the governor give this appointment to the innkeeper. Also innkeeper should so serves out that the caravan is safe from any danger and disorder (Pirnia,1991). Also sometimes to increse the caravansaray's security, people build watchtowers at the corners that are used in insecurity times

against bandits and robbers (Pirnia,1991).

Reservoir is another caravansaraie's architectural element. Generally caravansaries have water well or Reservoir that sometimes are built at the center of caravansaray and sometimes are built outside for passengers needs. Also in some caravansaries to obviate passengers' primary needs there is functions such as bakery, butchery, mill, mosque and a shop for trade and caravansarie goods marketing. And sometimes In the vicinity of caravansaray's entrance, arcades are started and these arcades is very usefull for providing the caravansaray's inhabitants' needs and earning money for region inhabitants. Also the room's air ventilation specially in Edge of the desert and central Iran carvansaraies, is performed by a ventilation-shaft or Badgir (for cooling the rooms in summer) and by fireplace (for heating the rooms in winter). The table in below introduces some Iranian caravansariay's architectural common elements.

Table 1: common architectural elements and spaces in Iranian caravansaries

Space title	Architectural characteristics
Defensive watchtowers	In some cases; that the security is very important in 4 corners defensive watchtowers are built. of course Over time this towers lose their military function, and their function chages to Cleaning Units.
ventilation-shaft or Badgir	According to geographical situation and weather condition generally in warm-dru climate, for cooling and ventilation interior spaces of caravansaraies Badgir is used.
Reservoir	caravansaraies' needed water provides generally from existing reservoirs or establish it on the way of rivers.
spring house	Generally in Iranian caravansaraies a space with a aqure or circular plan, with a pondat center to perform ones ablutions, is built.
vestibule	This space with foursquare or octagonal plan is in the building entrance section and is a connector between building entrance and interior space.
stall	Place for animals maintenance.
Service Space	Spaces such as hamam, bazar, mosque and etc exist in most of caravansaraies. Also sentry space is in this inn, that In exchange for fees, sentry is responsible to protec from belongings and quadruped.
Bath and lavatory	Bathes and lavatories usually are built at the corners or in the defensive towers. (caravansaraies such as: Robot Karim, Zavare, etc) and sometimes bathes are built out of caravansaraies' central building.
Material	caravansaraies' building material in Iran are stone, brick and sun-dried brick.
Roof	Generally caravansaraies' ceiling is built flat or with a little slope .

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Ref. Journal of archaeology, 2012

Table 2: common Architecture extensions in Iranian caravansaries

extensions	Architectural characteristics
ornaments	Caravansaraies have ornaments such as brickwork, tile-work, plasterwork, etc and all elemtns such as Doors, windows, yard walls' notch, rooms and ..., generally have ornaments false arch.
Lighting fixtures	Caravansaraies' Lighting are provided rom skylight and windows. At night their lighting are supplied by tallow – burner or other lighting equipment.
fireplace	From Safavid era upward in many caravansaraies buildings and also in the rooms, stalls there is a fireplace (a facility to providing heat).
inscription	Usually every caravansaray has inscription in caravansaray's entrance porch, that is Imprinted with handwritings shuch as Kufic, naskhi, sols, nastaligh.

Ref. Journal of archaeology, 2012

Caravansaray's Typology in Iran

Generally, Iranian caravansaraies are divided to two overall group.that their carachteristics are:

Caravansaraies' Classification according to Situation

Many researchers such as Maxime Siroux; the author of ("Iranian caravansaraies and dependent buildings" book) and so W. Kleiss., M. Y. Kiani in Iranian's caravansaraies book's table of Contents, according to caravansaraies' situation classify caravansaraies in two types; Intracity and suburban caravansaraies. These types' carachteristics are explained in table 3(ghobadian, 1994):

Table 3: Caravansaraies' Classification according to Situation

Caravansaraies situation	Intracity	<p>Tall gateway ith two tall platform in building's exterior entrance</p> <p>these type have several entrances from bazars and from crowded areas of city</p> <p>because of nearness of caravansaray to the bazar and Land prices around the bazar, main building is Two floors.</p> <p>Big reservoir and Enough lavatory</p> <p>small stalls to provisory care from quadruped</p>	<p>Madar Shah caravansaray, Isfahan</p> <p>Sabzevar caravansaray</p> <p>Ahang caravansaray</p> <p>- Shahzade Hossein caravansaray, Joibar</p>
		<p>Generally have onefloor and in some cases the entrance is two floors (second floor is inn-keeper's room).</p> <p>Stalls are bigger than rooms.</p> <p>Lavatory inadequacy</p> <p>These type are inveiglement and bigger than Intracity ones.</p> <p>These types have only one entrance for security.</p> <p>have taller and stronger and also have Defensive watchtowers that have military function.</p>	<p>Mahyar caravansaray</p> <p>Kabood caravansaray, Gonbd</p> <p>Aliabad caravansaray</p> <p>Sangi caravansaray</p> <p>- Sarcham caravansaray</p>

Ref. Ghobadian, 1994

Caravansaraies' Classification according to Climate and Artitectural Styles

Basically in many regions of the word, climate is determined by latitude and the height of sea. Iran country is located north latieccut urabetween 35 to 40 degree , and also located in warm region. Iran country is unique from climatic diversity, that from very arid deserts to mediteranean climate, cold mountain area and warm-humid area. Still, the best method for classification is I. therefore Iran's quartet climatic divisions that suggested by professor Ganji (father of Iran's modern geography and aerology) can be usefull sources. He explain these four climates:

Temperate and humid climate (Caspian sea southern beaches)

Cold climate (western mountains)

Warm and dry climate (central Iran)

Warm and Humid climate (Persian Golf Northern beaches)

This variety of climatic situation and culture, results in different types of

human kind adaptation with environment. So that architectural styles and several living style is one of the most obvious characteristics of this country. In present article, we consider caravansaries' climatic architectures in several region of Iran; in four macro climate area and analyse examples.

Climate had a major effect on the performance of the traditional building architecture and its energy consumption in hot dry area of Iran. Lack of water and energy sources in these areas forced people to build their houses with some strategies based on minimum energy consumption. Heating and cooling usually use largest portion of energy in buildings. Therefore, builders tried to use natural climatic strategies for coping with harsh conditions. These strategies include:

layout orientation, distance between buildings, building orientation & form, climatic elements such as Eyvan (porches), wind catchers, central courtyard, and so on. The paper first aims to introduce these strategies and then, to categorize these characteristics at three levels:

Caravansara's Architectural Features in warm-Dry Climate of Iran (Edge of desert Area):

warm-Dry Climate region includes cities such as Kashan, Zavare, Esfahan, Naeen, Yazd, Shiraz, Kerman and etc. In this climate that includes most semitropical regions of Iran, because of Desert Dry - winds blowing, the measure of air relative humidity is very low. Also these regions have blue sky without any cloud, direct and extreme sun radiation, that usually in afternoons due to near the earth air layers warming and movement, storm and dust rise. Further low measure of relative humidity and lack of clouds presence in these regions' sky causes high temperature' variation range. So that in summer, during day sun radiation heats earth level up to 70° C. while at night this temperature comes down until 15° C or less. In this climate winters are hard and very cold and summers are warm and dry (Kasmaee, 1994).

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Despite of very hard weather situation, the most beautiful, extended and maximum number of Iran's caravansaries have been built in this climate. And the most number of these facilities include one central yard with two or four big verandas around the yard. In these caravansaries passengers' rooms are located around the yard and stalls have been built behind the rooms. Usually passengers' rooms level is upper the yard with a number of stairs, to avoid and block water and yard's dust entering to the rooms. Between rooms and yard, there is a veranda with 2 meters width. Rooms' area is about 10 or 12 square meters. Rooms' Lighting and ventilation also provided by door and sometimes window (Ghobadian, 1994).

This introvert and completely surrounded and walled caravansaries' form is a architectural strategy to adapt with very bad climatic situation. Because the building's exterior walls except entrance door, are completely closed, the building's interior spaces are protected against desert wind and climatic undesirable situation. In these caravansaries the yard is built with materials such as brick and stone, and these materials similar to a heat storage are effective in adjusting building's temperature (Ghobadian,

1994).

Also in some caravansaries such as Ardakan caravansaray, Jokaar caravansaray and Naeen Shah Abbasi caravansaray, ventilation-shaft or Badgir is used for ventilation and to cool the interior spaces in warm months. Bellow table briefly explain the main climatic problems and architectural proctures for adaptation.

Table4: climatic architectural solution in warm-dry climate caravansaraies' architecture

Climatic problems	Climatic solution
High temperature & heat gain reduction	Reducing the level of exposure to sunlight, minimize the surface exposure to the sun, shadow making compact building's shape Light colour of facade for reducing the sunlight reflexion
D a i l y temperature fluctuations	Use of ventilation shaft or Badgir Introverted form (fenestration orientation toward mild-humid yard and Blocking exterior building's wall Use of sun-dry brick walls and thick brick walls as thermal insulation Use of Plated Thatch as thermal insulation to prevent heat loss in winter
Aridity & low rainfall	Use of Reservoir Use of shallow pool for gathering rain water Aqueduct construction to providing Drinking water

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Caravansara's Architectural Features in Cold-Dry Climate of Iran (Mountain Area'):

This region consists of Hamadan, Zanjan, Sanandaj, Tabriz, Ardabil, Urmia and etc. these regions' maximum average daily temperature is about 10°C in summer, and under 3° C in winter. There regions have very cold and long winters. high temprature' variation range in day and night, also between seasons is one of the most common charachteristics of this vlimate (Kasmaee, 1994).

In these regions, Generally because of extreme cold in winter, caravansaries have no any central yard. And instead of central yard, have one big hall for passengers accomadation and around it there are all-around corridors for quadrupeds. Because in these regions conserning very cold weather and extreme mountain winds, maximum use of sun radiation, also prevention from heat loss have high priority (Kasmaee, 1994). Generally these type of caravansaraies' charachteristics are:

Table5: climatic architectural solution in Cold-Dry climate caravansaraies' architecture

<p>Cold weather and heat loss reduction</p>	<p>Reducing the room's height to length and width proportion</p> <p>Reducing stalls' height in many cases reduce heat loss</p> <p>Put Hall or chamber in the central part of the building</p> <p>Put rooms in the central part of the building and stalls around them</p> <p>Use stall space as a barrier between warm interior space and outside</p> <p>Protecting versus invaders and thieves, by closed building and square plans and reduction exterior building kin to minimize heat loss</p>
<p>Elements that heat spaces</p>	<p>Fireplace and hearth in these caravansaraies is bigger than others and more important.</p> <p>Generally in central space one fireplace or more to providing passengers needs.</p> <p>In stalls there is smaller heater.</p>
<p>The use of thermal mass materials</p>	<p>These caravansaraies' walls are mostly stone wall.</p> <p>The walls are very thick</p> <p>Thickness of walls is usefull in interior air temperature reduction</p> <p>Reduction heat loss for conduction increasing farah p.k. (Siro,1944).</p>
<p>Use of underground spaces</p>	<p>Reducing the level of exposure to sunlight,</p>
<p>Lighting & ventilation</p>	<p>This buildings fenestration in spaces.</p> <p>Window and doors area is small</p> <p>Generally there is a filter between outdoor and building space, for reduction heat loss</p> <p>Proper building orientation versus winter's cold winds.</p>

Caravansara's Architectural Features in warm-Humid Climate of Iran (North Area's of Persian Golf and Oman Sea):

Warm-humid climate area includes North Area's of Persian Golf and Oman Sea and cities such as Biushehr, Ahvaz, BandarAbas, Khoramshahr and Bandarlenge. Iran's South beaches that are separated from central Iran by Zagros range of mountain, have very warm and humid summers and mild winters. In this regions air maximum temperature in summer reach up to 35-40°C and Maximum relative humidity reach to 70 percent. In this climate air humidity always and in four seasons is high and for this reason day and night temperature difference is low (kasmaie, 1994).

Although in this beaches the most part of Business and trade is done through waterways, but transportation of goods from ports to country needs roads and caravnsaraies and almost there are many caravansaraies between Persian golf and Oman sea's ports and central Iran's cities. Nowadays link roads from country's south ports to the central Iran's cities are better and more equipped than linkroads between these southern ports (Kiany, 1983).

For providing comfort situation in this region, shadow and air draft is needed. Therefore these beaches' caravansaraies' physical shape shows

that; "these caravansaraies generally don't have Central courtyard and include a square building with central room and lateral rooms. One stone platform is built around the building and all rooms way to outside". In this manner air two way draft in interior space is possible (Kiany, 1983).

Of course this type of caravansaraies are built in Safavid. After safavid, insecurity in many regions of country dominated. "changes took place in caravansaraies. For example defensive towers added to the square building and corridors are closed". Therefore at insecurity cases, safeguarding from passengers and their belongings is more important than providing their physical comfort situation. In these caravansaraies reservoir is located out of caravansaray and the water is supplied from rainwater(Kiany, 1983).

Caravansara's Architectural Features in Mild-Humid Climate of Iran (South Area's of Caspian Sea):

Caravansaraies' location in This climatic area includes marginal bazaras in Rasht, Lahijan, Langrood, Tonkabone, Babol, Sari and Gorgan. South Area's of Caspian Sea have mild-humid weather and too much rainfall, high humidity, also mild temperature. In summer days usually air temperature is between 25 to 30°C and at nights 20 to 23°C and in winter usually is higher than 0°C. Often rainfall in summer is in the form of rainstorm. One of the most important climatic issues in this regions, use of natural ventilation and natural wind circulation in building' interior spaces (kasmaie, 1994).

392 The number of caravansaraies in South Area's of Caspian Sea is less than other regions in Iran. In this areas rainfall is too much the weather is mild, any where of the region is habitable, the population is very and in spite of other climatic regions in Iran, the nearness of Population centers and etc. all of these mentioned factors caused that the need for establish caravansaraies is low. Considering remained caravansaraies, shows that in most of caravansaraies in this region, are located on the connection way between central Iran and coastal cities.

Also studies show that the these caravansaraies' plan typology is similar to the warm-dry climate's types; like a building with central courtyard. What should be pointed out that the central courtyard isn't proper climatic solution; because this type reduces the natural ventilation's capacity in rooms and stalls. But in point of security and protection from Bandits, this compact and Closed form is rational. Then security of this type is high, and passengers' settlement place is in porchs (terrace) and natural ventilation is provided.

In this region temperature differences during night and day, also during year is less than central Iran; thus these porchs could be used by passengers very often. Of course a number of rooms for times that the weather is cold, or for eminent people are built (Kiany, 1983).

Used material types despite of vernacular material that are mostly wooden and fibers, are from materials such as brick, stone and combination of lime and cement that are resistant under rainfall and humidity (Siro, 1944). According to ornament and material type, this is threaten that theses caravansaraies are built by central Iran cities' master mason and architects.

Discussion

As above mentioned, caravansaraies were public and benevolent buildings that accommodated caravans. caravansaraies' golden age in Iran belongs to saffavids and specially at first Shah Abbas' governmentship age. Following several commercial caravans entrance to Iran, many caravansaraies for passengers' placement in several places were built. Meantime, government achieve to an important income resources by earning taxes and rent from tradesmen that stay in caravansaraies. Also gave us, improvement and continuity opportunities for better commercial activities. In this age, according to shite religion formalize, several pertaining caravans traffic to religious places started. Therefore caravansaraies usually were prepare to serve pertaining caravans and participate in praying at any time of year and concerning this caravansaraies assume special religion function. Furthermore according to the width, spread and square footage of caravansaraies, they were also used for military activities and army placement.

Some of caravansaraies for kings, emirs, governors, sin and even European countries diplomats are used. And have political function. As in this era caravansaraes are places for people socialize -from every country, religious and thought. Therefore this place in that era is one of the most important centers. Caravansaray building and attention to it for one century, goes through its usual pass, but after it, because of modern transportation, the past travell style is forgotten and the use of caravansaray is Abandoned. In this article by considering effective climatic variable in caravansaraies, we understand the differences between past and present life.

Iran's ancient architecture, is crystallization of Iranian Art, that is simple and beautiful, and responsible for people's needs. Nowadays there are hotels in Iran, that in past were caravansaray, such as Abbasi Hotel in Isfahan. This building has been renovated and is one of the most beautiful hotel that is renovated, resist and is prepared to entertain. This steps have been maintained ancient building, and bring presents a sense of placement in a Iranian caravansaray to tourists and hosts.

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Fig. 1 Ventilation-shaft or Badgir, Shah Abbas caravansaray, Meybod
 Fig. 2 Defensive watchtowers in Madar shah caravansaray, MorcheKhort
 Fig. 3 Defensive watchtowers, Maranjab caravansaray
 Fig. 4 Rooms around the yard, Maranjab caravansaray



Fig. 5: Iran's four macro climates

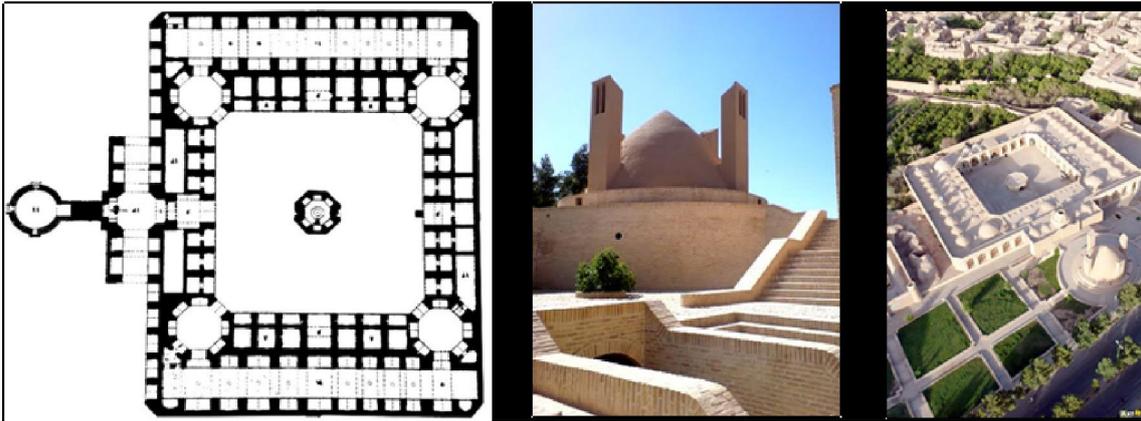


Fig. 6-8 Shah Abbasi Caravansaray

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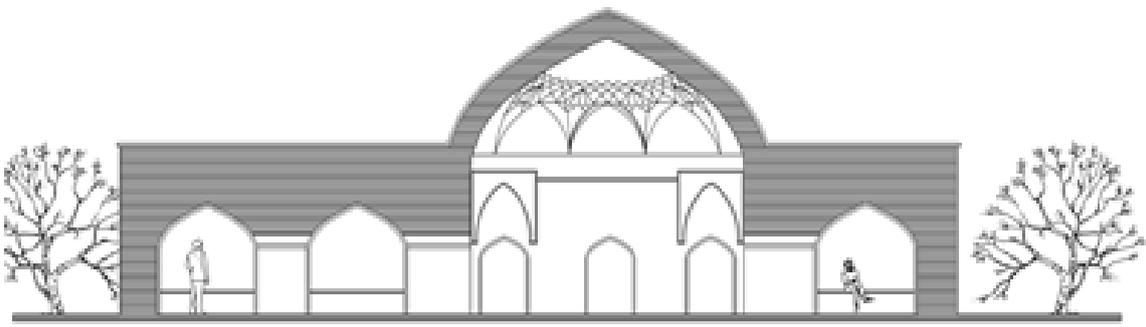
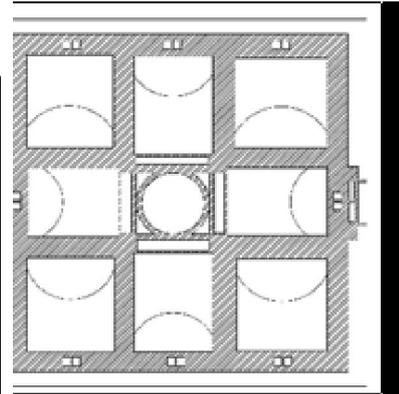
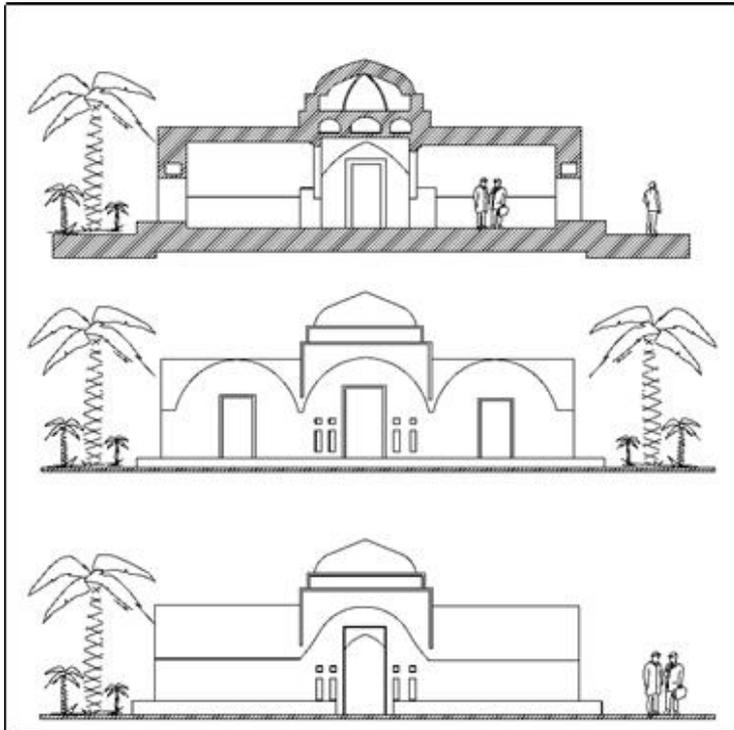


Fig. 9 Gamboush Caravansaray Schematic Section (Siro, 1944)



Fig. 10-11 Khaje Nazar e abbasi Caravansaray, Tabriz (www.tabriz.ir)



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Fig. 12-15 Youngi caravansaray , Bandarabbas suburb



Fig. 16-18 Lat Caravansaray, Rasht suburbs (17)



398 **Fig. 19-22** Madar shah Caravansaray, Isfahan

Transformation and typological innovation: the modern european democracies 'Palace of the political assembly' case study

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Keywords: transformation, typological process, political assembly palaces, processual design

Abstract

The transformation process, either urban or architectural, has always represented a substantial part of the instruments for the construction and the built environment. The transformation of the built is a practice used more frequently in times of crisis, where the need for innovation get stronger. It occurs in cyclical returns and structural crisis in the XIX and XX centuries and in economic and social depression begun in the early XXI century.

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Here is proposed the analysis of what happens to the historic city in a given historical period and a specific typological process.

Economic and political changes affected significantly the whole Europe in XIX century; they pointed out the need to adapt existing places for political assembly. The functional and technical restructuring arisen from the demand of the new political class ensure the equality, the equal rights and duties to each member. Therefore the traditional urban and suburban palaces and the monastery are converted to accomodate new spaces for political assembly. The need of a new place dealt with the instruments of existing buildingstransformation leads to a new typological process; it comes into being from the type of urban, sub-urban palaces and the monastery and bring on the new type of the building for the Parliamentary Assembly.

The paper investigates the morphological process to show how morphological processual can be useful in the contemporary design, suggesting that a reactivation of the morphological process can generate new interesting modes for the contemporary space.

Transformation and crisis, historical city and modernity.

The urban fabric and architectural organism transformation tools, at the urban scale, have always represented a prolific instrument in the construction of the built environment. They represent a possible response to the crisis of the order of things; the transformation marks the moment when the critical consciousness before the upheaval or collapse of the processes of spontaneous consciousness functioning launches new arguments and new interpretations of reality.

The 20th century, in a very short time, the condition of facing different periods of crisis was brought by a strong intensity. After cyclical very short and tight periods, the century, together with the great industrial and economic development that accompanied the development of modern architecture and the city, brings its structural crises: from the "great depression" of 1929 up to the "oil crisis" of 1972, these crisis represent sort of "face to face meetings" with the limits and contradictions of the modern economic and productive system.

These moments stimulate the sensitivity of those who work for the construction of the collective environment of the architects who - due to the decrease of economic resources for the construction sector typical of these moments - have to redirect their work on the plan of reuse, recycling and transformation of the existing, as the only viable path for the new project. The current moment of socio-economic crisis placed the contemporary architect again in front of this problem and today's architectural culture is looking for answers in this topic.

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Some important signs - even in the need of a reconsideration - besides the recent elaborations of the international architectural culture, come from the national powers and the legislative - administrative areas: for example the great debate on the question of soil consumption and, in Italy, the regional laws issued in this context are clear demonstrations of the urgency and effectiveness of this problem.

For its part, the architectural culture expresses a position only partly structured by a mature critical thinking with a respect to the theme of the transformation.

To enter, metaphorically, in the meanders of the historical city and its complex processes of growth and mutation, could be an interesting way to research new perspectives and new paths for the contemporary transformation project.

European historical centers are a lesson on the living and pulsating body of the city, showing the morphogenetic power of the transformation practice.

In these centers, looking at their structure, even at a time of intense transformation like the 19th century, it's possible to find great tendencies to the manipulation of the existing city. In the following century with the modern style, the transformation will be rarely practiced, for a long time; it is already replaced by the interest in the construction of the new city.

The historic centre in the 20th century, downgraded to a cumbersome and unhealthy inheritance of the past, became an island: firstly aban-

done, then exploited for tourism and tertiary industry.

A Typological Process: the 'Palace of the Political Assembly' in Europe.

The typological formative process of the parliamentary assembly palace is one of the most recent testimonies and an important legacy of that capacity of contamination and resilience that characterizes the historic city. In this paper it is proposed a comparative analysis of the buildings of the political assembly of some of the main European capitals, in order to face the issue of transformation, which is a very important way for a necessary and urgent innovation.

During the second half of the 19th century Europe was crossed by a movement of change in political and administrative arrangements. The birth of modern nations brought the need to equip themselves with places for a new political assembly, characterized by unprecedented numbers and roles. The halls for the political assembly of the previous regimes were mostly organized by a hierarchical principle in which opposing blocks of members of the assembly delimit the space occupied by the members of the government or by the royals. This structure was characterized by a limited capacity of seats, by large limits in terms of parity of participation. From an acoustic and visual point, it proved to be inadequate to host an assembly that wants to give equal rights and duties to each politician elected by the people.

402 The parliamentary democracy for its prerogative of guaranteeing participatory equality to each member, realized its assembly using the hemicyclic type, of ancient memory, organized by a hierarchical and egalitarian principle, grafting it and manipulating it within the constructive and typological matter of the historical centre (urban fabric, palaces, monasteries and convents).

The transformations of the buildings that we can observe in this new typological process, work on multiple scales, from urban to architectural. The paper is focused more on the scale of the architectural organism.

The analyzed cases were chosen listing the European democracies, in which this typological process took place during the 19th century. In this paper a comparison of cases are presented that include special types like that of the monastery (Portugal), the urban palace (Italy and Greece), the sub-urban palace (France). The graphic illustrations are schematic of the phases of transformation to the building scale.

Italy - Rome

The Montecitorio palace, designed by Gian Lorenzo Bernini in 1653, was already, even before the transformations to host the parliamentary seat, a place of perennial change. Chosen to host the Curia Pontificia and the Dazio, it was the object of the design by Carlo Fontana to extend and transform it in 1684. The project played on the changed urban character and role of the palace, which with the time had become a public building. Therefore the transformation of the space in front of the main facade into an hemicyclic square is proposed, enriched with a bell tower, and the main court of the Curia is built.

The transformation history of this building is the protagonist of an important and interesting page for the comparative reading here proposed, especially considering the period since 1871. Following the national unification and the transfer of the capital to Rome, Montecitorio palace was identified as the new seat of parliamentary assembly. With this goal a temporary wooden and iron room was built by the engineer Paolo Comotto, also author of the projects for the assembly hall of the former Italian parliament located in the Carignano palace in Turin. This transitory phase marked the beginning of the knotting process of the courtyard of Montecitorio palace, which after further provisional structures and various competitions without built results such as that of 1897, arrived to a solution in 1902, with the design developed by the sicilian architect Ernesto Basile for the current Parliament Building. Basile's project proposed the construction of the assembly hall locating it in the knotted cloister of a new building. It was built by integrating the Bernini's portion of Montecitorio with new buildings, overlapping on the Fontana's part and on substantial portions of Roman historical fabric, both demolished now.

France - Paris

Bourbon Palace, the current seat of the French parliament, is the result of the melting and knotting process that has involved the two original building cores: the Bourbon palace and the nearby Hôtel de Lassay. The two original cores of the current 'citadel' of the Chamber of Deputies were built and designed, almost at the same time, according to the project by architect Lorenzo Giardini, commissioned by the Duchess Luisa Francesca di Borbone. In the planning and direction of the works for the construction of the original cores, succeeded to Giardini several architects: P. Caille-teau, J.Aubert and J.Gabriel.

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An ideal reference to the Grand Trianon model, a building commissioned by Louis XIV for the Versailles majestic built complex, is clearly visible in the original project of the palace.

The transformations of the palace, as an aristocratic residence, continued with the design proposed by the architects Le Carpentier and Bellisard, for the new owner of the palace, Luigi Giuseppe di Borbone-Condè. This proposal foresees the construction of new wings on the internal courtyard to the south and different buildings towards the west, to connect the Palais to the Hôtel de Lassay. After the Revolution and the transfer of ownership to the state, the palace in 1797 elected as seat of the Conseil des Cinq-Cents parliamentary assembly, welcomed the construction of the temporary hemicyclic assembly hall designed by the architects Jacques-Pierre Gisors and Étienne-Chérubin Leconte. In the period 1806-1810, Napoleon commissioned to the architect Bernard Poyet, the transformation of the northern front of the palace: a pediment was erected on 12 columns, in the image of a greek temple dedicated to the law. Inclined, in the plan, with respect to the axis of the assembly building, and aligned with the Tempio della Ragione, later transformed into Eglise de La Madeleine, this new front represented the connection between the political assem-

bly and the urban form and space. The subsequent transformations on 1809 created the connection of the two original cores with the creation of a temporary wooden gallery, then permanently transformed into the “Galerie des fêtes” in 1843. In 1832 the construction of the final and current hemicycle was finally completed. In the same project the architect Jules de Joly foresees the advance of the southern front towards the court for the annexation of new spaces and halls.

Greece - Athens

Old Royal Palace, seat of the Hellenic Parliament, designed by the Bavarian architect Friedrich von Gaertner in 1836, was completed in 1843; it was made up of four external three-storey wings that delimited an internal courtyard which was, in turn, divided in half by an arm of two floors.

The inner courtyard/s represented the main place of the transformative dynamics that characterized the history of the building. In fact, after the devastating fire of 1909 and, over all, after the transition to the republican regime that elected the Old Royal Palace as its parliamentary seat, the building was transformed and partially rebuilt to accommodate the new assembly hall: the new structure, that is also the current one, presented the central core built according to the palatial type, a palace in a palace whose, with the central courtyard knotted to host the assembly hall.

404 *Portugal - Lisbon*

The construction of São Bento Monastery in Lisbon, current seat of the Portuguese parliament “Assembleia da República”, started in 1615. The troubled history of this building complex sees the succession of several architects such as João Turriano and Pedro Quaresma in 1624, Teodósio Frias in 1630, a probable passage of Francesco Borromini in 1632, for the management of the complex construction site.

The illustration by Frei Leão de São Tomás, included in the second volume of the books “Benedictina Lusitana”, which describes the project of the monastery, dates back to 1644. Characterized by a scheme with four cloisters, with a church in a central position, the initial project will never be entirely built. Only the portion of the first two cloisters, facing south-east, and the church were built. The great earthquake that destroyed Lisbon in 1755 caused only partial damage to the structure of the monastery that became the point of reception of the population and in the following years hosted civil functions, military and religious bodies. The wing to the east was passed to host the Real Arquivo da Torre do Tombo which remained there until recent times.

In 1821 with the installation of the ‘Cortes Gerais Extraordinárias e Constituintes’ inside the monastery, began the institutional and assembly use of the complex. In 1826 the ‘Câmara dos Dignos Pares do Reino’ and the ‘Câmara dos Senhores Deputados da Nação’ were established in the complex, with the approval of the Constitution. It is just in 1834, with the definite expulsion of the religious from the convent, that the building, hitherto devoted to a mixed use, started the most important transformations in

order to carry out all the assembly new functions, according to the project of the architect Possidônio da Silva, for the transformation of the Sala do Capitulo in Câmara dos Pares and the construction of the Câmara dos Deputados. The latter, the main assembly hall inaugurated in 1903, was the result of the knotting of the southeast cloister. In 1895 the french architect Jean-François Gille Colson was commissioned to transform and modify the Sala dos Pares. Then the architect Ventura Terra, succeeded Gille Colson and was commissioned to design the spaces outside the parliamentary building, the large monumental ramp at the main entrance, the transformation of the Câmara dos Deputados, the Salle des pas-perdus.

Conclusion

The typological process of the building for the political assembly is a precious and recent example of the generative and innovative capacity and potentiality of the transformative dynamics.

The comparative reading presented here shows various declinations and sub-modalities of the transformative practice, which in the typological process examined ends up to refer to the action of the knotting.

The knotting is experimented in a vast range, that goes from the 'simple' knotting covering of open space courtyard or cloister in order to realize the special assembly room (the knotting before being definitive is often preceded by intermediate phases with temporary structures) until the construction of new parts of the building to organically connect the various sectors or to realize the spatial conditions of new knotting. In the latter cases, the annexes, since the beginning, often contain the knotted special space itself.

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The transformative modalities observed show the difficult art of optimizing the resources available and obtaining the maximum result with the minimum effort. The knotting is an effective example of how a relatively light and simple action can generate a change and a solution of great importance: just with the covering of the open spaces of a cloister, courtyard, of the palace / monastery, the entire organizational and hierarchical structure of the building undergo to an important change and innovation.

Similarly to the process characterized in the typological formation of the places of worship in ancient times, in the typological process of the palace for political assembly, suddenly by knotting, the serial served spaces pass to be, both from a distributive and constructive point of view, spaces serving the great new special nodal assembly hall.

The knotting modality and its declinations, for the demonstrated generative efficiency, is still a valid operative tool for the transformation of the existing, to carry out functions that are constantly evolving at every level. The current period of economic and socio-political crisis puts the architect precisely in the condition of need for innovative solutions, especially as regards the relationship between the political institution and citizens.

The contemporary tendency to reconstruct this relationship between the delegate and the citizen must go through the rethinking of the work spaces of the delegate, through the reformulation of its 'professional' profile

and role in society and above all through the transformation and the typological innovation to find new and updated spaces for meeting politics and society. In this context of needs and problems, waiting for a solution, the typological process of the building of the political assembly is an example to which refer for addressing project missions.

The projections just outlined, albeit in general terms, refer to the typological process, still in progress, of the Palace for the parliamentary political assembly, as the result of the comparative reading of the case studies. The applicability of this study process also in other types and typological processes, demonstrates how it can fully represent a possible path to find an answer to the crisis of the project: the knowledge of the typological process can project itself up to the design phase and activating/reactivating the formative processes read on the historical city, updating them, can contribute to generate the contemporary project.

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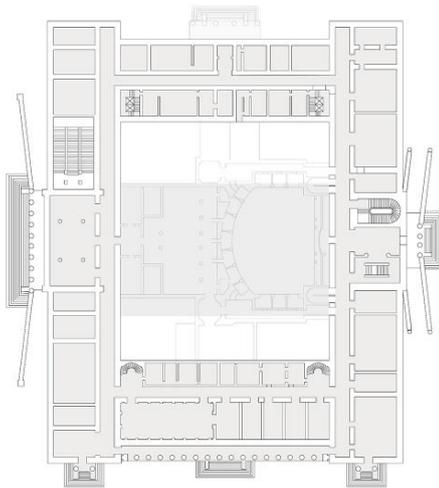
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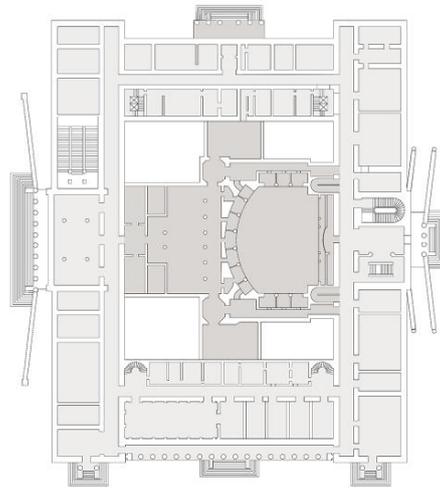
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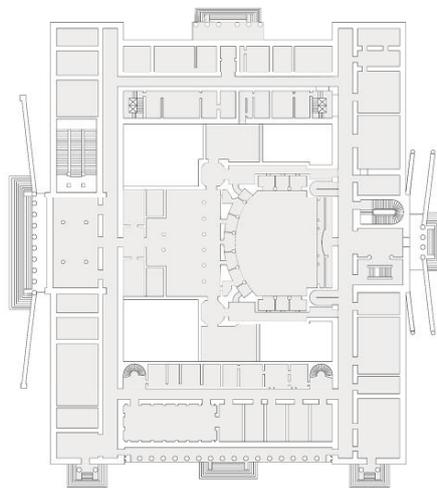


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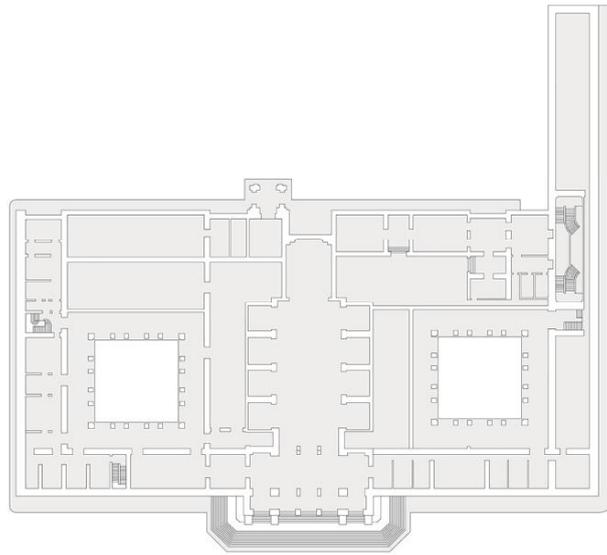
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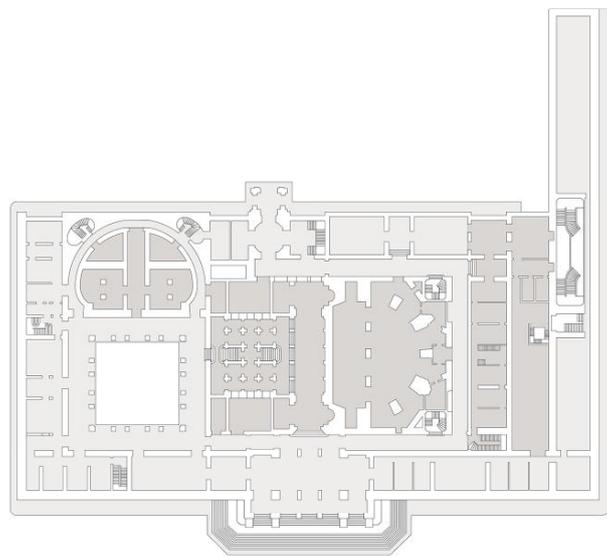
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Portugal - Lisbon,
São Bento Monastery

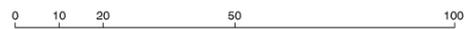


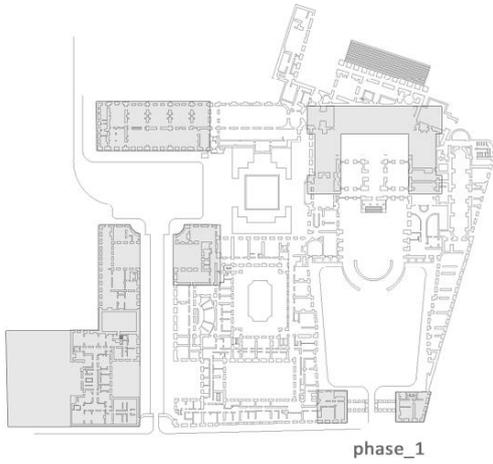
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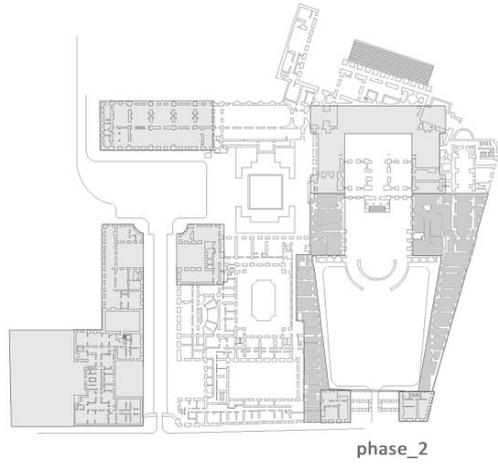
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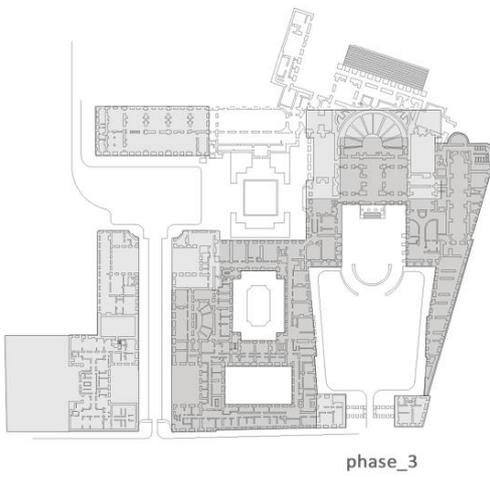


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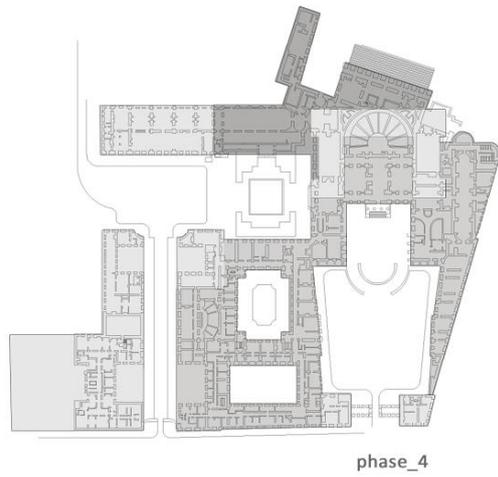


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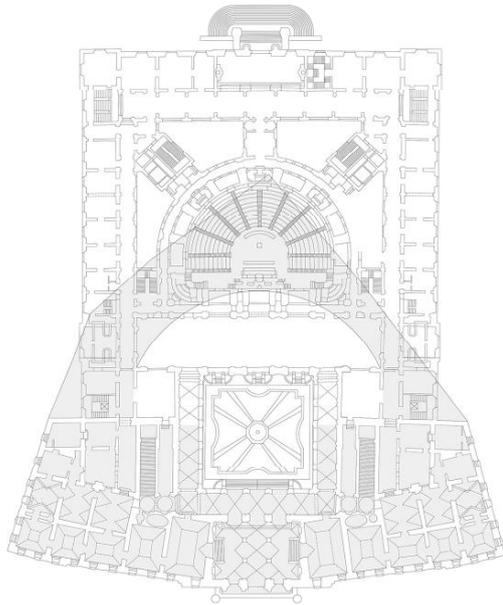
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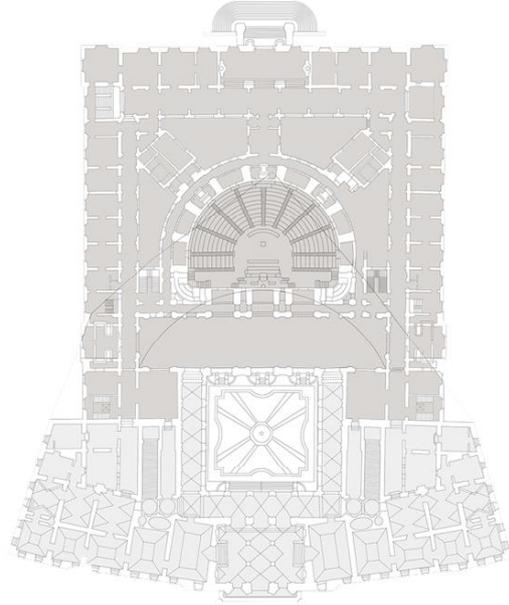
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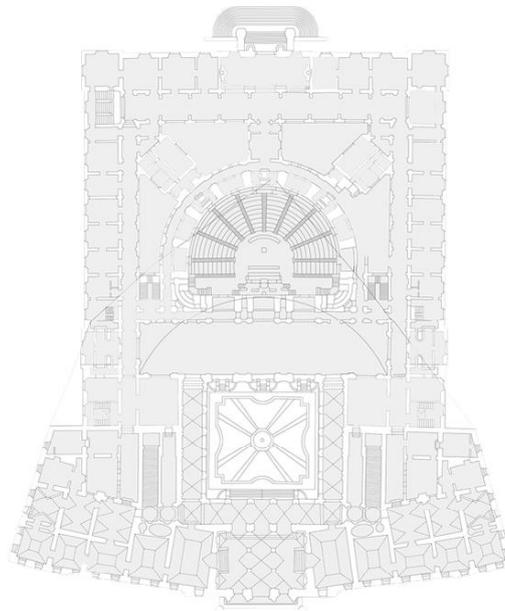
Italy - Rome,
Montecitorio palace



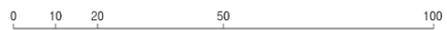
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Conference topic

D.1) Contemporary Cities 1

L'aggregato e la sua modificazione tra tessuto ed elementi primari. Il caso di Frigento nella ricerca "Metrics"

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Keywords: Frigento, monuments, urban fabric

Abstract

414 The paper aims to investigate the particular morphology along a ridge of Frigento's historical centre related to an hypothesis of intervention in the context of an industrial research and of experimental development within the Project "Metrics_ Metodologie e Tecnologie per la gestione e Riqualificazione dei Centri Storici e degli edifici di pregio" (Methodologies and Technologies for the management and requalification of historical centres and valuable buildings): a project of the High Technology District for the Sustainable Building of Campania Region, STRESS S.c.a.r.l., funded by Programma Operativo Nazionale Ricerca e Competitività 2007-2013 (National Operative Program Research and Competitiveness 2007-2013). The preliminary analysis activities underlined the permanence of a foundation urban fabric (settlement aggregate) of Samnitic and Roman origin (Aeculanum) that during the time was the support for a ducal re-formulation through two prevailing typologies: the courtyard house and the terrace house. The ordered urban fabric, caused by the ridge road and determined, in its deformations, by the acclivity of the earth form, had its counterpoint in some primary elements: the cathedral, the town-hall, the market. This urban congeries dominated the valley below, anticipated by the naturalistic system of the "edges". The research activity is now in its final phase and, after investigated the centre through the typo-morphological analyses, implemented them with a spatial reading following the methodology proposed by Uwe Schröder, aiming to underline the relationship between interiority and exteriority of urban spaces. Finally the research activity proposed projects as possibility of check of the proposed methodology. The projects were hypothesis on urban fabric, reconfiguration of mixtilinear courtyard blocks with garden, reconstruction/revamping of valuable buildings (Palazzo Testa-Pelosi) and on new buildings: in order to complete the head of the block, to measure the promontory towards the "edges", to re-polarize and re-triangulate, to the west and to the south, the historical centre starting from the cathedral, through a new town-hall and a new market.

Introduzione

Il presente contributo intende indagare la singolare ma nominabile morfologia di crinale del centro storico di Frigento alla luce di una possibilità di intervento connessa ad una ricerca industriale e correlato sviluppo sperimentale condotta e coordinata nell'ambito del Progetto di ricerca PON "Metrics - Metodologie e Tecnologie per la gestione e Riqualificazione dei Centri Storici e degli edifici di pregio" condotto all'interno del Distretto ad Alta Tecnologia per l'Edilizia Sostenibile della Regione Campania STRESS S.c.a.r.l. e finanziato nell'ambito del Programma Operativo Nazionale Ricerca e Competitività 2007-2013.

Il gruppo di ricerca DiARC da me coordinato nell'ambito del Progetto di Ricerca METRICS, che ha visto come soggetto attuatore il distretto STRESS S.c.a.r.l., come responsabile scientifico il prof. Andrea Prota (DiST_Unina) e come responsabile del progetto l'ing. Alberto Zinno (Stress s.c.a.r.l.) ha coinvolto studiosi ed esperti delle discipline delle Aree 08 rappresentate all'interno del Dipartimento di Architettura dell'Università di Napoli "Federico II" anche in rapporto alle sinergie attivate con altri dipartimenti dell'Ateneo napoletano e di altri atenei campani e dei partner industriali coinvolti nel distretto tecnologico STRESS. La ricerca era articolata in due parti correlate: la prima inerente le attività di ricerca industriale in rapporto agli obiettivi realizzativi del progetto e alle connesse attività in cui sono stati coinvolti i componenti del gruppo ed esperti esterni mediante seminari di studio (Capozzi, Orfeo, Picone 2016); la seconda concernente le attività in itinere di sviluppo sperimentale nelle molteplici applicazioni a casi studio e dimostratori (Capozzi 2016). Tra i casi dimostratori vi erano, in termini di aggregati urbani, il centro storico di Napoli (Cavone e Quartieri Spagnoli) e quello di Frigento. Per quest'ultimo aggregato oltre alle preliminari analisi tipo-morfologiche e territoriali e multi disciplinari (ambientali, storiche, tecniche costruttive) ci si è focalizzati, nell'ambito della teoria del progetto urbano, su alcuni interventi ex novo posti ai margini del centro e, in merito agli edifici di pregio, sul caso singolare di Palazzo Testa-Pelosi oggi allo stato di rudere. Su quest'ultimo manufatto in fase di sperimentazione saranno realizzati alcuni interventi a campione.

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Le attività analitiche preliminari condotte dal gruppo di ricerca hanno evidenziato la permanenza di un impianto fondativo di origine sannitico-romana che nel tempo è stato il supporto di una riformulazione ducale mediante l'adozione di due tipologie prevalenti: la casa a corte, e la casa a schiera con la caratteristica "sentina" di spina. Il tessuto ordinato degli isolati, generato dalla strada di crinale e determinato, nelle sue deformazioni, dalla acclività della forma della terra, era contrappuntato da alcuni elementi primari: la cattedrale, il palazzo municipale, il mercato. Tale congerie urbana dominava le valli sottostanti – quella di Benevento e il cosiddetto Canale frigentino – anticipate a nord dal sistema naturalistico dei "Limiti".

La ricerca condotta e in fase di conclusione, dopo aver indagato il centro irpino attraverso le consuete analisi tipo-morfologiche, le ha implementate con la lettura "spazialista" formulata e proposta da Uwe Schröder – che tende a rendere intellegibile il rapporto tra le internità e le esternità

dell'urbano – e ha individuato alcuni possibili interventi esemplificativi e verificativi della metodologia proposta. Si è trattato di interventi sul tessuto in aggregato, di riconfigurazione di isolati a corte mistilinea con orti, di ricostruzione/riconfigurazione di alcuni manufatti di pregio (Palazzo Testa-Pelosi) e sulla possibilità di nuove architetture primarie sia a completamento della testata di uno degli isolati sia per misurare il promontorio verso i “Limiti”, nonché per ri-polarizzare e ri-triangolare a ovest e a sud il centro storico a partire dalla Cattedrale, mediante una nuova aula comunale e un nuovo mercato.

Metodologia

Come anticipato in premessa l'approccio metodologico adottato per Frigento (Capozzi 2016) è stato mutuato dalle consuete analisi storiche e cartografiche, catastali e tipo-morfologiche associandole a quelle spazialiste secondo la teoria di Uwe Schröder (Schröder 2009, 2015). Da una analisi cartografica della “De Mephiti et Vallibus Anxantis libri tres” del 1783, di Vincenzo Maria Santoli e delle tavole dell’“Atlante geografico del Regno di Napoli” redatto dal geografo G.A. Rizzi Zannoni del 1808, sottoposte ad una scarnificazione percettiva, sulla base delle tecniche messe a punto su presupposti Lynchiani (Lynch 1960), sono state predisposte un serie di ulteriori elaborazioni sul supporto di cartografie scientifiche più recenti. Se nella veduta di Santoli emerge con chiarezza la forma acclive del promontorio su cui si attesta il primo nucleo edificato, nell'Atlante – prodromo delle successive tavolette IGM – dalla visione zenitale e la particolare tecnica a sfumato per rendere evidente la forma del suolo collinare, montuoso e vallivo, emerge con chiarezza il sistema insediativo a scala territoriale di cresta in cui Frigento (a meno del borgo Il Casale) si palesa come l'unico a matrice ortogonale a partire dalla strada di crinale. Invece quello adiacente di Gesualdo, anch'esso collocato sul promontorio, risulta di forma avvolgente e centroidale. L'analisi della forma della terra ha messo in luce la dominanza del promontorio che si rivolge su tutti lati ai sistemi di fondo valle. Il promontorio per la presenza della terrazza superiore (900 m s.l.m) si offre come sito di impianto al primo insediamento sannitico-romano di Aeculanum (Giovanniello 2015). Secondo tale ipotesi il primigenio asse di crinale E-O, diviene decumano tra due regiones organizzate in un sistema di insulae allungante in direzione N-S solcate da una teoria di cardines. Le principali vie d'accesso al promontorio edificato erano i costoni e i contro crinali connessi alla via Appia, poi sostituiti a partire dal 1830 dalla strada provinciale di fondo valle che aprirà ai recenti insediamenti dispersi post-sisma. Alla analisi orografica è stata affiancata quella del rilievo dei piani terra pre- e post-sisma nonché le analisi figurali forma/sfondo *Schwarzplan* e quella dei tracciati *Strassebau* anche in questo caso redatte allo stato pre- e post-sisma. Tali elaborazioni infografiche, confermatrice dell'interpretazione evolutiva e descrittiva della morfologia urbana sopra annunciata, hanno segnalato alcune incongruenze sui bordi, soprattutto rispetto alle recenti espansioni a sud, mentre a nord, anche per la presenza della strada di

mezzacosta significativamente nominata dei Limiti, una relativa tenuta. Sia lo *Schwarzplan* che la pianta tipologica sono state il supporto necessario per le successive analisi *Rot-blau plan* che hanno evidenziato e confermato, alle diverse scale, sia l'estrema frammentazione degli insediamenti recenti sia, nel confronto pre e post-sisma, la significativa variazione di internità (*warm spaces*) del nucleo consolidato. Infatti, il nucleo consolidato sui margini, a fronte della resistente murazione naturale dei Limiti, ha enucleato ampie porzioni spaziali aperte e informi e non invece "campi" intesi come spazi dell'aperto in grado di introitare porzioni di natura (*cold spaces*). Allo stesso modo alla scala tipologica, via via più minuta (la città/la città e la casa/la casa e la stanza), sono state classificate differenti gradazioni di internità e di esternità (esterno-esterno; esterno-interno; interno-esterno; interno-interno) anche in rapporto ai modi dell'abitare pubblico e privato (Schröder 2015) e alle mutazioni indotte da processi di degrado determinati dal terremoto. Anche le addizioni recenti si sono potute identificare come spazi interni irrelati "galleggianti" o "punteggiati" in ampi spazi vuoti per lo più indeterminati. La strategia messa in campo da tale approccio metodologico è stata quindi, in prima istanza, quella di implementare le consolidate tecniche analitiche sia percettologiche delle cartografie e delle vedute, sia tipo-morfologiche riguardo la formazione degli isolati e la loro architettura interna (rilevo dei piani terra) nella fondamentale dialettica tra tessuto ed elementi primari, con quelle tecniche analitico-sintetiche più recenti interessate alla descrizione fenomenologica degli spazi della città (Schröder 2011). Una modalità, quest'ultima, che dalla scala ampia territoriale e poi urbana perviene a quella architettonica riconoscendo anche spazi interni come ampliamento degli spazi urbani esterni. Una tecnica conoscitiva che trova illustri precedenti nella pianta del Nolli a Roma e in quella coeva del Duca di Noja a Napoli seguita dalle mappe del Reale Ufficio Topografico, e che si è resa vieppiù un potente strumento non solo di lettura e conoscenza dell'architettura degli spazi urbani ricordati, come in Alberti, alla casa e alle forme dell'abitare, ma di indicazione e guida per il progetto di modificazione. Un dispositivo efficiente per il giudizio sulla forma attuale della compagine urbana, che ha suggerito temi possibili, interventi e soluzioni che indirizzassero quella condizione stratificata – in alcuni casi contraddittoria o incompiuta – verso alcune modificazioni misurabili nella direzione di conferma o ripristino del grado di internità o nella sua possibile apertura introducendo nuove architetture selezionate in grado di triangolare direzioni, aprirsi al paesaggio, definire nuove polarità.

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Processo di formazione

A partire dal nucleo iniziale sannitico-romano ad Ovest del promontorio nella parte più estesa del pianoro il centro si accresce verso Est in prosecuzione della strada di crinale (Mauriello 2005) con un doppio sistema: a nord in maniera più frammentata a sud con analoghi isolati a spina singola o doppia ma ruotati rispetto alla giacitura originaria del primo impianto. Tra il centro romano e l'addizione Longobarda si collocano

la cattedrale e il mercato collegati da una strada di contro crinale N-S a doppia svasatura. Agli estremi di tale schema cruciforme si collocano alcuni elementi primari: la cattedrale di S. Maria Assunta, la chiesa di San Giovanni e la chiesa di San Pietro posta lungo uno dei cardini passanti dell'addizione. In rapporto a tale centro binucleare a sud si determinerà un grande isolato terrazzato a corte che ribatte il sistema orografico deformando i suoi bordi esterni in rapporto alle curve di livello inferiori verso la valle. Nell'architettura degli isolati, riguardo ai caratteri esterni, si riconoscono i caratteristici isolati a spina con sentina centrale su cui, rispetto ai caratteri interni, si organizzano case a schiera degradanti a causa dei dislivelli orografici a volte molto accentuati secondo due varianti principali: a scala interna con due ambienti o tre disposti attorno al vano per le risalite; a scala esterna con profferlo e "afio" (loggia esterna) di norma con due ambienti in sequenza. Accanto a questi tipi edilizi elementari si riscontrano o per processi di rifusione (Strappa 2014) – nelle schiere – o per nuovo impianto – in testata o isolate in punti singolari – alcune tipologie a corte, di norma destinati a residenze aristocratiche. I processi trasformativi riscontrati per le schiere sono prevalentemente nella ulteriore suddivisione delle celle interne per la corte di intasamento e frammentazione degli spazi. Il principio aggregativo dei tipi a schiera è quello per accostamento lineare con condizioni di affaccio singolo, doppio se passante, triplo se di testata di rifusione. A conferma di tali notevoli modificazioni nel corso del tempo, Giovanni Carbonara (Carbonara 2005) ha rilevato come il centro storico di Frigento risulti del tutto «analogo per vicende a molti altri centri dell'Irpinia, sottoposti nei secoli a continue modifiche e riscritture». Riscritture lente e progressive, adattamenti e variazioni interne a principi di costruzione urbana conficcati nella tradizione e che a volte ha subito improvvise accelerazioni o involuzioni per eventi cagionati da fenomeni antropici (abbandoni legati alle migrazioni) o naturali (terremoti, alluvioni). Tra questi ultimi inneschi della modificazione, degni, mutazioni un nodo centrale di svolta è stato rappresentato dal catastrofico terremoto del 23 novembre 1980 che a Frigento produrrà crolli e stravolgimenti di considerevole estensione e in larga misura ripristinati mentre, in altri centri limitrofi, la quasi completa distruzione e conseguente sparizione dei centri abitati poi ricostruiti in altra posizione o, in caso meno catastrofici, sovente assediati da una nuova edilizia di scarsa qualità. Significativamente in alcuni rari casi, come in quello del centro storico di Teora, il piano di ricostruzione, redatto da G. Grassi, A. Renna, C. Manzo e V. Pezza, (Grassi 1988) ha comportato per un verso la ricostruzione, com'era e dov'era, di alcune sue parti prevalentemente residenziali, per l'altro vere e proprie nuove parti urbane residenziali aperte al paesaggio (Pianistrella) ma anche la costruzione di nuove architetture civili sul sedime o in rapporto con le antiche presenze oramai scomparse o allo stato di rudere (il castello, la chiesa). Il sisma del 1980 a Frigento ha indotto nella compagine generale numerose alterazioni che pur se non estese a tappeto hanno reso meno chiaro il rapporto tra il centro storico e i suoi margini, determinando alcune slabbrature e puntuali

sgranature all'interno dei tessuti compatti, in larga misura ricostruiti anche se, a volte, con tecniche e caratteri architettonici del tutto inappropriati. Si possono nell'ordine elencare: ad ovest la slabbratura in corrispondenza del sedime del Palazzo Famiglietti; a nord la perdita della testa dell'isolato centrale e la diruizione del Palazzo Testa-Pelosi; a sud un nuovo insediamento del tutto estraneo per impianto e tipi edilizi alla tradizione costruttiva e formale del borgo, per non parlare, lungo la strada di adduzione, della cospicua urbanizzazione a villini isolati unifamiliari che punteggiano la piana. L'analisi del processo morfologico evolutivo dell'aggregato urbano, in uno con l'esempio paradigmatico del progetto di Teora, ha indotto pertanto la ricerca a ipotizzare alcuni interventi sul tessuto e sui bordi secondo due obiettivi principali: definire alcuni caposaldi a misura dell'intera dimensione del centro; completare i vacui degli isolati e delle testate; recuperare a funzioni pubbliche le rovine di Palazzo Testa-Pelosi. La prima strategia di intervento si è articolata in una serie di manufatti primari al contorno del centro: verso nord a protensione sul bosco oltre la strada dei Limiti; ad ovest a riconfigurare il vuoto indefinito della piazza del comune; a sud a proporre (in sostituzione dell'attuale isolato trapezio peraltro fortemente manomesso) un Mercato come "antipolo" necessario della Cattedrale e ad est a individuare la porta di un ulteriore isolato a corte che, al suo interno, consentisse un sistema di risalita verso la parte più alta e semi naturale del borgo con la presenza di rilevanti testimonianze archeologiche. Nello stesso tempo, per gli interventi diffusi, si sono proposte varie alternative, dalla semplice integrazione dei blocchi mancanti, riproponendo la tipologia residenziale a schiera o a profferlo, sino alla nuova addizione collettiva in prossimità di fatti urbani rilevanti. Alcune ipotesi hanno riguardato l'area prospiciente alla Cattedrale con interventi conservativi e di restauro nonché di aggiunta per Palazzo Testa-Pelosi e per la testata dell'isolato prospiciente il Largo della Cattedrale un suo completamento ripristinandone la morfologia preesistente e d'impianto. Altri progetti hanno interessato alcuni isolati meridionali incompiuti e l'area a oriente della Cattedrale in rapporto alle presenze archeologiche delle cisterne e alla riconfigurazione degli spazi aperti ivi presenti. Questi interventi altresì hanno condiviso nel sistema dei caratteri architettonici una riduzione significativa degli elementi architettonici utilizzati rimarcando, ogni volta, la compresenza di sistemi costruttivi (Strappa 2015) di tipo stereotomico (plastico-murario) con bucaure ricorrenti/discrete e di tipo tettonico (elasto-ligneo) mediante telai a vista e partiture ritmiche reinterpretanti il tema dell'"afio" mediamente trattato con sistemi tettonici (colonne in pietra e coperture lignee). Infatti, se la nuova aula del consiglio comunale, nell'assumere come referente il tipo del battistero, si propone come una *tholos* attorniata da un periptero anulare di ordine doppio; l'aggiunta soprastante ai ruderi di Palazzo Testa-Pelosi lascia alla rovina il suo carattere murario e all'aggiunta quello tettonico secondo un sistema ipostilo che sorregge un volume unitario e indipendente caratterizzato da paraste ripetute e ritmate secondo un passo decrescente in direzione della cattedrale. Allo

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stesso modo per la testata dell'isolato incompiuto si adotta il paradigma della loggia civica medioevale contrapposto al volume opaco delle risalite. Se per il Mercato, il rimando è alla piazza coperta o al tipo ad aula a definire un riparo coperto svettante su un sistema radicale massivo; per l'isolato a corte il tema è quello della "porta" realizzata dalla duplicazione dei due volumi a sostruzione delle cortine preesistenti su cui si accostano sistemi diafani intelaiati per le logge/ballatoi. Infine, per gli interventi previsti a corona della parte nord verso via Limiti, edifici rampa massivi sono chiamati a sostenere volumi intelaiati a sbalzo aperti alla vista del paesaggio circostante. Tali primi esiti progettuali, a carattere sperimentale, elaborati anche nell'ambito del Laboratorio di Sintesi Finale in Progettazione Architettonica del Corso di Studi in Scienze dell'Architettura del DiARC, sono stati oggetto di una mostra presso il comune di Frigento, d'intesa con l'Amministrazione e il consorzio Stress. Sono attualmente in corso ulteriori approfondimenti che vedono impegnati e coinvolti docenti di vari discipline: dalla Progettazione architettonica e urbana al Restauro; dalla Storia dal Disegno; dalla Tecnica delle costruzioni alla Tecnologia architettonica e ambientale.

Conclusioni

420 Le preliminari elaborazioni analitiche che si sono concretate in tavole analitico descrittive bi-dimensionali e tridimensionali dalla scala vasta a quella tipologica con l'evidenziazione degli elementi primari e del rapporto tra sistema insediativo e morfologia del suolo – esplicitate in elaborazioni infografiche generali estese al centro consolidato – hanno consentito di approntare alcuni approfondimenti e proposte progettuali per il borgo irpino. Queste proposte sono state poi ri-verificate adottando medesime strumentazioni analitiche preventivamente applicate del tipo rot-blau plan, che a monte ne hanno indotto le scelte posizionali e tematiche, e, a valle, hanno consentito di misurare e controllare efficacemente le modificazioni indotte dal progetto. L'andirivieni ricorsivo tra modi della conoscenza, verifiche sperimentali e validazione e misurazione degli esiti determinati dalle analisi ha consentito di confermare la appropriatezza del metodo proposto selezionando, di volta in volta, l'opportunità di confermare e portare avanti ordini e processualità dell'organismo urbano, interrotte o alterate per eventi esterni, ma anche soprattutto di introdurre ulteriori ma appropriati ordini architettonici in grado di ridefinire complessivamente l'architettura della città di Frigento attraverso nuovi monumenti necessari alla permanenza dei tessuti da essi, peraltro, legittimati.

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Fig. 1 Frigento, analisi tipologica e rot-blau plan pre- e post-sisma (Progetto Metrics coord. R. Capozzi, A. Picone, coll. F. Ciani)



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Fig. 2 Proposta per Frigento (schizzo di R. Capozzi)



Fig. 3 Il battistero/sala comunale (Laboratorio di Sintesi in Progettazione Architettonica, coord. prof. A. Picone, docente: prof. R. Capozzi, allievo N. Nappi, riferimento n.1 nella figura 1)



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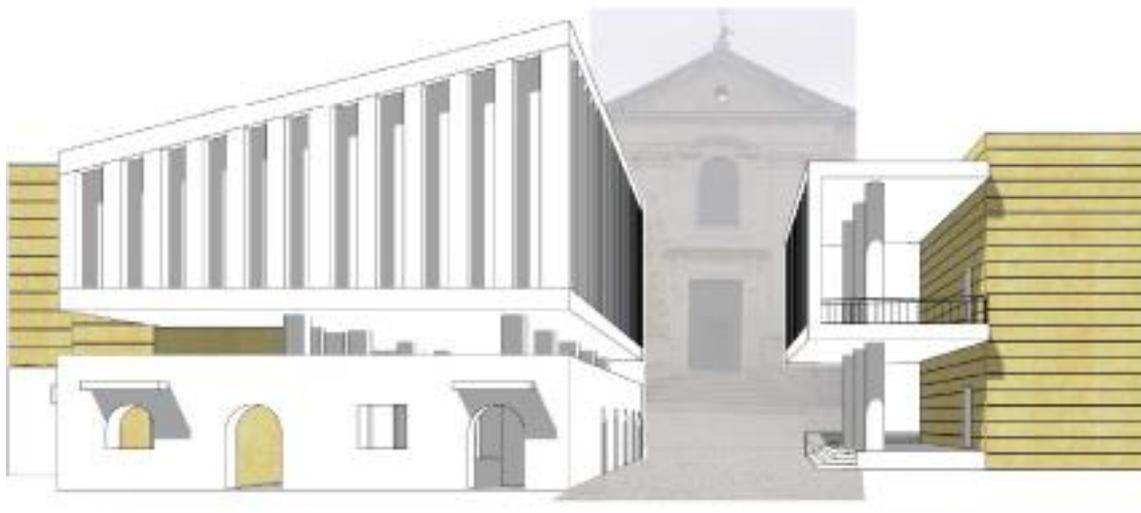


Fig. 4 Il riparo/mercato (Laboratorio di Sintesi in Progettazione Architettonica, coord. prof. A. Picone, docente: prof. R. Capozzi, allievo N. Nappi, riferimento n.2 nella figura 1

Fig. 5 Palazzo Testa-Pelosi e loggia civica (Laboratorio di Sintesi in Progettazione Architettonica, coord. prof. A. Picone, docente: prof. R. Capozzi, allievo N. Nappi) , riferimento n.3 nella figura 1

The grammar of Italian Modernism in Albania: transforming the Ottoman built environment

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Abstract

426 *The paper explores the relation between space, both urban and rural territory arranged by Ottoman Empire, and a western power (Italy) that wanted to impose different aesthetic codes to shape new spatial structures, those derived from a complex blending of Modernism and rhetorical architecture (Ciucci, 1989). Italian modernism, at the beginning of twentieth century, molded autocratic spaces by four main design tools: pure volumes, colors and materials, rhythms, and scales (Rava, 1931). Town planning was a large-scale architectural project, of a metaphysical nature, setting a scene that was classical and abstract at the same time. The minimum fascist configuration was the cardo-decumano scheme, crisscrossed in the rectangular square (forum) where the space is enclosed with porticos. Italian new roman forums (E42, Foro Italico, Città Universitaria) served as models, re-elaborated and grafted in another cultural environment. Italian Modernism implemented a new aesthetics from the field of figurative art that made some authors address fascist architecture as a built metaphysics (Besana et al., 2002), namely history that has been freed from material implications. The classical-oriented civilization of the New Order translated the state of otherness of early century Metaphysical art into reality (Trione, 2006). The same alienation and absolute power of silence of Giorgio de Chiricos's paintings arouses in the spaces designed for Albanian towns. Therefore, the grammar of WWII Italian urban designs in Albania arouses two main topics: How western Modernism plunged into an ottoman built environment? How do we define the grammar of spaces that constitute the body of Italian architectural identity?*

Introduction

The paper explores the relation between space, both the urban and rural territory arranged by Ottoman Empire, and a western power (Italy) that wanted to impose different aesthetic codes to shape new spatial structures, those derived from a complex blending of Modernism and rhetorical architecture (Ciucci, 1989). Italian modernism, at the beginning of twentieth century, molded autocratic spaces by four main design tools: pure volumes, colors and materials, rhythms, and scales (Rava, 1931). Town planning was a large-scale architectural project, of a metaphysical nature, setting a scene that was classical and abstract at the same time. Italian “new roman forums” (E42, Foro Italico, Città Universitaria) served as models, re-elaborated and grafted in another cultural environment.

Italian Modernism implemented a new aesthetics from the field of figurative art that made some authors address fascist architecture as a “built metaphysics” (Besana, Carli, Devoti, & Prisco, 2002), namely history that has been freed from material implications. The classical-oriented civilization of the New Order translated the state of otherness of early century Metaphysical art into reality (Trione, 2006). That alienation of Giorgio de Chiricos’s paintings arouses in the spaces designed for Albanian towns.

Therefore, the grammar of WWII Italian urban designs in Albania draws the attention on two main topics: How was western Modernism disseminated into an ottoman built environment? How do we define the grammar of spaces that constitute the body of Italian architectural identity?

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Historical background

Albanian twentieth century, starting with the 1912 declaration of independence and the new national borders, endured autocratic governments for almost the entire century: the principality of Albania established in 1914, the Italian protectorate over part of the territory in 1917 and military occupation from 1939 to 1943. This leads to the relation between space, both urban and rural territory arranged by Ottoman Empire, and a western power that wanted to impose new aesthetic codes fabricating distant spatial structures, those derived from a complex blending of Modernism and rhetorical architecture by the regime.

Under the Ottoman domination, the Balkans were a confused patchwork of feudal states. Hungary and Venice, two powers traditionally linked to Christianity, were unpopular among the native orthodox population (İnalçık, Faroqhi, & Quataert, 1997). Hebraic minority, which had some prosperous and stable communities until the end of the nineteenth century, did not express any peculiar architectural culture in its settlements (Cerasi, 1992). Thus, until the Albanian independence, the process of conquest and settlement by Ottomans had certain features: territorial expansion was associated with a coherent narrative for validating the religious war. Spatial extension maintained an accurate balance between central power and local actions, for both offensive and defensive purposes. The ruling nobility of the Balkans was weak and fragile, provided with

an army too limited to defeat the Turks. The latter created tribute states and protectorates, with a direct influence on the local rulers, reducing the need for formal conquest. Finally, the conquest had to pay for itself and offered revenue and a certain degree of freedom for adventurers (Hirst, 2005, pp. 79-80). After resisting the invading Ottomans for a short time, local aristocratic landowners “progressively accepted vassalage under the sultans” (Hupchick, 2002, p. 153), to be incorporated in a new system of land organization. In the North, the “direct Ottoman control was minimal because of extremely rugged terrain”, while “less mountainous central and southern Albania experienced a more direct and continuous Ottoman presence” (Hupchick, 2002, p. 154).

Italy considered Albania as an additional region of its own territory rather than a colony. Galeazzo Ciano, the Minister of Foreign Affairs, wrote in his 1937-1943 diary that “with no doubt, if we work without problems, in few years we will have the wealthiest region of Italy” (day August 19, 1939 Ciano, 1996), referring to the unexploited potential of the Albanian territory. Thus, many Italian laws and design strategies on land remediation and ruralisation were applied in the Balkans. At the beginning of XX century, since a semi-feudal system was still diffused in the Centre and South of Albania, two main tasks appeared to be compulsive according to Calmès’s report on the behalf of the League of Nations: the construction of a road network and essential drainage works on the coastal plain. The report warned that “it would be useless, or at any rate unwise, to rely upon a large external loan for developing Albania economically. [...] True, a foreign loan would be of great help to her, would hasten her economic development, and contribute not a little to securing political stability in the Balkans; but Albania will do well to rely rather on her own resources than to wait for the help of foreign capital” (Calmès, 1922, pp. 30-31). In March 1925, Italy oversaw the creation of the Albanian National Bank and its branch responsible for raising the resources to allocate on public works (Iaselli, 2004, 2013; Roselli, 2006). Given the importance assigned to Durazzo (the commercial hub of Tirana) and the extension of the port, a wide land reclamation work based on the model of the Agro Pontino was accomplished: in 1927, Mussolini announced that Italy had to be ruralised, conveying a renewed attention to rural landscape conceived as a favourable milieu for self-realisation. Imbued with Spengler’s theories against liberalism, Duce’s words moved against a capitalistic model of growth maintaining that urbanisation would have grasped any productive energy. The echo of the Legge Mussolini led to Arrigo Serpieri’s integral drainage plan from 1928 on.

The early 1940s was probably the last period, in Europe, in which architects experimented all the scale of the design at the same time. The last totalizing ambition for design before the thriving of specialist fields in urban and architectural design. Thus, in Italy, the necessity to restore the position of the architect, into the process of social development, was a major issue. Gustavo Giovannoni, who has been instrumental in the establishment of the Scuola Superiore di Architettura in Rome, proposed the “architetto

integrale" (complete architect) for the purpose, a "real architect, that is an artist, technician and cultured person at the same time" (Giovannoni, 1916). In 1939, the regime established the central town-planning office in the capital, the Ufficio Centrale per l'Edilizia e l'Urbanistica dell'Albania (UCEUA), and used five years to produce 11 urban plans all around the country (with different degree of detailing), civil infrastructures, and amenities. Gherardo Bosio, the Florentine architect who spearheaded most of the Office's activities, acted as an *architetto integrale* in Albania. He ranged from territorial planning process to technical details of small-size buildings (Giusti, 2006; Menghini, Pashako, & Stigliano, 2012; Posca, 2013). When Bosio died in 1941, Giuseppe Paladini, Leone Carmignani and Ferdinando Poggi took his place until the year 1943.

Designing process

Fascism moulded autocratic spaces by four main design tools: pure volumes, colours and materials, rhythms, and scales. Town-planning was a large scale architectural project, of a metaphysical nature, setting a scene that was classical and abstract at the same time. The minimum fascist configuration was the *cardo-decumano* scheme, criss-crossed in the rectangular square (forum) where the space is enclosed by porticos and the street accesses are not aligned.

Those new Roman Forums that served as manifestoes for the entire Italian modernity probably were the Città Universitaria (1932-1935), Foro Italico (1928-1938), and E42 plan (1938-1939) in Rome. The roman university campus had Marcello Piacentini as chief architect who designated a group of young designers (e.g., Ponti, Pagano, Michelucci) to design the faculty buildings. It sounded like an investiture as champion of the architectural debate over national modernism. Actually, they seemed to avoid personal styles toward simple compositions of volumes. The Foro Mussolini, that later became the Foro Italico, was designed by Enrico Del Debbio and finalized by Luigi Moretti after the decision by the regime to put sport activities at the centre of the new generation's education. An obelisk, being the optical and ideal centre of the project, knotted two orientations, from which departed a monumental boulevard as the spine of a clean and symmetrical layout adapting to the base of Monte Mario hill. Marcello Piacentini, Giuseppe Pagano, Luigi Piccinato, Luigi Vietti and Ettore Rossi planned the E42 for the 1942 world's fair that never took place. It offered a vision of the most advanced Italian architectural debate about the future of the fascist urban design: orthogonal axes and austere buildings inspired to the town planning of imperial Rome; conveying a Modernism that made use of traditional material such as limestone and marble.

Moving to the Albanian territory and having those "forums" as models, in some cases the UCEUA designed foundation cities (Burrel, Miloti); in some others Italian planners operated on the Ottoman town merging a "New Town" (Tirana, Valona, Durazzo), grafting squares or boulevards (Scutari, Korca), or even superimposing new urban configurations on historical ones

(Berat, Elbasan).

430 Tirana, being a centre dedicated to the commerce with a low urbanized level, was meant to be the apex of fascist architecture in the Balkans; that city in which one could envision the coherent act of foundation of a new European capital. Skanderbeg square became the knot between the old city and the New Tirana, a series of concentric circular roads connected different quarters and the North-South monumental boulevard, measuring one kilometre, provided the spine of the project: Gherardo Bosio designed the Viale dell'Impero as a scene where to represent the power of the regime. At one end, he placed the administrative district, providing all the ministry buildings, at the other end recreational facilities such as the stadium, the Gioventù del Littorio Albanese, the Opera Dopolavoro Albanese and the Casa del Fascio, in a dominant position standing out against the mountainous background. In the middle, it was planned a wide neighbourhood where Italians could live in a circumscribed community. The idea to extend the capital toward the South, by means of a magnificent and monumental street, was already present in Armando Brasini's plan, then re-elaborated by Florestano Di Fausto, and finally refined by Bosio. While in the first instance, the new quarter was meant to be completely isolated in the form of a walled city containing eclectic buildings, in its final completion it conveyed the idea of a modern city, intersecting the historical urban fabrics and working on existing city pathways. Bosio writes in the technical report of the regulatory plan that "barring Ethem Bey and the 'old' mosques, only few constructions have an architectural values and a picturesque appeal that characterize the built environment, even the 'Bazar' [...] underwent so many transformations by economic interests that appears to be a chaotic crowd of shops, warehouses and dwellings". There were recommended precise prescriptions about distances from the streets, heights and typologies of the buildings, vegetation, even colours and building materials to be employed. The regulatory plan was sketched out in 1940 on the cardo-decumano scheme and the Lana River channelled in order to serve as an environmental system of penetration of the natural in the city. Ferdinando Poggi and Ivo Lambertini concluded the plan in 1943 with detailing and landscaping in the frame of a regional strategy with a great perspective of possible satellite towns around Tirana. That project engaged a wide-open landscape, where the mountainous ridges that defined the metropolitan territory functioned as perceptual boundaries from inside the city. The principle of a western city merged with an exotic one remained in all the versions of the urban plans, passing from a neat separation of the two to a better integration of new urban theories in the Ottoman built environment by the use of rings and planned urban voids.

Durazzo was envisioned as the main commercial hub of Tirana. Here the regime would have installed one of the most important ports of the Adriatic Sea. Urban expansion was bounded with a huge marsh remediation plan, and provided specialized typologies on the coast to develop its touristic potential. Goods transportation road encircled Durazzo while the

historical pathways were extended throughout the new urban layout. Valona and Saranda consisted in the second and third maritime hubs of the nation. While Valona's plan followed a rigid zoning of land uses and a monumental boulevard connecting the two most important squares of the city, the plan for Saranda expected a new residential extension for ten thousand inhabitants conveying green and public spaces facing the sea. Located in the South, the urban form of Saranda is clearly defined by the concave profile of the slope, rendering a perfect spot to host a small touristic and commercial port. Urban growth would have conformed to the coast rather than expanding toward the inland.

Berat and Scutari, two towns that could count on a high landscape value, were planned with a close attention to the regional scale strategy, interpreting the "picturesque style" of the place, avoiding rigid geometries and adapting the layout to the forms of the ground. In those environmentally valuable towns, designing and economical investments focused on hydraulic supply and transportation networks.

In Berat, geomorphology historically defined the parts the city is composed of: the valley conveying the urban entrance; a high settlement perched on the hilltop; the east part better oriented toward South. This reasoning triggered the 1942 Italian urban design that proposed a classification and rehabilitation of the main historical buildings, the interpretation of traditional construction practices, and several viewpoints overlooking the surrounding landscape. Three scattered squares, each one dedicated to the market, administration and religion, would organize the core of the town. The northern town of Scutari featured only a minimal intervention in the form of a porticoed boulevard, the four-hundred-meter Viale Mussolini, cutting abruptly the historical centre, pointed to an administrative square. Elbasan and Miloti, as well as Tirana, had to face floods and lack of embankments. The river became an urban structure to let people use the bank as a linear park. Elbasan comprised a well-preserved defensive belt, which was treated with vegetation for leisure purposes in the core of the plan, growing through concentric areas. Given the proximity to Tirana, the town had an importance on a territorial scale, hosting large facilities such as transformation industry and sport facilities. Miloti was a foundation city, based on the *cardo-decumano* scheme with a representative square at its intersection. A ring of detached houses, with private gardens, would have enclosed the centre to reach forty-two hectares and three-hundred inhabitants, but the plan was never initiated. Those inland cities, along with Burrel, have a clear scheme: a representative road through high-density blocks, the extensive rural housing around, and a small productive district, planned in the first instance, as they were economy driving.

Small settlements, like Korca and Petrela, were arranged around the town square with isolated buildings and the mosque. Architecture was inclined to some local features and materials while Italian garden design integrated into the wild land.

Concerning Tirana, the Italian planning activity shaped a seminal urban structure counting on a vigorous and open-ended urban idea. Before the

transformations, at the beginning of the Nineteenth century, the Ottoman core of the capital appeared to be a mass of “curvy and irregular streets, often cul-de-sac, badly paved, silent, mysterious, and framed by brown-red walls, or whitewashed, built with bricks of dry mud” (Castiglioni, 1941, p. 20). Where the dwellings were usually described as “hovels” hidden among the trees of the garden. The anthropic landscape of the northern hills consisted in sparse “primitive” dwellings called kulla “inhabited by a few thousand people” (Castiglioni, 1945). Those Ottoman settlements usually grew around a tiny mosque facing the main space of the bazaar for trading goods and products. Radiating by an intricate system of roads with irregular mini-plazas, the centre grows by addition of relatively independent urban fragments.

Due to Italian activity, Albanian urban fabrics changed their dimension because of the introduction of new typologies of buildings (villa, palace, hospital, school, ministry building, bank, railway station, hotel and post office) as well as new urban spaces: the monumental boulevard, waterfront walkway and, above all, the Italian piazza. Existing mosques, formerly built to be condenser of people’s activities, were freed from the dense residential neighbourhood and isolated as monuments of the past. They served as ending scene of large streets, cutting the core of the city, abreast of a new sensibility for speed and movement introduced by car as a mass means of transportation, and fed by Futurist painters. This originated from a new aesthetics in the field of art that made some authors address fascist architecture as “built metaphysics”, a history that has been freed from material implications. The classical-oriented civilization of the New Order translated the state of otherness of early century Metaphysical art into reality. That alienation of Giorgio de Chirico’s paintings aroused in the spaces designed for Albanian towns by a sharp work on visual codes to let them embrace a foreign culture.

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Conclusion

Italian urban planning in Albania reflected the debate on national identity and its relationship with “exotic” cultures acquired abroad. The roman exhibitions of MIAR between 1928 and 1931; Bardi and Bontempelli’s Quadrante periodical; Persico and Pagano on the pages of Casa Bella were the key moments of the inception of Italian Modernism. The new simplification was an important topic on which Ugo Ojetti and Marcello Piacentini discussed at the beginning of the ‘30s. In particular, the use of the pillar and the flat arch instead of columns and arches (and the complex decorative apparatus that was implicit) that Piacentini explained as the natural outcome of employing the new construction system based on reinforced concrete and steel framework. In this way, was still possible to design buildings aimed at being “italianissimi” and “romanissimi” (Piacentini, 1933).

Those plans offered a reduced monumentality of Italian architecture, a point of balance between Modernism and Mediterranean culture, namely the prototype of a new classical-oriented civilization. The figurative power

of *pittura metafisica*, developed by Giorgio de Chirico, Carlo Carrà, and later Giorgio Morandi during the years of the World War I, affected Italian Modernism in its search for a space derived from Renaissance tradition of the sixteenth century re-elaborated by a wide use of symbolism to convey a sense of stillness.

While the spatial structure articulated timeless spaces, squares, and courtyards made of archetypal elements, any superfluous sign has been erased to enhance common Latin roots. Space itself represented the pattern to order tangible things and zenithal view, in being strictly related with Euclidean space, was a major tool for knowledge (representation) and operation (design).

The portico, referring to a vast architectural background of its civic value, was employed to remodel public spaces: it made possible to geometrize the complexity of any existing urban condition in order to render a static space, and span by span measurable through the arcade (see the project for Scutari as an example). Namely a process of façade renovation that used a linear architectural element, adaptable to historical urban fabrics, where rhythm was the ordering principle of a new urban scene. The span was a spatial module that regulated the structural repetition of the buildings and the dimensional interval of urbanity, at the same time.

The colonnade is another archetype adopted to achieve an internal spatial integrity inside those urban designs. Far from been functional, these architectural elements framed the urban scene creating a condition of thick threshold from an open space to another, usually introducing an important place for celebrating the collective rituals of the fascist regime. Defined by a metrical beat, the colonnade configured itself as a covered path connecting public buildings: in Tirana's Piazza del Littorio an high colonnade is the ritual threshold to access the place for adunate, overlooked by the Casa del Fascio. It encloses the ending scene of the monumental boulevard and projects the view toward the stadium, framed by the Gioventù del Littorio Albanese building.

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Its beat introduces a clear and simple expression of modern abstraction of the porous boundary between the courtyard and the street, such as in Miloti urban plan and in Elbasan main square, or even between a sacred space and the urban environment in Burrel.

The tower, an object that has a dimension fully prevailing on the others, has a spatial radiance of the same intensity in all the directions that could be considered as equivalent axes of symmetry (Meiss, 1991). It was used to obtain a certain spatial hierarchy in large squares: it was often displaced in a corner, avoiding any axial correspondence with the boulevard, so that the act of disclosing the mass of the landmark required a dynamic gaze on the behalf of the spectator. While in Durazzo two symmetrical bell towers that frame the façade of the cathedral, built by a thick masonry work, were expected, in Miloti the project by UCEUA isolated the tower in the corner at the main intersection of the boulevard.

The portico, as well as the use of the colonnade, and the tower, reinforced the control of the plan by perspectives in favour of rigorous architectural

narratives setting the austere scene of a Mediterranean modernity theorized in Italy and fully applied on the other side of the Adriatic Sea.

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A reflection of the urban morphology: a trace of ten cities in the Zona da Mata of Minas Gerais

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Abstract

436 This work is part of a research that had the support of Fapemig Fundação de Amparo à Pesquisa do Estado de Minas Gerais. It is a reflection on the urban morphology through a reading and perception of ten urban traces of small demographic cities located in the Zona da Mata of Minas Gerais - Araponga; Cajuri; Canaã; Coimbra; Cipotânea; Paula Cândido; Pedra do Anta; Presidente Bernardes; São Miguel do Anta and Senhora de Oliveira. The urban tracing through the application of the methodologies created for Lynch, Cullen and Kohlsdorf. The street represents the place of realization of a space-time determined in the process of urbanization. By bad path outlined and wide avenues, the street became an expression of urban space. The city is manifested in the street, whether through its design and its way is as a place of social achievements, differences and norms of everyday life at a given historical moment. The research sought to demonstrate that the layout of the streets was the result of successive tissue accumulation processes and indicating a possible relationship between drawing and the representative elements of local history. At first, was systematized a discussion regarding the term morphology. Then, two important elements of the urban structure, specifically the urban grid and layout, were treated as central points in the circuit analysis of cities, taking the streets of central areas and the configuration of their traces could reveal. Our thanks to the Fundação de Amparo à Pesquisa do Estado de Minas Gerais-FAPEMIG for financing of research the CENTRAL AREAS OF SMALL AND MEDIUM-SIZED CITIES in MINAS GERAIS, by the granting of technical support-BAT (I) and the Universidade Federal de Viçosa-UFV

Introduction

The city is perceived by the individual in different ways. Your image is full of experiences experienced by people who live in it, involving all the senses. In the descriptions of the Brazilian cities of the Colonial period, there is unanimity regarding the simplicity of these spaces. The few streets drawn, the modest buildings, the small economic activity and mainly, the lack of a social life more dynamic were the general characteristics of the Brazilian cities in the 19th and early the 20th centuries and those that arose in the region of Minas Gerais expressed it very well.

In this way, it will be held with the present study, a reflection on the urban morphology, through a reading of the ten plains of cities belonging to ten municipalities of the same name, located in the Zona da Mata region (Imagine 1- localization of Brazil-Minas Gerais-Zona da Mata and the municipalities), in the State of Minas Gerais, Brazil - Araponga; Cajuri; Canaã; Coimbra; Cipotânea; Paula Cândido; Pedra do Anta; Presidente Bernardes; São Miguel do Anta and Senhora de Oliveira, whose main focus is on shaping the design and its interaction with the physical context/ urban centers of the territorial.

The research sought to identify throughout the occupation of the site, the circuit representation of urban areas. As a result, it was intended to demonstrate that the plain was the consequence of successive tissue accumulation processes and public paths, indicating a possible relationship between your drawing and the representative elements of local history.

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The specifics of drawn and deployment of small urban centers motivated this analysis demographic, since due to the economic decline of the Zona da Mata of Minas Gerais, the urban development of these was controlled, allowing it to be retained their physiognomy. His process of growth and urbanization, in large part, made in the mid-19th century saved some urban practices of the Colonial period. With regard to form, the resemblance to the fairs of Minas Gerais, arising from the exploitation of gold and the towns born of paths and roads of penetration of Brazilian territory.

The Zona da Mata of Minas Gerais is one of the twelve mesoregions of the State of Minas Gerais, consisting of 142 municipalities grouped in seven regions. It is located in the southeastern portion of the State and establish boundaries with the States of Rio de Janeiro and Espírito Santo. References about the process of occupation of urban centers in this region do not exist, either about the relationship between the history of the city and the configuration of their morphology. This approach seeks, therefore, to contribute to studies on the morphology and the history in the Zona da Mata region of Minas Gerais, uncovering the shape the built environment little explored by researchers.

Methodology

The formal transformation process of the city assumes a domain and analysis for various disciplines and different knowledge, however, this work is centered on urban structure and configuration, featuring a reflection of

more analytical, where if a link between the conceptual and empirical. At first, was systematized a discussion regarding the term morphology, by researchers who are dedicated to studies on the urban forms, or even, to present proposals for a definition, recognizing the importance of incorporating the analysis of morphology.

The next step was to present the considerations regarding the procedures and research elements of urban forms, from this reflection in the bibliography used. This step was character specific: to complete and confirm the data, fieldwork was performed followed by mappings and preparation of figures with the traces (Imagine 02 – an example of Amparo do Serra City plain) for a better understanding of urban areas of ten cities, soon after was conducted the reading of the plains (Imagine 03 and 04 – an example of an urban lecture about the cities of Cajuri and Presidente Bernardes) of the cities chosen, making the configuration of the streets of the central areas in the urban fabric and the configuration of their traces could reveal. To perform readings, analyzed information obtained through observations and interpretations of the captured images of Google Earth, secondary data research, which took over as main themes the history, social and territorial formation of ten cities. This survey aided in the understanding of the urban forms and their uses appropriations. Therefore, this work proposes an analysis of the urban form, in order to understand the design and its physical conformation, in the quest to understand the set of shapes of the small cities demographic of Zona da Mata of Minas Gerais.

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Forming process

Will be presented following the analysis of the urban setting through the spatial arrangement and interpretation of the drawing of the stroke of ten cities in Zona da Mata in Minas Gerais. It is fundamental the understanding that the analysis of the drawing is the first interpretation of the plain. After reading graphic was identified on the spot what is materialized and represented socially by drawing the strokes, whether under historical, institutional and/or constructive. When you combine the components of the mesh, it appears as a striking feature of the ten cities studied the fact of the stroke to adapt according to the conditions of the relief. For this condition, the urban fabric as a whole does not present a typology of street representing blocks or street corners. The streets are structured through a run of buildings, which follow linearly and instinctively drawing. In this perspective, the vast majority of the transformations of the urban landscape of the cities analyzed have not received any type of control or planning. The fundamental process of growth is influenced by the sharp relief and the particularities of geographic site. Lamas (1993) have already pointed to this reflection, where the place represents a crucial element in the structure of cities, in its form and in architectural action. For the author, ' one cannot speak of urban form without associating geographic support, because the urban form is inseparable from your site and the territory ' (LAMAS, 1993). The particularities of geographic site in the region studied are linked mainly to the presence of water, which is

another determining factor for the setting of the stroke. Can see clearly how the routes follow the banks of rivers and streams present in urban areas, marking the evolution of space.

This fact, set up an aspect of the common path to cities: at first a linear organization through a road that runs through the urban area and secondly with streets that arise from the first, being the most representative cases found in Cajuri, Canaã and Pedra do Anta. For this feature to be checked in all the cities analyzed, named themselves the main route via master: a local structuring that connects the vast majority of the remaining routes. Generally, are long routes that run through almost all the urban perimeter. Master defined pathways are characterized by some specific features according to the city. In some cases, this route presents a picture that accompanies winding way relief and water courses, as verified in Pedra do Anta, Cajuri, Paula Cândido and Senhora de Oliveira.

For example, in Pedra do Anta, is noticeable as the urban area shown in a linear manner, from the interpretation of her traits, and in their social dynamics that linearity also manifests itself in any meaningful way, where the decisive factor for urban form and social structure forming the representativeness of via. Its peculiarities: width, type of paving and typology of buildings, remains similar throughout its length. In addition, at different points, and trade services offered, as well as municipal institutions. In this way, structurally, via master Pedra do Anta concentrates all the flow of vehicles and passers-by.

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In other examples, the master route crosses the watercourse linking core occupations in each margin, as in Amparo of the Serra and Coimbra. Amparo of the Serra, presents clearly two distinct phases of occupation, coincidentally one on each bank of the watercourse and both structured by via. The center 1 refers to an older phase of occupation with the presence of historical buildings. The center 2, at the East, is clearly more recent occupation and residential features with a standard inferior to be constructive compared to other urban areas. Some cities showed more than a mistress. In São Miguel do Anta, the composition of the plain happened, in its predominance, along three-way masters of a continuously, bordering the streams in its urban area. The same occurs in Cipotânea which is characterized¹ by three major routes that bypass the steep relief present in the municipality.

Already in Presidente Bernardes, there are two, one on each river bank. The Piranga River, which bisects the city, has a decisive role in the landscape, especially in the design of streets. To which one might examine the city was developing along its course and, thus, it was leading the urban logic. Another factor noted in the analysis was that the master channels have different characteristics throughout its extension, as noted in São Miguel do Anta, Coimbra, Amparo do Serra and Paula Cândido. In all instances, the differences cited rely heavily on their approach the central area of

¹ Width, type of paving and typology of buildings

the convergence circuit ².

In São Miguel do Anta, for example, it is worth noting the great importance of the roads in the emergence and master in the evolution of the city, with different stages of implementation and occupation, as typologies and characteristics of buildings, however maintaining its dimensions, characterized by presenting a good wide throughout its length. The phases of the three-way cited in São Miguel do Anta rely heavily on their approach the central of convergence. The buildings are characterized by being the biggest part of mixed type (residential and commercial) as they approach the central, plus higher jigs. However, while distance themselves from the convergence area there is a greater concentration of residences of at most two floors.

The central of convergence becomes the radiator of the three ways listed. The same happens with Coimbra, as the master road has different characteristics also route along its length: in the North to meet the convergence Center, via has a preferred occupation of multifamily residences and satisfactory dimensions bearing box for the transit of local vehicles. This last characteristic is kept within the limits of convergence. So, antagonistic, leaving the central via mentioned decreases its size and wins more residential areas with a constructive pattern below the other parts mentioned, what brings changes in types of buildings.

440 Of the ten cities examined, two showed an urban setting where your path if converges to a certain area, being they: Amparo do Serra and Pedra do Anta. Due to the fact of these cities have a typically linear circuit, where the via across the urban area master playing an outstanding role in the fabric, do not set up an area of convergence. In addition, the side streets that cross or find via expressed in their also mentioned traces any type of convergence.

The center of convergence has proved to be of great importance for the analysis proposed in this work, where the research sought to identify throughout the occupation of the site, the representation of the plain, indicating a relationship between your drawing and the representative elements materialized socially where pathways converge, is under historical, institutional and/or constructive.

Given this, the eight cities where one might indicate the core of convergence, in five (Cipotânea, Coimbra, Presidente Bernardes and São Miguel do Anta) comments on the urban dimension reinforced the central meaning as a place that attracts greater representativity for the population. This representation has proved in several ways, such as, for example, the "obligation" of the passage at this point because of the conformation of the mesh; and the concentration of most of the services offered to citizens, as well as trade and representative buildings for local

2 O núcleo de convergência do traçado compreende os espaços acessíveis ou os que podem ser pontualmente referenciados, para onde converge a maioria das vias urbanas como um todo, estabelecendo uma ligação entre diferentes áreas. Sendo assim, pode corresponder, ou não, a área central das cidades, para onde convergem as rotas de forma radial ou linear.

history, becoming a place where the dynamics of everyday life flows with greater emphasis.

The architectural ensemble that makes up the core of convergence, configured the presence of institutional buildings (Town and City Hall), buildings of historical representation, the churches and the front of the main square. Furthermore, the course in these cities revealed that the central of convergence corresponds to a process of consolidation of the occupation, recognized and named central, which is realized through a local reference: The Church marked by the presence of the square. For this scenario, the layout of the five cities mentioned converges to a place of urban and social importance, inducing in its final population traits for this significant part, of historic, religious and commercial value.

The central of convergence in Cajuri, Canaã and Paula Cândido is not a place of strong representation for the population, through squares, historic buildings, trade or possible locations of appropriation of space by the people. Probably the path converges to these points by geographical conditions of the site, where these areas are characterized only by a passage. Coupled to this is the fact that urban occupation process of these cities is typically linear, where the route ends up attracting to you master this importance. With that, this shows the great value of this via, where, in Cajuri, for example, in all its extension continuity in their characteristics, driven primarily by the existence of two wide covering the deployment of the Matriz Church Santo Antônio and the former Railway Station. The fact of the existence of a railway line within the urban area of Cajuri probably characterized the linearity on urban dynamics.

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Unlike in Canaã, the central of convergence is characterized by the presence of an institutional building-Cultural Space, a place with equipment for outdoor physical activities and some bars, which leads people to take ownership of the space, which may in the future to boost the representativeness of the nucleus. However, in large part, the area is still a place of passage.

However, in large part, the area is still a place of passage. To analyze the components of the urban fabric of these municipalities, as hallmark the fact the cities perform as a base material of urban life. Its elements (streets, squares, buildings, etc.), are constantly modified, produced and reproduced, as life itself, once the urban space is socially produced and is in constant transformation.

So, to get back at the prospect of setting of the mining towns of small demographic, if found that the importance of the urban field of study goes beyond the big cities. The cities analyzed, despite performing a small territorial urban area, have proven to be truly interesting in many aspects of morphology, especially as regards the design and configuration of the roads, while the social achievements.

Conclusion

The small towns of the Zona da Mata of Minas Gerais have on surveying its main features as regards spatial arrangement and urban design. The urban

constraints are strongest in relief; the declivities; in catchment areas; on the dimensions of the hills and the physical conformation. The settlements that stand out are those that have developed naturally, places that seem to be jammed in nature, leading to a particular spatial configuration of settlements in sharp relief areas, where their paths arise spontaneously, but particularly. Spontaneous while throughout the occupation of the site, the representation of urban nuclei outlined indicates that the stroke was the result of successive tissue accumulation processes and public parks, where the routes are characterized by a ' facade ' or ' aligned public paths flanked on the right and left of houses '. The routes, the vast majority are narrow and tortuous, relating to the Portuguese urbanism from the 18th and 19th century. Particularly when referring to the fact that the cities studied, although they have developed without urban planning urban fabric, have a relationship between the dash and topographical characteristics of the places where they are located. This led to the understanding of the importance of the geographical site for the study of the morphology, while reference element of the urban form. The design of small cities studied if configured, even though spontaneously, in a logical, because it was conditioned to the particularities of the space where they settled

442 In this case, the configuration of your urban form, the cities analyzed, in the configuration of its urban form, took into account a pre-established social and geographical logic. Of geographical slant, the topography has conditioned the urban setting and the design of the track, getting clear delineation of these cities in the contours, where in almost all, the plan enabled incorporation of natural routes, being observed only the topography and its landforms. The rivers and streams were also an important factor in soil occupation of small cities, because these were set up along the water courses that drove the design of the roads, where, for example, the first urban way developed in the Valley and parallel to the to the watercourse.

Besides the geographical logic, it has been found that the cities have in their urban and social logic circuit that the articulate, whether on the global structure of the city or in its structuring main thoroughfares. In this way, the survey pointed to a direct relation between the stroke and the architecturally and socially in materialized urban space. The relationship between the urban and the points outlined stroke as the square, the Church, the trade and the wide, reflected a logic in the appropriation of space of each of the cities.

From the relationship mentioned, it was observed that most of the cities studied have his stroke converging on a core where the institutional buildings of religious, civil or historical nature that in small towns these are buildings close to each other ensuring to those places the name of "centers" of urban social dynamic. In addition to these centers, research has shown the great importance of the first urban cluster's pathways, structural pathways, recognized in this work as master tracks. These channels appear highlighted in all the cities, their morphological characteristics make the

different influences and conceptions of urban space of each city are on their way.

In this way, the urban circuit analyzed in small towns tends to the organic-functional circuit, where, from the morphological point of view the category via direct, that is, the street that goes directly to the meeting via central or master, disregarding the geometric sense in favor of functional. Thus, the stroke if you have set up in the sense of functional use and appropriation of spaces represented by the local population and related to public places, revealing spatial logic perceived and experienced by individuals, and designed to be materialized.

In the apparent disorder of the urban circuit configuration studied organic coherence exists, a formal correlation and a spirit that give authenticity to the cities. Authenticity as spontaneous expression of a whole system of life and of appropriation of space by the people, making it harmonious, ordered and at the same time consolidated and representative for the local population. The routes have become the place of coexistence and citizenship, exchange of information or even a continuity of residence, indicating the social logic in the urban development of these cities.

Therefore, this study identified points of analysis important in the understanding of the characteristics of small-sized cities by reading demographic and social mapping graphics that make up the urban fabric. The Association of scientific view to the perception of space from the point of view of the citizen allowed to overlap the scientific interpretation of the professional who seeks to design and design with the visions of society, enabling a closeness with real. The guarantee of an in-depth study and reflective of the urban area of small demographic cities, through the perceived, conceived and lived, will take a contribution to the cities and the urbanization process and spatial planning that these will suffer in the near future.

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Fig. 3 Example of an urban lecture about the city of Cajuri.

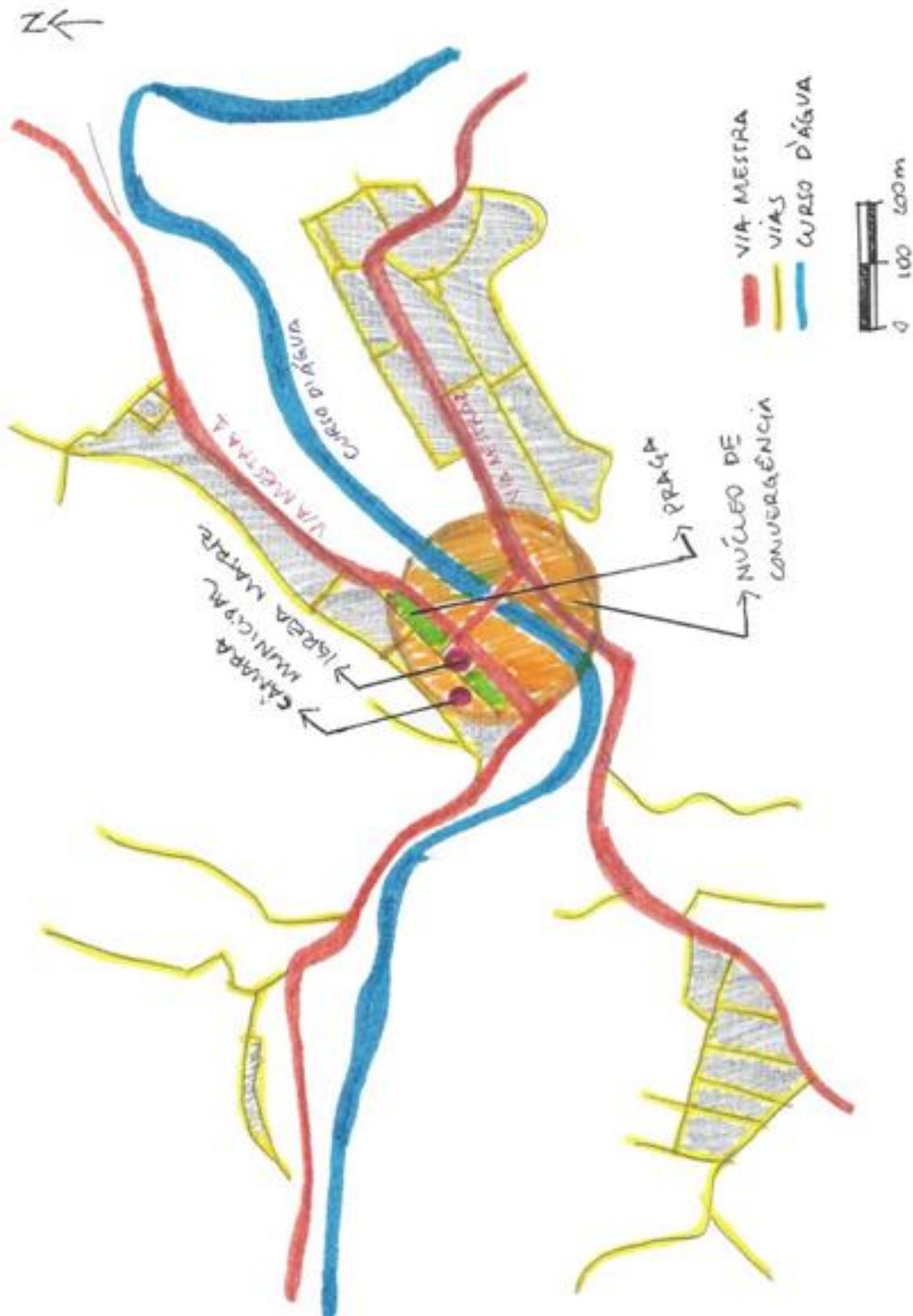


Fig. 4 Example of an urban lecture about the city of Presidente Bernardes.

Cultural Heritage and Adaptive Reuse in Rural Urban Contemporary China

The interest for the western methodologies and the peculiarity of the Chinese issues

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Keywords: adaptive reuse, heritage, Chinese historic neighborhoods, urban identity

Abstract

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From the early 90s several Chinese cities engaged transformation embodying in architecture, public space and urban texture, the physical evidence of the expectations and contradictions originated and breed by the reforms initiated in the late 1970s. The idea and the meaning of cultural heritage has been evolving since then in Chinese architectural culture through central government reforms and private initiatives managing the reconstruction of national identity within a context of cultural modernity, through physical architectural and urban simula-cra replacing a glorious past recently destroyed. The academic studies deeply rooted in the tradition settled by Liang Sicheng (1901-1972) – considered the father of modern historical studies in architecture – such as the one produced for more than fifty years by Wu Liangyong research group at Tsinghua University of Beijing, have been running parallel trying to appropriately address the national ambitions and to establish a specific Chinese discipline inspired to international principles on the design theme of adaptive reuse within the more general framework of cultural heritage. The most recent changes in the Chinese contemporary countryside due to the urban-rural migrations and increasing national tourism industry are also adding complexity and defining new possibilities.

Introduction: Preservation and Redevelopment in the Chinese modern and contemporary culture

Among the academic publication and works available in English in the early nineties the doctoral dissertation discussed by Daniel B. Abramson at Tsinghua University of Beijing in 1997 entitled *Neighborhood redevelopment as a cultural problem: A Western perspective on current plans for the Old City of Beijing* (Abramson, 1997) represent a significant introduction, although circumscribed, to a specific topic as the “Chinese urban historic environment”, especially from the perspectives of European scholars. Abramson spent some years in Beijing during his PhD course after having had a shorter introduction to the alluring academic environment of Tsinghua University during an exchange-master students program in mid-eighties¹. In his dissertation the American author opens the discussion on the problem of the translation among languages and recalls a precise seminar which he considers particularly influential in the Chinese architecture debate around the issue of preservation and redevelopment, the International workshop on Neighborhood Redevelopment in Inner Cities hosted in November 1992 at Tsinghua University. “Almost immediately, after the meeting opened, the participants from North American institutions – Abramson writes – discussed changing the name of the workshop from ‘Neighborhood Redevelopment’ to something that implied less of rupture between past, present and future. They enthusiastically decided that ‘Neighborhood Development’ was much more appropriate” for the Chinese context. 449

Abramson’s central questions raised in late nineties are still relevant and cogent today for many cities around the world and especially in China: “in the midst of rapid change, precisely what should we preserve in order to maintain the city’s identity? Beyond the historic and cultural landmarks that are listed for preservation, are there other environmental qualities and structures in the historic city that deserve protection or maintenance? Besides the physical environment, is it desirable to maintain also the particular mix of residents or the general profile of the community?” (Abramson, 1997). The American scholar argued on the translation problems observing that what was called “slum clearance” before the Second World War, gradually became “urban renewal” which in the late 1960s turned to be “area improvement”, “revitalization”, “regeneration”, “rehabilitation”, or “reinvestment”, which finally were all eclipsed by the term “redevelopment”.

Among the interpretation and approaches emerged during the 1992 conference in Beijing, Abramson seems to consider Wu Liangyong’s position – on the cultural route traced by his master Liang Sicheng – as the most convincing one: “In Chinese, there is also a range of terms applicable to the situation in which some parts of the city are replaced, though some

¹ .Also other American and Canadian scholars who experienced an exchange-master students program at Tsinghua University developed a research path based on the Modern and Contemporary Beijing, as A.M. Broudehoux.

of these terms are direct translations from English". Wu Liangyong, the most remarkable modern Chinese scholar of the second half of twentieth century in architecture and urban design identifies and translates the main different approaches as: "1. zai kaifa of gaijian = redevelopment [or rebuilding]; 2. zhengzhi = rehabilitation [or renovation]; 3. and also shenshen gengxin = careful renewal."

Wu Liangyong is concerned to distinguish "careful renewal" from "renewal" because he is aware of the connotations of this word in Western experience. As the Swiss planner Alain Viaro has defined it "urban renewal is a process where the old urban fabric is demolished to be replaced by New buildings. The project is usually at a large scale, and implies one or several urban blocks or districts."

The premise of Abramson's early work are expanded and enhanced in his later essays, as the one entitled Beijing's Preservation Policy and the Fate of the Siheyuan, in which the American academic observes what follows: "The demolition and relocation involved in this effort was relatively easy, because the bulk of old courtyard housing is owned by the government (in Beijing, perhaps as much as 60 percent across the entire old city center). But the resulting impact on the historic cityscape has been severe" (Abramson, 2001).

450 These kind of cultural issues are also part of the studies that Anne-Marie Broudehoux collects in her book *The Making and Selling of Post-Mao Beijing*, in which she focused more on the symbolic values of collective places like the Yuangmingyuan (in the chapter *Selling the past: nationalism and the commodification of History at Yuangmingyuan*) and Wangfujing (in the chapter *The mall of Wangfujing: commercial redevelopment in the selling of places*). (Broudehoux, 2004).

Indeed, it is interesting to realize that both Abramson and Broudehoux, both exchange-master students in late eighties China, focused their research later on on issues as mega urban events, community neighborhood and redevelopment also in other geographic contexts.

Albeit, since 2001 Abramson was already providing evidence of community inequalities in Beijing instead of discussing global events issues, like Broudehoux, as a research topic, and maintaining that "from the perspective of displaced residents, the improvements in standard of living have been questionable, given the increased commuting time and disruption of community life that has attended relocation to the far suburbs. [...] Traditional Chinese neighborhoods historically accommodated a relatively diverse mix of residents of different levels of wealth and influence. The traditional courtyard typology itself was largely responsible for this, since it allowed dwellings of varying quality and crowdedness to coexist in close proximity without mutual impact. The wholesale replacement of courtyard house neighborhoods by self-contained superblock estates of multistory apartments threatens to divide the city into distinct, socially exclusive enclaves" (Abramson, 2001). The most relevant design example of these early debates is the Ju'er Hutong designed and built by prof. Wu Liangyong (Fig 1; the three picture above: Ju'er Hutong). His work

was particularly inspirational for the design team from Sapienza University which during a design studio held in Tsinghua University in 2005 worked on a densification housing project in the area of Beijing between the Tsinghua University Campus and the Fragrant Hills, composed by Lucio Barbera, Massimo Barbera, Anna Irene Del Monaco and Vincenzo Del Monaco, later presented also at the Festival di Parma in 2007 (Fig 1; down: Sapienza Design Studio housing project).

The results of the policies that the American scholars which gathered at Tsinghua University were questioning in the late twenties, were the late consequences of the Deng Xiaopong opening policies started since late seventies which culminated by the entrance of China in the WTO World Trade Organization in 2001 and by the organization of the Olympic Games in 2008. However, in less than 10 years, the scenario and the policies had already changed.

History suppressed, history recreated, history recovered: the era of Xi Jinping

In an article published on June 8, 2016 on The Guardian, titled China's memory manipulators, Ian Johnson, an award-winning journalist known for several books on Chinese modernization, traces a dense reconstruction of the relationship with the idea of history and memory that the government of the People's Republic of China has pursued since its foundation, schematizing the paragraphs with the following titles: "history suppressed, history recreated, history recovered". When it comes to more recent times, Johnson writes that the new urban settlements are built in places whose past is "obliterated", so much so that the names of the places do not correspond to the actual characters of the same, because they describe urban elements or landscapes of the past and that no longer physically exist. After 1989 and the Tiananmen massacre, the Communist Party urged the defense of culture and traditions, in particular of what UNESCO would call "intangible cultural heritage". Ian Johnson continues to deepen Xi's approach: "since taking power in November 2012, Xi Jinping cloaked himself in the mantle of tradition more than any Chinese leader since the imperial system collapsed in 1911. Building on his work of his predecessors, especially Hu Jintao and his call for a Taoist-sounding 'harmonious society' (Hexie shehui), Xi's ideological program includes an explicit embrace of traditional ethical and religious imagery" ²(Johnson, 2016).

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Therefore, the concept of "memory" and "adaptive reuse" had been adapted towards an entrepreneurial approaches and real-estate logics (Del Monaco, 2018), as you try to prove in the paper Preservation, heritage, adaptive reuse. Il ruolo recente dell'Italia, le interferenze dal mondo globale (Del Monaco, 2018). Here they follow summarized some names and topics from that broader study. Based on a consolidated American

² . This issue was already discussed in the conference held in Turin in 2016 organised by Gentucca Canella and Paolo Mellano "Architettura italiana del secondo Novecento" and better developed for the proceedings (under publication).

entrepreneurs tradition – who have invested in the most important cities in the transformation of abandoned areas and former industrial and manufacturing buildings, activating policies and investments –, Sino-American entrepreneurs working in the luxury development market, Handel Lee, for example, have invested in China transforming what could be called “author ruins”, even if the authors are not entirely known, but the architectural artifacts are of undoubted quality and interest. For example, the Legation Quarter in Beijing (2008); the UCCA Beijing Center for the Arts (2007); the 798 Art Zone of Beijing (2001). In many Chinese cities, the model of a shopping center organized as a traditional style village, the “Tiandi”, has found success. The first of a long series was made in Shanghai in the nineties, the Xintiandi, for the most part designed by the American architect Ben Wood and funded by Vincent Lo, the well-known businessman from Hong Kong whose business group, Shui On, in May 2017 sold the Xintiandi to the entrepreneurial group Vanke. There are “Tiandi” in Shanghai, Foshan, Wuhan, Chongqing, Ruihong; they are conceived and designed according to the logic of a commercial brand. In particular the Shanghai Xintiandi (1999-2000) (Fig. 2 a: Xintiandi in Shanghai; Fig. 2 b: Tiandi Foshan, SOM project and The Tiandi different location) was designed by Wood and Zapata Inc, built by Nikken Sekkei International and Tongji University within the framework of a wider master plan, the Taipinghujiao project a redevelopment plan of 52 hectares designed by SOM in 1996 (Sha, 2006) trying to keep alive the presence of traditional hybrid Lilong typologies of Shanghai, although functionally transformed: “we can not continue in the furrow of foreigners, nor throw ourselves into a Chinese moat” used to say Walter Taylor, architect born in 1899 and student of the Harvard-Yenching School of Architecture and later professor at Columbia University in the city of New York. Also the Hubin International District, along the West Lake, Shangcheng District, a very pleasant place in Hangzhou, was built by American clients.

Rural Urban Contemporary China

In this framework, also the Chinese academic world, always involved by the government in the forefront of the architectural development of the country, has tried to link the Chinese needs of the development and the international standards on conservation and restoration (Venice Charter). Both Chinese and American architectural scholars are eager to quote or praise David Lowenthal and his book *The Past is a Foreign Country* (1985): “the past allows us to make sense of the present while imposing powerful constraints on the way that present develops”. During an important conference held at the Tsinghua in Beijing, whose proceedings were published by the Getty Foundation, prof. Lu Zhou, a Tsinghua academic in History and Preservation, illustrates the Evolution of the Cultural Heritage Conservation Philosophy Through the Lens of the Revised China Principles: “The conservation of historical towns and urban areas development and harmonious adaptation of contemporary life. [...] The revised China Principles further reveals the relationship between

Chinese and international cultural heritage conservation. It also reflects the links between the universal principles for conservation and regional practices in the context of cultural diversity” (Zhou, 2014).

Among the most promising recent works of the younger generation there are those by Joshua Bolchover and John Lin (Assistant Professors at the University of Hong Kong) and their office RUF³ Rural Urban Framework, which introduced a participatory active approach to their works implemented especially in Guangdong and whose work was also presented at the Venice Biennale 2016. RUF are engaged in the rural-urban transformation of China through built projects, research, exhibitions and writing. As stated in their web site they operate as a “non-for-profit and collaborate with charities, private donors, Chinese Governmental Bureaus, and Universities. The work is conducted within the Faculty of Architecture at The University of Hong Kong”. They recently published Rural Urban Framework. Transforming the Chinese Countryside in which the two authors’ work aims to refocus attention on the Chinese countryside rather than the city after that in 2005 the Chinese government announced its plan to urbanize half of its rural population by 2030 – a staggering 350 million citizens. Another recent work by RUF’s Homecoming. Contextualizing, Materializing, and Practicing the Rural in China.

Then, a very recent interesting project was built by Meng Fanhao, Zhu Min, Zhu Xiaocheng and Li Qiang and their office GAD⁴ after winning the competition Dongziguan Affordable Housing (2017-2018) for relocalized farmers, an unusual commitment, in the last twenty years, for a Chinese architect. The project was committed by the municipal government of Hangzhou and the project aims at providing 15,300 square meters of affordable housing for 50 households in Dongziguan Village with a budget far below the average while maintaining their original lifestyle of collective living. (Fig. 3: Old Hangzhou above; down: GAD’s Dongziguan Affordable Housing project). It is interesting to see how GAD’s project brings back to the older image of Hangzhou and to realized how many errors were made in the last a hundred years in China.

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Both RUF and GAD’s works are just samples among several remarkable younger Chinese architects recovering and inventing a modern and contemporary Chinese architecture. Their works seem closer to Wu Liangyong Ju’er hutong⁵ project design and intellectual legacy of 1984 – whose phase one was completed in 1990 and phase two in 1994 after winning important prizes – than thousands of projects built in the latest fifty years in China. These kind of architecture will probably define the most convincing future trajectories and design challenges.

3 . <http://www.rufwork.org/>

4 . <http://www.gad.com.cn/>

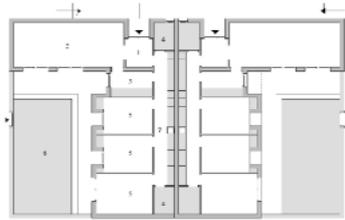
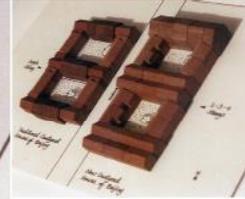
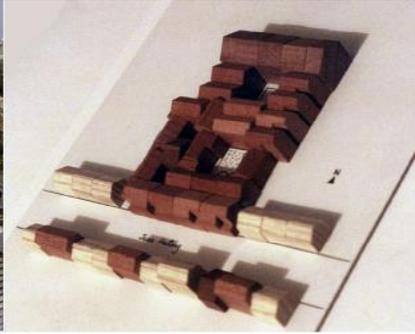
5 Ju'er Hutong (Chrysanthemum Lane) is located in the area of the celebrated Nanluogu Xiang (Gong and Drum Lane South), in proximity to the historic Drum and Bell Towers. Donia Zhang, Ju'er Hutong new courtyard housing in Beijing: a review from the residents’ perspective, “International Journal of Architectural Research” 10(2):166-191 · July 2016

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Fig 1 The Ju'er Hutong (three picture above), a pioneering courtyard housing project (design 1984, construction 1987) by Wu Liangyong awarded with the UN Habitat Award 1984: one photo and two wooden models comparing the layout of the Ju'er Hutong and of traditional Chinese siheyuan. The experiment in the Ju'er Hutong neighbourhood has shown that, given the fixed two and three storey height limit the new courtyard housing can achieve the same density as high rise housing. Wu's project inspired the design of a housing project developed during a Sapienza Design Studio Abroad at Tsinghua University. The rendering down represent the results of a Sapienza Design Studio Abroad at Tsinghua University working on a Beijing area between the Tsinghua University Campus and the Fragrant Hills. The team work for the specific housing project was composed by Lucio Barbera, Massimo Severo Barbera, Anna Irene Del Monaco and Vincenzo Del Monaco; further integration of the projects were later presented also at the Festival di Parma in 2007. The complete design studio abroad project was published in DEL MONACO, E. CONGEDO (2006). Pechino: Storia, Paesaggio, Città. Roma: Casa Editrice La Sapienza.



Alloggi of piano terra

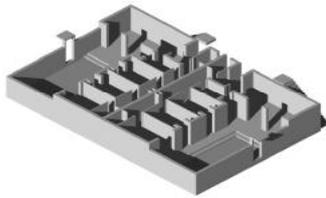


Alloggi of primo piano

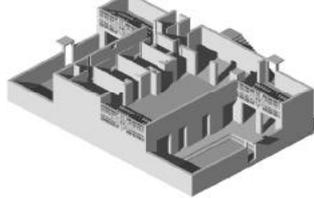


Alloggi of secondo piano

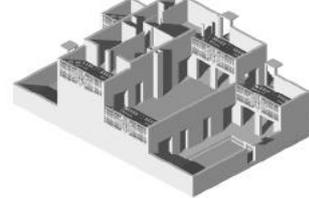
- 1. Ingresso
- 2. Scogliano
- 3. Cucina
- 4. Servizio igienico
- 5. Camera da letto
- 6. Corte - Sanitorio
- 7. Casa di Controaffollazione



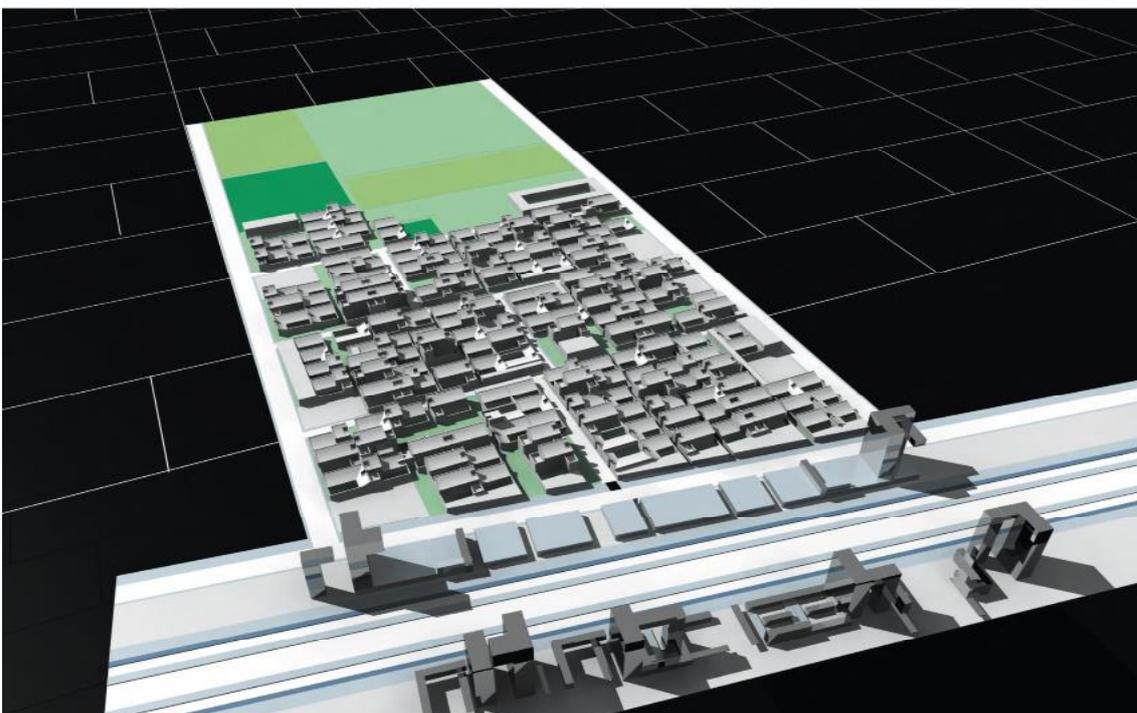
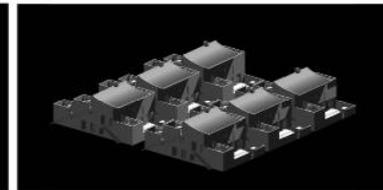
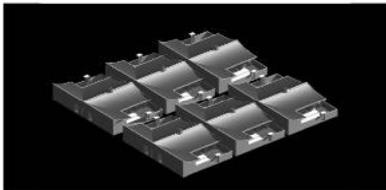
Tessuto ad un piano: 250 abitanti per ettaro

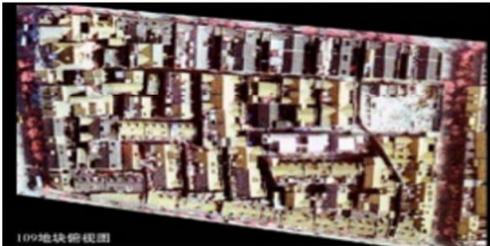


Tessuto a due piani: 450 abitanti per ettaro



Tessuto a tre piani: 550 abitanti per ettaro







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Shanghai Xintiandi



THE HUB



Foshan Lingnan Tiandi



Wuhan Tiandi





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Fig. 2 a: Xintiandi in Shanghai; Fig. 2 b: Tiandi Foshan, a SOM project and other Tiandi different locations: it was designed by Wood and Zapata Inc, built by Nikken Sekkei International and Tongji University within the framework of a wider master plan, the Taipingqiao project, a redevelopment plan of 52 hectares designed by SOM in 1996.

Fig. 3 Old Hangzhou above; down: GAD's Dongziguan Affordable Housing project in Hangzhou.

D.1) Contemporary Cities 1

Aachen e l'espansione pianificata tra XIX e XX secolo: lettura morfologica e tipologica del Frankenberger Viertel

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Abstract

L'espansione ottocentesca di Aachen, allesterno del tracciato della doppia cinta muraria medievale, rappresenta il vero tessuto storico della città tedesca della Cappella Palatina, considerato che la *Aquae Granni* (sostrato) romana e quella medioevale sono state parzialmente distrutte durante il II conflitto mondiale.

460 I nuovi quartieri *extra moenia* si strutturano sul modello insediativo mitteleuropeo costituito, generalmente, da residenza unita all'industria. L'analisi tipologica e processuale eseguita su alcuni di essi (impiegando il metodo caniggiano integrato dalle interessanti deduzioni di G. Strappa), mostra i tratti caratteristici dei tessuti urbani edificati tra il XIX e l'inizio del XX secolo in cui le vaste pianificazioni, documentate dai piani di espansione urbana, non sempre trovano esatta corrispondenza negli aggregati odierni anche a causa delle parziali ricostruzioni post-belliche.

Lo studio si propone di approfondire il carattere tipico dell'architettura nordeuropea analizzando, in particolare, il quartiere di Frankenberger Viertel. Il ridisegno di alcune parti dei fronti urbani, integrato dalle planimetrie delle unità abitative, fa emergere, dalla sola rapida osservazione, il comportamento del tessuto costituito prevalentemente da case a schiera, unifamiliari e plurifamiliari, e case in linea, spesso dotate di aree di pertinenza molto profonde o unificate in giardini comuni che trovano significative variazioni in corrispondenza degli ampi complessi industriali, talvolta vincolati dall'essere compresi in un nuovo margine urbano, o degli edifici speciali collocati nei punti nodali del quartiere.

L'indagine sulla lettura degli ingredienti caratteristici della leggibilità di facciata, la distinzione materica e coloristica che connota ciascun edificio, la ricostruzione della modularità estesa ad ampie parti degli isolati studiati, restituisce una immagine urbana della città tedesca molto differente dalla facies visibile tipica dei sistemi aggregativi delle città italiane, senza dubbio più organici e murari, con cui si eseguirà una comparazione al fine di rileggere le differenze strutturali che li connotano.

Introduzione

La ricerca qui proposta è tratta dallo studio eseguito nell'ambito delle attività di Laboratorio di Laurea, istituito presso il Corso di laurea in Architettura del Politecnico di Bari, avente come tesi di ricerca l'*analisi dei caratteri dell'architettura moderna nordeuropea*, in particolare della città di Aachen. Esso è stato sviluppato dai laureandi Valentina Malena, Noemi Prezioso, Maria Ritoli, Mario Russo, Luca Tommasi, coordinati dal prof. Matteo Ieva e, in qualità di tutor esterno, dal prof. Uwe Schröder dell'Università RWTH per le analisi condotte durante lo stage ad Aachen. I rilievi e il ridisegno delle unità abitative, di seguito proposte, è stato eseguito sotto la direzione della prof.ssa Valentina Castagnolo.

L'approfondimento sulla formazione dei quartieri sorti oltre il secondo circuito murario, a partire dal XIX secolo, si collega a un precedente studio di tesi che si è occupato della ricostruzione processuale della città e dei tipi edilizi medioevali.

L'insieme di questi quartieri mostra uno sviluppo non omogeneo dell'organismo urbano, data la iniziale espansione *extra moenia* in direzione est-sud-est che investe progressivamente, ma non omogeneamente, anche le altre parti dell'agro circostante.

La zona di Aachen su cui si è concentrata parte della ricerca è il quartiere Frankenger che è stato analizzato, sia alla scala aggregativa, sia a quella edilizia, al fine di capire la dinamica di sviluppo che ha investito tale parte di città subordinata a un'estesa pianificazione attuata attraverso

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Cenni sulla formazione pianificata e sulla struttura del quartiere Frankenger

Situata a Nord della ferrovia che collega Aachen a Colonia (fig. 1a), tale zona era originariamente parte della cittadina di Burtscheid ed è stata annessa ad Aachen nel 1897. Essa si pone nella parte di città compresa tra il castello e il burgerpark.

All'interno del quartiere si notano: due assi principali ortogonali definiti da Oppenhoffallee (originariamente Kaiserallee) e Viktoriastraße, la piazza del mercato Neumarkt e la basilica cattolica Herz-Jesu Kirche e il castello Burg Frankenger, edificio monumentale di grande importanza che ha dato il nome all'intero quartiere. Rispetto alla maglia geometrica regolare compare una deformazione, responsabile del disallineamento al sistema dei percorsi, dovuta al tracciato del piccolo torrente canalizzato Bever Bach, che scorreva in superficie prima della edificazione del quartiere avvenuta prevalentemente tra il 1870 ed il 1920.

Gli edifici della prima fase si presentano in stile neoclassico, secondo il gusto del tempo, diversi da quella successiva in cui compaiono facciate Jugendstil.

Steffenviertel e Viktoriaviertel sono le zone di primo impianto del Frankenger, sebbene non gli appartengano a livello di confini territoriali, ma connettendo percorsi importanti (parte superiore di Lothringerstraße e di Oppenhoffallee), possono essere identificati tipologicamente e

temporalmente come parti del quartiere.

Lo studio della morfologia, insieme al processo formativo e trasformativo, è stata eseguito per via indiretta partendo dall'evidenza strutturale dell'esistente da cui è stato dedotto, ove non indicato dalle fonti documentali, l'andamento dei percorsi e le tipologie degli edifici che ne definiscono il sistema delle fasce di pertinenza.

Un aspetto senza dubbio utile a comprenderne la struttura evolutiva, sebbene le parziali distruzioni subite durante il II conflitto mondiale e la sostituzione di parti integrali del tessuto originario, è la conservazione dell'impianto particellare che ha permesso di riconoscere la modularità, l'orientamento e l'assetto dimensionale dei lotti.

Inoltre, attraverso la ricerca d'archivio sono stati reperiti alcuni documenti originali della pianificazione del Frankenberger Viertel che si sono rivelati di grande utilità per ricostruire, anzitutto, il concetto di aggregato e tipo edilizio radicato nella cultura del tempo, come portato culturale-coscientiale dei pianificatori. Tutto ciò si è avverato nella soluzione dimensionale dei lotti abitativi (case a schiera e case in linea) e delle fasce di pertinenza che hanno, mano a mano, connotato la costituzione degli isolati. Anche in questo caso si è trattato di capire come/quanto il portato della coscienza critica agisca nella cultura del tempo senza ricusare un rapporto diretto con il portato ereditato che giunge a condizionare, più o meno apertamente, l'intera collettività.

462 In ogni modo, al fine di verificare la validità degli strumenti impiegati, specie riguardo alla formazione degli aggregati e alle "anomalie" riscontrate, è stata eseguita una verifica ulteriore confrontando i risultati attesi dall'analisi con l'evidenza oggettiva prodotta dallo studio dei documenti.

Confermata la corrispondenza tra la pianificazione e l'attuale costituzione del quartiere (fig. 1 b), in assenza di rilievi estesi a una zona rappresentativa del quartiere, è stata condotta una verifica del dato dimensionale (cioè del modulo ricorrente) delle facciate (fig. 1 c). Il quale, pur essendo un elemento parziale, permette di verificare il concetto "sotteso" di spazio abitativo all'interno della pianificazione. Non ancora tipo nella sua concreta essenza costitutiva, ma indizio importante che permette di intuire la costanza dimensionale che identifica lo spazio residenziale.

Riconoscendo selettivamente i tipi principali e scartando quelli con i fronti di dimensione più dilata, identificanti un tipo diverso dalla casa a schiera, è stata fatta una schedatura di tutto il quartiere, ammettendo un range tra la misura minima del fronte, pari a 2,5/3,5 mt, e quella massima di 5,5/7,5 mt. Ne è risultato che il modulo più ricorrente, rilevato in più del 40% delle unità, è quello del tipo che ha un fronte compreso tra 6,5 mt e 7,5 mt; percentuale che aumenta al 65% se si considerano le facciate tra i 5,5 mt e gli 8,5 mt che, però, contengono già tipologie abitative diverse. Tuttavia, il risultato appare essere di grande importanza perché conferma un comportamento che ricorre tipicamente in questa fase temporale mostrando, specie nelle grandi città nordeuropee, la presenza di abitazioni non più unifamiliari a schiera, su un fronte di circa 5/6 mt, ma plurifamiliari a più piani che ospitano una famiglia per livello.

Riguardo, invece, al sistema gerarchico dei percorsi (fig. 2b), l'analisi ha dimostrato l'esistenza di tutti quei fenomeni che ricorrono generalmente nel modello di comportamento di questi tessuti, in cui la presenza di polarità specialistiche, precostituite o impiantate nel tempo, induce una progressiva gerarchia relativa al sistema del quartiere. Lo dimostra, ad esempio, l'esistenza di "poli" come il Burg Frankenger, già esistente al momento della pianificazione, la Herz-Jesu Kirche, prevista in fase di piano e la Grabes Kirche, che determinano un condizionamento ai percorsi polarizzati su di essi.

La struttura dell'impianto pianificato è basato sulla coppia di assi ortogonali definiti dal percorso matrice di Oppenhoffallee su cui si innesta – perpendicolarmente – l'altra matrice, meno sviluppata dimensionalmente, costituita da Viktoriaallee che confluisce nella chiesa del Sacro Cuore. Ne consegue che la maggior parte dei percorsi di impianto, gemmati dal percorso matrice di Oppenhoffallee, seguita a conservare una direzione pressoché parallela a Viktoriaallee, con la sola eccezione di quelli deformati a causa dell'edilizia produttiva esistente composta in gran parte da fabbriche, e in particolare quello che collega il nucleo storico di Aachen con il Burg Frankenger.

Ingrediente interessante che conferma la trasmissione, più o meno, diretta di principi consolidati nella città stratificata, è la differente sezione stradale delle percorrenze che corrisponde alla diversa gerarchia a scala del quartiere. Si noti, a questo proposito, come le sezioni stradali dei due citati percorsi matrice risultino essere molto più ampie delle altre e si organizzino con un sistema da boulevard alberato. Valenza che è stata riconosciuta anche nel numero dei piani degli edifici che li contornano, come si noterà dall'analisi eseguita sui tipi edilizi. Distinzione che si coglie anche in corrispondenza del rigiro dei fronti degli edifici che mostrano, soprattutto nelle situazioni angolari, le maggiori differenze volumetriche.

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Si può quindi dedurre che, data la natura pianificata del quartiere e considerato l'intorno culturale in cui si è sviluppato il Frankenger Viertel, l'osservazione effettuata dà prova della coerenza che esiste tra il disegno pre-intenzionale iniziale e l'effettiva esecuzione del quartiere. Le polarità, la dimensione delle sezioni stradali e l'altezza degli edifici contribuiscono insieme a definire un'equilibrata distinzione gerarchica dei percorsi e quindi dei fronti urbani.

Sull'espansione del quartiere, sebbene non si possa parlare di processo formativo, la cronologia può dare qualche indizio importante per intuire il comportamento dell'edificato rispetto ai percorsi.

La documentazione grafica e bibliografica raccolta durante lo stage è stata sufficiente a dimostrare, sia l'espansione di Aachen dalla metà del XIX secolo, sia la cronologia molto dettagliata dell'espansione del Frankenger.

Si nota, infatti, come si prediligesse costruire inizialmente il percorso prevalente gerarchicamente, senza completare l'isolato. Questo comportamento, tipico dell'area nordeuropea, porta come conseguenza al formarsi di isolati spesso aperti, anche in zone limitrofe a polarità o nodi importanti a

livello gerarchico, che giungeranno a chiudersi o intasarsi completamente solo nelle fasi successive. Può anche verificarsi la condizione che l'isolato non si chiuda affatto, restando permeabile e godendo di qualità spaziali in cui lo spazio naturale entra all'interno degli isolati, come appare anche in alcuni casi della città di Aachen.

Nel quartiere di Frankenberger, si è notato come in esso la costruzione si sia attuata sui limiti esterni (soprattutto quelli più vicini al nucleo storico, i primi ovviamente ad essere edificati) e sul percorso matrice di Oppenhoffallee. In seguito si è costruito sui percorsi di impianto principali e si è poi seguito a connetterli formando, nel tempo, gli isolati. Da notare, inoltre, come gli stessi isolati hanno inglobato, nel tempo, l'edilizia esistente, composta soprattutto da fabbriche ed industrie, arrivando quindi a costruire un quartiere dove è forte la presenza di aggregati edilizi che contornano spazi interni molto ampi e intasati in cui compaiono le ex-industrie ormai dismesse e rifunzionalizzate.

L'ultimo approfondimento scalare è quello che ha portato a leggere l'unità abitativa e la sua aggregazione. Anche in questo caso è stata fondamentale la ricerca bibliografica, integrata dal rilievo con cui si è riusciti a ricostruire un campione dettagliato ed eterogeneo di casi, sufficiente a leggere i caratteri tipici dell'edilizia di base del quartiere.

464 Questa analisi condensa al suo interno tutte le indagini che l'hanno preceduta, confermandone gli esiti e ampliando la sequenza di informazioni che giungono a spiegare la scala dell'architettura; ora indagata nei suoi elementi costitutivi (struttura, distribuzione e leggibilità).

Particolare attenzione è stata rivolta ai materiali e alle tecniche costruttive riportate negli edifici e anche alle caratteristiche degli spazi e dei volumi costruiti. In questo modo, da un lato si è potuto comprendere integralmente qual è l'idea di tipo sottesa nel Frankenberger Viertel, dall'altro, come esso si relaziona agli spazi, interni ed esterni, delle corti e delle pertinenze ma anche dei percorsi e delle strade.

Lo studio tipo-morfologico si è dimostrato essere utile, non solo per l'analisi urbana in tutti i suoi elementi costituenti, ma anche per aver fornito l'opportunità di costruire un nucleo di conoscenze da cui, come noto, può avviarsi una riflessione progettuale in continuità con quanto raggiunto (anche in termini di conquista civile) fino a quel momento storico. Permanenza di caratteri identitari, dunque, ma anche necessario aggiornamento affinché l'intervento contemporaneo risulti gravido di quei presupposti di novità su cui si basano criticamente le riflessioni progettuali.

Descrizione dei tipi edilizi

Si propone nel seguito un'analisi eseguita alla scala edilizia su alcuni campioni significativi di tipi edilizi presenti nel quartiere Frankenberger Viertel di Aachen (fig. 2a). Essa sarà limitata ad una serie di considerazioni sulla leggibilità di facciata, in questo contesto di grande interesse per la nutrita varietà di casi, mentre sarà tralasciata la descrizione accurata del sistema strutturale e distributivo, considerato che la tecnica costruttiva in muratura portante di mattoni e i solai lignei paiono essere pressoché

costanti in tutti i casi esaminati.

Procedendo per riduzione sul campione totale (eterogeneo per dimensione e tipologia dell'abitato), si è preferito riportare quattro esempi che riassumono i comportamenti tipo-morfologici e materico-costruttivi, che connotano l'intero abitato del Frankenberger Viertel.

A seguire, si propone invece un piccolo campione di tessuto di cinque unità abitative da cui sarà desunta comparativamente la leggibilità dell'insieme.

Casa a schiera su Lothringerstraße, 86 (fig. 3a). Lotto profondo 20,42 mt e facciata di 7,34 mt per 18,04 mt - con un totale di quattro piani, comprensivi di piano terra basamentale e piano sottotetto. Questo edificio inquadra quasi tutte le caratteristiche principali riscontrate all'interno del quartiere: affaccio sul percorso d'impianto principale, tripartita in facciata con il fronte prossimo a 7,5 mt. L'edificio costruito occupa la metà della pertinenza totale e il vano scala, parallelo al muro d'ambito, è al centro dell'abitazione a regolare la distribuzione degli spazi.

La tripartizione della facciata, tipica in queste case dal fronte dilatato, organizza le aperture in modo regolare con un diverso grado di leggibilità, nella decorazione e nella dimensione, dal basso verso l'alto. Sono presenti al primo livello i marcadavanzali e il marcapiano, in aggiunta ad un balcone in corrispondenza della finestra centrale. Il piano basamentale "poggia" su uno zoccolo differenziato cromaticamente, mentre tutta la facciata, intonacata, riporta la scansione dei filari orizzontali senza evidenziare differenze cromatiche.

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Casa a schiera su Bismarckstraße, 31 (fig. 3b). Lotto profondo 37,03 mt e facciata di 10,03 mt per 18,35 - per un totale di cinque piani, partendo da quello basamentale concludendosi col piano sottotetto. L'edificio plurifamiliare rifonde - in pianta - due cellule più piccole, la dimensione di facciata infatti risulta maggiore della media, e la partitura stessa della facciata risente di questa rifusione. La pianta è molto allungata, con l'edificio costruito lungo tutta la profondità del lotto con una sequenza di vani irregolari, sia nelle loro sagome che nelle dimensioni. La presenza di un doppio vano scala è compensata dal vano di passaggio che permette di entrare nella pertinenza per raggiungere la seconda parte dell'edificio. La facciata riporta una perfetta regolarità, con le aperture tutte della stessa dimensione che differiscono per la decorazione nella specchiatura - degradante dal basso verso l'alto. Il basamento è bugnato e presenta uno zoccolo lapideo, mentre i lati del modulo rifuso sono evidenziati dalla presenza del cantonale. Tutto l'edificio è intonacato.

Casa a schiera su Bismarckstraße, 129 (fig. 4a). Lotto profondo 22,66 mt e facciata di 8,32 mt per 19,49 - per un totale di cinque piani, comprensivi di piano basamentale e piano sottotetto. Il vano scala, comune ed esterno alla parte abitativa dell'edificio, rivela la natura di edificio plurifamiliare che impiega il meccanismo distributore verticale a guisa di percorso

esterno ad ogni alloggio.

Situato sul percorso di collegamento di Bismarckstraße, l'edificio presenta le peculiari caratteristiche della tipologia presente nel quartiere di Frankenberger.

Si sviluppa in profondità occupando tutto lo spazio del lotto, con una successione di vani differenti.

I primi tre scalini di invito permettono di raggiungere la scalinata principale, parallela al muro d'ambito e separata dall'abitazione. La facciata presenta una partizione regolare, con una distinzione decorativa e dimensionale tra le due campate. L'edificio è in mattoni e presenta uno zoccolo lapideo, fasce orizzontali e specchiature in pietra.

Insieme di due case a schiera su Bismarckstraße, 193-195 (fig. 4b). Si tratta di due abitazioni monofamiliari su percorso d'impianto. L'articolazione delle due unità è speculare, sia in pianta che in alzato, riportando stesse dimensioni (7,90 mt x 16,20 mt in facciata e 16,34 mt in profondità), ma con differente uso dei materiali. Le facciate, entrambe tripartite, mostrano dimensioni delle aperture identiche e speculari, al contrario dei materiali e delle decorazioni. I basamenti sono entrambi bugnati, ma presentano cromie e apparecchiature diverse, e mentre l'edificio 193 riporta una muratura in mattoni intonacati, il 195 presenta un rivestimento in pietra con conci di diverse dimensioni e una decorazione più elaborata nell'ordine delle specchiature.

466 L'esempio di particelle aggregate (fig. 2c), che qualificano un pezzo di fronte urbano all'interno del Frankenberger, è collocato in prossimità del termine del percorso di Bismarckstraße. Si tratta di edifici che mostrano uno scarto gerarchico rispetto agli altri lungo il fronte urbano, sia nelle dimensioni di facciata, più ampie, sia in altezza, perché raggiungono altezze di cinque piani, cui si aggiunge la copertura a falde. Anche in questo caso sono presenti due edifici con lo stesso prospetto (179 e 187), ma diversificati nei materiali.

Il primo edificio rifonde un modulo intero, tripartito, e un semi-modulo. Identifica un piano basamentale bugnato e uno zoccolo, ha aperture regolari definite da un ordine lapideo tamponato in mattoni. Il secondo edificio, tripartito regolarmente, è tutto in mattoni con gli ordini delle aperture lapidei e con le bugne segnalate al piano basamentale. Anch'esso presenta uno zoccolo, cromaticamente distinto dal corpo dell'edificio. Similmente ad esso, il terzo edificio riporta tutto il corpo in mattoni, tripartito, con lo zoccolo e l'ordine delle aperture lapideo che si differenziano dal corpo. Il piano terra impiega sempre lo stesso materiale e riporta le bugne in facciata. Nel quarto edificio, sempre tripartito, il piano di relazione col suolo riporta la scansione orizzontale dei filari, con una distinzione sia materica che cromatica, e si presenta in mattoni con l'ordine che definisce leggibilmente le aperture con una pietra chiara. L'ultimo edificio, affine al primo, riporta ancora il basamento differenziato dal corpo in mattoni intervallato dall'ordine lapideo, con l'unica differenza di avere una bicromia nell'asse centrale e non un unico colore negli ordini delle aperture.

Gli esempi proposti mostrano i tratti principali della tipologia abitativa del quartiere analizzato. Dal punto di vista formale-leggibile si evidenzia una indubbia eterogeneità di comportamento, nelle facciate delle singole particelle, a dimostrazione di quanto, anche la città di Aachen, partecipi del fenomeno dell'eclettismo che investe buona parte delle città europee in questa fase storica. Peraltro, aspetto anche questo connotativo dell'architettura di tale intorno geografico è la cospicua variazione materica e coloristica, come appare nell'aggregazione di unità riportate in fig. 2c.

I materiali utilizzati, sebbene ricorrenti in quasi tutti gli edifici (laterizi per i tamponamenti, intonaci e pietre per i rivestimenti e vari tipi lapidei e di terracotta per i tetti a falde), non vengono impiegati sempre allo stesso modo e tendono a distinguersi soprattutto tra quelli contigui, sottolineando sempre una certa coerenza costruttiva dichiarata nell'articolazione dei piani di lavoro, impiegati nei sistemi orizzontali ed in quelli verticali mediante le decorazioni e le specchiature.

Inoltre, dato il carattere dell'architettura mitteleuropea evocativo della natura "lignea" del costruito areale, gli edifici mostrano sempre una marcata verticalità, che si integra alla distinzione delle fasce orizzontali di piano: basamento più alto e spesso matericamente distinto dall'elevazione attraverso il bugnato o un differente rivestimento, piani abitabili generalmente identici e ultimo livello, prima della mansarda, più basso.

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Altro comportamento che si riscontra nel tessuto, sempre riguardo alla leggibilità delle facciate, è la ripetizione di un edificio che si mostra identico, sia nell'organizzazione planimetrica, sia nell'articolazione "formale" dello stesso fronte urbano. E tuttavia, se i due edifici sono contigui, l'unione determina comunque una variazione attraverso il ribaltamento speculare del tipo, ovvero tramite la distinzione materica e coloristica.

Conclusione

A conclusione di questa sintetica analisi sul sistema aggregativo e sullo studio dei tipi edilizi che formano il quartiere, è importante evidenziare che la modalità di strutturazione del Frankenberger conferma il comportamento ricorrente in molte città nordeuropee in cui la nascita degli insediamenti, a partire dal XIX secolo, è spesso tributaria della presenza di un'attività produttiva industriale che diventa il presupposto (economico) necessario per la formazione del tessuto abitativo.

Il sistema aggregativo viene, di norma, definito da una pianificazione che permette di organizzare il costruito su alcuni percorsi principali (talvolta recuperando quelli territoriali preesistenti), assunti come matrice dell'edificazione, spesso polarizzati sugli edifici speciali preesistenti o di nuovo impianto (chiese, fabbriche, scuole, ecc.). Tratto distintivo che connota l'edificazione di questi sistemi insediativi è una certa preferenza di costituzione lineare del tessuto lungo i percorsi, con unità abitative monofamiliari o plurifamiliari, e il successivo completamento con i tracciamento di percorsi di impianto. Tuttavia, senza che l'isolato trovi la

sua chiusura definitiva con fasce di pertinenza anche sui collegamenti. La geometria degli isolati, non sempre regolare anche a causa delle preesistenze (strutturali e naturali), richiama spesso i temi dell'urbanistica del tempo che propone, insieme alla griglia regolare, anche tessuti radiali confluenti in piazze di forma geometrica circolare o ellittica.

I tipi edilizi, case in linea e case a schiera monofamiliari, e più spesso plurifamiliari, sono aggregati serialmente lungo i percorsi condividendo le murature d'ambito. Un ulteriore aspetto che caratterizza l'insieme delle unità associate è l'uniformità delle quinte edilizie, attestate in larga parte su un numero di quattro piani, che conferisce al quartiere una unità globale, interrotta solo nelle zone di tessuto trasformato nel tempo da incongrui interventi. Inoltre, secondo quanto descritto in precedenza, la variazione coloristica e materica che definisce il sistema leggibile restituisce un'immagine urbana tipica della città ottocentesca che, peraltro, trova nell'area di studio una sensibile connotazione che la distingue molto, ad esempio, da quella coeva italiana.

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1a Inquadramento urbano della città di Aachen e posizione del Frankenberg Viertel



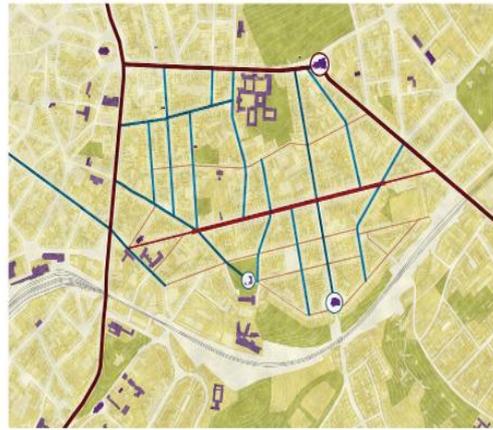
1b Ridisegno della pianificazione e sovrapposizione sul costruito attuale



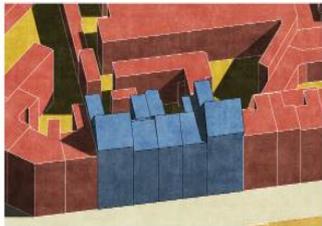
1c Analisi dimensionale dell'edilizia di base all'interno del Frankenberg Viertel



2a Posizione delle parti e degli aggregati analizzati



2b Analisi delle gerarchie dei percorsi all'interno del Frankenberger Viertel in base i percorsi storici, in blu i percorsi d'espansione e in rosso i percorsi d'origine



2c Rilievo dell'aggregato in Bismarckstraße 179-181-183-185-187: anatomia, planimetria in scala e colori, prospetto



Conference topic

D.2) Contemporary Cities 2

Observation and dialog: operational tools useful for aware and meaningful anthropological design in Romani settlements

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Keywords: Informal Romani settlements, proxemics, housing process

Abstract

Information about informal Romani settlements housing are not found in books or archives. They are found live, in settlements. The intent of this paper is to point out that they represent a world of signals that can be detected through the methodological tools of observation and discussion with residents; also and therefore, to create guidelines for operational tools useful for an aware and contemporary design in their advancement process.

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The paper begins with the proxemics treatment of a Romani settlement as a closed system where spatial relations are filled with semantical values typical for ethnological and sociological situations of such a microenvironment. Explanations of these values are obtained once the focus of observation is passed from object to process, and the objects are perceived as products of processes. Such observing practice along with dialogues, enables analysis not to overlook existing values, meanings and symbols of space that are culturally driven, explicitly defined not by professionals but through perception of the residents- users . This is the only possible way of developing adequate principles of future architectural realizations in Romani settlements that would be innovative, but within the articulation system of the local community.

The paper will present a case study of a Romani settlement with this methodological apparatus applied as well as its concept, all research steps and results accomplished by such procedure.

The purpose of this paper is seen in collecting and archiving knowledge about Romani settlement housing which provides a double effect: building a basis on which the future of settlements is well planned, and increasing their significance for the town and strengthening awareness about them too.

Introduction

Social housing represents an important point in realizing individual and social needs of vulnerable social groups, which makes it one of the most complicated social phenomenon's, one of the most basic functions of each urban society and an indicator of the life quality within. Milena Grbic instigates that the tendency in accomplishing the right of housing for the Romani has mostly remained theoretical, since not a single analysis with that aim included life experiences and actual processes of Romani housing (Grbic, 2015). Hence in realization many attempts of solving the Romani housing problem were undefined in frameworks and possibilities of the community in the matter and were not founded on studying reality and were given a paradoxical mark.

When we examine Romani housing, we must have in mind that spatial relations are filled with meanings and that those exact meanings vary between social groups. Umberto Eco stated that one must pay attention to semantical values that spatial relations obtain in certain ethnological and social situations (Eco, 1968). Especially since in Romani settlements a particular causal link was established between taking an acceptable social status and the loss of authentic behavior patterns, and vice – versa therefore the Romani have developed a special social – cultural mentality due to fear of assimilation – the ‘‘ghetto consciousness’’, which has in its only positive sense, served to preserve authentic behavioral patterns.

Having all this in mind brings up a thought which calls upon a real practice of housing and usage of space. As Breda Case Scheer cited Kropf suggest, one way in which urban morphology is distinguished from other kinds of urban analysis is the starting point of acquiring formal urban data (Scheer, 2016). Pointing our attention for the sake of research of a possible other place was inspired by Henry Lefebvre when he specified that to contemplate the very essence of housing in order to convey it, should be directed towards the experienced, i.e. the unknown and the untold of everyday life. By adding that this space comes from a string and a set of operations and it can't be perceived as one simple object (Lefebvre, 1991 (1974)), meaning that the produced space of Roma settlements includes, contains and hides social relations, since it does not represent a matter but a set of relations between matters (objects and products) and as such it can function as a tool used for a productive analysis. Because, the user living space is specified, i.e. it is subjective and it is cut off from the remainder of social space by barriers and walls, by all signs of private property, but it still manages to remain an essential part of this space meaning that these visible lines, as walls or fences in general, give rise for their appearance of separating space, when actually what exists is an ambiguous continuity. In that continuity the user positions himself in the center. He is, in brief, 'an agent' that includes a role of an individual and a public identity since he faces immediacy and subjectivity of his persona, and on the other hand it includes a place in the community, a position. In that sense observing the user opens a possibility to make the social space into a transparent media.

Methodology: Big Brother eye

So, when we are examining housing, it is also necessary to understand those nonverbal signs and symbols spread across the "residence" and outside its limits and to then figure out a solution on how to explain them in an architectural and urbanistic way. It is necessary to find a connection between opposites, to think towards utopia and to refer to the practice of housing and usage.

According to David Harvey writing, the simplest explanation of daily practice was set by Hagerstrand, when he treated individuals as useful agents that spend time moving in space (Harvey, 1990). His setting can be a useful explanation to how their daily life occurs in time and space, with the thought that these schemes ignore the question how and in what manner do certain social projects and their characteristic liaisons and limitations become hegemonic, as well as the need to discover the causes of domination of certain social relations and assigning meaning to a place or space. In the methodological sense, process takes precedence over things. We should focus on processes rather than things and we should think of things as products of processes (Harvey, 2003). Hence it necessary to research the reasons for which certain things have appeared, or are still happening inside the settlement. Accordingly, real processes of Roma housing can be obtained by reading out strings of specific actions that occur within the Roma settlements, as a space produced by the Romani themselves, since the Romani way of life in space and time creates multiple frames inside of which conflicted processes (of housing) function. So, it is necessary to find a key to base upon examinations through a dialectic relation between processes of space usage of a defined settlement throughout a period of time.

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In this particular case, if we were to analyze a particular Romani settlement, relativized and emancipated by extrapolation and systematic organization, the term of 'closure' would become an operative program since it would aid the calculations of what is happening in the natural and in the social life (within the settlement) even though it sound that the closure has a tendency to become absolute, in a particular case it is a defining characteristic of territorial space, and in relation to its position in the city space, in only conditionally includes a barrier inside and out, is not a closed wall, but it is always relative, and as a membrane, always permeable.

Key concept to interrogate actual processes of Romani housing

Cross – section. A cross – section is a summed description, or a symbolical illustration of the researched. It represents all registered processes and changes in time; it marks agents and their behaviors in certain points of the house and their close neighborhood.

The dominant subject of the diagram scheme is represented by the largest circle, made around all others, except exceptionally, when agents are outside the cross-section, but also in their proximity so they influence occurrences inside the cross-section.

The cross-section includes several different components:

Agents. Agents are all users of space, i.e. all members of the community. They are the ones that make it dynamical. They behave accordingly to their everyday needs and in the frame of custom rules. All other components of the cross-section depend on their presence. Based on age structure they can be divided into older members, younger members and children, since the Romani life span is no longer than 50 years.

In diagrams, agents are represented as circles with the smallest diameter. The size of these circles is the same. The difference in age structure is demonstrated in different colors.

Territories. Territories are spaces that exist inside the cross-sections. They represent fields of action of different phenomenon's, from which not all need to be present but all must be spatially defined. There are several types of territories: A house, that can be changed in the physical sense; The field of action of the house, that can be changed in the psychological sense, spatially defined depending upon the agility of the agent and The field of action of the agent, also variable in the psychological sense, and spatially defined in relation to the role of the agent in the community.

Some territories can be found outside of cross-sections in certain cases, but are not significant unless they are an intensive territory in the close surroundings of the cross-sections and influencing the event in the cross – sections. In diagrams, the size of the circle marks the size of the included space of the field of action.

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Institutions. Institutions have been perceived according to the frequent presence of the agent, and are created in space where most territories collide. Every institution next to the field of action also has an intensity of action that is variable. The field of action of one house can affect the formation and the intensity of multiple institutions. In diagrams, the intensity is marked by the thickness of the line, while the included space, as up until this point, is marked with the size of the circle.

Forming process: Exploring real processes of Romani housing

The presented research refers to the demonstration of a process in relation to the established methodology and research apparatus in the Laudanov Sanac Romani settlement in Zemun, Belgred, Serbia. The temporal intersections are concentrated on processes that occur before noon, at noon, in the afternoon, and in the night, but particularities have been spotted by analyzing that reflect on the change of residences, and are a result of a process that can last even several years.

The aim of such a research is to determine actual processes of Romani housing while using physical, accidentally created space meant for housing and identifying user behaviors inside the community so that the field is set for discovering suitable needs, values and preferences that could become necessary in the matter of Romani housing especially if they are specific in relation to referent parameters or they could point towards other guidelines in adapting or criticizing recommended general principles of modern society organization.

Before noon (Drawing 1)

Before noon, most agents leave the cross – section. Older agents and children remain. Small intensity institutions occur on interceptions 4 or 5 of the residing field of action and are of variable intensity. Besides this 2 or 3 spots in the cross – section there are occurrences of institutions of a much higher intensity and constant in duration. An important determinant is that forming and the intensity of the institution is not conditioned by the field of action of territories of the closest physical spaces of the residence.

In parts of the cross – section of condensed character, a certain "repression" of agents occurs outside the cross – section's borders into its immediate neighborhood. In this space a small outer institution is formed. Kids are mostly carriers of the field of action of the residence and influence institutional forming in the cross – section. The field of actions of older agents is usually connected to the residence, more accurately the basic room and the porch, while the field of action of children is usually connected to the porch. Considering the fact that both spaces are equally dynamically used, in this context an institution is created that includes the basic room of the closed part of the residence and the porch that, on the level of immediate neighborhood is a grand institution.

In certain cases the porch includes adequate basic equipment the same as the basic room, hence the cohesive forces between the basic room and the porch are stronger, which further intensifies the mentioned institution.

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The afternoon (Drawing 1)

The term of afternoon is more flexible compared to the term of before noon when most agents leaves the cross – section at a similar time, during the afternoon, the return into the cross – section is made in different times, but it is presented by one general diagram.

Agents return into the cross – section. The field of action of the residence becomes smaller. The carriers of the field of action of the residence are agents of all ages. Institutions occur on intersection 4 and 5 of the field of action of the residence, and the formation and the intensity of the institutions is connected to the spatial orientation and depends directly from the field of action of interconnected closest physical spaces of the residence. The intensity of all institutions is approximately the same.

In the residence, the field of action of the agents spans, once again, through the basic room onto the porch. The institution, once again, includes a basic room and a porch, and by augmenting the number of agents, her intensity becomes stronger. **Drawing 1**

Dining (Drawing 2)

Most of the agents are in the cross – section. The field of action of the residence is weak and is practically identical to the physical space it includes. Institutions occur on cross –sections 3 to 3 of the field of action of the residence, and the forming and the intensity of institutions is connected to the spatial orientation of the house and is directly dependent on the field of action of interconnected physical spaces of the residence. The

intensity of all institutions is approximately the same. Since the basic room of the residence is not sufficient to accommodate all members of the family, this fault is solved by simultaneous activities – while ones are dining, ones are leaving, arriving or doing chores... in general, using the porch as an institution is intense.

Evening (Drawing 2)

During the evening, most of the agents remain in the cross – section. Main carriers of the field of action of the residence are younger and older agents. Institutions of smaller intensity occur in intersections 7 or 8 of the field of action of the residence and have a variable intensity, while on 3 or 3 spots in the cross – section there are occurrences of institutions of a much higher intensity. An important determinant is that the formation and the intensity of the institution is not conditioned by the field of action of territories that are the closest to the physical spaces of the residence.

During the evening the carriers of the field of action of the residents are younger and older agents, which is, in a certain way, a change of roles considering events during the afternoon, since now the field of action of the children is generally attached to the basic room in the residence while the field of action of most agents is attached to the space of the porch. Again, by using, the basic room and the porch make for a more intensive institution. **Drawing 2**

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Night (Drawing 3)

At night, the field of action of the agents are expressed in the space of the basic room and finally in the bedroom. Institutions do not have intensity.

Secondary raw materials (Drawing 3)

Secondary raw materials piling is a very frequent presence in the cross – section. This is a main income for around 10% of agents, and over 40% of them do this as a lifestyle. The field of action of the depo is closely connected to the physical space of every residence. Though, in certain places in the cross – section there were disposal containers and the field of action of the depo separated itself from the physical space of the residence and has transferred itself to the container. **Drawing 3**

Expanding the residence (Drawing 4)

Expanding the residence leaves the greatest consequences on the institutions. By enlarging for account of the field of action, it shrinks them or completely annuls them, which bring to the amplification of intensity of existing institutions or to creating new ones.

Expanding the residence is most often done horizontally and in two ways. The first and most frequent functions by the principle of "linear addition" and this procedure includes adding a room to the existing basic room that one can enter from the basic room, or adding a new room onto an already existing room that now serves as a passage to enter the new room.

The other principle of expanding the house includes building a room next

to the existing one, but so that one enters from the porch.

Conclusion

As research has shown, the Romani community represents a cohesive whole where all members abide by custom rules, intertwined, taking care of each other. The family is of the utmost importance for the Romani. The community identifies with the family, the family identifies with the community, while the expanded family is a general characteristic of every observed household meaning that to expand the family means to enlarge the number of members, and the need to expand the house, and not to construct a new house and to form a new household, which would characterize the age structure of the household as a three generation household.

The Romani family lifestyle is equally turned towards the interior space of the house as it is to the open space around the house. A group of 3 to 5 houses is organized around a common open space that is differentiated so that the parts that are just around the house belong to each house and the space that all houses from this group use, which demonstrates the existence of a casually created but well organized urban pattern. This declaration should be carefully analyzed since it changes the typical approach of designing social housing from individual to group housing.

480 The research has also demonstrated that within the settlement gathering spots are created whose frequency of usage does not depend upon the houses nearby, but it is functioning at the level of the settlement and its position does not change depending on the age structure of the users, the only variable is the intensity during the day. The necessity to have a gather point was also identified in the immediate surroundings of the settlement, which is once again independent from the users age structure, so this data can influence the concept of forming spatial elements pointed towards concrete measures of integration processes.

In certain spaces in the settlement there were containers used for depositing secondary raw materials, while in parts of the settlement where they were inexistent, raw materials were deposited around the house, which shows a real possibility of depositing raw materials in one place in the settlement.

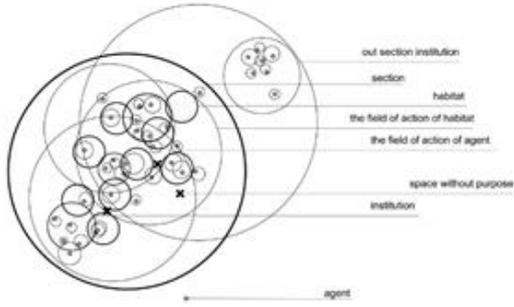
In a wider sense, the research has shown that general strategies of institutional space create a social life on just a theoretical plan. This space is represented as objective, scientific and neutral, but it easily closes the horizon towards information and notifications concerning lived experiences and actual processes, since the practice is easily covered by an ideology and the social relation by the institutional, thus creating a restraining space. It is necessary to always have in mind that the urban practice is not the same as an urban phenomenon and that there is always a conflict between the way and the model, but to clear the road, it is necessary to break models. The user should not always remain passive although his presence is strategically questioned, and his life experiences are not to be neglected.

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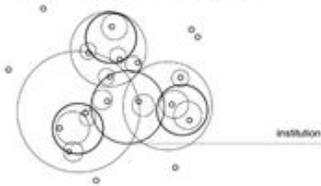
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Captions: All schemes and diagrams were made by Milena Grbic as an inscription during the on-site research.

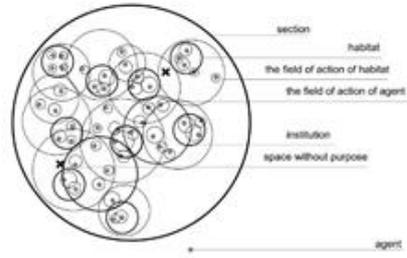
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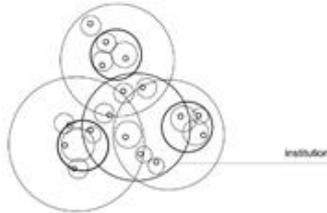
3 house NEIGHBOURHOOD



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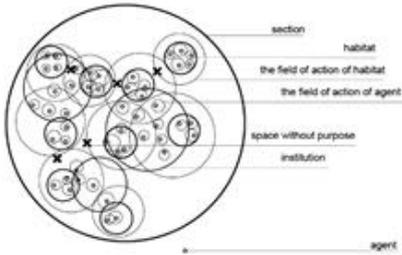


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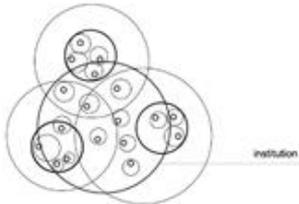


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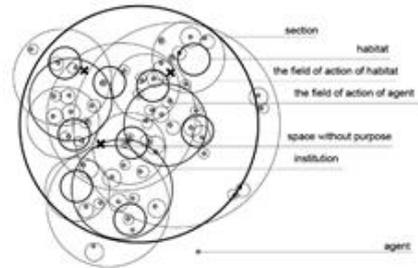
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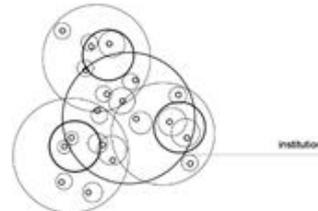
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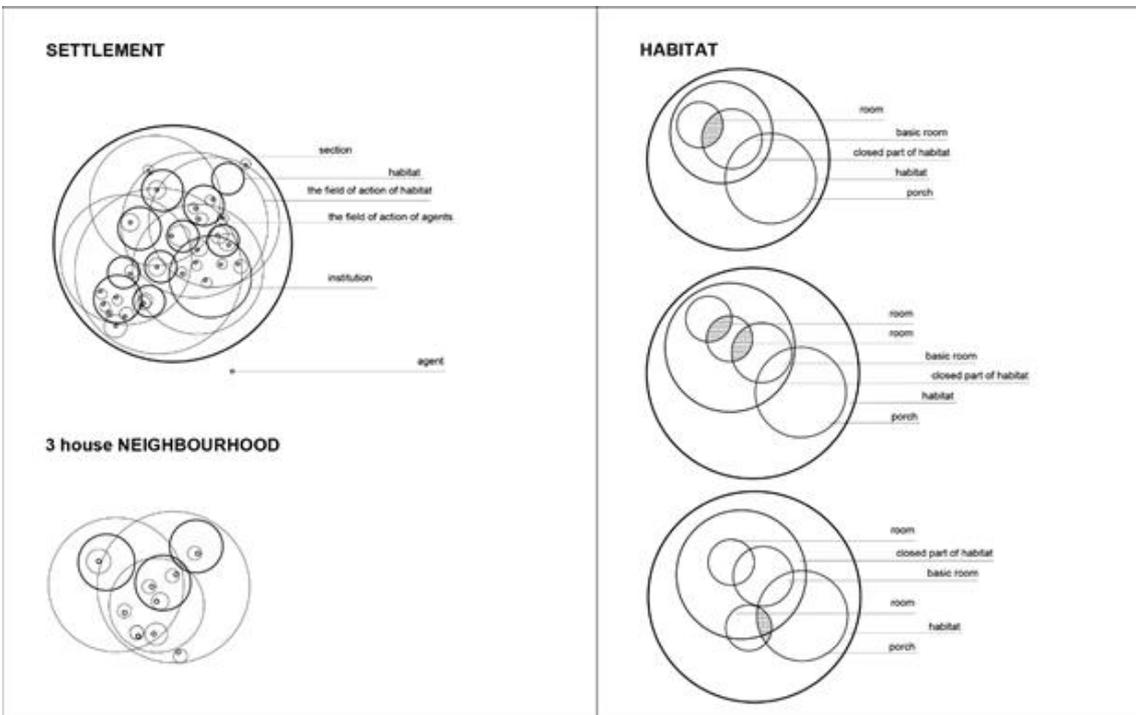
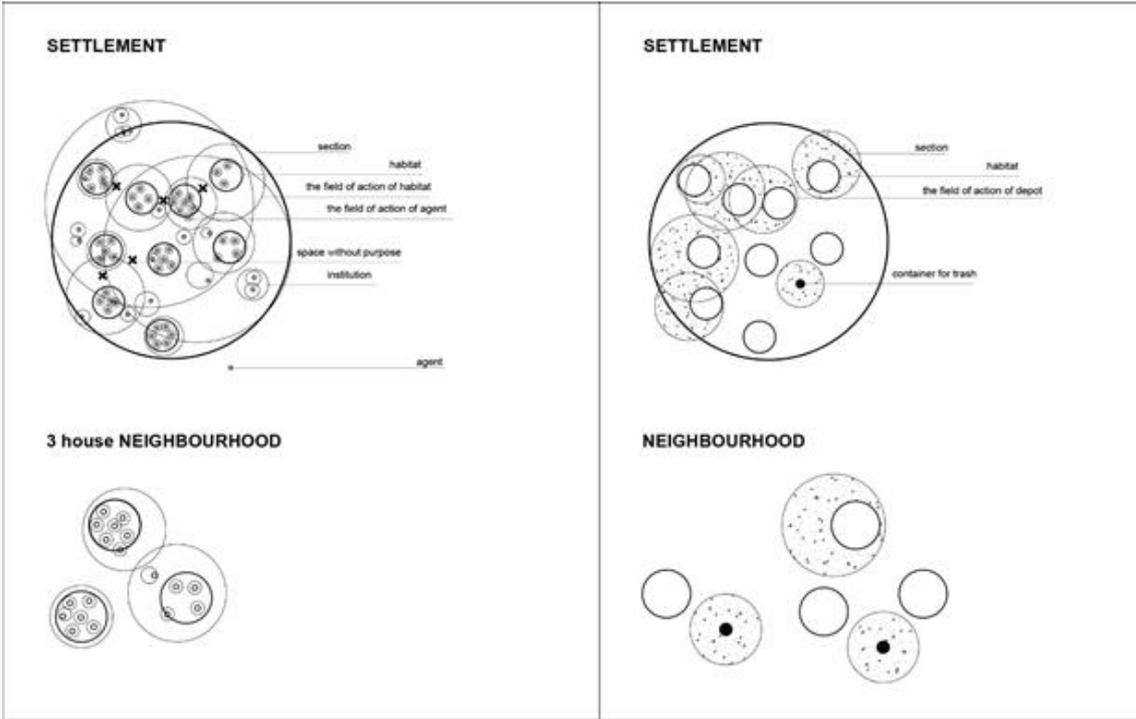


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3 house NEIGHBOURHOOD





The changes of spatial patterns in affordable housing: evidences from Tehran Metropolitan area (1940-2016)

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Keywords: affordable housing, settlements patterns, Tehran metropolitan area, sustainable neighborhoods

Abstract

484 *Tehran metropolitan area has experienced significant population growth for about previous 200 years, this population growth has been far faster since mid-20th century, during this period housing shortage at all and more specifically affordable housing for middle class and lower income has been unsolved problem. However public and private sectors have been attempt to provide sort of successful and unsuccessful housing schemes. This study introduces the spatial change of affordable housing from the early 1940s, the establishment of first housing program until now. The first part indicates how spatial change of Tehran metropolitan area polarized the urban poor. The emersion and spatial expansion of low-income housing in Tehran is the second part of study, then 15 different cases from different part of the area and various construction date has been studied and briefly categorized in table. Subsequently the Sustainable housing concepts as a Measuring tools of characteristics are presented and the study is concluded by result and discussion part.*

Introduction

Tehran metropolitan area has experienced significant population growth for about previous 200 years, this population growth has been far faster since mid-20th century, during this period housing shortage at all and more specifically affordable housing for middle class and lower income has been unsolved problem. However public and private sectors have been attempt to provide sort of successful and unsuccessful housing schemes. This study introduces the spatial change of affordable housing from the early 1940s, the establishment of first housing program until now. The first part indicates how spatial change of Tehran metropolitan area polarized the urban poor. The emersion and spatial expansion of low-income housing in Tehran is the second part of study, then 15 different cases from different part of the area and various construction date has been studied and briefly categorized in table. Subsequently the Sustainable housing concepts as a Measuring tools of characteristics are presented and the study is concluded by result and discussion part.

Expansion of the Tehran metropolitan area and segregation of urban poor

The post-Second World War expansion of Tehran was very rapid and uncontrolled and it took the form of free expansion of the city into the surrounding land and the growth of suburban villages and satellite towns, which have been gradually' integrating into the urban fabric by new waves of expansion and development (Madanipour, 1998). Until 1951, any land on the periphery of the city was considered property of the one who had developed it. Although the legislation in 1951 placed such land under government control but it did not have any significant direction toward controlling the city's expansion on its edges. Tehran's suburban population rose between 1976 and 1986. The main reasons for the development of suburban settlements are the increasing number of immigrants as well as lower-income families who cannot afford to live in the city. This has resulted in the concentration of new urban development in the existing suburban villages and towns and also formation of new satellite towns around the city. The informal settlements are mainly situated around the Tehran's main accessroads, the negligence of the housing needs of urban poor in housing sector policies of the financial capacities of the urban poor, high land use standards and criteria set in urban development plans, have played an important role in the formation of expansion of the informal settlements in Tehran metropolitan area (Zebardast 2006). Unequal spatial distribution of population and activity in Tehran as well as Metropolitan region is a result of core-periphery duality and north-south bipolarity (Madanipour, 1998). The new residential developments by private sector and the sectorial nature of the public sector intervention have undermined green space by giving priority to development projects rather than environmental protection (Madanipour 1988). Tehran's sprawling has been taken place by affluent to find better living conditions away from the overcrowded center by moving to north margin due to higher quality of climate, better services, lower density and excessive land price compared to the center. At the

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same time poor shifted down to the south and west, finding affordable housing in periphery and informal lower living settlements, higher density and lower land price than center. This geographical segregation is the main base of social separation in Tehran dissimilar to many American and European (Pedrazzini 2011). In 1986 The Iranian Government allocated 16,000 ha land for establishment of Tehran's new satellite cities, accordingly Parand, Pardis, Hashtgerd and Andisheh four new satellite towns of Tehran established due to accommodating the overflow population and create a balance in the settlement pattern of Tehran also offers an alternative to unplanned and unsystematic sprawl of population and settlements.

Background of Affordable housing provision in Tehran

486 The "AIAD" was established in 1944 by 38 young Iranian architects. Concept of housing provision for low-income people put forward in 1938 by an Iranian architect, Mohammad Ali Sheibani, inspired from French affordable housing and 'Louis Loucher in Switzerland. Beginning of the World War II suspended the all construction program, after war, need for new housing in Europe. Iranian scholars who studied abroad attempt to have similar practice to respond the housing problem in Iran. Passing 'Dead Lands law' in 1952 supported the government's housing programs outside of the Tehran's borders. The "Sakhtemani Bank" was established in 1953 for the purpose of affordable housing. The municipality of Tehran approved the construction of 1000 housing units in 'dead lands' in the south and east of Tehran. Over-population, increasing rents and land prices in the center of Tehran made de-centralization and expansion necessary. In the first seven-year development plan in 1948, the construction of 'Low-Income Housing' was indicated. Later The 'Rahni Bank' was established by the Tehran Municipality as executive cooperate with the low-income housing projects (Habibi 2013).

Case studies:

Fifteen cases targeted low-income and middle class housing neighborhoods from 1940s until now, was selected to study. Fig. shows the locations on the evolution map of Tehran (fig.1).

Chahrsad-Dastgah (1946) The first affordable residential neighborhood 'Chahrsad-Dastgah' was constructed in 1946 in a rectangular land with the area of 420×260 m² in central east side of the current map of Tehran. The central square of the neighborhood is about 165×45 m² and the grid iron network include 8 to 15 meter streets shaped the access system; the main central 20-meter width street closed and ended to a mosque and municipality building from east and west. The plots are divided in to north-south rectangular shapes with the area of about 170 m² by access to the streets from north or south and some of the courtyards located in the Northside the others in the south. The buildings in this neighborhood at least was designed in four types; 1- One story building houses; all in the same plan, include 3 rooms, a kitchen, a store, toilet and a courtyard with Pond,

the area of the building with balcony was 64 m² and the area of courtyard was 80 m². 2- Two story building houses; include a basement one meter below the earth surface plus one story above; each houses has 5 rooms 2 in basement and 3 in upper level, also they have a kitchen, store, toilet and a courtyard with a Pond inside and a staircase connected the first floor to the basement and the roof-terrace. 3- The two story building around the main square and 20-meter width central street; At the first level, there are shopping areas and houses with 2, 3 or 5 rooms with kitchen, toilet etc... located on above or behind the shops. 4-Public building such as mosque, hospital, primary school, bank and etc. was located in different places in neighborhood center. For the first time in Iran, the shopping areas designed around the square with porches and corridors in front, different from traditional bazars and usual market places (fig.2).

Narmak [Si-E-Tir] (1952) Narmak (formerly called Si-e-Tir) has been initiated in 1952 in an area of 507 hectares in northeastern Tehran targeted middle-class and low-income employees (Gharipour 2015), predicted 25,000 residents to live in. The layout proposed a grid network with a great green boulevard which ran east to west, included 119 public plazas and distributed to each corresponding blocks. The block layout bears a resemblance to the traditional 'Chahar- Bagh' (A garden divide into four parts) a classic garden in Iranian tradition, however, adapted the pattern to the modern design by putting houses, rather than greening, around a courtyard shaped space as a public green space, divided into 800 plots. The pattern of 'Chahar- Bagh' was also 'gridiron.' A north-south boulevards are used to modification of the situations of east-west streets. The imported from French prefabrication system 'KALAD' was the construction method. This concrete prefabrication system was placed as 'housing industrial unit,' with the capability to produce a house per day, the architects planned single-story, semi-detached homes with a private yard and typologies of two, three, and four rooms, fabricated with 1.10, 4.40 m panels (Habibi 2015) (fig.2).

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Nazi Abad (1956) Naziabad housing scheme (fig.2) for Meeting the accommodation needs of working class and government employees has been started in 1956 by Sakhtemani-Bank in south of Tehran. Three hundred and sixty-six single story houses (Later increased to 900, known 1000 units "Hezar-Dastgah") including; school, bazar, Clinic, sport field, mosque and etc. with the area of 75,000 m² were designed and implemented. Each plot area had about 70 to 120 m² and each houses had two rooms, a kitchen, a toilet and a private yard. After that due to the population growth the apartment building in ten block and 114 units in total and each units include two rooms, kitchen, bathroom and balcony had been built by Sakhtemani-Bank until 1958.

Shahr-e-Ziba [Kuy-e-Kan] (1959) Shahr-e ziba, or formerly called "Kuy-e Kan" also called "Hezar-Dastgah" (1000 units) situated in north-west of

Tehran, 42 blocks of four-story Italian Style Apartment building were the initial housing scheme constructed in 1959 . At the beginning It was decided the foreign athletes settled there, but because of being small in size the decision changed and the middle-class and government employee resided in the apartments. However, the housing had the required standard of modern urbanism. The facades of the buildings covered with the red color, this was the reason that the name of the neighborhood later changed to the "Shahr-e Ziba" (Beautiful city) (fig.2).

Shahr-Ara (1964) Construction of Shahr-Ara housing scheme (fig.2) was begun in north-west of the Tehran in 1956 by a private company of "Shahr-Ara" (Mehdi Ebrahim Daryani by establishing Shahr-Ara co. in 1957 started the construction in the area) The scheme was include two-story's houses and one, two or three-bedroom Apartment buildings, targeting mostly teachers and railway employees. The plot areas divided into about 150m² to 250m², and houses was designed in one, two, three or four bedroom different types [fig.] and the access system are grid include a large public recreation park in the center of neighborhood, shopping areas, school, hospital, mosque and other facilities nearby(fig.2).

488 **Tehran-Villa (1965)** This neighborhood was designed and constructed in 1965 for middle-class next to the Shahr-Ara. The houses were mostly one-story or two-story building. In the plot areas 60% used for built and 40% leaved open yard (This regulation still forced in most parts of the Tehran) (fig.3).

Sizdah-e-Aban [Nohom-e-Aban] (1965) Sizdah-e-Aban [formerly called Nohom-e-Aban] constructed in 1965 include 3398 single-story building houses for the purpose of accommodation of working-class in the south of Tehran. After finishing the construction, the people who lives in slums moved to it. In 1969, other 210 houses were added and total number of houses reached to 3608. Other facilities such as school, mosque, gym and shopping area were built at the same time. The plots were designed in gridiron with a width main east-west street in the middle of the site and five north-south streets each side and the area of each plots was 84m²(6×14m²). Each house had two rooms (4×2.8 m²), a kitchen, a bath room and two private yards(fig.3).

Dovlat-Abad (1970) Dolat-Abad neighborhood was constructed in 1970 .The buildings in this scheme was in two different types; single-story houses and four-story Apartments(fig.3)

EKBATAN (1970) The Ekbatan neighborhood is located in the west-end of Tehran. The area of its land is 220-hectare plot. It was planned for the construction of about 15000 residential units to accommodate a population of about 75000 people. The gross population density of the scheme is therefore about 340 persons per hectare and the gross residential density

67 dwellings per hectare. The total floor area of all residential buildings of the scheme is 192 hectares. The height of buildings varies from 5 to 9 to 13 floors with ground floors left open for through access. In phase two all blocks are 13 storey buildings with the ground floor left open for through access. In phase three the height of buildings varies from 5 to 9 to 13 floors with ground floors left open for through access. The total land used for the three phases, including the residential buildings and the provisions is 139 hectares. The construction of the Ekbatan is divided into three phases. Phase one with the apartment blocks includes 5601 dwelling units. Phase two with 17 apartment blocks includes 7060 residential units. Phase three with 4 apartment blocks includes 2086 residential units. The project of Ekbatan consists residential buildings of phases one and three, but the residential buildings of phase two were designed by a Korean firm. An American company Starit 'the constructor of the Empire State building' began the construction work in 1975. After the revolution of 1979 a new company 'which was created by the Ministry of Housing and Urban Development' managed the project involving all building work. There are two types of apartment blocks in the Ekbatan settlement with entirely diverse designs of residential units. First an ordinary class, another type is a unit which bed rooms and living room were placed in different level(sorey). Thirty-one apartment blocks totally be in charge by R. Golzar cooperate with Jordan Gruzen about 14,747 residential units. The project construction works started in 1974(fig3).

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APADANA (1976) The Apadana neighborhood is located on west-end of Teheran. Apadana housing project was designed and constructed by S.A.E. company (a French company) for the Bank-e-maskan (Housing Bank). It was constructed in six phases. The construction work began in 1976. The Apadana scheme located in a 40 hectares plot of land. It includes 46 residential blocks, each with either 55, 66 or 68 residential units. In total there are 2901 residential units in this scheme. The ground covered by residential buildings is 4.85 hectares (12.1% of the site) and the gross residential floor area is 41.5 hectares which gives a floor area ratio (FAR) of 1.04. The gross population density of the scheme is 325 persons per hectare and the gross residential density is 72.5 dwellings per hectare. All blocks are connected to the central heating/cooling system through six kilometers of underground tunnels. All residents are provided with fan-coils that are connected to both the central heating and cooling systems(fig3).

Navvab(1994) The reason behind the decision of Navvab housing scheme [fig 24] was: a) to provide space for relocated or demolished activities, and b) to provide the vast finical resources needed for the project. The total area of demolished residential units was 479,600 square meters and the length of the strip 5,529 m. To save time, provide diversity and involve several design groups in the project, the area was broken down into two phases, each of which was contracted to a consulting time to prepare the detailed plan. The exact date that the project started is 1994, and

was expected to be completed in four years. The width of the constructed highway is between 50-60 m, and a depth of 10-30 m is considered for buildings on both sides of the highway. The project introduced more than 8500 new residential units to the area, most of which were below 75 square meters. The buildings, with a high density of up to 19 stories provide some 750,000 square meters of residential and 160,000 square meters of commercial and other spaces. These numbers show the extent of the intervention in the old fabric of the city and the impact it has had, and will continue to have, on surroundings, the residents, and even the whole city. The implementation of the project would have required substantial financial resources to cover the costs of purchasing, demolition, and construction. This heavy financial burden was one of the reasons why the project prolonged for so many years. The exact amount of the total cost of the project is not known, but what is important in this regard is that the city has decided to issue public bonds with comparatively high rates of interest in four phases to secure financial resources needed. The project also benefited from private investments by selling the units at a price below the market value prior to their construction. The main financial resources for the project were, therefore, the investment profit (75% net), the municipality of Tehran, bonds, and the central government. The properties were bought from owners, but on a compulsory basis, and with much lower value than their market prices, according to a report dated October 1996, there have been some 256 unresolved legal cases of property ownership in the area. Financial risks associated with over optimism and false insights regarding the project culminated in its abandoning for a period of two years. Financial pressures later forced the City to eliminate the uneconomic uses of cultural and educational land uses together with the proposed park system and green spaces initially foreseen in the plan. As the project did not utilize effective implementation instruments, so far only the East and second phases have been built, and the third phase is now under construction. Insufficient government funding and lack of private interact in the project have resulted in its slow and problematic implementation. To designers, the project has been a typical Large scale architecture in the modernism movement. The approach used has been pragmatic and without a futuristic view, social and cultural issues, therefore, have not been taken into consideration. Considering the extent of the intervention and size of the investment, this project is unprecedented in urban regeneration projects of Iran (Bahreini 2007) (fig.4).

Mehr affordable Housing;

Mehr affordable housing is a large-scale housing program initiated 2007 to provide two million home over five years' period and targeted low-income people through free land and cheap credits in deferent regions of Iran, (new home-owner get a 99-year lease on the publicly owned land).

Parand new-town Mehr Affordable housing (2007) Mehr affordable housing in Parand new-town with about 95,600 units, is the largest scale

mass-housing scheme in Iran. [fig.], In this study Parand New Town 16,080–unit Housing Project was selected, It has been designed and built by Kayson company by using reinforced concrete industrial mass housing methods. The project's scope of work involves design, procurement and construction of 16,080 housing units which are being built in five-story blocks, of which %25 of apartments have three bedrooms, %63 two bedrooms and %12 one bedroom. (fig.4)

Andisheh new-town Mehr housing (2008)

The target units of Mehr housing project in Andisheh new town is 3093 units. In compares with the other new towns of Tehran has the lowest number and located in different zones of the city ,for the current research a neighborhood of Mehr affordable Housing selected to present and to analyze (fig.4)

Hashtgerd new-town Mehr housing (2008)

The third biggest number of Mehr affordable housing units in Tehran province is constructing in the Hashtgerd New Town. It has about 55,000 units under construction for this research a neighborhood of Mehr affordable Housing selected to present and to analyze (fig.4)

Pardis new-town Mehr Affordable housing (2008)

Mehr Housing project in Pardis new town is the second biggest number after Parand new town, for the Mehr Housing affordable housing in Tehran province with 80,000 units. The three different locations of Mehr Housing have added to master plan of the Pardis New Town to create enough land ,Pardis New-Town “2,000units neighborhood” Mehr affordable Housing is a selected cases to analyze in this study.(fig.4)

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Sustainable housing concepts;

There are 13 different design concepts that are related to the sustainable urban forms; these are used as measurement tools of the research to find the cases how much are Matches with the sustainable concepts.

1-Density 2- Diversity 3- Mixed land use; 4- Compactness 5- Sustainable transportation 6- Passive solar design 7- Green-design (Ecological design) (Jabareen Y. R.2006). The other Housing concepts which can be associated with sustainability are; 8- Flexibility, 9-Gated Communities, 10-Housing with amenities and utilities 11- Social mix. 12-Neighborhood 13- No-suburban Housing (Oikdomos 2011)

Discussion and Conclusion

The study shows that from 1940 to 1979 the evolution of the housing in design quality and different characteristics, apparently is tangible, however, from 1979 to present time faced with degradation in spatial qualities, and has taken distance from many of above mention sustainability concepts. In particular, the current housing development do not come to terms with social mix, housing with enough amenities and utilities or flexibility and

being a sustainable neighborhood. Finally, further study still should be conducted to fulfill precise solutions and proposals.

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Neighborhood		Units	
Neighborhood characteristics	Map	Units characteristics	Maps & pics
Chahr-sad-Dastgah (1946) Area; 60.000 m ² Designed by; AIAD members Executive; Rahni Bank Investor; Melli Bank Number of units: 400 units	Plot-170 m ² Mix land use in center curt yard Greeny Shops Shools Admnstratn building Mosque Grid network	Building in 1,2,3 storey Basement Courtyard Rooms*1-2-3) Btcony Kitchen bathroom traditional break work and concreat	
Narmak [Si-E-Tir] (1952) Land Area; 400 ha Plot area: 200-500 m ² Number of plots: 800 Designed by; AIAD members Executive; Rahni Bank Investor; Melli Bank	center curt yard Greeny Shops Shools Admnstratn building Mosque Grid network With courtyard	Building in 2,3 stories Basement Courtyard Rooms*1-2-3) Btcony Kitchen Bathroom, Mix of traditional and prefabricate idustrial construction	
Nazi Abad (1956) Land area; 300 ha	center curt yard Greeny Shops ,Shools Mosque Grid network With courtyard Apartment in four story and 1,2 storey houses	Both apartments and hoses: Basement Courtyard Rooms(1-2-3) Btcony Kitchen Bathroom	
Shahr-e-Ziba [Kuy-e-Kan] (1959)	center curt yard Greeny Shops,Shools Admnstratn building Mosque Grid network With courtyard Apartment in four story	Basement Rooms(1-2-3) Btcony,Kitchen Bathroom, Mix of traditional and prefabricate idustrial construction	
Shahr-Ara (1964)	center curt yard Greeny Shops Shools Admnstratn building Mosque Grid network With courtyard four story and 1,2 storey houses	Basement Courtyard Rooms(2-4-3) Btcony Kitchen Bathroom, Mix of traditional and prefabricate idustrial construction	

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Fig. 2 Affordable housing schemes from 1940-1979

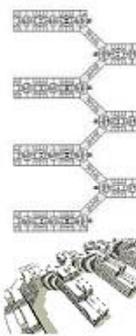
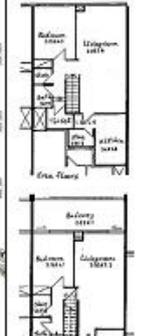
Title	Neighborhood characteristics	Map	Units characteristics	Maps & pics
Tehran-Villa (1965)	center courtyard Greeny Shops Shools Admnstran Mosque Grid network With courtyard		Building in 2,3 stories Basement Courtyard Rooms1-2-3) Blkony Kitchen Bathroom	 
Sir dah-e-Aban [Nohom-e-Aban] (1965)	curt yard Greeny Shops Shools Admnstran building Mosque Grid network With courtyard		Building in 2,3 stories Basement Courtyard Rooms1-2 Blkony Kitchen Bathroom,	 
Dolat-Abad (1970)	center curt yard Greeny Shops Shools Admnstran building Mosque Grid network		Basement Courtyard Rooms 1-2-3) Blkony, Kitchen Bathroom,	 
EKBATAN (1970) Land area; 220 ha Number of units; 14,747 Designers; R. Golzar, J. Gruzan (Gruzan Samton Architects LLP) Constructed by; Starrett corp	central curt yard Greeny sports Shops Shools Admnstran building Mosque Modular apartments With courtyard		Basement Garage Living room Bed Rooms1-2-3 Blkony Kitchen Bathroom, prefabricate and industrial construction	 
APADANA (1976) Land Area; 40 ha Number of units; 2901 units Constructed by; S.A.E. (French company) Executive; Bank-e-Mashan (Housing Bank)	Greeny Shops Shools Admnstran Mosque		Building in 2,3 stories Basement Courtyard Rooms*1-2-3) Blkony Kitchen Bathroom, Mix of traditional and prefabricate industrial construction	 

Fig. 3 Affordable housing schemes from 1940-1979

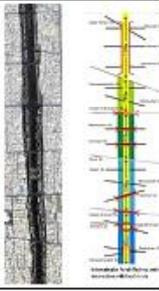
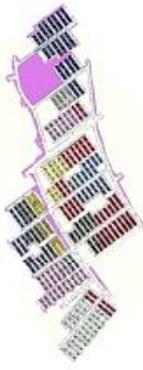
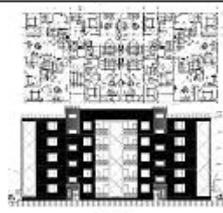
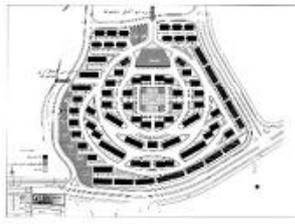
Title	Neighborhood		Units	
	characteristics	Map	characteristics	Maps & pics
<p>Navvab(1994) length of the strip; 5,529 m Depth (Demolished); 10-30 m Demolished residential area; 4 79,600 m² Expressway width ;50-60 m Number of residential units; 8500 units Total area; 750,000 m²</p>	 <p>Shops Administration linear</p>		<p>Basement Courtyard Rooms1-2-3 Balcony Kitchen Bathroom</p>	
<p>Parand new- town Mehr- housing (2007)</p>	 <p>Grid network</p>		<p>Basement Bed Rooms1-2 Balcony Kitchen Bathroom, Mix of traditional and prefabricate industrial construction</p>	
<p>Andisheh new- town Mehr- housing (2008)</p>	<p>Grid network</p> 		<p>Basement Bed Rooms1-2 Balcony Kitchen Bathroom, Mix of traditional and prefabricate industrial construction</p>	
<p>Hashtgerd new- town Mehr- housing (2008)</p>	 <p>center court yard Greeny Administration Grid network With courtyard</p>		<p>Basement Rooms1-2-3) Balcony Kitchen Bathroom, living area</p>	
<p>Pardis new- town Mehr- housing (2008)</p>	<p>center court yard Greeny Administration Grid network With courtyard</p>		<p>Basement Rooms1-2-3) Balcony Kitchen Bathroom, living area</p>	

Fig. 4 Affordable housing schemes from 1979-2017

The vertical system: the role of the skyscraper in the urban context

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Keywords: vertical tissue, skyscraper, contemporary design, urban planning, public space

Abstract

498 *This paper aims to highlight the urban role of skyscraper within the historical cities. If examined within a complex system structured into distinct vertical elements, each skyscraper behaves as an autonomous organism, as a "micro-city", reproducing in its inner space, and in a smaller scale, the same kind of widespread urbanization of the urban fabric. In particular for the contemporary cities, it is possible to schematize the dynamics of high-rise buildings system identifying an inner "overtuned" structure, that corresponds with a vertical transposition of the horizontal hierarchy (like in the Commerzbank Tower of Norman Foster). Necessarily the urban cities system experiences its gathering places, devoted to social interactions, within the delimited structures of the skyscraper, and it defines the architectural shape of real "vertical squares". This research aims to demonstrate how the skyscraper, considered as a vertical transposition of the urban system, represents another main "human-scale" element to live in the contemporary cities, so being able to define a new ideal city model, taken from the "utopia" and lowered in the contemporary world.*

Introduction

This research aims to define a new interpretation for the skyscraper, by understanding the current dynamics and by demonstrating how the type has emphasized some “urban” characteristics linked to the overturning and to the “internalization” of the paths in its inner structure.

Before analyzing the sequences of interior/exterior spaces of the skyscraper, it is necessary to determine the anthropic and cultural context in which the type has been generated (first half of the 19th century) giving specific attention to the important role that the highlines, -so the urban axes able to structure American cities such as New York, Chicago, Philadelphia-, have had in the inner conformation of the new architectural type.

Indeed, this study is based on the morphological definition of the American urban axes as “splitting lines” (Ciotoli, 2017) which are able to orient the internal pathways while establishing a separation of architectural spaces and identifying singular spaces, complementary to the entire structure of the type. Regarding the splitting or centralized function of the axis, it is important to underline a short definition given by Gianfranco Caniggia, according to whom: «a “centralized axis” is the nodal part of a urban organism, like the commercial road, usually surrounded by district-level services; instead the splitting axis is the marginal route destined mainly to traffic. Between each other, the intertwined streets are pursuing an alternation of intermediate roles» (Caniggia, Maffei, 1982).

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Methodology

By analyzing this definition of Gianfranco Caniggia –and by considering the identification of parameters like quality, quantity, relationship, and modalities–, we can affirm that the splitting axis is a sort of “scalar category” capable of understanding the main features of the skyscrapers.

Paolo Maretto –among the first to study the phenomenon related to the “internalization” of the paths in the inner structure of buildings– deduced the dimensional role of the road, and of the axis, thanks to which the architectural space is able to organize and to qualify its functional inner space.

According to Paolo Maretto it is necessary to underline the role of internal paths in the organization of the building morphology (Maretto, 1993); it is possible to extend to the high building typology this definition, in fact the pathways (exchanges between interior and exterior spaces in the skyscraper) are emphasized in the general distribution and in the volume of the type itself.

In the case study of the skyscraper type, the role of the pathways is still visible in the relationship of complementarity between the urban system and the structural one; in fact all the values (economic, speculative and technological) related to the American metropolises of the 20th century had influenced the structure and the architectural organization of the skyscraper. Nowadays all those qualities are still evident in the distinction between served and servant spaces of the type.

Certainly, among the main factors linked to the internalization of the path

in the inner structure of the skyscraper, it is necessary to point out also the role of social and economic dynamics that have deeply interfered with the transformation of the cities during the 19th and 20th centuries.

The distinction between splitting and centralized axes has first been implemented on a large scale in the American metropolises; in fact the cities needed interior space like covered squares and streets used as pedestrian pathways and as community gatherings (initially destined only to building users). Urban issues linked to the sequence of inner/external spaces and private/public ones in the skyscrapers, are essential to understand the so-called "nodal-aggregative typologies", (skyscraper with a palatial shape, in which serial spaces are organized around a central court, generally uncovered).

In order to give a critical explanation of such architectural models, it is necessary to identify a new interpretation of the skyscraper typology; in this way we are able to classify different typical characteristics that are still visible in current constructions. In fact, it is possible to determine a relationship between the development of the American skyscraper, so popular among the global media culture, and the current cases of complex vertical architectures, in which it is quite difficult to hypothesize the presence of "traditional" gathering places.

As previously stated, the strong link between urban routes (main roads, highlines, etc) and the conformation of the type itself, can be seen from the early American cases -such as the Monadnock Building, the Rookery Building, etc-, where the hierarchy of the urban paths (no road is able to have a specific role within the urban plot) determines a specialization in the urban block (that we can consider as the elementary unit of the town structure).

Following the theories of Gianfranco Caniggia about roads, the location of each building in the urban plot is able to differentiate the aggregative ways and the spatial components of the architecture. In this way, we are able to distinguish the specialized buildings and consequently the specialized tissues, classifying them in nodal and anti-nodal types, according to their disposition in the urban grid (for example, industrial and office fabrics show different features). The highlines, related to the idea of "fast movement", are appropriate for vehicular traffic, for this reason it takes importance the design of the hall and of indoor spaces in the skyscraper; usually those spaces are destined to tertiary activities or are used such as gathering spaces.

Within the skyscrapers, the possibilities of moving from one floor to another or from a "covered square" (Ciotoli, 2017) to a shop, channel users-motions towards architectural polarizations.

Movements in the skyscrapers complicate the relationship between public and private spaces: so only the skyscrapers halls and the wide commercial spaces of department stores have similar function to the European squares. The concentration of different functions (commercial, gathering space, etc) in an inner space is linked to technical, economic and social factors which, as stated above, were initially determined by the Industrial

Revolution, and then have been emphasized in the middle of the 19th century, in buildings such as Ford Foundation in New York, designed by Kevin Roche and John Dinkeloo (1963-1968) and Hyatt Regency at San Francisco, designed by John Portman (1973).

Contemporary metropolises often require to experience their gathering spaces within architectures, thus defining the existence of covered "squares". The beginning of this phenomenon can be identified in the open perimetral configurations (U-shaped plans), or in the knotting (Falsetti, 2016) of the Rookery Building (built by Daniel H. Burnham of John Wellborn Root in 1888); in the Sixties and in the Seventies of the last century there has been a growing interest toward this type of spatial configurations, such as the Ford Foundation, and later the Shinjuku NS in Tokyo.

Indeed, recently, this phenomenon is evident in the Asian metropolises; in fact the presence of many functional systems (commercial, vehicular, and residential one), clearly visible in cities such as Shanghai, Hong Kong and Tokyo, is due to the complete lack of gathering spaces far from the metropolitan chaos, protected from the weather and from vehicular traffic.

Those features are demonstrating how the skyscraper typology has been able to continue in a different cultural context (asian metropolises) the so-called process of "internalization" of the paths in its inner structure.

Furthermore, this phenomenon involves a different organization of the inner spaces of the skyscraper, as well as an alteration of its functional efficiency. Buildings like the Shinjuku NS Building, designed by Nikken Sekkei in Tokyo (1979-1982), the Civic Bank in Hangzhou, by Norman Foster (2009) or the Parkview Green in Beijing by IDA -Integrated Design Associates- (2010) show how this kind of typology is currently emphasizing the introverted character of many cities, and thus by creating aggregative modalities that translate the theme of the square –both vertical and covered- inside contemporary megalopolis.

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The big halls of the skyscrapers, therefore, perform a function similar to the traditional European squares, and correspond to a specific space, architecturally and functionally hierarchical compared to the other parts of the building.

The centrality of this place is due to the confluence of all the pathways and all the mobility flows that are inside the vertical structure.

The knots of the building, which look colossal if compared to the standard heights of the lobby, are a concrete answer to the last phase of the evolution, in order of time, of the skyscraper.

Usually used as "covered squares", these spatialities have always been latent since the early developments of the type, starting from the Rookery Building, and thanks to the technological and structural innovations of recent years they have acquired a leading role in designing vertical architectures. Through the colossal dimensions that characterize them, they are perhaps the most obvious result of the skyscraper mechanism of introversion.

Conclusion

In conclusion, we can state that the “a priori synthesis” of what we can call “vertical fabric” (Ciotoli, 2017) is expressed through the aggregative system of spaces and levels, organized through the unitary action of a single vertical path (in the first cases) and of multiple vertical paths (in the recent examples) where is preferred the formation of building textures made by knots and internal polarizations.

The skyscraper, if considered as the vertical transposition of the urban system, represents a different way of conceiving the human scale in the present megalopolis, and it succeeds in defining a new ideal model of the city, taken from utopia and lowered in the contemporary world.

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Fig. 1 Inner court of the Rookery Building, Chicago, 1893. Source: <http://changingchicago.blogspot.it/2012/11/the-rookery.html>

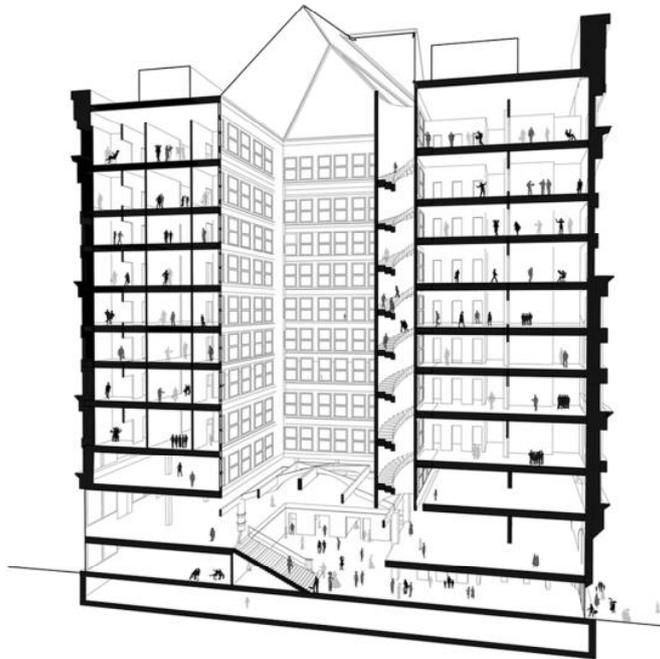
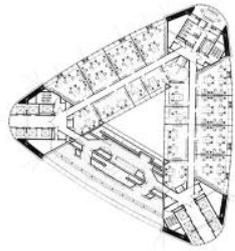


Fig. 2 Cutaway draw of the Rookery Building, Chicago. Source: <https://s-media-cache-ak0.pinimg.com/originals/0e/ed/52/0eed52632fc4207d0c5b34cad38daf90.jpg>



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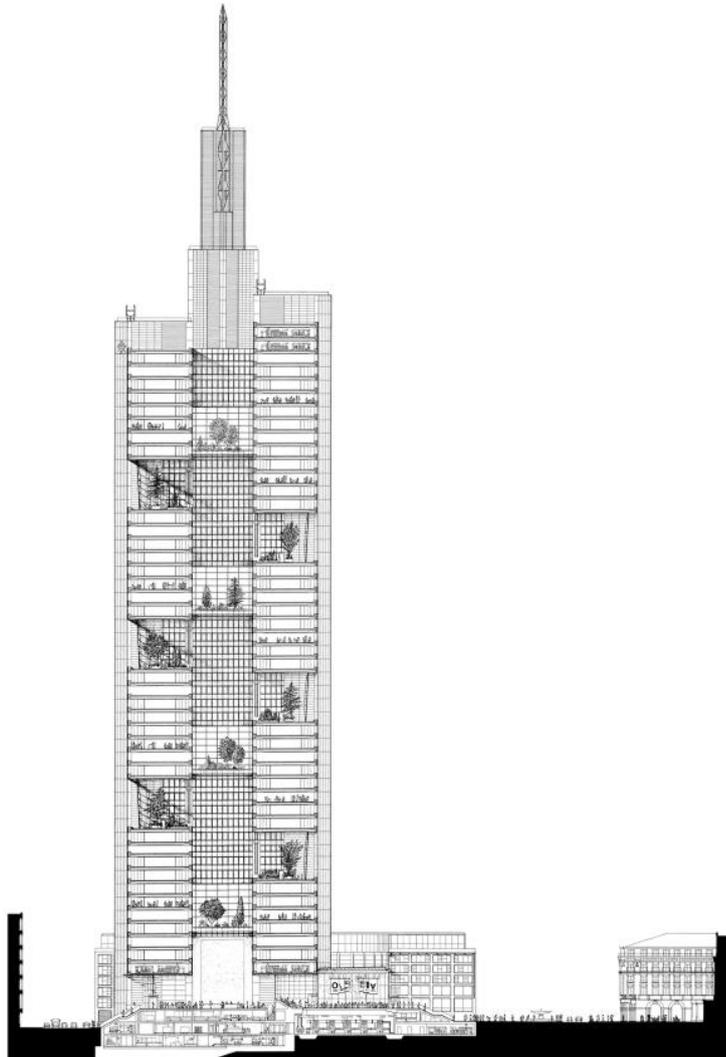


Fig. 3 Commerzbank Tower, Frankfurt.



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Fig. 4 Interior of the Shinjuku NS Building, Tokyo. Source: http://www.wattention.com/wp-content/uploads/2015/11/HAS_1373-Edit-Edit.jpg.

Conference topic

D.AM) Contemporary Cities 3

Urban revitalization of the historic core of Tehran through single architectural interventions: Case study of Oudlajan residential neighborhood

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Keywords: Revitalization, Residential, Dilapidated, Historical quarter, Iran, Oudlajan, Modern, Vestibule, Portal, Half Open spaces

Abstract

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One of the most important problems of the historic dilapidated areas in Iran is the presence of a large amount of people that are living in such quarters. Iran is a country with a high seismic risk and it caused a real danger for the inhabitants of such areas. By this way the constructive activities in historic quarters continues and due to the current Iranian building rules the old and non historic buildings that are located in the historic quarters can be replaced by new buildings. Now a day, this kind of interventions is going to form an anonymous aspect for the historic quarters. The new buildings realize without particular attention to the adjacent historical buildings, traditional spaces in Persian residential buildings and the vernacular characteristics of the local architecture. In the introversion Persian architecture there are many different traditional spaces but today the lifestyle changed and for a modern building it is not possible to realize all of them. But there are three main spaces that can increase the compatibility of the new buildings with the historic buildings; The Portal that presents the identity of the buildings, the vestibule that presents the introversion nature of the Persian architecture and the of the half-open spaces. In this paper we study the way of the apply these three important spaces in the new buildings of the small urban grains of Oudlajan quarter in the heart of Tehran. A modernized combinable contemporary design to apply in different building structure scales.

Introduction

A brief historical background about old Tehran and some important urban interventions can present the original and the evolutionary passages of this historical and residential quarter. The Mongol invasion (1219-1256) destroyed the ancient city of Ray. About 500 years ago, Tehran was only an old village of 7,000 inhabitants on the outskirts of Ray which gradually grew and gained importance. In 1553, by the order of Shah Tahmasbi I of the Safavi dynasty ^[1], a defensive wall with 114 fortifications and five external gates was constructed around Tehran. Finally in 1796, Agha Mohammad Khan Qajar chose Tehran as the new capital of Iran ^[2]. The main urban development of Tehran happened in the last three hundred years. Over this period, five historical eras and five building styles with their particular characteristics can be recognized in Tehran. Safavi, Qajar, First Pahlavi, Second Pahlavi style and finally the contemporary building style. The major urban elements of the old Persian cities are a Citadel (Arg), a Mosque (Masjed), Residential quarters (Maskooni) and a Commercial district (Bazar). These districts are depicted in the old Tehran map as: 1. Arg (Citadel) 2. Sangelaj, 3. Chal Meydan, 4. Bazar, 5. Oudlajan. (Fig.1) Population increment changed the morphological aspects of the rural outskirts of Tehran. Large gardens were replaced by buildings and urban areas developed. Very soon the Oudlajan quarter became an important residential area and became known as the most stylish and beautiful residential quarter of the capital. Today this large 133-hectare quarter is located in the central core of the mega city of Tehran and has been transformed by various urban renewal projects. Nowadays this quarter borders are Nasser Khosro street in the west, Amir Kabir street in the north, Rey street in the east and Panzdeh Khordad in the South.

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In 1930, Mohammad Reza Pahlavi² approved the City Law (Ghanoone Baladieh). This city law referred to the fundamental facilities and systems serving Iranian cities. According to the law, a wide range of new infrastructural systems were built ^[3]. In 1933, Karim Buzarjomehri, the mayor of Tehran, launched a massive program to develop new boulevards, parks and other public spaces in Tehran. The program was similar to the project drawn up for Paris by the French urban planner, Baron Haussmann (1809-1891). That year, two new streets were built in Oudlajan: Sirus and Pamemar. The new streets divided Oudlajan into three regions. This subdivision of the Oudlajan quarter gradually caused a social classification and little by little each quarter was appropriated by one special social class. In the western Oudlajan, which was near the imperial citadel, were noble families living in large houses, and middle-class families inhabited central and eastern Oudlajan. Due to the official Geographic Information System (GIS) map of Tehran municipality, and the registered data from each land piece, these three quarters can be described as follows: 1. The Western Oudlajan covers about 45 hectares and contains 1318 pieces of land with an average size of

1 *The Qajar dynasty (1789-1925)*

2 *Pahlavi Dynasty (1925-1979)*

297 square meters, 2. The Central Oudlajan covers about 29 hectares and contains 1157 pieces of land with an average size of 238 square meters, 3. The Eastern Oudlajan covers about 59 hectares and contains 2600 pieces of land with an average size of 220 square meters. This information shows that the average size of individual plots to consider for the new fabrics would be about 220 up to 240 square meters and the new buildings typology and design would be adapted to these parameters.

Statement of the Problem

A low level of the statistic quality, poor infrastructure conditions, a lack of green spaces, historical buildings that are going to be demolished and complicated socio-economic problems turned this rich and beautiful quarter of Tehran into a dilapidated district. Many houses were occupied by criminal groups and addicts, and the residents were suffering from the particular conditions of the quarter. As a temporary solution, the municipality of the twelfth district of Tehran launched a forced demolition. This forced demolition and the damage to the old and historical buildings in the quarter caused a particular need for an accurate renewal plan to save the area's historical heritage and upgrade the quality of urban life in the quarter. Due to these problems and other causes, the municipality is bound to encourage the inhabitants to participate in the urban renewal of the quarter, and play an important role in the implementation of individual projects shaping the quarter.

510 Presently, the problem is that the quality of such individual interventions which are going to completely change the historical features of the area. The lack of compatibility between the professional and accurate designs for the new buildings and the pre-existing fabrics in this quarter is obvious. The building typologies that are in use are the same as the rest of the city and new residential quarters. Traditional spaces and building typologies are disappearing and being replaced by simple four-story modern terraced houses. The only difference between the new buildings in historic quarters and non-historic ones is a simple control of facade materials and use of traditional bricks. It is clear that the projection of new designs in such a unique historic quarter like Oudlajan needs precise control and monitoring by experts and the incorporation of other traditional characteristics that are not limited to the appearance of the buildings. The building typology is one aspect of the problem; the other one is ignoring the identity and the introversion essence of Persian architecture.

In this paper, we will discuss the main characteristics of the old buildings that make them so different from the modern buildings and propose a practical solution to the design of some traditional combinable spaces. Currently, in Iran, there are two general methods for the urban renewal project in the historical city center: 1. launching a large urban scale project, 2. Launching single architectural scale projects. Statistic results from the previous experiences show the importance of the single architectural intervention in such quarters like Oudlajan. Dilapidated historical city centers in Iran are so numerous and financial resources are

limited such that it would be impossible to launch urban scale projects in each historical quarter. Also, some previous urban scale intervention experiences in Tehran like the Navvab project has shown the negative points of large scale interventions in historical quarters. The Navvab urban intervention completely changed the appearance of the region and created a fake identity for it. The identity of each quarter is comprised of its people and their habits, streets, and architecture of the area. A forced demolition caused the native habitants to leave their independent houses. It was difficult for people to adapt to the high-density apartment buildings and their new apartment lifestyle. This project resulted in the local people leaving the quarter. Fortunately, after some unsuccessful urban scale projects, the constrictive policy of Tehran municipality is to encourage people's participation for urban renewal of dilapidated quarters and it is concentrated on single architectural scale projects.

Methodology

Correlation analysis is the methodology for this research. "Qualitative" because of the personal observation of the problem and "Quantitative" because of the reference data, statistical information and digital maps that are used in this research. In this study two main items of the Oudlajan residential buildings will be discussed: Building typologies and traditional spaces to design some compatible traditional spaces for the modern buildings.

- Building Typologies

The building typologies can be a fundamental component of the urban renovation projects. It is of primary importance when this intervention happens in a quarter with many valuable houses with historical backgrounds. [...We also see that all inventions, notwithstanding subsequent changes, always retain their elementary principle in a way that is clear and manifest to the senses and to reason. It is similar to a kind of nucleus around which the developments and variations of forms to which the object was susceptible gather and mesh. Therefore, a thousand things of every kind have come down to us, and one of the principal tasks of science and philosophy is to seek their origins and primary causes so as to grasp their ...] ^[4]This can explain the importance of the type and typology in architectural discourse. To know the origin of the building typologies, is to get logical ideas from them for future modern projects.

The building typologies in relation to the form of the lot in Oudlajan quarter can be categorized into six forms: 1. One Side Linear Volume, 2. Parallel Volumes, 3. L-Shaped Volume, 4. U-Shaped Volume, 5. Central Courtyard Volume, 6. Mixed Shape Volume. (Fig.2)

These typologies evolved within a historical context and today the only prevalent building typology is a one side linear volume. Most of the historic buildings of the quarter that were built by this type belong to the first and second Pahlavi era and little by little old buildings from the other periods were replaced by this typology. At first, this typology was composed of one floor residential buildings and a basement floor for services and warehouse spaces. Little by little the volume in this typology like the other

ones increased. The courtyard lost its importance and became smaller. The floor plan surface of the buildings increased and the whole country was influenced by this typology. This typology may be suitable for the small lots, but there is no justification for replacing the other traditional typologies by this one.

Now in the historic core of Tehran, the minimum land piece allowed to receive a construction permit is 100 meter squared and the medium size of the major lots in the Oudlajan area is about 220 meter squared. Due to the building typology studies in the quarter, the elementary matrix size for buildings is 6 x 6 meter squared. Therefore, a piece of land composed of about three elementary matrixes can meet construction regulations. Such a piece of land is too small, and it seems the only suitable typology for it can be the one side linear building or Terraced house typology. It was about the smallest lot size but the situation for the medium lot size will change and it would be composed of at least six elementary modules of 6 x 6 meter squares. For this size of land, with a four-floor building volume construction permit, we can reuse two forgotten traditional typologies that are U shaped and L shaped forms. When we study building typologies in the Oudlajan quarter, we can see that the traditional central courtyard building type gradually evolved and divided into other typologies of smaller sizes. Obviously, designing a central courtyard typology for buildings with more than two floors would not be practical in a small lot because

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-Compatible traditional spaces with the modern buildings.

Apart from the building typologies, an overview of the old historical buildings of the quarter shows that an analysis of some other important elements and spaces are fundamental. It is vital for designer to be familiar with the vernacular materials, decorative elements, traditional distributive spaces and finally the Portal and its function in the Persian architecture of a historical quarter. Although the use of traditional materials is necessary, this by itself is not conducive for good design in the historical quarters.

Sometimes we can see that spaces and their function have been lost in modern Iranian architecture. The historical spaces in traditional residential architecture like Hashti, Godal Baghcheh, etc. have been replaced with other spaces imported from western architecture. For ages, Persian vernacular architecture has supported the needs of people and was completely compatible with particular climatic conditions of different parts of Iran. Nowadays, western architecture is overshadowing unique aspects of Persian architecture, while it should complement its vernacular architecture. Of course, modernization is not bad but this has to be sensible and compatible with local traditional, climatic and social characteristics of the area. Consistently, the different parts of the architectural spaces are affected by a variety of factors and phenomena disproportionately.

Therefore, the proper usage of each space requires the importance of having the right knowledge about it and its use in modern architecture. As the famous Persian architect, professor Pirnia says “A good copy from western architecture is better than a bad creation.”^[5]. At present, what is happening usually in the historic quarters in Iran is a really bad copy. Why don't we produce a good copy from the traditional architecture of the historical buildings to produce a good and modern compatible architecture in the quarter?

In general, houses were designed to satisfy three essential features; Access spaces, Services and The Main spaces. Access spaces can divide into the Portal, Hashti or Vestibule, Corridor, Loft and Porch. Services are water reservoir, courtyard, Kitchen, wind-catcher, water-closet and bath and closet. Finally, the Main spaces are Hall, Living room, Korsi room, Howz Khaneh, Roof, etc. Today, the life style of the people has changed and some traditional spaces lost their function over time. However, the old courtyard and some access areas are still important and, using traditional distributive area templates, can be the lost key for modern compatible houses in the historic quarters. Among the numerous classic elements in Persian architecture, the Portal, Vestibule, Courtyard and Porch have special functional and aesthetic value. These four particular specs are applicable in the new projects and can be used as some powerful tools in the hands of the designers to create much more compatible designs in the historical quarters.

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1. Portal: The top part of the entrance door is called Portal or “Sardar”. The Portal was usually considered to be the most decorated outer part of a building in Iranian traditional buildings and had roots in the religious beliefs of the people. They could represent the identity and characteristics of the owners as well as the owners of the houses. Most of the houses remaining from the Safavi, Qajar and Pahlavi I era in Tehran have decorated and beautified inscribed Portals. These writings have their own special beauty and a certain attraction in contrast to their simplicity. Besides having a role in making the city environment more beautiful, these inscriptions also reflect the spiritual and special needs of the people which shows the importance of using them. As a matter of fact, a portal presents the building's identity. Today, the inscriptions of houses are very simple and enjoy less beauty and value aesthetically compared to the past. Due to the high tendency towards traditional and ancient architecture style during the 1st Pahlavi era, along with the tendency to provoke a sense of patriotism, a wide variety of the signs and symbols from the ancient times could be clearly noticed on the portals of different houses. As western architecture became popular within the 2nd Pahlavi era, due to certain characteristics of this kind of architecture, the decoration of these entrances and portals was gradually simplified and replaced by decorative stones, cement, and new building materials, which became the main reason for the disappearance of such inscriptions from most houses entrances. This in turn resulted in a tragic loss of the identity of buildings because these portals contained important information such as dates of repair, starting and finishing dates

of construction, as well as the name of the owner and sometimes the builder. The Iranian architects and professionals used to take materials including different types of tiles, bricks, plaster and Mugarnas³ (paintings on wood) to decorate and beautify the portals of traditional buildings^[6]. This loss of character and identity severely impacted the pride builders and craftsmen took in their work. So the reuse and redesigning of portals for new projects can help to regain this lost identity.

514 2. Hashti or Vestibule: The Hashti or Vestibule is an anteroom or small foyer leading into a larger space^[7]. One of the functions of this space is dividing the input path into two or more directions. In some old houses it was an anteroom and usually opened toward the courtyard. In Persian introversion architecture the Hashti was considered as a place used for sitting and waiting until one got the permission to enter the building; it was also used to add some value to the beauty and elegance of the entrance. This kind of space has been used in both modern and historical architecture since ancient times. The Hashti means octagon in the Persian language, yet, octagons used to come in different shapes: an octagon, half an octagon, a rectangle, or other shapes, and they didn't have to come in a certain shape, just because of their name. This space was usually of low height, except for the houses of the wealthy and royalty, which was given height to increase the glory of the entrance so as to reflect the importance of the building. This entrance space had shelves and platforms for sitting and waiting, a globe-shape ceiling, and some small holes to let air and light in - usually made of traditional bricks^[8]. In the Oudlajan quarter, a large number of houses can be placed in the introversion class and the Hashti in such houses has an essential role. So designing a vestibule for a building with a 6 x 6 meters matrix which can have any shape and which basically has a filter function and use as a place for sitting and waiting would not be a complicated step. It can make the new construction much more similar to the traditional fabric and respect the introversion nature of the region's architecture. Today, in modern houses, this space refers to a small room next to the entrance door and connects it with the interior spaces of the building but the appearance of this space has completely changed. Due to the important historical role of the traditional vestibule in Persian introversion architecture, it would be necessary to consider the main characteristics and presence of the vernacular aspect of this distributive space in the new projects. It is crucial to remember that sometimes the shape of the land and the narrow access to the lots create a particular role for the corridors that is out of our case studies.

3. Courtyard: An overview of the old Tehran urban texture, shows the importance of the courtyard and its crucial function in Persian buildings. In the traditional buildings, the central yard is the key to reading the relation between spaces. Different spaces are connected by the courtyard and it governs the functional systems and services of the house. Many traditional buildings in Iran show that past generations of architects had ingeniously

3 The Muqarnas are a form of architectural ornamented vaulting.

harmonized Iranian religion and architecture. The architects knew how to adapt architecture to Iranian cultural conditions. One primary difference between introversion architecture and extraversion architecture is the presence of the courtyard in the former ^[9]. The courtyard in the Oudlajan quarter and generally in Tehran is fundamental. Today, in the new buildings, courtyards are in a direct connection with exterior paths and it confirms that modern buildings are designed according to extraversion typology which is in a high contrast with the traditional nature of the historic core of Tehran. In an introversion house, the visual connection and the particular role of the courtyard is so important: such a house has no direct visual connection to the exterior urban spaces (neither from inside nor from outside), The lack of visual connection with the external urban spaces of the introversion traditional Persian architecture can be justified by different reasons. The defensive, cultural and environmental parameters can be regarded as essential elements in Iranian urban planning and architecture. A courtyard in vernacular Iranian architecture is a place to refresh the air of the house and protect the residential quarters from cold and hot weather. The combination of a little garden and a traditional centrally positioned symmetrical axis shallow pool (a Howz) makes a perfect system to produce fresh air for the house, which was the environmental function of the yard. In modern times, the courtyard lost its traditional function and was used as a parking space. Little gardens and shallow pools were replaced by tiles to make a wider space for parking; and this is one important reason that the courtyard today is designed in direct connection with the street which is completely against the traditional role of the courtyard.

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4. The Porch or Iwan and half open spaces: The Porch or Iwan is an exterior structure that extended along the outside of a building. It was roofed and generally open-sided, but may also have been partially enclosed, screened, or glass-enclosed ^[10]. The frame specification of the Iwan as a covered and semi-open area for forming the entrance spaces, has always been taken into consideration by Iranian architects. The inward space of the Iwan in comparison to its ceiling and the side walls creates an interesting and attractive area. Such an empty and inward space is considered to provide a suitable environment for people to pause and stop at the front door and enter the building; as well as separating the access space from the passage space of the building⁴; which complies with the introversion nature of the old buildings of the quarter. This space division to respect privacy is a fundamental concept of Persian introversion architecture ^[11]. Also, in arid regions, the Iwan provides shade for the southern sides of the house, preventing direct sunlight and hot weather from penetrating the inner parts of the house. In today's modern buildings, such half open spaces are disappearing and the reintroduction of porches can help designers create innovative compositions according to traditional models. (Fig.3)

-Redesigning combinable traditional spaces for the modern buildings.

In past years, some renewal projects have been unsuccessful in Iran; but there are some interesting projects like Shushtar New town, by Kamran Diba that won the Aga Khan Award for Architecture (AKAA). The AKAA aims to identify and reward architectural concepts that successfully address the needs and aspirations of Islamic societies in the field of contemporary design, social housing, community development and restoration, reuse and area conservation, as well as landscape design and improvement of the environment. That's the same thing that we are looking for in the new projects of the Oudlajan historical quarter. Another notable project is "The Desert Neighborhood residential complex" that is well known as the first Mass Housing Project (MHP) located in the historical core of Yazd. We can see that in these projects, the innovative design was based on the vernacular architecture of the region and its particular characteristics.

As we have seen before in the Oudlajan quarter, due to the medium lot size of 220-240 meters squared, three building typologies are suitable for new buildings. Here we study how to reuse the four fundamental elements in the new projects.

1. Portal: Use of the Portal would be as any other entrance door and the important parameter is designing a compatible form with the near historical buildings. This part would be the identity of the project and it shows the innovative ability of designers.

516 2. Hashti or Vestibule: For a project that is based on 6 x 6 elementary modules and where the land plots are composed of at least 3 modules, projection of a small 3 x 3 meter squared anti-room would be a practical way to give back some of the traditional introversion nature to modern architecture.

3. Courtyard: Today, the important role of the courtyard in the old houses has changed and are being used as a place to park bicycles, motorcycles and other vehicles. In the recently proposed urban plan for the historical quarter of Oudlajan, because of the presence of narrow alleyways, private parking is provided for the residents of the quarter near each little district; and it seems that designing a small 3 x 3 meter squared parking beside the vestibule can be a good solution to free up the courtyard area of the new building to revert it back its traditional role and refresh the air of the house with a little garden and a shallow pool.

4. Porch: [...The transfer of activities that exerted once in open spaces, to enclosed spaces still continues, and you can see by the large number of new building types that replace open spaces...] ^[12]. However, in some new projects, floor surface reduction can create small balconies for each floor that would remind the observer of the traditional porches and give back some components of Persian architectural heritage to the new fabrics.

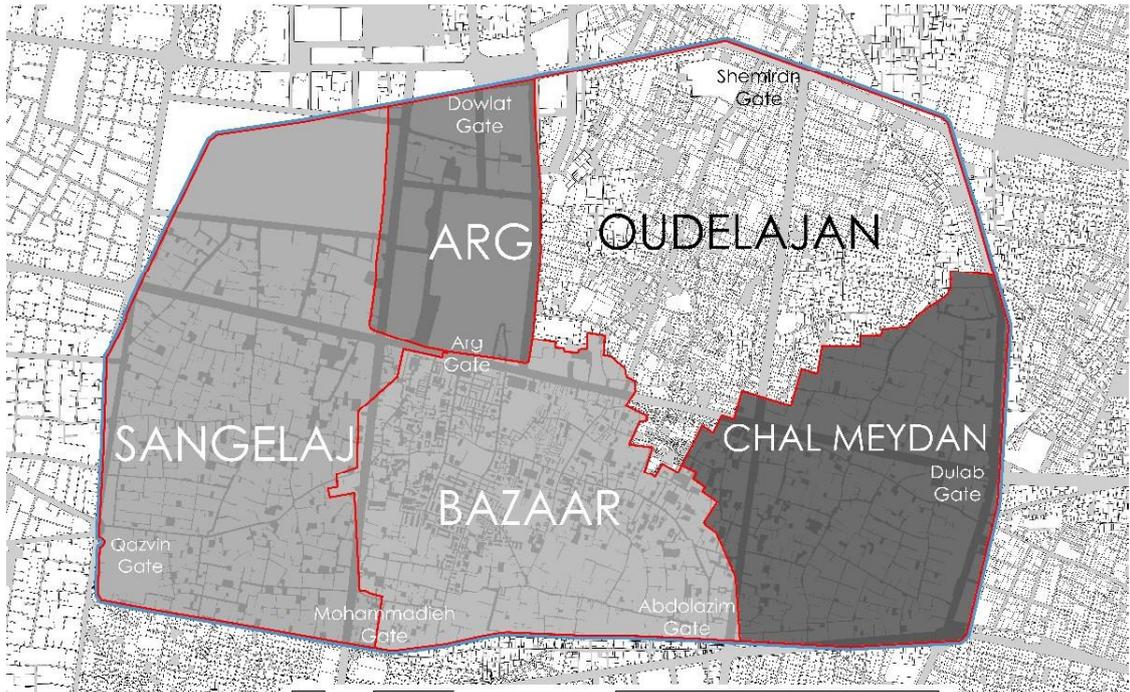
Conclusion

Observing a dimensional constancy in organizing urban fabrics shows that the elementary matrix size in the Oudlajan quarter is about 6 x 6 meter squared. Usable traditional building typologies of the quarter for

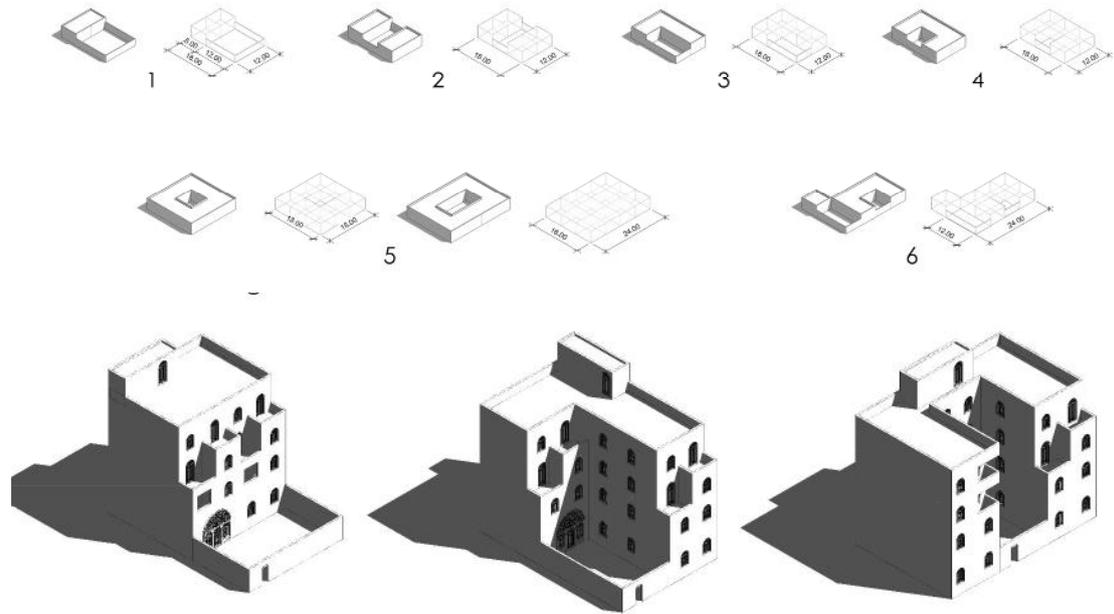
a higher volume are L-Shaped, U-Shaped and for the small lots of 100 meter squares are Terraced house forms. A practical way to design a compatible building due to the introversion nature of the quarter is the use of the traditional distributive areas and courtyard. In this method, by using half an elementary 6 x 6 meter squared matrix (or even one third of an elementary matrix in the small lots), the designer can create an innovative portal, vestibule and parking for the bicycles and scooters. This combinable space will give back the visual privacy and the introversion concept to the modern building. In summary, the most innovative designs will be the fruit of attentive observation of the problem. (Fig.3)

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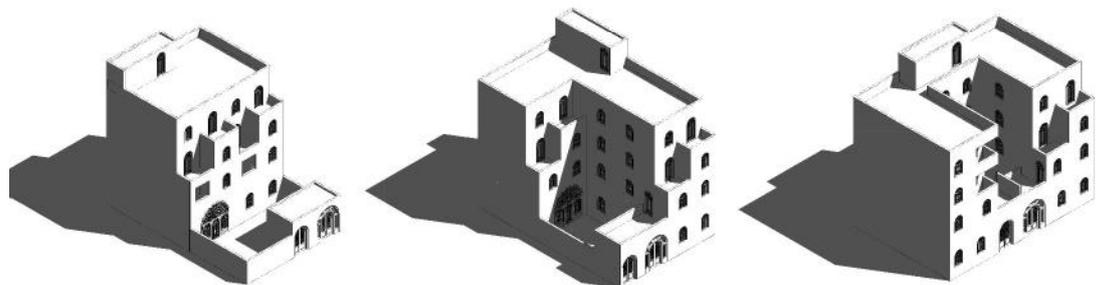
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Introversion Buildings



Memento. Cities transformations: due casi studio

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Abstract

In this issue, I will present two design assumptions of intervention, one in an old historical center and in a fragile environment: a redevelopment project of an ancient district of Tehran and an other as an urban limit reconfiguration project in Miami, Florida.

520 *The first project focus the role of the demolition in urban transformation, through a virtuous circularity, starting with new considerations on the several hue that the intervention of the demolition occurred in the city of Rome between the nineteenth and early twentieth century. The second has evaluated the problem of the completion and the city limits on a waterfront, referred to the Ostia coastal waterfront construction.*

The contribution is divided in two parts, the first part in which is delineated the demolition as an instrument of the project that establish which are the durable principles and, that the urban project has a strong priority above the existing and the environmental pre-existence as a material of the urban context; and a second part in which I will present a methodology of the demolition and project to complete the existence through two study case.

The goal is to reconsider the project instruments in relation to the lesson of Rome as a permanent fact in the city's transformation process.

In questo breve saggio presento due ipotesi progettuali condotte in due ambiti che potremmo definire sensibili: un centro antico e un contesto ecologicamente fragile. Il primo è un progetto di riqualificazione di un antico distretto di Teheran e il secondo è un progetto di intervento urbano a Miami, in Florida.

Il primo inquadra il ruolo della demolizione nella trasformazione urbana, attraverso una circolarità virtuosa, a partire da nuove considerazioni su cosa produca un intervento di demolizione all'interno di un contesto urbano storico e nel quale è tuttavia necessario operare in tal modo. Il secondo affronta il problema del completamento e dei limiti della città in relazione alle problematiche urgenti dell'innalzamento del livello dei mari. L'azione della demolizione è qui indagata come strumento del progetto, utile a stabilire ciò che va mantenuto e ciò che non serve più, in un'ottica propria dell'architettura e non della storia, in cui il progetto urbano considera l'esistente come un materiale totalmente operabile; ma la stessa azione di demolizione porta immediatamente alla luce il problema della memoria dei luoghi, della loro permanenza in un senso più profondo e umano.

Il primo progetto che abbiamo sviluppato è "Oudlajan-Sanglaj Neighborhood Urban Renovation" l'archetipo a cui fa riferimento per il progetto è il recinto. Nella storia dell'architettura islamica l'archetipo del recinto è un elemento che è presente in maniera costante, nel tempio del fuoco di Kashan, nella disposizione degli elementi della casa, nell'impianto della fortezza di Shiraz Arg-e-Karim Khan del 1766, nel giardino, e nel luogo sacro: la moschea fino ad arrivare a oggetti di notevole dimensione come la piazza di Isfahan.

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Il recinto con quattro aperture abbiamo visto si declina continuamente in maniera scalare, quasi come un frattale, si auto riproduce generando spazi differenti ma sempre, per quanto riguarda l'impianto uguale a se stessi. La seconda "parte elementare" sulla quale abbiamo lavorato è quella del frattale presente nelle decorazioni dei portali delle moschee e nell'uso della composizione grafica dei mosaici che rivestono i luoghi di culto. Le decorazioni colorate degli edifici sono tutte basate sulla crescita esponenziale e auto-riprodotto dello stesso elemento iniziale che si intreccia formando tessiture che potrebbero ripetersi all'infinito. Il terzo elemento architettonico sul quale abbiamo lavorato è quello della foresta e dell'albero che in maniera costante e quasi silente è un elemento costruttivo sempre presente nell'architettura islamica, dalle architetture di Persepoli all'idea del suk, inteso come luogo ombreggiato dentro il quale svolgere delle attività protetti dalla calura e dalla luce del sole.

Il progetto per il quartiere Oudlajan-Sanglaj si struttura seguendo tre fasi distinte a crescente intensità di trasformazione del quartiere, da una fase, per così dire, conservativa ad una fase in cui il quartiere viene integralmente ripensato introducendo una variabile, quella dello spazio aperto, capace di stravolgerne completamente i connotati. L'area di progetto è situata in una parte centrale della città di Teheran, a ridosso del bazar Oudlajan ed è considerata una delle parti più antiche di Teheran per lo

più a carattere residenziale, tuttavia da una scarsa qualità degli edifici e dei materiali con i quali sono costruiti e attualmente, alcune parti sono in abbandono. Il lavoro sviluppato con gli studenti è stato quello di pensare un modello insediativo capace di riportare nell'area i vecchi abitanti del quartiere. Per fare ciò abbiamo identificato tutte le preesistenze degne di essere conservate e quelle che invece avevano uno scarso interesse, sia come qualità del manufatto, sia come epoca storica di costruzione dell'edificio. Nella prima fase del progetto l'intera area è stata circondata da un edificio-muro destinato nel suo spessore ad essere residenza a ballatoio. Nel tessuto del quartiere sono state progettate delle pensiline coperte per poter espandere frammenti del bazar Oudlajan dentro il vecchio tessuto residenziale, questo è stato fatto per rivitalizzare alcune parti dell'area ormai in abbandono. Nella seconda stesura del progetto alcuni brani del quartiere sono stati demoliti o alcuni vuoti al suo interno, riempiti con residenze mono e bi-familiari, unità residenziali che in maniera puntuale hanno occupato aree all'interno dell'isolato interessato dal progetto. Agli edifici residenziali sono state aggiunte delle strutture sopraelevate destinate a piccolo giardino pensile a piazza coperta o a piccolo edificio per il terziario, piccoli edifici con funzione primaria, pensati per aumentare il grado di complessità funzionale di tutta l'area. L'ultimo stadio di evoluzione del progetto corrisponde anche alla sua stesura più radicale, il vuoto diviene in questo caso l'elemento unificante dell'intero progetto, mentre, ai brani residenziali che sono stati demoliti vengono sostituiti edifici più alti e compatti. In tal modo il vuoto che si manifesta come il grande protagonista del nuovo assetto del quartiere, diventa il vero elemento progettuale che inverte non solo il destino dell'area ma potrebbe contribuire ad attivare nuove relazioni con l'intorno.

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La seconda ipotesi progettuale riguarda un'esperienza di un workshop internazionale organizzato dalla Cattedra Unesco, il cui titolare è il prof. Lucio Barbera, in Florida presso la Florida University dal titolo: "Coastal and Internal Settlements, Adaptation to Climate Changes" ovvero che risponda il progetto urbano dovrebbe corrispondere agli imminenti cambiamenti climatici che determineranno l'innalzamento del livello delle acque a breve. L'area di progetto di cui si è occupato il gruppo da me coordinato, è quella dell'Everglades, un'area paludosa con un ecosistema molto delicato a sud est della città di Miami, e che sarà la prima che subirà le conseguenze della grande inondazione. Ad oggi fenomeni molto intensi di inondazioni della costa di Miami sono molto frequenti, specialmente a causa dei frequenti tifoni, e purtroppo, ciò che va sotto il nome di High Rising Water diventerà un fenomeno permanente. Tutta la parte di città degli anni Venti e Trenta del '900 verrà cancellata in maniera permanente. L'obiettivo è dunque la realizzazione di una nuova parte della città di Miami ma anche di una valida e solida difesa contro le maree, e poiché l'inondazione priverà molte persone delle loro case, questa nuova parte di città consentirà di accoglierle. La prima azione progettuale è stata di definire una maglia metrica definita dall'esistente, che si possa estendere

verso il mare. Su questa metrica è stato progettato un bordo solido e rialzato, un terrapieno in parte costruito con i terreni di riporto della pulizia dei canali che sono presenti nell'area di Miami, in particolare il Miami Canal, che sfocia nella parte di progetto pensata come una grande polarità urbana per il terziario, un nuovo centro direzionale costituito da edifici alti. Successivamente il terrapieno è stato diviso longitudinalmente in 5 fasce, tre di esse contengono delle tipologie residenziali che permettono un cross-over, una dissolvenza incrociata tra la terraferma e la palude. Partendo dal mare, su passerelle flottanti, sono pensate case unifamiliari che disegnano un margine sfrangiato tra il bordo e l'acqua, le case fluttuano su pontili che possono assecondare le maree.

Sullo zoccolo costruito nella seconda fascia sono pensati alcuni edifici alti, come grandi lame di residenza che segneranno il bordo come un landmark che sarà rafforzato visivamente dall'essere fatto di superfici vetrate. Abbiamo poi una prima fascia di verde, lungo la quale scorre la metropolitana sopraelevata su gomma che si collegherà estendendola a quella già esistente a Miami. Successivamente un'altra fascia di costruito è pensata per una residenza più bassa, edifici uni e bi-familiari, una residenza più minuta che ricalca, razionalizzandolo nell'uso degli spazi, il tessuto esistente. In fine un'altra fascia verde farà da giunzione tra i due sistemi di territoriali, quello nuovo e quello della città di Miami e permetterà alla seconda fascia abitata di avere una grande area destinata allo sport allo svago e al tempo libero. Il nuovo bordo progettato ha come snodo una polarità di edifici alti che sarà destinata a polo terziario, una nuova city collegata con Miami che dall'acqua sorgerà come un'apparizione e avrà una piazza affacciata sull'acqua. I luoghi pubblici della città sono pensati in maniera sinergica con il progetto del costruito e anche nelle aree a più basso indice abitativo saranno utilizzati come luoghi di aggregazione mentre sul bordo fronte laguna tra le grandi lame abitate serviranno come supporto ricreativo alla passeggiata lungomare. La marea che tutto cancellerà lentamente ma inesorabilmente avrà comunque dei luoghi, anch'essi pubblici che saranno luoghi della memoria. Strutture circolari di grande diametro isoleranno dall'acqua porzioni di territori che verranno sommersi preservando il terreno stesso dall'inondazione, biotopi che sopravviveranno alla distruzione e faranno vivere quelle aree come luoghi della memoria. Un grande monumento sarà in seguito dedicato a contenere i detriti che deriveranno dalla sommersione delle aree da parte dell'acqua. Un contenitore di rottami detriti e scorie che sarà riempito e diventerà un totem urbano, sarà il luogo della rimembranza.

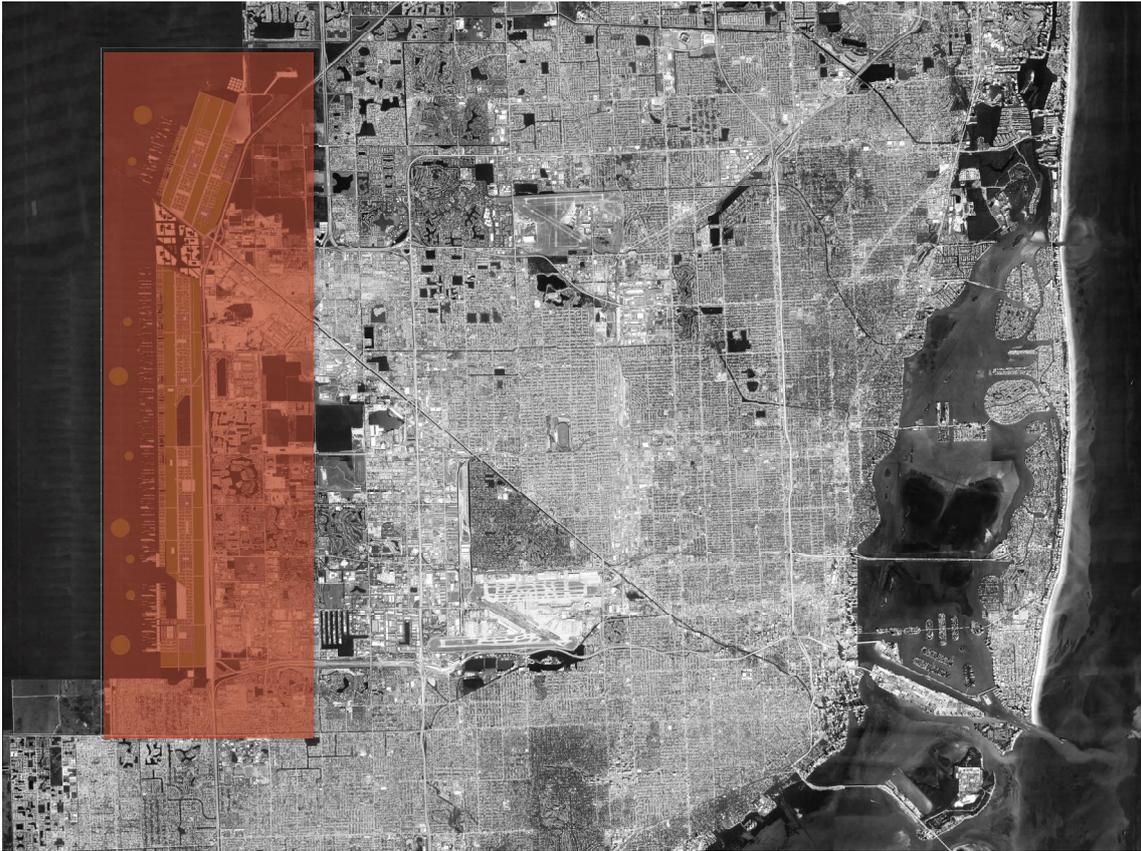
Due progetti distanti per localizzazione e tematica hanno tuttavia uno sfondo comune, implicito e profondo. Sono accomunati dal problema della memoria, una memoria urbana, la memoria della città, quella di Teheran e quella di Miami, quella valorizzata dall'uso progressivo del vuoto e quella nella quale ci si deve difendere dal rischio dell'annullamento che potrebbe operare l'esonazione dell'acqua.

La cancellazione della memoria è ciò da cui l'architettura in questi due progetti rifugge.

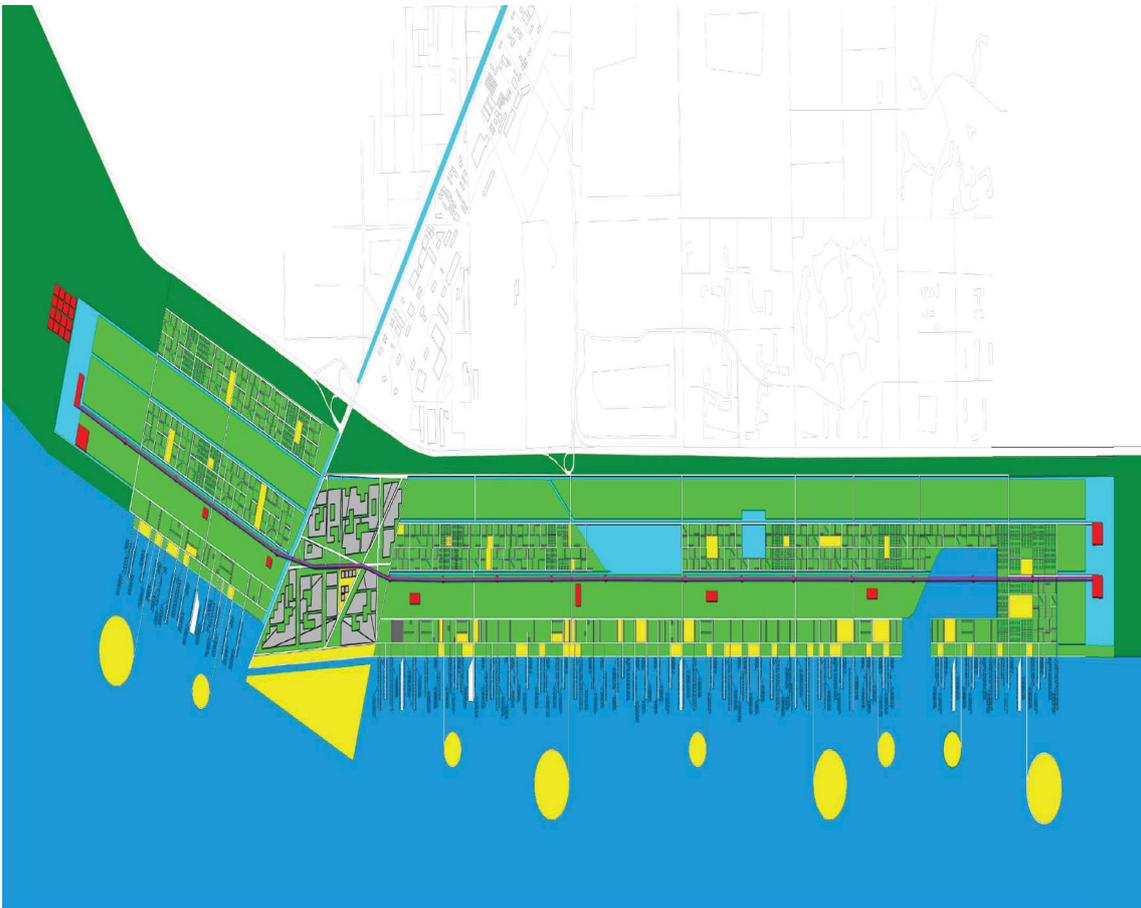
Si tratta dunque di operare a differenti livelli: da un lato quello specifico della risposta funzionale, alle esigenze delle destinazioni che possono essere anche proposte innovative rispetto a contesti che devono essere recuperati nuovamente nell'impianto urbano, come a Teheran, o per risolvere urgenti problematiche che riguardano addirittura la sopravvivenza degli insediamenti umani, come a Miami. Dall'altra parte c'è la necessità di continuare a pensare l'architettura come qualcosa che supera la risposta tecnica, la risposta all'esigenza primaria dell'abitare, includendo in questa esigenza l'importanza delle comunità di riconoscersi e di permanere nei luoghi. Il progetto dunque si carica di evocare altri significati, legati appunto alla memoria, diviene essa stessa memento.

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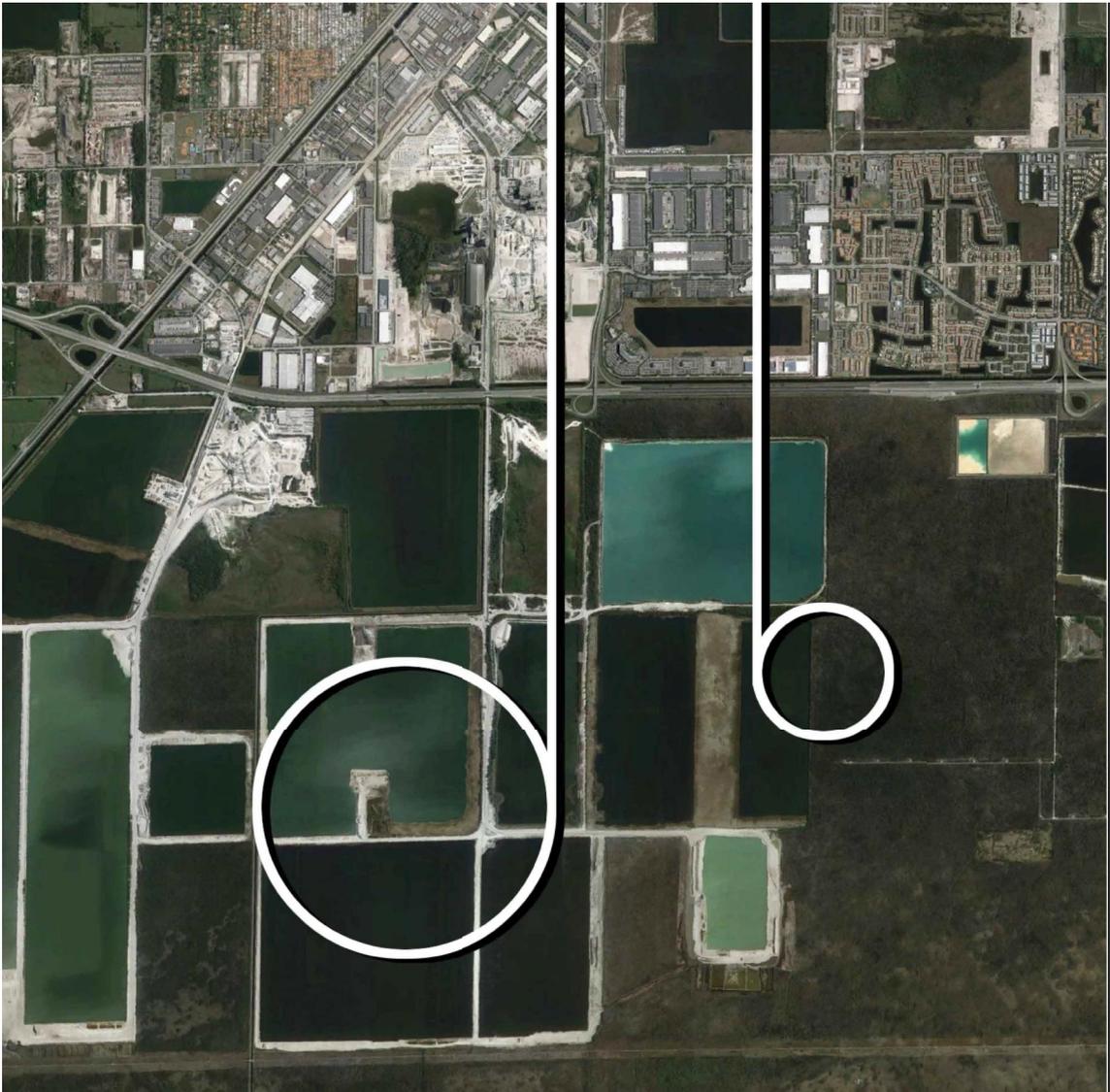


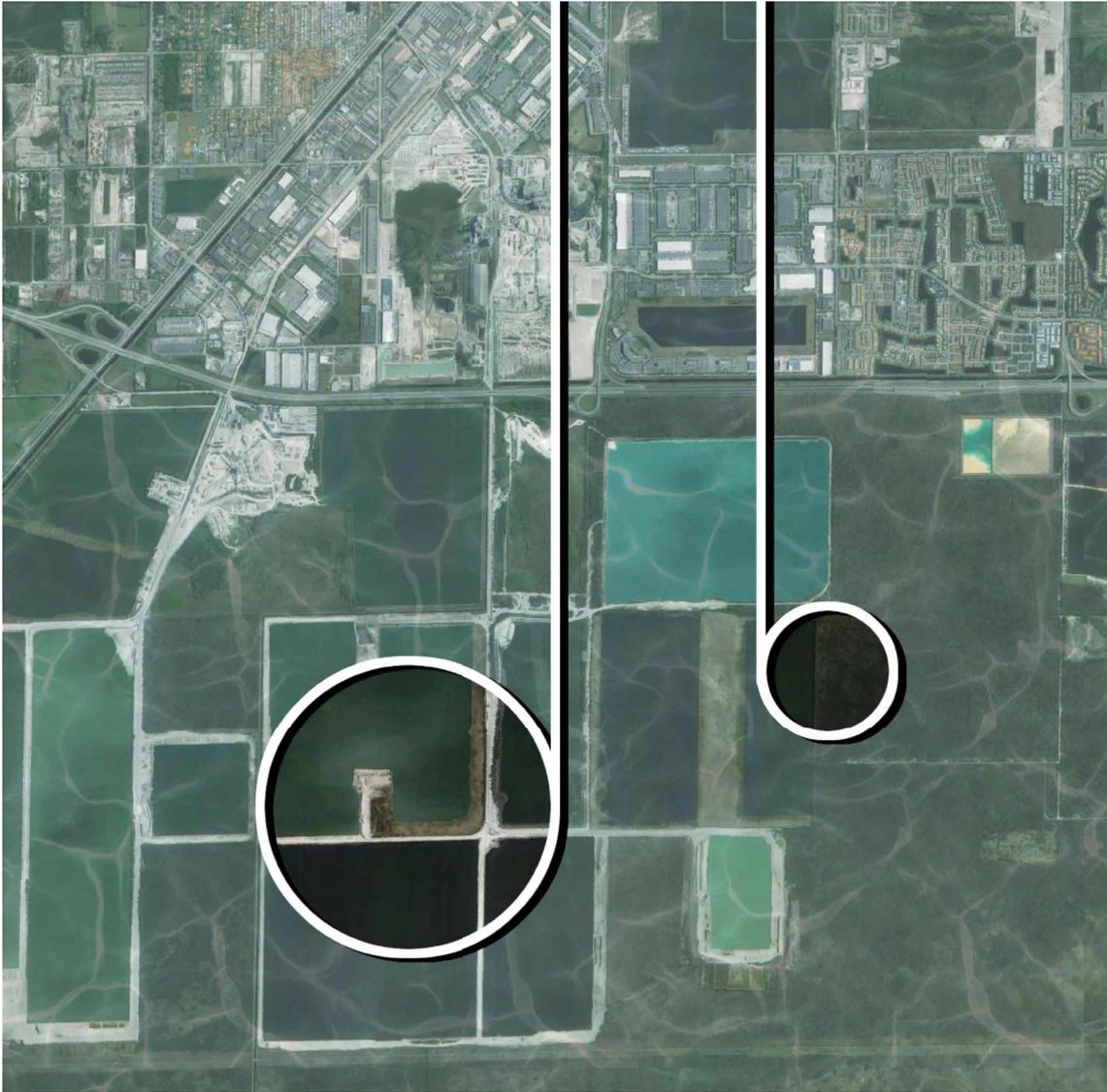
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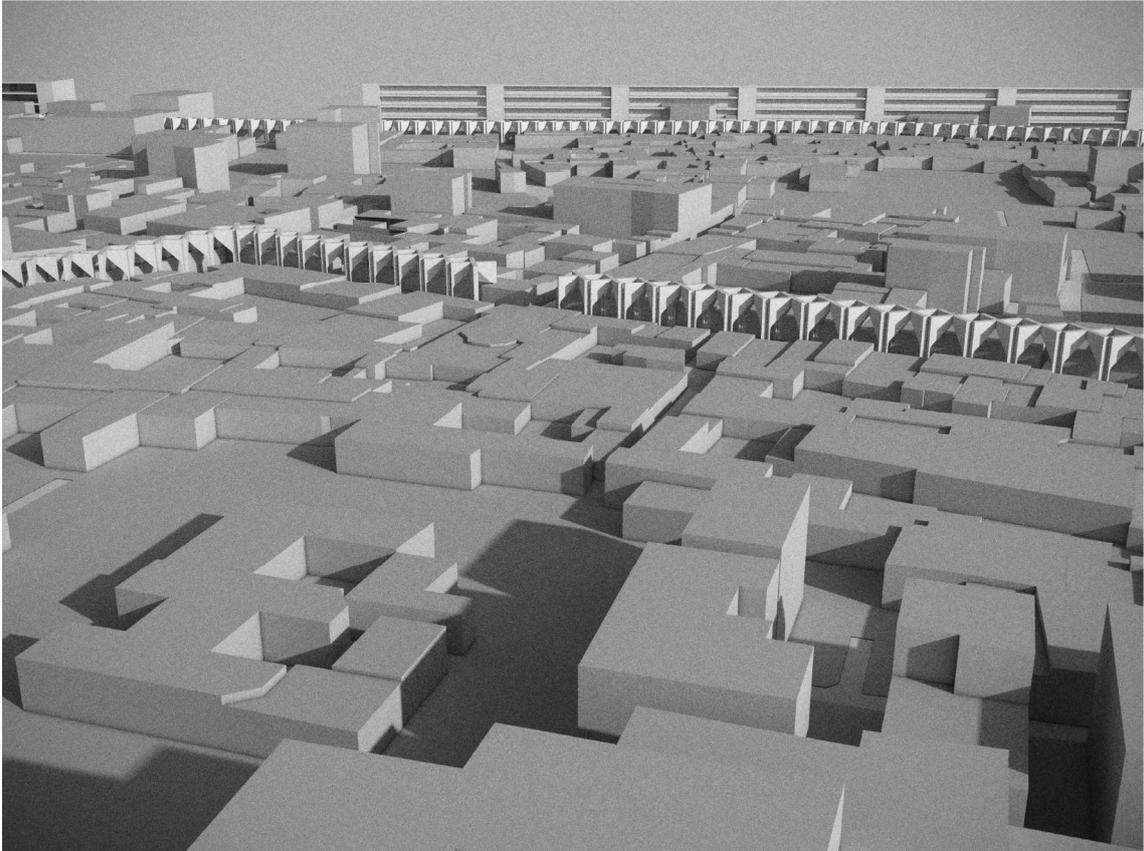
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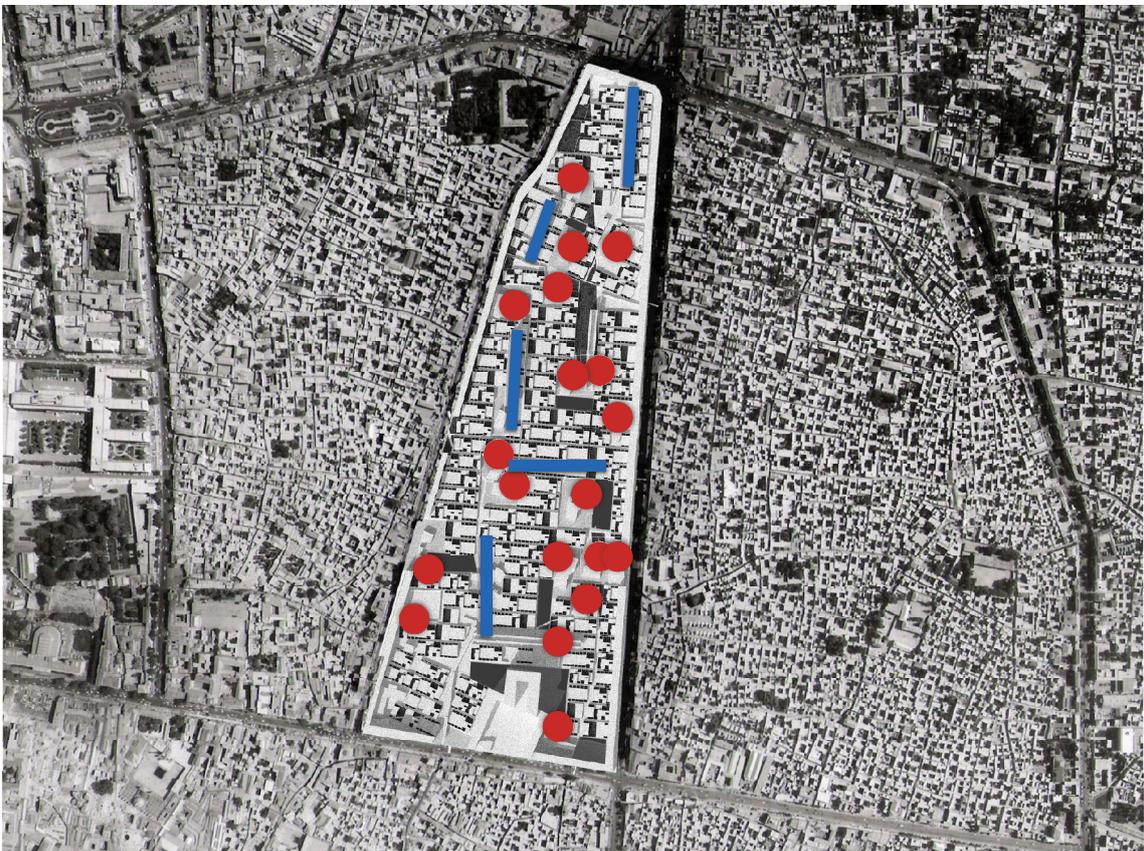


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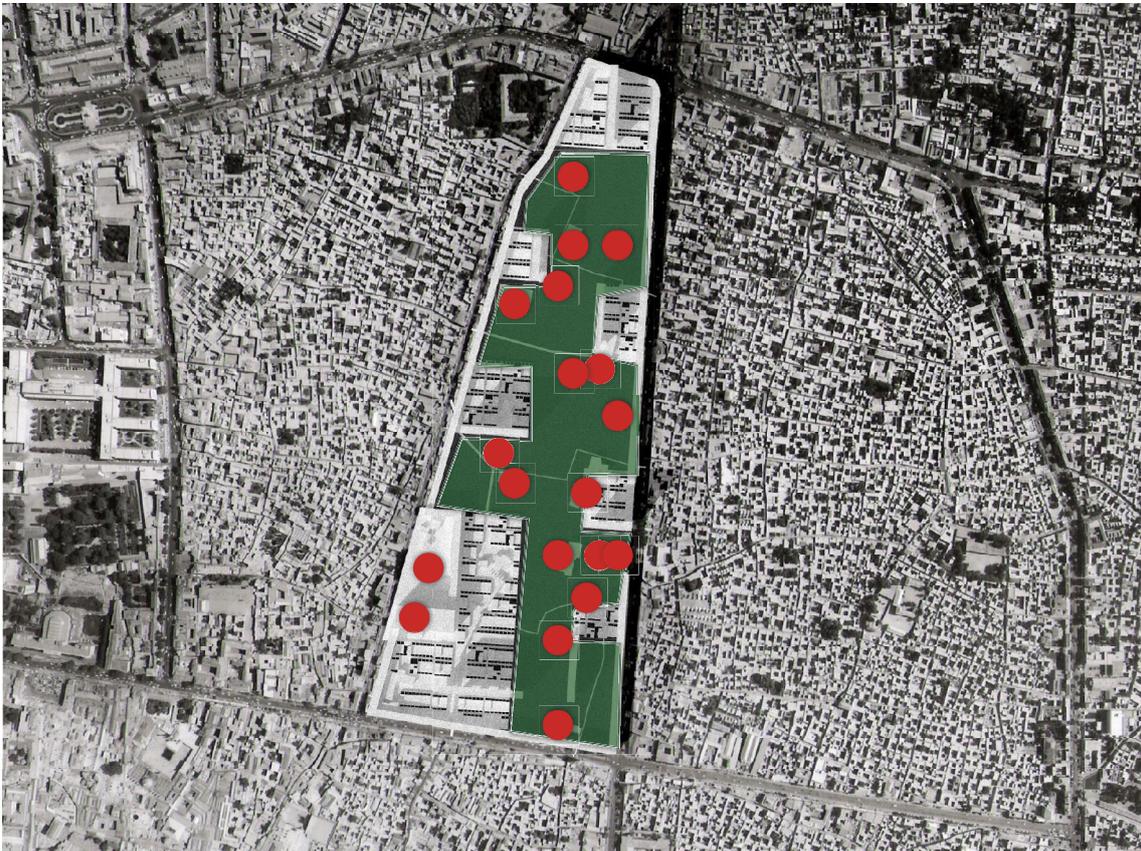
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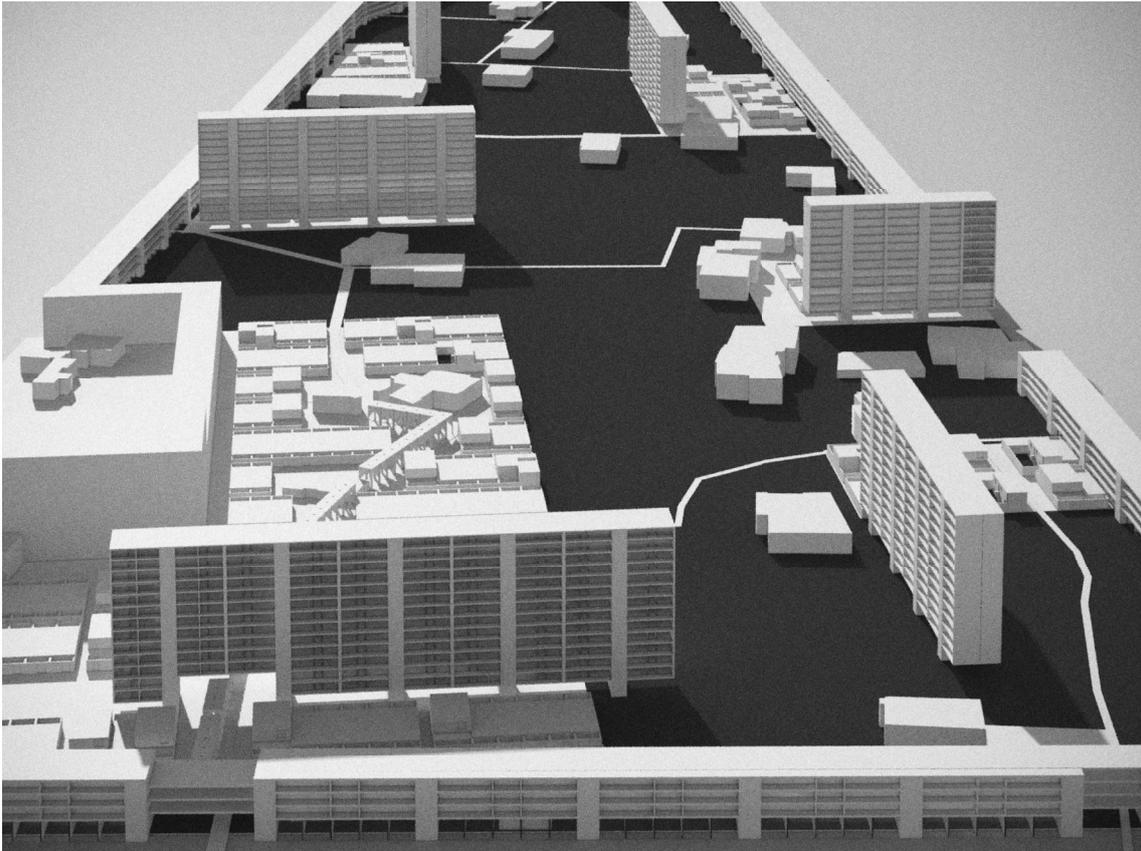


LEARNING FROM ROME | historical cities and contemporary design



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Measuring Urban Form change in Abu Dhabi

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Abstract

532 One of the most important problems of the historic dilapidated areas in Iran is Cities like Abu Dhabi which have not grown gradually are referred to as sudden cities because they emerged instantly and keep rapidly urbanizing. Although this rapid planned development has granted Abu Dhabi the strong admiration of other countries, it has been sometimes hasty and off-balance, overlooking crucial environmental aspects. However, unlike other Gulf cities, planning policy is currently focusing on sustainable urban growth and development. Estidama, a sustainability rating system similar to LEED, is at the forefront of these efforts. Within this context, and given urban planning's key role in achieving sustainability goals, it is rather important to operationalize theory and to perform quantitative and multi-criteria assessments, in order to provide clear direction to future growth. Particularly, guiding growth by taking into account existing neighborhood typologies and their longstanding presence in this context. Thus, urban form and density are analyzed in reference to each other, by relating different form metrics associated to livability and urban vibrancy, whilst taking into consideration different urban situations. Accordingly, as it will be discussed, the way different neighborhoods grow and evolve in Abu Dhabi have affected the city's sustainability performance. More specifically, this paper focuses on a comparison between two superblocks that were developed at different times in Abu Dhabi: one older one on the island itself, and a recent development in the mainland. Both share a similar land use structure and have very similar size and street layout, although their overall density and functionality differs significantly. The study aims to analyze whether performance shifts in response to changes in density and building intensity and measure consequential changes in built form and livability. The methodological approach is based on a quantitative and qualitative study of the relationship between major urban form elements that are widely and commonly applied, such as City blocks (CB), Plots (P), Streets (S), Constructed space (CS), and Open space (OS); all these analyzed using common metrics, such as block, plot, and network density, number and type of road intersections, and floor area ratios. Data obtained from the study of GIS information will address different relationships qualitatively and quantitatively. Retrieved conclusions will be used as guidelines for designing and guiding new sustainable neighborhoods in the region and providing recommendations for operating the existing ones.

Introduction

The Emirate of Abu Dhabi is the capital of the seven United Arab Emirates (UAE) and it contains the main oil hub in the country with 94% of the oil reserves and natural gas reserves (ElSaad, 2011). The capital went through a radical transformation from a nomadic settlement in the 60`s to a metropolis that ranked the world`s fourth favorite city in 2013. Abu Dhabi`s population has been growing significantly at an average annual rate of 7.6% of citizens and 8.8% of people migrating to work. Although the growth has brought along increases in education, economy, employment, and trade, it also has brought the negative increase in energy demand. Despite that UAE holds the fifth-largest gas reserves in the world, at 6.4 trillion cubic meters (TCM), it would not be able to provide enough natural gas to meet the 7%-10% yearly growth in electricity demand continuing up to 2020(ElSaad, 2011). In contrast, the city`s planning policy has clearly shifted from compact superblocks to sprawling neighborhoods, consisting of low-rise villas and expanding over large pieces of lands. This changing urban form in combination with the hot and arid climate of the area has contributed to bringing the city to one of the highest per capita ecological footprints. Given urban planning key role in achieving sustainability and livability goals, this paper examines three neighborhoods of Abu Dhabi, to analyze the sprawl trend and investigate closely on its driving factors in terms of morphological elements. These neighborhoods are Al Zaab, an inner city, a consolidated neighborhood in the Island of Abu Dhabi; Khalifa City A, a low density, suburban development in the mainland; and Shakhbout City, a residential development similar to Khalifa, but whose consolidation and overall planning are still being reviewed.

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Urban growth of Abu Dhabi

The growth of Abu Dhabi is generally distinguished by two main regions; the island which has the earliest developments, and the mainland. The T-shaped Island jutting into the Persian Gulf has created a natural limit for the growth of the city. This has contributed to densifying the island, and resulted in obtaining compact communities which favored closeness and diversity (Taileb, Arbaoui, & Boudiaf, 2009). However, moving outside the island, to the Southeast, a horizontal low density sprawl started to consume the main land. The expansion carried along changes in the urban form and the general perception of the city. Leapfrogging developments have generously emerged in the mainland, consisting of mainly residential land use and a very low density. However, exploring the urban fabric of the city, some street layouts which have emerged first in the island are being readapted and replicated in the mainland. These layouts have emerged in similar superblocks (50 – 60 hectares), however, these superblocks function as independent neighborhoods on the island, while in the mainland, they are only dependent communities in bigger neighborhoods. (*Figura 1*)

This paper aims to identify and analyze the change of urban form and functionality of national residential neighborhoods. Therefore, it is rather important to measure and diagnose the sprawl to find its reasons and

explore the evolution of typomorphology and morphological elements, which has contributed the most to the density drop and land consumption. analysis results are providing tangible recommendations for neighborhoods under development and to guide the further urban growth on the mainland.

Samples selection.

Urban sprawl has challenged many cities in the world. A wide body of literature has attempted to quantify urban sprawl, however, it mainly focuses on the speed of growth of suburbs comparing to central cities (Chinitz, 1965). previous studies have quantified population growth locations and density drop over time as a prime indicator for sprawl without specifically addressing what are the urban form changes that drive it. This approach has been criticized for primarily examining changes in the boundaries of cities, overlooking what is actually happening inside. The quality of urban spaces cannot be analyzed without considering the intra-urban distribution and concentration of land uses, infrastructure, people, and characteristics of urban morphology. (Prosperi, Moudon, & François Claessens, 2009). Within this context, this study aims to analyze the impact of urban sprawl on physical patterns and urban morphology in three selected cases (superblocks) in Abu Dhabi. The three cases represent national residential settlements, located at different distances from the city's central business district CBD -which has the oldest developments- and sharing similar size, land-use and layout. These superblocks are: Al-Zaab, a fully developed neighborhood in the island, SE24, a community in Khalifa city A and MSH-20, a community in Shakhbout city – the last two cities are located in the mainland. Al-Zaab is a 60 hectare neighborhood in Abu Dhabi island, and mark one of the earliest developed district in the City, dating back to 1970. Al-Zaab community has a good rating among people who reside there, as they seem to be comfortable and satisfied. On the other hand, (Nicholas, 2010). Khalifa City A was initially developed in early 2000's, but was only recently urbanized. The so-called city is characterized by lack of public areas and mixed-use developments, sparse greener, distance from the sea and absence of pedestrian infrastructure and therefore it needs intervention. Lastly, Shakhbout City which is the most recent of the three, covers a total area of 1,854 hectares and located 30 Km far from the CBD. It is still undergoing major masterplan enhancements by incorporating important facilities for residents and anticipated to accommodate 80,000 residents. (Figure 1)

The three superblocks feature similar main housing units are low-rise villas that are originally planned to accommodate the city's national residents. However, communities in the mainland feature high car-dependency, with frequent roundabouts and few street signs. They also have very low residential density among Abu Dhabi neighborhoods. Distances from the CBD is also another major criterion for cases selection, as the change is mainly measured by inside-out the peninsula, due to the evident shift between the two. Comparisons are based on quantifying

several measures of urban form and morphology at the superblock level. The urban form measures used intend to highlight four main aspects to evaluate the change; Street network, building intensity, urban density and typologies. Measures of urban form are computed at each study site using GIS routines. The current urban challenge lays most of its weight on the sprawl and very low density developments that started to guide the planning policy recently; hence a swap analysis is further conducted to weight each causing element and spot the major changes.

Methodology and urban form indicators:

In an aim to dissect the change, highlight its elements and explore possibilities within the three cases, a multi-approach analysis is conducted. First series of analysis measures important form and density metrics, and get a better understand of the logic of space for the different cases. This is done by applying Spacemate; a SpaceCalculator which was developed by the architecture firm Permeta, to summarize the four indicators (FSI, CSI, L, OCR) that have a direct impact on the different urban forms of the selected cases. This facilitates a better understanding of the differences in the form and overall layout of neighborhood typologies. In this case, we observe how residential neighborhoods have evolved over time, considering variables such as FAR, OSR, GSI, and building heights.

Following this, the analysis looks in details into the characteristics of urban morphology and the morphological elements of each case. More specifically, the study analyzes streets and blocks layouts, plots subdivision, building footprints, as well as the interrelations between these elements. A comparison of the metrics calculated for Al Zaab and Khalifa City, by means of a swap analyses illustrate the potential of each of these neighborhood types to accommodate different intensities of land development.

Findings from this study are discussed in their ability to inform planning and design strategies, particularly in relation to the possibility of reconsidering land development strategies in neighborhoods which have already been planned, but have yet to consolidate (Shakhbout). In the following text, a set of metrics are selected for analyzing and comparing the three communities from the planner's perspective and spatial characteristics as the following:

- **Parcel Density (PD):** 'dwelling units divided by total plot area - It is commonly used by developers.
- **Block Density (BD):** dwelling units divided by block area (area enclosure by streets usually measured to the curb).
- **FSI (ratio of floor space and ground area):** indicates the built volume which provides a stronger relationship with the fabric form. However, It describes the intensity of a building independently of the surrounding (Pont & Haupt, 2009). It is computed as the ratio of the gross floor area of a development to the plot area expressed as a factor of 1.
- **GSI (ground floor index) or building site coverage:** describes the amount of built ground in an area. This measure gives an idea of the intensity of building –ratio between built and unbuilt ground - and amount

of open space left. "The acknowledgement of a city is related to a certain building density and a sufficient construction area," (Salat, 2011).

- □ **OSR (open space ratio):** describes the intensity of use of the non-built ground (private sector and open space on the curtilage). It is calculated by dividing the total amount of commonly-owned open space on the residential parcel by the total area of the entire parcel proposed for development.

- □ **Building Height for parcel** building height affects the density by adding more usable areas for the same parcel (high rise vs. low rise). In some references it is measured by layers/ number of stories (Berghauser Pont & Haupt, 2010).

Combining the four indicators (FAR, GSA, OSR and layers), one can notice the main differences lay in the ground space index and open space ratio between communities in the island and outside. This indicates the level of utilizing of the residential plots have dropped significantly.

The three superblocks were inserted in Spacemate –The combination of the four metrics has contributed to the generated differences between the three, regardless their similar layout, and resulted in a variety of morphological standards with similar settlement patterns. Different coordinates for the three cases explain the communities' morphological difference as the following: Al-Zaab shows an urbanized low-rise compact development, While Khalifa City and Shabout show a nearly-suburban low-rise spacious development which indicates the sprawl trend. However, the planning indicators cannot imply the morphological elements and characteristics of different settlements. Moreover, the different time, architecture mode and spatial arrangements provide a deeper perspective and distinctive morphological system that can't be determined through Spacemate.

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Characteristics of morphological elements.

Although there is no defined relationship that links all urban elements, there has always been an agreement of basic elements forming any urban fabric (Levy, 1999): Blocks (CB), Plots (P), Streets (S), Constructed space (CS) and Open space (OS). Starting from the basic elements, the three communities are compared and analyzed, based on their status quo, to outline their morphological characteristics and extract the main changes. Relationships and combinations of these elements contribute to the uniqueness of the urban fabric of each.

Plots subdivision

Overall planning of Abu Dhabi is car-oriented, due to the relatively young age of the city. The earliest communities have adopted smaller blocks and denser street network that resulted in many double-loaded plots-plots which have two edges facing an access road. Nonetheless, the incremental planning process that the island went through, adding to the fact that houses were not built at the same time, has resulted in few disordered layouts. As a result, plots in Al-Zaab grow denser than those

of Khalifa and Shakhbout City. The analysis shows a positive relationship between the block and plots sizes. (Figure 4)

Plots swap Analysis:

Al-Zaab and Khalifa SE24 are swapped together to explore the weight of each element driving the sprawl trend and land consumption. First, Khalifa community's plots density was swapped with Al-Zaab's. as a result, only 11.5 superblocks (communities) similar to SE24 were required to accommodate the plots count of the whole Khalifa city. This has resulted in a huge drop in the total consumed area, and it was estimated to be by a 70% drop of the original area. Second, Al-Zaab was reformed using Khalifa SE24 plots density. the later swap has resulted in tripling the area of Al-Zaab in order to cover the community's original plots count. Following this, the change of areas was calculated and graphed. Khalifa City has shrunk to cover around 667 ha which is one-third of its original size. on the other hand, Al-Zaab expanded three times its original size to reach 156 ha. (Figure 5)

Plots and buildings

In Al-Zaab community, most of the curtilages are in the form of front yards, to enhance privacy specially from the road and juxtaposed sidewalks. Whilst the other two superblocks of Khalifa and Shakhbout Cities have yards from the four sides with the largest portion near the access roads. This form satisfies the basic needs for the Emirati family such as the ability to extend family and add to their houses over time. Also it separates between the private and public spaces which increases the sense of privacy and security that is crucial in their culture. In Al-Zaab community the percentage of fully-built plots reaches up to 50% of the whole housings, while in the other two communities it is nearly 0. This indicates that utilization of plots and intensity of building is decreasing as distances from CBD increase. (Figure 6)

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Buildings typologies.

Al-Zaab has fewer juxtaposed buildings in a row than both communities of Khalifa and Shakhbout city. This is a result of its small plots and connected network. Whilst the other two communities have up to 20 juxtaposed buildings in a row. Moreover, Al-Zaab contains mainly consolidated villa types (single building villa), Khalifa and Shakhbout Cities show more diverse relationships between buildings and plots including consolidated unit villa which is usually in the center of the plot, semi attached and detached villas. Semi-detached villas have the kitchen and services unit separated from the main house, while the detached villas have a separate building for each of the kitchen, the rooms unit separated and Majlis (males guest room) (Figure 7) which are demonstrated below:

Building intensity swap Analysis:

Another swap analysis is conducted between Al-Zaab typologies and

Khalifa SE24 to explore the effect of change in building typologies and utilization of plots in the total footprint and land consumption. At first, Al-Zaab was reformed using the building intensity of Khalifa SE24 (percentage of curtilages to the plot area). This has resulted in tripling Al-Zaab's area to cover its original total footprint area. In the second swap Khalifah city was reformed using Al-Zaab's building intensity and plots-buildings arrangements. This has resulted in a 65% decrease of its original area, to cover its original total footprint area as the following figure (Figure 8) illustrates:

Street network length and nodes

The plan of Abu Dhabi has a semi-consistent a major arterial grid that creates a superblocks mesh that are further subdivided by interior roads and collectors. The inner street network of the earliest communities (Al-Zaab), are very dense with frequent intersections. This could be a result of the incremental planning process in the island, and its morphological hierarchy; streets are determined by developments to provide access to the increasing settlements. In contrast, the new communities in the mainland such as Khalifa and Shakhbot cities, have a planned pattern of streets. Its generation process follows the systematic hierarchy of streets-blocks-plots-buildings in urban morphology, featured by large blocks, few intersections and loose street networks. Therefore, Sikkas (pedestrian routes) are frequently used. (Figure 10, Figure 11)

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Results

By comparisons between the three cases, and through the swap of Al-Zaab and a KhalifaSE24, a lot of hints and instructions can be extracted to guide the development of Shakhbout city. Shakhbout city, being only partially developed with a very similar pattern of Khalifa, can be reoriented to prevent or mitigate the sprawling trend, taking into consideration the important stand of the city in Abu Dhabi's future developments and implementation of its 2030 vision. Learning from older settlements which have similar layouts such as Al-Zaab, the following estimations were found:

- Shakhbout city can accommodate up to 5000 extra plots, by subdividing the undeveloped (unbuilt) plots with smaller plots similar to Al-Zaab's. This will increase the plots density from 2.5 plots/ha to 3.6 plots/ha.
- The new plots can accommodate extra 5000 villas, with an average household size of 6.5 for nationals (Abu Dhabi 2030 vision), this will lead to a 32,500 person increase of population density in the city from very low density of 1500p/km² to an intermediate density of 3700p/km².
- The undeveloped plots can accommodate extra footprint area up to 400 hectares using Al-Zaab's Ground floor ratio, and extra gross floor area up to 650 hectares using Al-Zaab's Floor area ratio.
- Street nodes can increase by 80 nodes in Shakhbout MSH20 and up to 3000 extra nodes in Shakhbout city.

Conclusion

Through the exploration of urban form and typomorphology indicators of Abu Dhabi settlement patterns, various factors have taken into account for examining their roles on the generation the sprawl trend in the city which include the set of planning indicators (FAR, GSI, OSR and layers), the morphological elements in terms of types and interrelations, street network density and connectivity. The aim of this analysis is to search factors that could act as designing guidelines and elements to retrofit in existing settlements and design newer ones to mitigate and prevent the challenging urba sprawl of the city, such as plots divisions, buildings arrangement and height, curtilage ratios and road structures.

Initially, the study has shown three communities developed at three time periods and featuring similar size, layout, use and urban tissue, forming different morphological patterns and trends. Through Spacemate, ty-po-morphological studies and Swap analysis tested with the three cases, the correlation between the types, morphological elements and formative process, proves that typo morphology contribute to city-scale metrics and planning trends such as sprawl. The study adopts different approaches to analyze morphological elements to weight the evading and driving elements and change which are shaping the city. Results are used to propose a different planning policy at the community scale to guide recent similar communities in the city to prevent the pervading sprawl.

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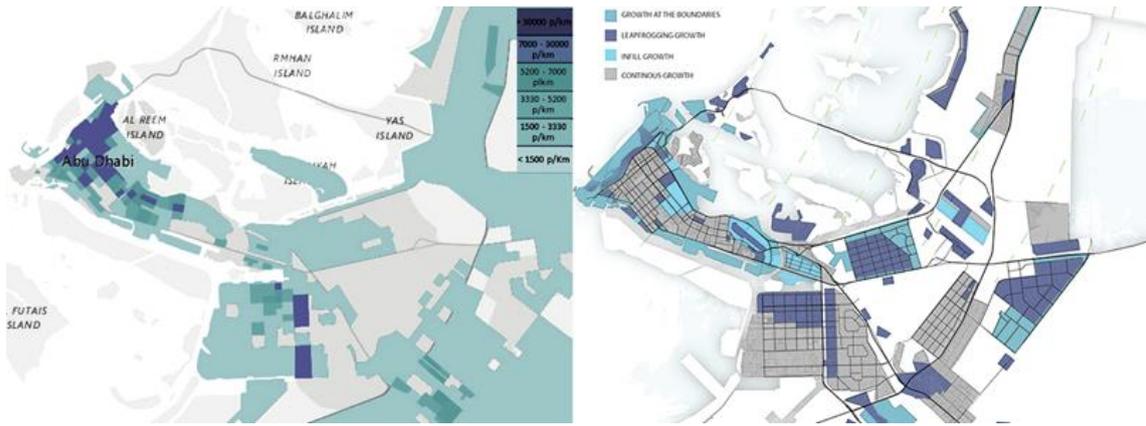
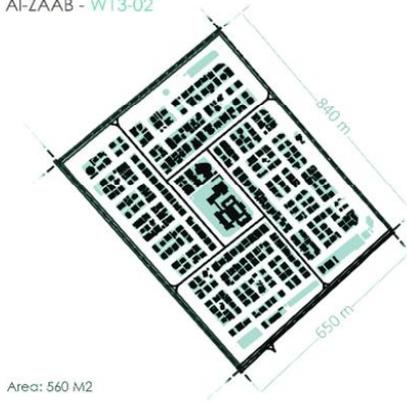


Fig. 1 Housing density of Abu Dhabi and growth patterns (leapfrog, contiguous, infill and boundaries growth)



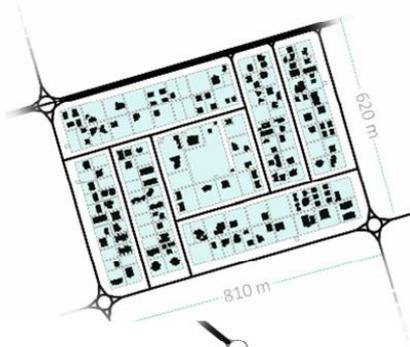
Fig. 2 The three selected cases as they set in the city of Abu Dhabi

Al-ZAAB - W13-02



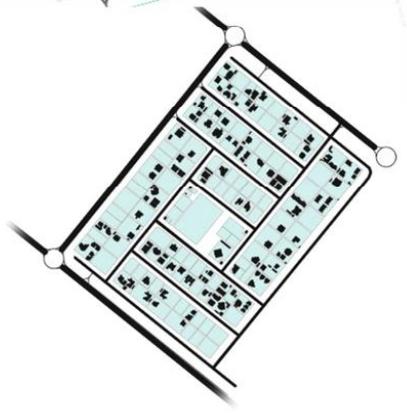
Area: 560 M2

KHALIFA CITY - SE24



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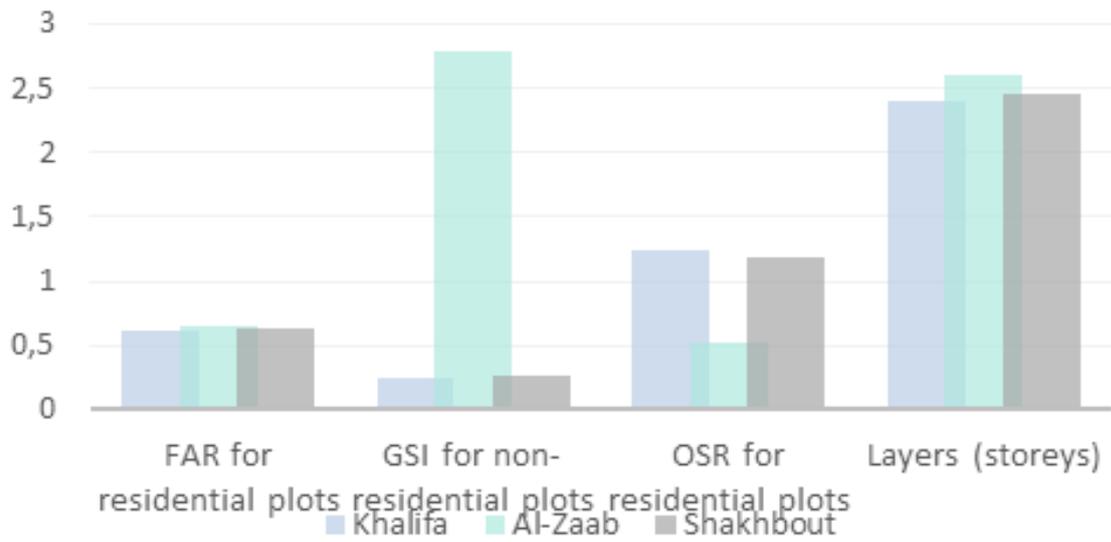


Total developable land ha	26.7	Avg footprint Area ha	0.035
Avg plot Size	0.07	Unbuilt Area of residential plots ha	8.43
Avg residential plot Size	0.68	Total built area GFA ha	43.0
Plots count	376	Total built residential area GFA ha	38.4
Residential plot count	325	FAR for residential plots	0.65
plots density (unit/ha)	7	GSI for non-residential plots	2.787
residential-non residential ratio	4.95	OSR for residential plots	0.515
(development status) built ratio	88.80%	residential Layers (storeys)	2.31

Distance from CBD (median from plot centroids) km	28.4994	Total footprint Area	5.86
Superblock Area	49.5	Residential footprint Area ha	5.75
Total developable land ha	31.2	Unbuilt Area of residential plots ha	23.37
Avg residential plot Size	0.22	Total built area GFA ha	14.6
Plots count	148	Total built residential area GFA ha	14.49
Residential plot count	132	FAR for residential plots	0.61
plots density (unit/ha)	3.04	GSI for non-residential plots	0.24
Total developable residential land	29.1	OSR for residential plots	1.24
residential-non residential ratio	14.3	Layers (storeys)	2.4
(development status) built ratio	73.6%	residential Layers (storeys)	2.51

Distance from CBD (median from plot centroids) km	36.14	Total footprint Area	5.86
Superblock Area	54.2	Residential footprint Area ha	5.75
Total developable land ha	29.8	Unbuilt Area of residential plots ha	23.37
Avg residential plot Size	0.22	Total built area GFA ha	14.6
Plots count	137	Total built residential area GFA ha	14.49
Residential plot count	126	FAR for residential plots	0.61
plots density (unit/ha)	2.8	GSI for non-residential plots	0.24
Total developable residential land	27.9	OSR for residential plots	1.24
(development status) built ratio	56.2%	residential Layers (storeys)	2.51

Fig. 3 Planning indicators and measurements for the three cases – source: ArcGIS.



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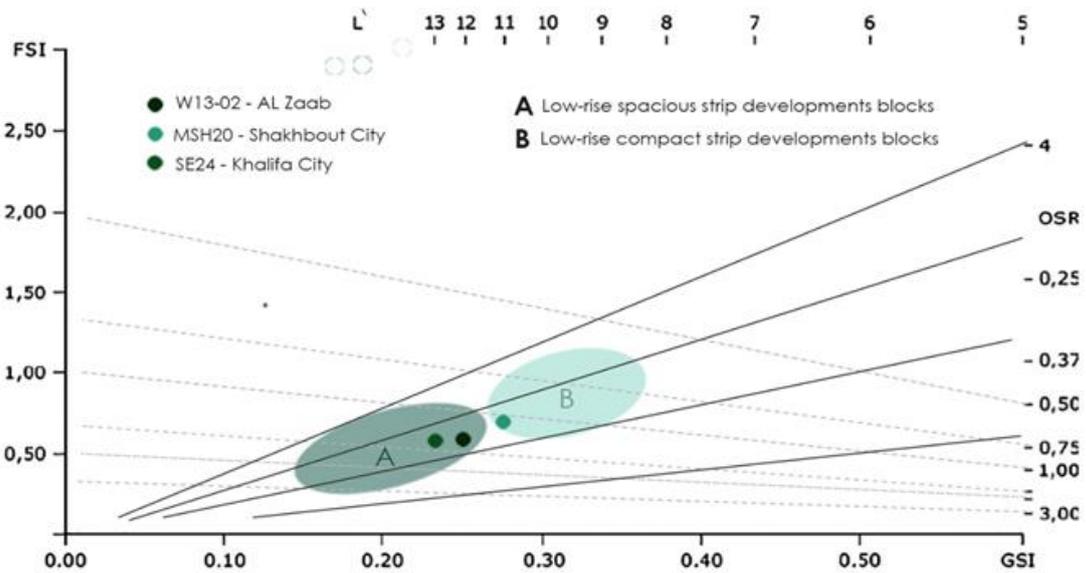
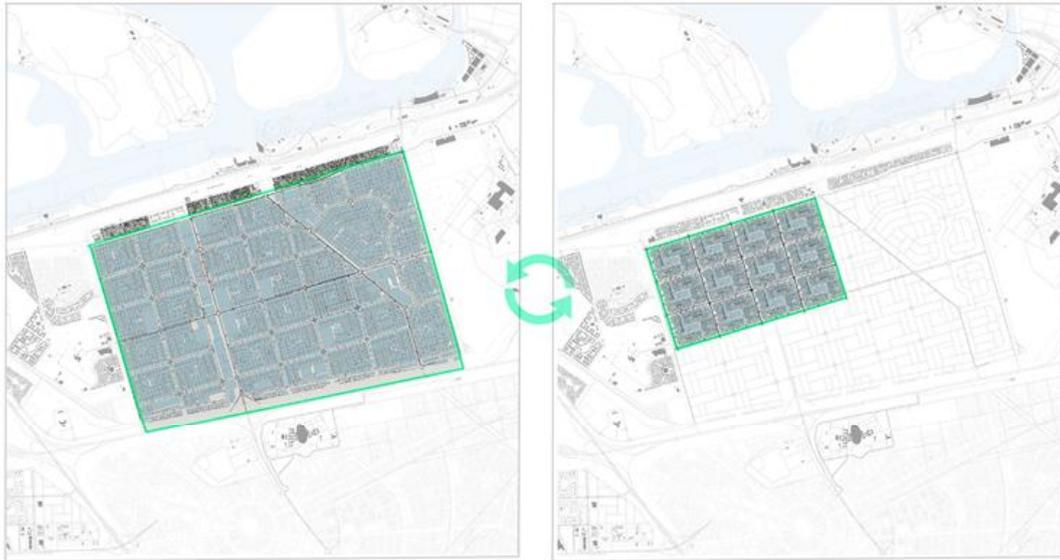


Fig. 4 Three examples in the Spacemate::; Al-Zaab, Khalifa SE24, Shakhbout MSH20

Al-Zaab plots

Khalifa SE24 plots



Al-Zaab plots

Khalifa SE24 plots



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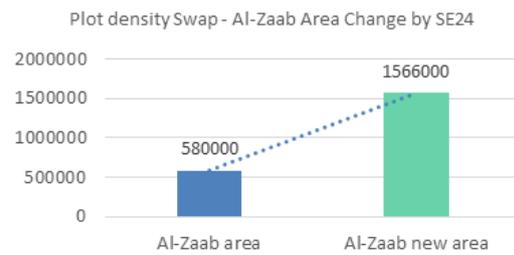
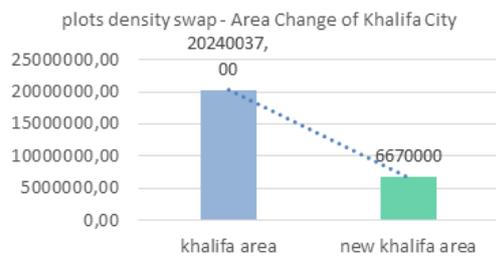
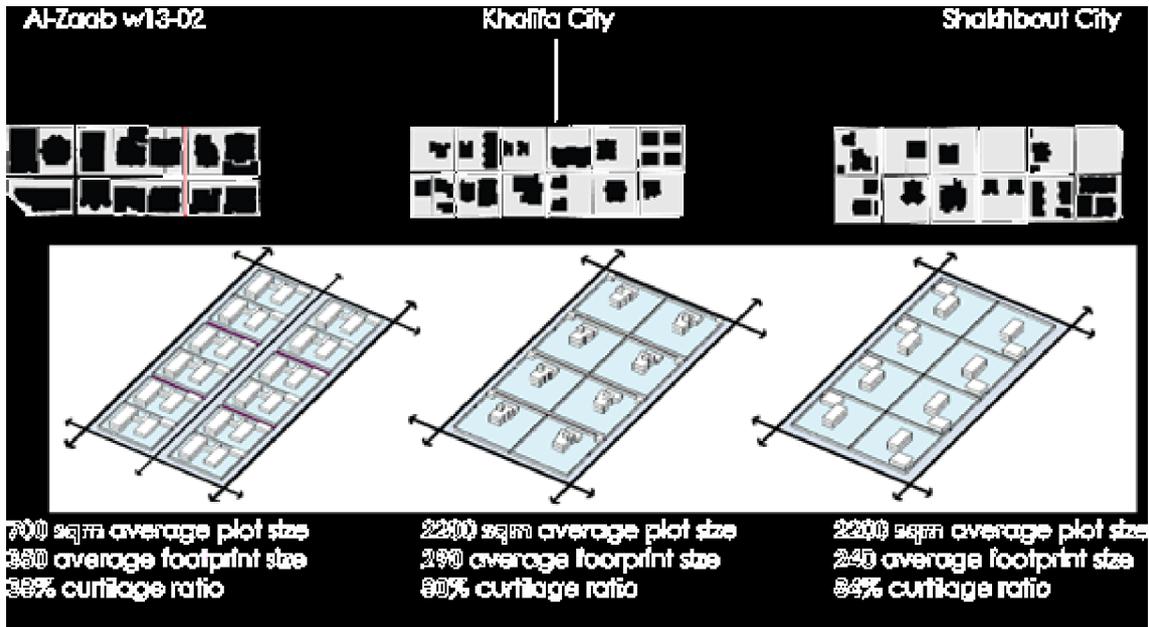
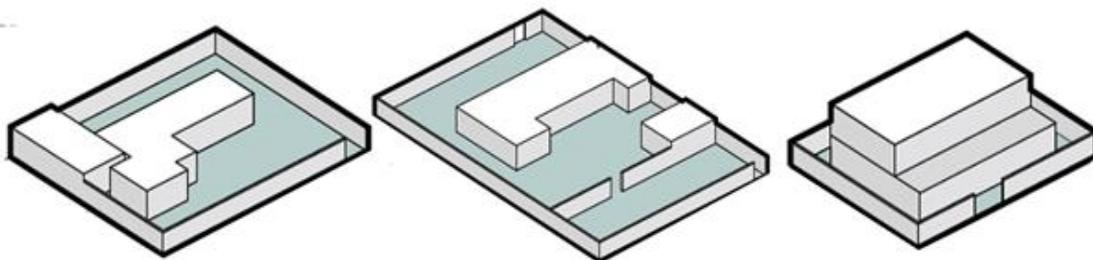
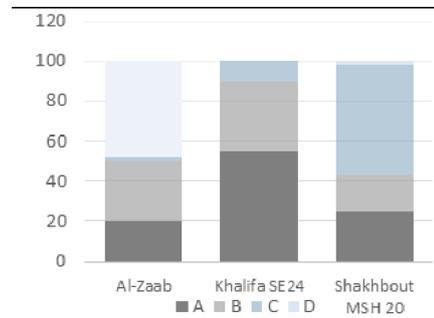
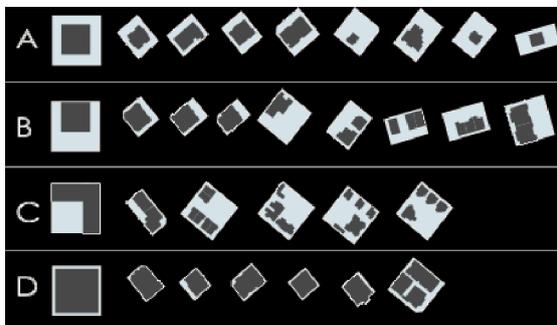


Fig. 8 Communities plot density swap – first swap: plug in Al-Zaab in KhalifaSE24 to cover the whole city’s plots. The first chart shows the resulting area drop. Second swap: plug in Khalifa SE24 in Al-Zaab to cover its total plots



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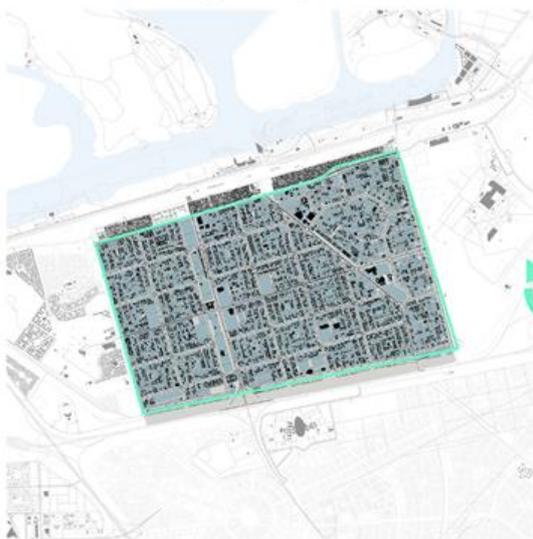
Al-Zaab buildings curtilage



Khalifa SE24 building curtilage



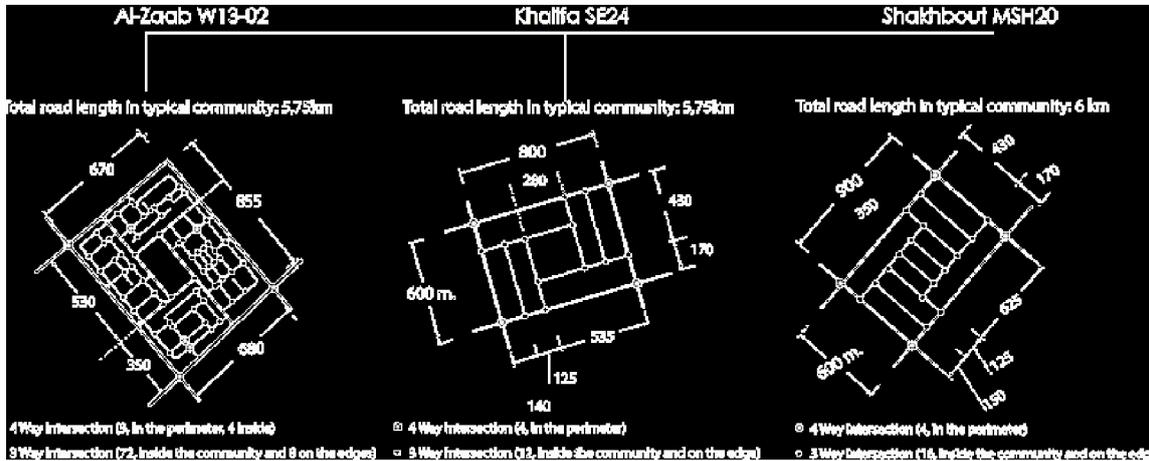
Khalifah city buildings curtilage



Al-Zaab W13-02 building curtilage



Fig. 9 Communities swap - first, plug Al-Zaab in KhalifaSE24, second, plug KhalifaSE24 in Al-Zaab to cover total footprint area



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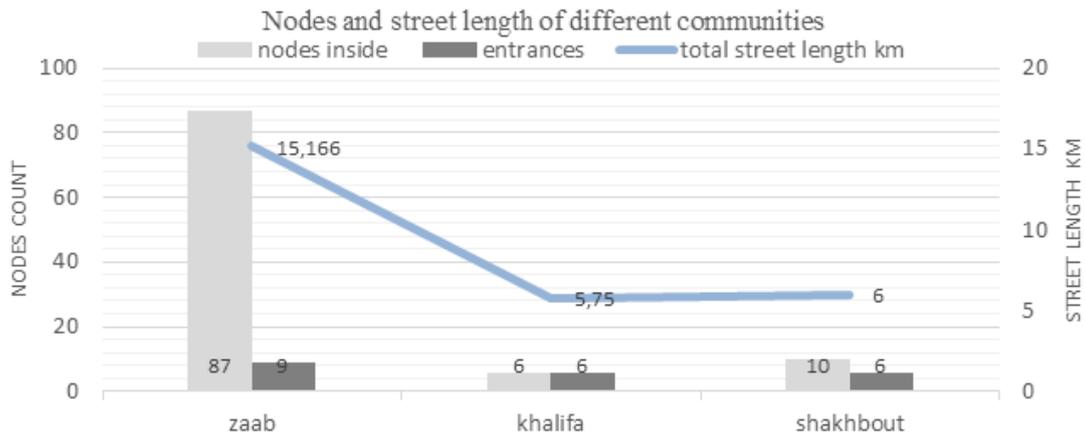
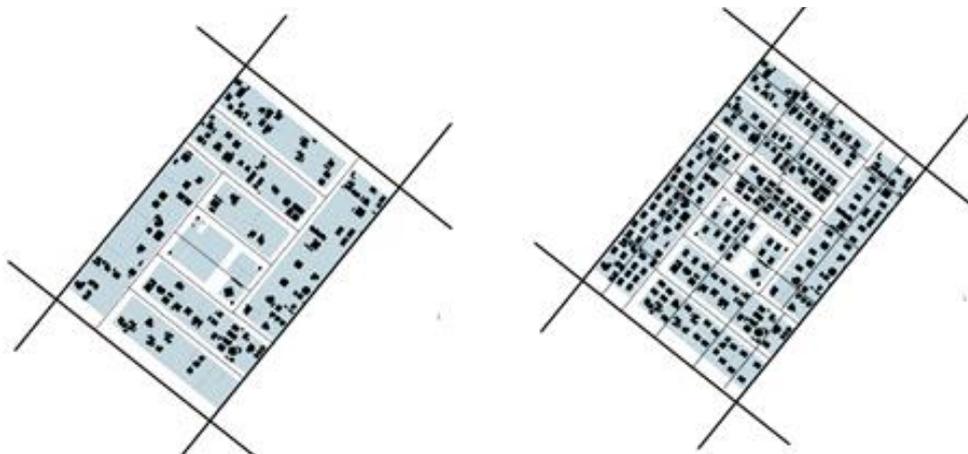


Fig. 10 Street network and nodes in the three cases, and comparison of network length and nodes count

	Abu Dhabi Island W130-02 (Al-Zaab)	Khalifa city SE 24	Shakhbout city MSH-2
Community shape	Rectangular shape – a cell in a larger arterial grid (superblock)	Rectangular shape – a cell in a larger arterial grid (superblock)	Rectangular shape – a cell in a larger arterial grid (superblock)
Blocks pattern	Interlocked blocks pattern further divided into rectilinear blocks with average size of one hectare.	Interlocked blocks pattern of long rectangular undivided blocks with an average size of seven hectares	Interlocked blocks pattern of long rectangular undivided blocks with an average size of seven hectares
Plots subdivision	Nearly 80% of plots are defined by streets and other plots with an average size of 700 sqm.	all plots are defined by streets and other plots with an average size of 2200 sqm.	all plots are defined by streets and other plots with an average size of 2200 sqm.
Plots and buildings	Most houses are of consolidated unit type, centralized and nearly covering the whole plot with 40% curtilage on average.	Most houses are of consolidated unit type. Centralized or attached to one boundary in the plot with 80% curtilage on Avg.	Most houses are of detached type and L shaped or semi attached in the plot with 85% curtilage on average.
Buildings arrangement	Mostly, more than 6 buildings in a row will be separated.	Houses are setting in rows up to 15 juxtaposed buildings.	Houses are setting in rows up to 15 juxtaposed buildings.
Distances between buildings	Distances are small and sikkas are almost absent.	Distances are large and of a fixed value of (15m.)	Distances are large and of a fixed value of (15m.)
Streets typology	inner streets are of internal type (30 m) and collectors (60m).	All inner streets are of internal type (30 m)	All inner streets are of internal type (30 m)
Plan of buildings	Most yards are of the front type with small surrounding alleys inside.	yards are covering the four sides of the building. Houses are connected by the main street.	yards are covering the four sides of the building. Houses are connected by the main street.
Building form	Variety of building ages and typologies.	Uniform style and produced in the same time	Uniform style and produced in the same time
Building intensity	high intensity reaching an average of 2.6 stories and FAR 1.4	low intensity reaching an average of 2.3 stories and FAR 0.46	low intensity reaching an average of 2.3 stories and FAR 0.37

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Fig. 11 concluding table of analyzed parameters



How Rome is coping with the placement of outdoor media in urban landscape in contrast to the city of São Paulo, Brazil?

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Keywords: urban landscape, outdoor media, historical cities

Abstract

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Outdoor media is part of the contemporary urban contexts and with the development of new technologies it presents even biggest dimension, diverse shapes, different textures, vibrant colors and incorporates lighting technologies and others. These kinds of elements are far from constitute only a second skin to buildings or be considered as secondary. It is clear that in contemporary cities the 2D surfaces from this kind of media are capable to hide entire open spaces as parks or even an entire conjunct of buildings. It is clear that urban morphology should be analyzed through, not only the horizontal plan, but also vertical ones, because this is the way people perceive the cities. So in the context of what we have to learn from Rome the aim of this paper is to compare how an historical city as Rome is coping with the placement of outdoor media in urban landscape in comparison to São Paulo, in Brazil, a city mainly oriented to business, through the analysis of the most recent ways of control implemented and policies adopted in both cities.

Introduction

Outdoor advertising is part of the contemporary urban settings and with the development of new technologies it presents a variety of dimension, shapes, textures, vibrant colors and incorporates lighting technologies and others. So these kinds of elements are far from being considered as secondary in urban landscape. Commercial signs have great impact in the perceived urban landscape (Nasar, 1988; 1997). It can constitute more than a second skin to buildings as said Ashihara (1983); in contemporary cities these 2D (sometimes 3D) surfaces that gives shape to this kind of media are able to hide entire open spaces as parks or even an entire conjunct of buildings, as observed in São Paulo, Brazil, before the enforcement of Law 14.223/06 (Clean City Law).

The Law 14.223/06, responsible for removing billboards visible from public space and regulating rigidly identification signs was implemented in São Paulo in 2007. It is the most recent enforced comprehensive law considering ads in the city of São Paulo, after a sort of frustrated regulations.

Landscape transformation was positive evaluated by most of the local population that thought the image of the city had improved. About 63% of the population approved the implementation of the law (Opinião Pública, 2007).

Laws that control advertising in urban landscape, according to Casarin, Santiago (2016) are able to create more complex or less complex landscapes. So not only the absence of law creates conditions to chaotic landscapes, but also inconsistent ones are instruments to create these settings. Landscapes with overload condition of information and stimuli caused by ads can certainly be intentionally created by law, as in Times Square and surroundings in New York City; however, when it is not desired, the presence of state in strict regulations, inspection and punishment is important to keep landscape coherence and legibility, as happened in the city of São Paulo, in Brazil, considering ads.

So in this context is important to analyzed cities through, not only the horizontal plan, but also the vertical one, because this is the way people perceive cities when walking through it.

In the context of “what we have to learn from Rome” the aim of this paper is to compare how an historical city as Rome is coping with the placement of outdoor media in urban landscape in comparison to São Paulo, in Brazil, a city mainly oriented to business, through the analysis of the most recent ways of control implemented and policies adopted in both cities.

Research procedures

This study makes a comparison between the cities of São Paulo, Brazil (through a case study conducted between 2010 and 2012) and Rome, Italy (through a recent case study in development).

The research has a qualitative approach and to compare the cases involved it was used techniques such as:

documental survey and analysis of enforced laws as well as walkthrough to understand the case of Rome and, theoretical survey to present the

case of São Paulo.

The norms concerning ads in the city of Rome

Considering the city of Rome its strong historical character arises. Established, approximately, in the year 753 BC, the city has a large architectural collection, including ruins, millenary buildings, churches and art works. This collection also attributes the tourist character to the city. The municipality of Rome has an area of approximately 1300km² with almost 3 million inhabitants, counted until 12/31/2014 (Annuario Statistico Roma Capitale, 2015).

Concerning the city of Rome, the first specific law regarding advertising in urban landscape, as mentioned in the law itself, was regulated by Deliberazione n.254 / 1995, the first General Plan for Advertising Installation, with a broad description of the types of advertising facilities permitted, including its dimensions and also establishing places where advertising would not be tolerated (in the historic center of Rome). This regulation was changed in 1997 (Deliberazione n.260), with the purpose of simplifying the bureaucratic process of authorization and adding a new modality: the advertising of itinerant spectacles. Even so, several articles have undergone minor changes, compiled in a single text, becoming part of the Annex A2. Summarizing, Deliberazione n.260/97 regulates: art.

552 1. advertisement under public or private grounds or wall; art. 2. luminous advertisement or illuminated under public or private ground and wall; art. 3. bright advertisement on terrace; art. 4. advertisements in private areas (billboards, illuminated signs, banners); art. 5. bright advertisement on private terraces; art. 6. advertisements on facades and private walls (vertical and horizontal frontal advertising, flags, display advertising, awnings, window displays, totems, provisory announcements); art. 7. other advertisements (posters, balloons, streetcar ads, motor vehicle advertisements, sound advertising).

The General Plan of Advertising Installation, according to the text of the law itself, was made by imposition of CC 289/1994, which reformed the municipal tax code on advertising facilities, requiring a classification of these facilities in order to impose charges on premises within the urban territory.

In this context a greater differentiation was required regarding the type of installation, the material used, the dimensions, the purpose, the durability and the specific cost of each. With this purpose was published the Deliberazione n.100/2006, revised and extended by the Deliberazione n.37/2009.

In this last one, are specified the permitted and not permitted advertising vehicles, including maximum dimensions of the structure itself, and the minimum height of passage under the structure, or the minimum distance between the base of the structure and the sidewalk boundaries. Summarizing, Deliberazione n.37/09 regulates: installations for fixing posters or frames / frames on the floor or walls, luminous, non-luminous or illuminated installations; logos, signs, awnings and similar; window displays;

balloons; advertisements on and in vehicles; advertisements on scaffolding and construction site; advertisements in urban furniture; electronic and mechanical variable message vehicles (mobile); leaflets, posters and similar; projections on walls and panels; signs or other ads conducted by persons; structures on terraces or blind walls; digital structures such as LCD, plasma, LED or organic LED and projection structures; logos of companies that cite expressions in a foreign language, of non-current use.

So it is understood that the General Plan for Advertising Installation arises with focus on the management of ads in urban landscape and not in order to protect it, specifically, as the state law "Codice dei beni culturali e del paesaggio".

The most recent regulation approved considering the issue was Deliberazione n.49 / 2014, called Piano Regolatore degli Impianti Pubblicitari (PRIP), has been constructed since 2006, when it was foreseen in two articles of Deliberazione n. 100/2006 (updated by Deliberazione N.37 / 2009). PRIP itself reveals in its introduction all the way forward, the legal bodies and the bodies that provided technical advice on the proposals. The text writing and the technical viability studies were delegated to Società AEQUA Roma. During the process, in the latter half of 2013, a period of time of 40 days was open to gather information and ideas from the population about the new plan in a participatory process. After this period, Società AEQUA Roma formally presented the new PRIP. After that, in January 2014 the contributions of the population were analyzed and considered for the PRIP. In April of the same year, after approval by financial and administrative bodies, the councils of the Municipalities also expresses a favorable opinion to the plan, since some modifications pertinent to Municipios I, VII, VIII, XIII and XV have been included. After the modifications, the plan was finally approved.

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The text of the law considers prohibitions and permissions in protected natural areas and public green areas, with special mention to the Tevere valley. Also in its article 2, PRIP inserts articles 49 and 153 from state Law no. 42/2004, regarding the protection of cultural heritage and landscape, prohibiting the installation of publicity (public or private) in the buildings and determining how it will be done on the contiguous roads to these monuments. It also classifies the road network into 8 types, defining agglomeration index for each one (unit of advertising surface area per 100m linear of road) differentiating between facilities in public and non-public space, where the last category presents an agglomeration index always 8 times smaller than the first one.

It was also observed in Article 20, a concern in defining the tolerated area for each kind of advertising in each region of the city. In addition, the new PRIP still makes a relevant contribution by detailing the types of advertising facilities allowed, presenting detailed tables containing the description of the medium, size and format, minimum distance between installations, formats permitted in accordance with the subareas specified in the plan, and other additional observations.

Beyond these local regulations, Roma City Hall also calls attention to the

state law “Codice della Strada” (Legislative Decree of 30 of April of 1992 n.285), to be consulted by anyone who wants to display ads in urban landscape.

And considering the state law mentioned above revised in 2004, now entitled “Codice dei beni culturali e del paesaggio” (Legislative Decree of January 22, 2004, 42), it is important to mention the two references found in the body of the law regarding the installation of advertising messages, in Articles 49 and 153, which prohibit any advertising installation in buildings and protected areas such as cultural heritage and surroundings or in the streets that give access to these sites (except with special authorization of the competent authority). Article 49 also considers the possibility of advertising on scaffolding used with the purpose of preserving heritage, for a period not exceeding the duration of works (still under the approval of the competent authority).

The city of São Paulo: the context and the norms concerning ads

In the city of São Paulo the case study was carried out due to the implementation of Law 14.223 / 2006 (Casarin, 2012), popularly known as the Clean City Law, which transformed the image of the city significantly, establishing more restrictive norms for ads in the urban landscape.

554 São Paulo is a city with more than eleven million inhabitants according to recent IBGE data. It is the largest city in South America, the sixth largest metropolis in the world. It is a city where a diversity of activities inherent to contemporary global metropolises takes place, located in the state of São Paulo, southeast Brazil. The city is considered one of the financial centers of Brazil and it has its economy focused in the primary (industrial) sector and in the expanding tertiary sector (commerce and services). It was therefore always considered a “Business City”.

In order to understand the context where the law was enforced and the limitations imposed on it, it is necessary to briefly know the historical development of outdoor media in the city of São Paulo.

For Mendes (2006), the image of the city of São Paulo considering ads began to change in the mid-nineteenth century and it was one of the Brazilian cities in which architecture and commercial activity changed more significantly, considering a period of approximately 120 years to the present. According to Mendes (2004, 2006), ads that do not intend to indicate an establishment, but to publicize a brand or product, such as billboards and large panels, have become part of the landscape in the city of São Paulo from 1920. However, the ads were still fixed in buildings (mainly in the largest ones) and in strategic positions of visibility in the city. This logic remains to present days as one of the basic characteristics of an efficient outdoor media vehicle.

It is only after 1929 that, according to the author, the advertisements such as billboards begin to appear fixed in their own structures, however, with dimensions smaller than the ones of current billboards of 27m². According to Central de Outdoor (1997), the same year, the first billboard advertising

company, Publix, was installed in the city of São Paulo. In the period from 1960 to 1990, according to Mendes (2006), urban development was strongly reflected in commerce, in the considerable increase in the number of establishments and in the way in which they tried to differ one from another by architecture, shop windows and mainly advertising. In relation to panels, billboards, and giant ads in blind facades, its dimensions drastically increased. As new technologies developed, a great variety of outdoor media formats emerged and high-density places were even more full of this kind of media in the urban landscape.

Within this context, by making an historical retrospective of the specific laws which regulates advertisements in the city of São Paulo, it can be said that Normative Acts always proliferated in order to organize advertising in the landscape. According to Mendes (2006), the first law concerned with establishing restrictions on the installation of advertisements in the public space was Law 3.247, of December 8, 1928. The Law prohibited the placing of posters, ads or any printed paper in public furniture.

The concern with the issue of advertising has always been evident, according to Mendes (2006) in municipal regulations throughout this period of greater use of advertising.

In relation to urban furniture, Law 4.563, from October 28, 1954, regulated the construction of shelters for passengers of trams and buses and established norms for the installation of advertising in this kind of furniture. The subsequent laws, Law 12849/99 and Law 13517/03 also made reference to the installation, concession and publicity exploitation of urban furniture in the city of São Paulo.

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The Law 12,115 / 96, was the first most significant law approved regarding the outdoor media in the urban landscape in the city of São Paulo, in order to organize it with the intention of preserving the public interest (Serva, 2008, p.22), and it should have been the result of an exhaustive study that begun in 1993. However, all the study carried out ended up having its project modified by the political representativeness of the advertising sector within the City Council.

Law 12.115 / 96 was then replaced by Law 13.525 from February 28, 2003, with the same objective as the previous one and faced the same political representation of the advertising sector within the City Council. The law "opened up more space to the giant backlights, frontlights, sequenced billboards and other disturbing elements of the landscape" (Serva, 2008, p. 23), and, according to the author, stimulate infringement.

Two other laws subsequently approved came in the sense of restricting advertising as large panels, easel ads, flags, platelets and leaflets, Law 14.017 / 05 (in the historic center of the municipality) and Law 14.066 / 05 (in the rest of the municipality), the last, however, restricted only easel ads, flags and platelets.

Law 13.525 approved in 2003 was in force until the enactment of Law 14.223 in September 26, 2006, known as the Clean City Law, now in force, and which "provides for the ordering of the elements that composes the urban landscape of the Municipality of São Paulo".

It is in force, linked to the Clean City Law, the Law 15.465 / 11, which “grants management and concession, aiming the creation, manufacture, installation and maintenance of electronic digital clocks of time, temperature, air quality and institutional information, shelters for public transportation and indicative totems for buses with advertising”.

Previous laws were complex, permissive and little or nothing inspected if considered the prevalent situation in the city of São Paulo, where, according to Mendes (2006), 87% of the total number of ads was irregular. The situation of conflict between the out-of-home media and the urban landscape in São Paulo has taken such a proportion that the only way the City Hall found to order it was the prohibition of out-of-home media, mainly billboards, through Law 14.223/2006 (except for the identification signs and advertising in urban furniture installed in public space).

In this context Mendes (2006, p.140) argues that “it is a hard work the regulation of outdoor media and the preservation of the urban landscape” and also said that “there is a lack of criteria to define the form, quantity, dimensions and places where ads [...] can be installed in a way that could more harmoniously compose the urban landscape.”

The Clean City Law (Law 14.223 /06) considers two groups of commercial ads to fit standards, and it is such a simple and clear norm that standards can be summarized in:

556 (1) indicative ads in buildings or related to buildings with the intention to indicate commercial activities into buildings:

Facade (in length)	Identification sign size	In general:
Until 10m	1,5 m ²	<ul style="list-style-type: none"> • No more than 20 cm over the sidewalk, • Totems are permitted only inside the private property, • No more than 5 meters high.
From 10 to 100m	4 m ²	
More than 100m	2 signs of 10 m ² , 40 meters one from another in distance	

(2) all other advertisements in public space are restricted to urban furniture: : benches, bus stop, clock’s defined by the concessionary and the Town Hall. No billboards or similar in private property allowed.

Discussion

First of all, is important to say that the experience of São Paulo could be implemented because it was supported by political will in which the three spheres of power (executive, legislative, judicial) worked together, it made easily possible inspection and punishment. Remove advertisements from urban landscape in contemporary days, in which the development of new technologies make possible a huge variability of elements of outdoor media, is not an easy job.

From the theoretical framework (Casarin, Santiago, 2016) it was possible to

say that, by applying the law, “it had been a reduction in the complexity of São Paulo landscape by reducing the variability and amount of its elements, and that coherence has increased, since it is possible to perceive principles of order, as clear figure-ground relationship between ads and buildings respecting hierarchical degree”. It resulted in higher visual quality to the landscape.

From the same experience it is possible to say that smaller and fewer ads contribute to the visual quality of the cities and do not cause damage to the operation of commercial activity (Casarin, 2012).

Although commercial signs have great impact in urban landscape, until the application of the Law 14.223/06 in Sao Paulo, greater attention to the subject was restricted to historical landscapes.

So based in the experience of São Paulo, and fitting the context of this congress entitled “Learning from Rome” the question to be answered here was how Rome is coping with the placement of outdoor media in urban landscape in contrast to the city of São Paulo, Brazil?

Specific regulations concerning ads were applied in both cities in the same period. In the last regulation in the city of São Paulo it was felt the necessity to prohibit a significant variety of out-of-home media because the situation of infringement was out of control.

Rome seems to walk in the opposite direction. Although its historical character, Rome is still permitting the ads that São Paulo (and other Brazilian cities) eliminates from urban landscape, as billboards. It refers to ads mainly installed in private buildings, visible from public space, that had no relationship with any product or service commercialized in those buildings. In this case, by the Codice dei beni culturali e del paesaggio, Roma is being able to take advantage of this kind of advertisement to sponsor heritage conservation.

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By analyzing Roman laws, it is possible to say, as shown before, that it regulates a great variety of out-of-home medias. So it was possible to realize that Rome recognizes specificities and contributions of each advertising vehicle, and updates regulations understanding the differences between each region of the city.

Even permitting a great variety of media formats in buildings and in public space, the city is being able to keep urban legibility, by controlling size, amount and distance of ads.

Considering ads in the building, in a facade, even though the law is more flexible considering kinds of media, it is also strictly regulated and conditioned to the hierarchical importance of architecture.

Considering the process of implementation is important to mention the last Roman regulation was also open to people's opinion for a period of 40 days, whereas in São Paulo it was almost an imposition.

Conclusion

standards considering character of ads such as dimension, quantity, type, shape and position, should fit the context. Setting standards to ads, with little variability, facilitates surveillance. It, somehow, has to do with the con-

text and it was possible to understand that in São Paulo it was a necessity. The study on Roman legislation leads to the conclusion that over the years the city has been expanding legislation, making the criteria clearer and seeking to evolve pertinent norms of heritage and landscape protection, observing the different kinds of roads and the different regions of the city, as well as detailing each advertising structure allowed. Thus, the more detailed the legislation, the smaller the gap left for interpretation.

With the experience of São Paulo it was possible to learn that in a complex setting where a variety of elements take part, smaller ads, which respect the figure-ground relationship and other principles of visual perception is more likely to be successful in performing their function, without harming commercial activity and contributing to urban likability. With the experience of Rome it was possible to corroborate the thought that each place of the city should be read in its essence. It means that residential areas should be read as residential, commercial should be read as commercial and the heritage should be protected. Roma understand these differences by permitting more ads in commercial routes. Roma also understands it by regulating different sizes to ads considering different areas of the city linked to the 'Piano Regolatore Generale' and also considering different kinds of roads.

558 By analyzing ads in public space it is believed that each one of the studied cities could give a step forward considering the issue, São Paulo by following roman example in trying to conciliate ads and the aesthetic character of the landscape, and Rome, realizing that ads permitted mainly by the Deliberazione 49/2014 still have an impact in the landscape. In any case, whether the law is more open (Rome) or closed (São Paulo) it is understood that broad and constant supervision and punishment of irregularities are necessary.

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'Starchitecture' and contemporary additions in historical context

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Keywords: Star architects, addition design, heritage buildings, conservation policies.

Abstract

In the adapting process of the heritage buildings, new additions are required either to meet the need of the new function or to create structural, aesthetic, functional missing parts of the building. However, all interventions should respect and preserve the significance of the heritage building.

The design approach of new additions is one of the most commonly discussed issues in the conservation field. Additions should be differentiated but compatible for achieving a harmonious relationship between new and old. Heritage buildings can be transformed into major landmarks of the city after conversions or may harm the originality and significance of the heritage buildings. Although there are international preservation standard and charters that introduce principles for interventions in historical context, they are not followed by some countries. Local authorities give permission to new developments that have been designed by Star architects, which can be inappropriate to historical context, to promote the district and the country. The paper questions the success of the selected designs by star architects in terms of social, economic and physical aspects of the interventions. Selected case studies are analysed in terms of the compatibility between new and old and also its relation to the context and historic environment. New additions should add another value to the heritage buildings rather than destroying its character and identity. A successful intervention may contribute social life and economy of the region; in this respect, advantages and disadvantages of the interventions should be also discussed in city scale.

Introduction

Cities, especially the ones in Europe, applying the concept and techniques of city branding as a strategy for place marketing (Kavaratzis and Ashworth, 2005). The satisfaction of locals and tourists are strongly influenced by the image of a city or district that iconic buildings and their effect on city branding have a great contribution (Rıza and Doratlı, 2011). One of the important concerns in architectural conservation is the adaptation of heritage buildings to the new requirements of the new function. As the heritage buildings were created with the techniques and according to the conditions of a past period, their adaptation processes require interventions at various levels (Matero, 1993). However, by some local and planning authorities transformation and conversion to these heritage buildings are used as city branding and place marketing with the interventions by Star architects.

Additions have always been a common type of intervention to heritage buildings when they no longer meet the current space needs (Torres, 2009). However, the interventions should be kept to the minimum level in order not to harm the originality of the heritage building. A new addition to a heritage building includes the problem of establishing an appropriate relation between traditional and contemporary architectural language (Yüceer and İpekoğlu, 2012).

An addition can help to transform a disused or abandoned heritage building to a major landmark, which acts as city branding. Remodelling is a worthy challenge since having different historic layers on top of each other makes the building unique in terms of identity (Misırlısoy, 2016). Giving new life to old buildings is a worthy challenge than designing new buildings (Jodidio, 2007). Transformation of heritage buildings into major landmarks with necessary additions may contribute to the city identity; however, interventions applied should be considered in terms of conservation issues. Preserving the qualities of the heritage building and being respectful to the existing building is crucial in terms of contemporary conservation concept. Additionally, social and economic benefits of the intervention to the building and the district are important as well as physical aspects. Although there are international preservation standard and charters that introduce principles for interventions in historical context, they are not followed by some countries. Local authorities give permission to new additions that have been designed by Star architects, which can be inappropriate to the historical context, in order to promote the district and the city. The paper questions the success of the selected addition designs in historical context by star architects in terms of social, economic and physical aspects of the interventions. Selected case studies have been critically assessed in terms of the compatibility between new and old and also its relation to the context and historic environment.

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Methodology

The design approach of new additions is one of the most commonly discussed issues in the conservation field. The aim of the research is to

examine the success of the selected additions in historical context, which is designed by star architects, in terms of social, economic and physical aspects of the interventions. Selected case studies have been critically assessed in terms of the compatibility between new and old and also its relation to the context and historic environment. The method of the study includes literature survey, observations and critical assessment in terms of the aspects defined below:

- Symbolism/concept of the new design
- Relation with the existing building
- Relation with the context and close neighbourhood
- Respect to the building history
- Contribution to local economy
- Social benefits to the district

Literature survey has been done in order to define the criteria and selected 5 case studies that include an addition have been critically assessed and compared.

What is Starchitecture?

562 In architecture, the building itself can be accepted as a brand, a landmark for the community and as a tool for promotion. Also sometimes the architect can be seen as a brand with the identified concepts and forms, which can be called as star architects. Starchitects become famous with a particular "signature" design with particularly famous. After the 2008 world economic crisis lesson, public opinion questions how our buildings perform socially, environmentally and economically in sustainability terms. On the other hand, there is a trend to use the design of star architects as a city branding and promotion to attract people. Frank Gehry and his curved surfaces, Daniel Libeskind and his angular forms, the late Zaha Hadid and hers fluid volumes are examples of brands with a focus on creating easily identifiable shapes. Peter Zumthor or Norman Foster instead are emphasizing on idea conveying, formulating and communicating the message of the personal brand, being on the ideological stance of celebrity (Niculae, 2016).

Starchitects are in the same time transmitters of valuable concepts and creators of recognizable forms with landmark potential. The public interest sustained by the media can invest a building with the brand. Buildings becoming landmarks a community, regional and also national level are usually designed by famous architects with a few Pritzker prize winners, such as Rem Koolhaas, Philippe Starck, Zaha Hadid, Norman Foster, Jean Nouvel or Renzo Piano (Niculae, 2016).

The emphasis of the star architecture is on the symbolic role played by spectacular buildings. The most important issue in the discussions is the importance of the structure is not in its functionality but rather in its contribution to marketing the city. The local and planning authorities give permission to these interventions by ignoring international and local preservation standards and charters since these iconic buildings become part of a city's brand like in the example of Louvre Pyramid in Paris.

The success of the intervention is still one of the discussions topics in the conservation field but there is a fact that the Pyramid attracts one million tourists every day from all around the world to the museum.

Contemporary additions in historic context

Preserving the qualities of the heritage building and being respectful to the existing is important in addition design (Mısırlısoy and Günçe, 2015). Additions to heritage buildings are one of the most important issues in architectural conservation since there are many discussions on the proper approach of new additions in historical context (Torres, 2009). A new addition should preserve significant materials, features and the historic character (Grimmer and Week, 2012). Addition design can be more complicated than a new design since existing structure brings design limitations of working. There are also problems such as planning, legal and structural issues that should be taken into account. Circulation, access, structural integrity and choice of materials should also be considered. It is hard to define universal characteristics of an appropriate addition since it varies according to the existing structure. Simply, an appropriate addition should revitalize and enrich the existing building. It should work as the part of the whole composition rather than a single project attached to the existing building (Mornement, 2007). There are different types also in the location of the new addition to the whole composition. In the commonest cases, additions stand beside the predecessor buildings or sometimes stand on top of them (Byard, 2005).

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Before the proposal for the new addition, heritage values of the existing building should be clearly investigated and identified. Instead of proposing a form to the heritage building, a new addition should complement and contribute to the sense of proportion, disposition and historical pattern (Yüceer and İpekoğlu, 2012). While the standards do not call for new additions to be contrasting in character or require them to be in a contemporary style, they do require new construction to be “differentiated” without defining how, by whom, or to what degree, and to be “compatible” without offering criteria for achieving a harmonious relationship. The standards do not suggest where the balance between “differentiation” and “compatibility” should be placed (Stewen, 2009).

There are different charters and standards in order to define criteria for the design of additions to historic buildings. Venice Charter (1964) is one of the important charters and there are two articles for the new additions to historic buildings. Article 12 states that: “Replacements of missing parts must integrate harmoniously with the whole, but at the same time must be distinguishable from the original so that restoration does not falsify the artistic or historic evidence”. Another article 13 discussed that: “Additions cannot be allowed except in so far as they do not detract from the interesting parts of the building, its traditional setting, the balance of its composition and its relation with its surroundings”.

In Burra Charter (1999) that is another crucial one it is explained that: “Conservation is based on a respect for the existing fabric and should

involve the least possible physical intervention. It should not distort the evidence provided by the fabric. The traces of additions, alterations and earlier treatments on the fabric of a place are evidence of its history and uses. Conservation action should tend to assist rather than to impede their interpretation. New construction work, including infill and additions, may be acceptable, provided: it does not reduce or obscure the cultural significance of the place”.

On the other hand, The Secretary of the Interior's Standards for Rehabilitation (1979) discussed that: “New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment”. The new addition should be differentiated from the old and should also be compatible; however the solutions are based on the creativity of the designer. The old and new can be contrasting or harmonious; however, for both the new addition should be separated from the existing to be able to perceive the difference (Mısırlısoy, 2016).

564 The new addition should respect the history of the buildings and it should be a proper concept and symbolism to be able to acceptable. It should also respect the original building in terms of form, size and proportion. The addition should also be investigated on a larger scale in terms of its relation to the context and close neighborhood. The effect of the addition to the social benefits to the district and also the contribution to the local economy should be questioned.

Critical assessment of selected examples of contemporary additions by star architects

The building was severely damaged by a fire and then fell into disuse after World War II. A full restoration made, when the building underwent a reconstruction led by architect Norman Foster. The main damaged part of the building was the dome in the centre of the building. While some parts have been reconstructed, the decision has been taken by the architect to design a dome with a contemporary approach in terms of materials and construction techniques. The decision is appropriate in terms of not to cause a misunderstanding in terms of original and addition parts.

The large glass dome at the top of the Reichstag has a 360-degree view of the city and its surrounding. The main hall of the parliament below can also be seen from inside the dome, which symbolizes a kind of transparency in the politics of the government. The aim of the glass dome is also to take natural sunlight into the parliament hall (Figure 1).

The new addition respects the history of the buildings since it has a concept behind and symbolizes the transparency of the government in terms of politics. It also respects the original building and the dome before the demolition in terms of form, size and proportion. After the new intervention done by the architect, the building has become one of the most important attraction points of the city. The building became a social gathering place

since they come to visit the dome and also have a sightseeing of the whole city. In this respect, it has social benefits to the district and also the contribution to the local economy.

On the other hand, Zaha Hadid has a totally different approach in the extension for the Antwerp Port House. The existing building was a fire station building and converted into administration office for the port. Since the port is the second largest port in Europe, the capacity of the existing fire station building was not enough for the space requirements of the new function, they decided to organize a competition for the new extension of the port house.

The new addition is over dominating the existing building in terms of its height and proportion with the old and there is no respect to the history of the original context. The new addition is so bulky and huge and also out of human scale (Figure 2). It does not have any relation neither with the building that it is located on top nor with the context and close neighbourhood. The building is completed in 2016 and its effect on the social benefits to the district and the contribution to the local economy can not be observed yet but it is clear that local authority of the Belgium has selected the design of the Zaha Hadid Architects as the winner of the contest not because of the success of the new addition but for the promotion of the district and the city with the brand of Zaha Hadid.

Tate Modern's transformation includes two phases that both is designed by Herzog & De Meuron. The first intervention was in 2000 when the building is opened as an art gallery. Then, the second intervention was in 2016, which was aimed to extend the exhibition spaces (Figure 3).

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The first proposal for the extension of exhibition spaces was designed cubes on top of each other that some of them were projected out in a dynamic way. However, the proposal had been rejected since it is discussed that it is contrasting and does not have any relation with the existing building. Then the designers have kept the same form and changed the cladding materials and the openings on the facades. They tried to use the same material with the existing industrial building and proportion of the openings on the façade has also been inspired from existing facade. Although they tried to use some references from the existing building, the new addition is over dominating the existing one in terms of height and proportion.

The first intervention was mainly a roof top addition on the building as a café and some other minor intervention in the inner environment to adapt the building to the art gallery function. The roof addition is more successful in terms of appropriateness to the existing building when compared with the second extension. It is taking references from the existing building in terms of form. The new and old is compatible with each other in terms proportion. Although they are contrasting in terms of materials and colours, they are in unity and harmony with the context and close surrounding. The interventions are also successful since it helped regeneration of the whole area and also the contribution to the local economy.

Lyon Opera House consists of a roof top addition to creating a new dance hall. Jean Nouvel designs the new addition and the form of the addition

takes the inspiration from the arches on the façade. The design is successful in term of taking some reference points from the existing building but the compatibility of the addition should be questioned in the city context and close surrounding. The building is located in the city centre, in a historical context and the height of the addition is exaggerated when compared with the existing historical buildings in the close neighbourhood. The new addition has physical and social benefits to the building. The social life is back in the building with the successful roof addition but it did not contribute to the tourism and economy of the region (Figure 4).

Vienna's four historic Gasometer buildings constructed by Emperor Franz Joseph in the late nineteenth century in the industrial zone, originally housed the tanks for the municipal gas supply. (Klanten and Feireiss, 2009). The Gasometers were converted to retail and commercial units that answer all the basic needs of the dwellers. They were four cylindrical gas containers that are enclosed with red brick façade. The Gasometers were gutted during remodelling and only the red brick façade and the steel roof was left as it is. The idea of expanding the building comes from the lack of a number of the housing units. Physically this huge addition covers the front facade of the building since the old structure is not visible when passing from the main road (Figure 5).

566 Gasometers are one of the most interesting examples of adaptive reuse and remodelling. The architectural character and heritage values gave freedom of creativity to the architects. The success of the project is that the new additions are freestanding structures and do not touch to the existing walls. They are also removable when it is needed without any harm the originality of the structures.

Although the structures are listed buildings and are unique examples, the structures are belong to the industrial heritage and can be converted to a housing complex. Housing units in heritage buildings can be a threat towards the preservation of the originality but also there are many successful examples industrial buildings that are converted to housing complexes. If the project is well designed, this threat can be avoided and abandoned buildings can be turned back into life.

The contribution of the reuse to the environment and the community is also important since there is always an interaction between the conversion projects and the environment. Adaptive reuse of a heritage building can be a catalyst for the other projects in the close surroundings. The project is also successful in terms of creating a new life out of the city centre. It caused regeneration of the whole area and to an increase in land value. Critical assessment and discussions mainly have been done under main 6 heading. Then, a matrix is developed in order to visualize the findings

Table 1. Critical assessment of selected examples according to the defined criteria

	German Parliament Building by Norman Foster	Antwerp Port House by Zaha Hadid Architects	Tate Modern by Herzog & De Meuron	Lyon Opera House by Jean Nouvel	Gasometers in Vienna by Coop Himmelb(l)au
Symbolism/ concept		---	---	---	---
Relation with the existing building		---			
Relation with the context and close neighbourhood		---		---	
Respect to the building history		---	---		---
Contribution to local economy				---	
Social benefits to the district					

According to the table, the most successful addition is the German Parliament building by Norman Foster since the intervention respects all the discussed aspects. On the other hand, the addition to the Antwerp Port House by Zaha Hadid has been found the most inappropriate addition, especially in terms of physical aspects. Generally, it is achieved that interventions for Tate Modern and Gasometers there is no symbolism and concept in the design and also it does not respect the history of the building history. However, in terms of other aspects, the new additions can be accepted as appropriate

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Conclusion

Visually attractive buildings play a major role in promoting the city identity. These buildings can be influenced the city and building identity either positively or negatively. In order to judge the success of a designed addition; its social, economic and physical benefits to the historic context should be considered together. An addition could be successful in terms of physical issues but also it should have social and economic benefits to the heritage building and the district. On the other hand, an addition designed with free approach could be criticized not to being respectful to the historic context but it may contribute social life or economy of the region. The additions can be acceptable if it contributes to the city identity and if it does not damage the identity of the existing historic structure. The architects working in the historic context should also consider socially responsible architecture. The buildings are seen as a political and symbolic interests and promotion of the city by local and planning authorities but at the same time, the interventions should respect the originality of the heritage buildings and its close neighborhood.

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Fig. 1 German Parliament Building by Norman Foster (Photo: Courtesy Foster and Partners in Kenneth Powell, 1999) 569
Fig. 2.Antwerp Port House by Zaha Hadid Architects (Photo: Zaha Hadid Architects, in Yapı, 2016)





570 **Fig. 3** Tate Modern Art Gallery by Herzog & De Meuron (Daniel Shearing, 2016)
Fig. 4 Lyon Opera House by Jean Nouvel (Photo: Wikimedia Foundation, 2016)

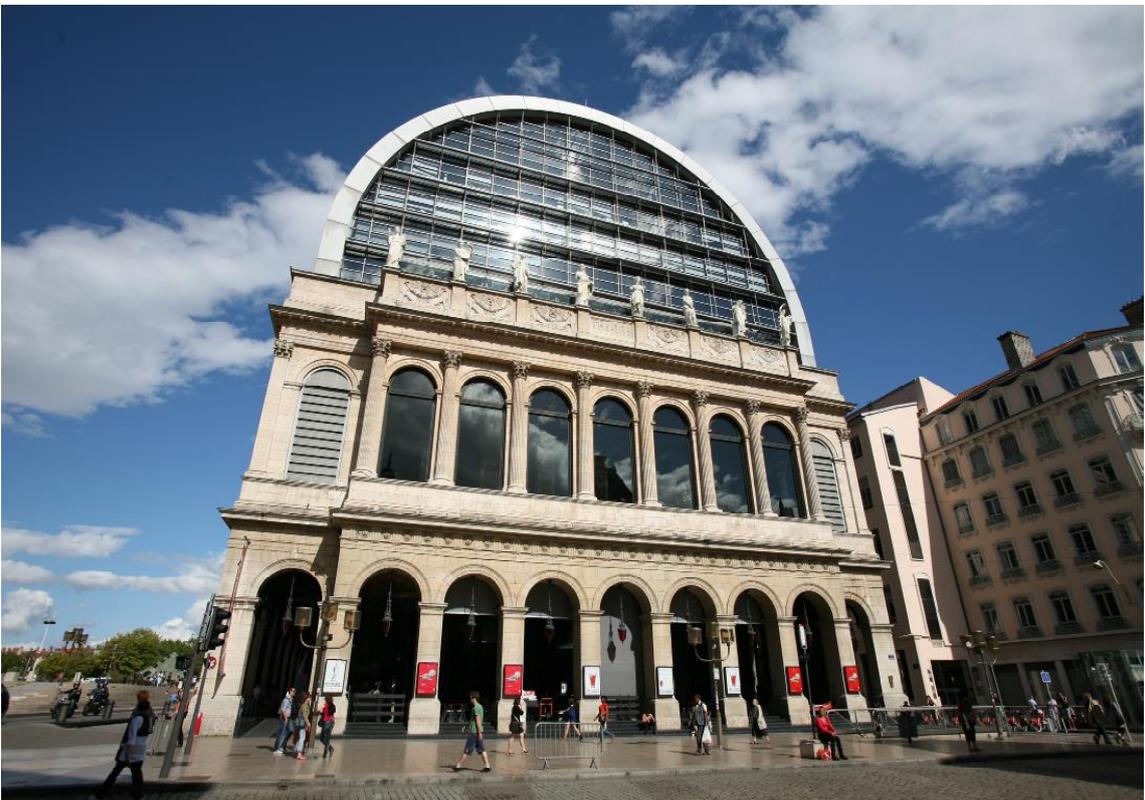




Fig. 5 Gasometers in Vienna (Photo: Author, 2014)

Learning from Morella: The Memory of the Urban Form and the Dialogical- Historical Approach in the Contemporary Design

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Abstract

From the dialogical models defended by Mijaíl Bajtín (Bakhtin 1982), GIRAS Research Group has analyzed for years the historical urban form and architecture, trying to clarify how the architect can at the same time, innovate and preserve, understanding that in the specific of each place are the seeds for a good modernization. (Muntañola 2016)

572 *To understand the relationships between history and memory and to clarify the types of memory that the architect can use to learn from the city, we use Paul Ricoeur's theory (Ricoeur 2010) and Space Syntax as a theory as well as a method (Hillier 1996). In the case study of Morella, Spain, we will see that the urban form of the historical city has kept in his memory the existence of an old gate of the wall, in a place that people has forgotten. With historical drawings, plans, written sources, with archaeological exploration and with Space Syntax analysis, it will be shown that the memory of the city is present in the constructed form. In Morella, we will find some interesting examples about how the architect can make bridges between the new design and the history of the profession, of the place and of the society, analyzing two heritage buildings restored in the core of the city, the town hall and a church as a health center, and two new buildings outside the wall, the Primary School designed by Miralles & Pinós and the Secondary School by Helio Piñón, both of them with international awards. (Beltran 2015)*

Introduction

Urban Form's memory is a tool for understanding the composite nature of Morella, in Spain, today. It means to explore the relationship between culture and city. It can be done through different critical and regional perspectives on use of public space. The purpose of this paper is to focus upon the relationship between memory, historic urban form and contemporary design.

The historic core of Morella is composed by an urban sequence of open spaces and pedestrian circulation layouts. Spiro Kostof already pointed out that in the history of cities, the organic fallacy cannot account for spontaneous urban growth, unconscious or unplanned urban design. As Aristotle recorded in his urban theories, Persian know-how was inherited in Ancient Greek town planning, and was carried through the rest of Europe through the ancient institution of the Roman cadaster, dividing private and public property. Originally the purpose was to collect taxes from agriculturally, zoned land. This ancient planning tax policy still exists in many countries (Saura, 2014). In Morella, ancient property lines still define today urban space and streets. Space flows between parts of the city through historical, agriculturally used plots of land, inside and outside the old fortification walls, completely conserved until today.

Methodology

To clarify the types of memory that the architect can use to learn from the city, we use Paul Ricoeur's theory (Ricoeur 2010). He classifies the traces that feed the memory in three types: the first refers to those that are "written and archived", such as photographs, urban studies, master plans, books, drawings and engravings, which the architect can see. The second type of trace is the affectation that results from the clash of a "highlighted event". In the case of the architect, it would refer to other works that have affected him, architectures, projects, buildings, paintings, etc. Finally, the third type of trace is the one that belongs to the field of neuroscience, the "cortical-cerebral trace". These traces cannot be discovered from intuition. Working of memory recovery is necessary.

Post occupancy evaluation has been done through space syntax mapping and ethnographic data gathering. Space syntax is a set of theories and techniques for the analysis of spatial configurations (Hillier, 2014). In Morella, the urban form of the historic core has kept in his memory the existence of a gate in the old fortification walls, which currently does not exist and the inhabitants have forgotten. To explore this memory we have searched on historical drawings, plans, ethnographic reports, with archaeological exploration and on the current cartography with space syntax mapping. The methodology used includes therefore space syntax but with a certain digital vs analogic resistance; there are surveys and layers of meaning that can only be registered by hand drawings and by quick sketches that capture the moment; by video and by other media, e.g., to accurately record histories of urban form, observation of how people use public spaces. A digital v.s analogic resistance is also found among pro-

professionals involved in architectural and urban design practices in Morella. Enric Miralles used multiple data layers with his own “hand” drawings by consciously avoiding impressive, “new technology” graphics; for him they implied arbitrary decision-making.

The architect makes bridges between the new design and the history of profession, of place and of society. Based upon the analysis of the contemporary urban design practice of the architects and town planners Enric Miralles and Helio Piñón outside the old fortification walls of Morella, we are focused on analyzing architecture in relation to historic urban form, from the dialogical models defended by Mijaíl Bajtín (Bakhtin 1982).

The City is Memory and the City has Memory

The past appears to memory as an image that has three characteristics: presence, absence and anteriority. The image is not a utopia, it's a temporary distance. From the point of view of remembrance, of recognition, survival of images from the past is “a small miracle” as Paul Ricoeur says. (Ricoeur 2006)

574 Metaphor has an important role in order to understand the enigma of absence and presence at the same time. This is illustrated in the metaphor used by San Agustín in *Confesiones*, where there is a “Palace of Memory” (*aula ingenti memoriae*) with a few deposits where memories are kept, which are taken to the square to bring them to the present. The engraved on wax is another interesting metaphor used by Plato, which illustrates that the things that someone wants to remember, what he saw, felt or thought, are engraved on the wax. Each one has waxes of different qualities and what is erased or not engraved is forgotten. (Rivera Rivero 2012)

On the one hand, iconographic heritage about the city that has remained, as paintings, engravings, frescoes, which have withstood all changes of power, are memory. The “portraits” of the city are the testimony of memory that someone wanted to project for those who will come after. And of course historical descriptions present in texts as old as the Old Testament or the Koran are memory. In all times and in all cultures people have conceived the city as an essential part of their identity. Also the archives and urban cadaster, that are its tax and topographic dimension, document the economic and patrimonial life of the city, but these documents do not have the capacity of synthesis and the fascination of the images. That's because in that time, social memory was based mainly on images, because very few people could read and write. Morella has preserved its old fortification walls, represented over time in numerous engravings, frescoes, battle pictures, and maps, as a symbol throughout centuries. The fortification walls have not been preserved exclusively for practical defense issues; much more important has been the image of the city, which has changed with culture and new knowledge.

On the other hand, the city, created by man during its millennial history, is petrified memory. As Cesare De Seta writes:

“Architecture, the basic element of this complex system that is the city, is

petrified memory" (De Seta 2002).

Some memory traces exist at present time and are easy to detect with a little intuition or search, but there are others that require a remembrance work. These have not been erased, but have become inaccessible. There is a memory in built form, in built architecture, but the architect needs more tools to find it.

The Memory of the Urban Form: Space Syntax and Connectivity and Integration of Public Space Outdoors

A definition of public space in Morella is a sequence of open space and pedestrian circulation layouts similarly found either in the architectural treatise of L.B. Alberti or in even more recent urban morphology theory. R. Amirante writes,

[...] piú che all singolari forme del progetto, si guarda stavolta alla sua capacità di intervenire sulla anonima morfologia di un "piazzale" per trasformarlo in un insieme "composto" di piccole piazza differenti per dimensione e carattere. (Amirante, 2012).

In GIRAS research group at the School of Architecture of Barcelona, the morphology of urban settlements, and its dynamics, is focused on how the discipline of history of architecture and town planning conceptualize cities at several scales. For example, circulation layouts are studied not only by a hierarchy of car traffic at a large scale but also at the smaller, community pedestrian scale. Post-occupancy has namely dealt on how people move about urban space. This kind of movement becomes in turn a "mental map" or diagram, a new significant layer to evaluate social integration and connectivity levels. As Bill Hillier writes,

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[Social integration and connectivity] oriented to the variables that designers and developers could manipulate, namely the physical and spatial variables of the built environment itself. (Millán, 2012).

The architect needs analytical tools, which incorporate geographical, historical, aesthetic, psychological and social knowledge, of an interdisciplinary nature, that help him to understand the vestiges of the past in the present, to anticipate local and global impacts of any urban or architectural change. Space Syntax arises from the interaction between mathematics, architecture, computing and social sciences, as a theoretical and practical tool, which can be used to systematize millions of data and to help us to detect results of negative impacts. However, concepts of social integration and connectivity only prove useful when they are considered at the programming, early stages of the design process, only with accurate, historic mapping sources. If we use this tool in post-occupancy studies, maybe we will find some historical mistakes on urban planning, but it may be too late to rectify.

In figure 1a, the map was made with the help of information from computer programs about the probability that pedestrians and drivers would choose one way or another, and which public spaces and parks have the greatest and least provability of being used. The color scale illustrates the results, with blue the least likely and red the most likely. This map captures the essence of Morella: people moving and interacting in space, sharing, creating and innovating; a social and economic network, played out in streets and public spaces. The map illustrates how the starting point for Spaces Syntax's studies is the interaction between public space and public life. However, the way information is presented is not city life and situation at eye level, which is typically the case for public life studies. Rather space syntax represents a more technical, logical and abstract version of public life studies.

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In figure 1b, the color scale illustrates a degree of visual integration. In the red area in common in these two maps, there are the town hall's square (1) and the meeting point popularly known as "The five corners" (2), both of them in the main street. These two places have a good visibility regarding the whole core of the city and full occupation in lower floors, with commercial activities and public uses. Nevertheless, in the FIGURE 1b an important red line goes from the Town Hall to the perimeter area (3). Here there is no public life; everybody has forgotten this place because there is nothing to do. It is a priority car street. On one side of the street there is the fortification walls and on the other side, the back of new housing building. From the depthmap graphics, we can conclude that in the past there was something important there. The red line indicates the best visual integration, therefore, a good visual control from far away to this point. The urban planners in the past did not thought the city to give maximum accessibility to a point where there is nothing. In historical documents, military maps and engravings, there was a gate of the fortification walls that has disappeared and an important road outside. This was the nearest gate to the town hall, where there was also the prison and the judicial power of the city.

In addition to the historical images and plans, archeological exploration is essential in locating the gate. In the place where we are focused, there is a tower with a gate that is five meters below the street and in order to allow the access there are a wall and stairs (see Figure 3). If we look at the old fortification walls next to the Tower, called Alòs, we can find some of the stones of the destroyed arch of the city gate. This arch is five meters below street too. The remains can also be seen from outside the fortification walls. Nevertheless, the road outside has disappeared, and the terrain has a steep slope.

Ethnographic reports, give us more information. We know that when crossing the lost gate to enter in Morella, there was a square with a cistern that was covered in 1968, and we can still see a water source outside the old fortification walls. This is a very common case in medieval cities. Gamundí,

an inhabitant of Morella wrote a book, *Our Streets*, he said:

“Antiguamente esta calle era una plaza con la misma denominación actual (...) la plaza del Aljibe perdió el tramo que estaba insertado en la calle de Rosario, quedando la parte restante con el nombre de calle en vez de plaza del Aljibe(...) Delante de la casa nº41 de la calle Virgen del Rosario había un aljibe, de ahí el nombre de Plaza del Aljibe, que se cegó en 1968”. pp.6 (Gamundí Carceller 2007)

During war periods it was common to cover the gates to have greater military control. In the *History of Morella and its Villages* (Segura Barreda 1868) it is explained that the gate Ferrisa was blocked in the Civil War, but it was opened again in 1649, and that the gate La Nevera was blocked at the beginning of the Carlist wars, but it was opened in 1868. The gate Els Estudis was the only one left open in both wars. But the gate Alòs never opened again because an embankment was built that raised the street five meters above.

There is something in the immediate environment to the Tower Alòs that does not work. It is an accumulation of problems that have been created by ignoring history and memory of this place. In this place, we have never seen children playing, people talking, etc., pedestrians have no space because it is a road for cars. Furthermore, the housing building has the parking door in front of the Tower Alòs.

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The Dialogical-Historical Approach in the Contemporary Design: Two Public Building Outside the Old Fortification Walls of Morella

From the dialogical models defended by Mijaíl Bajtín (Bakhtin 1982), GIRAS Research Group has analyzed for years the historic urban form and architecture, trying to clarify how the architect can at the same time, innovate and preserve, understanding that in the specific of each place are the seeds for a good modernization. (Muntañola 2016)

The relations between project and history are reciprocal; history “feeds” the project, and the project “feeds” history. Only from the knowledge of history the architect makes a new project and only from the renewed look of the project the history is enriched and valued.

“Human constructions also have a duty to preserve the past and give us the possibility of experiencing and glimpsing the continuum of culture and tradition.” J. Pallasmaa, pp. 151 (Pallasmaa i Fuentes 2010)

The primary school of Enric Miralles and Carme Pinós (1986-1995) and the secondary school of Helio Piñón and Nicanor García (2001-2007) are two important public buildings located in Morella. In the primary school, the architects had the difficult task of design a building outside the fortification walls that envelop the city, in front of the landscape, the topography of steep slope and the castle, when the Valencian heritage administration had already ruled out a project because it was considered that it did not

respect the historical value of the city. After few years, the Secondary School had the same conditions and one added, the School already built in the neighboring lot.

They are two important buildings for the city that write a new stage in its history and for its inhabitants. They revive with their differences an architectural debate on the relevance of different ideas in the design such as: the historical and social context and the commitment with the International Style; about starting each project from the place and using criteria of economy, means and resources; on memory and logic; about the work that is lived and the work that is explained by itself; about the perception with all the senses and the importance of the visuality, etc. They are two very published works that once again place Morella in present, opening the debate between architects, users and the general public about the good architecture and the relationships that it establishes. The relevance to compare these two buildings of Morella, as two archetypes, is not the objective of this communication, but this work has been published recently (Beltran, 2015).

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We are focused on the relationship between the shape of these buildings and the shape of the city. The primary school designed by Miralles has triangular shapes that reminds the square of the Church Santa Maria of Morella, situated at the top of the city (See the yellow marks in Figure 4). From a corner of the square there is a great staircase that come across all the main streets and communicates the square with the lower part of the urban form. At the school, there is a ramp that goes through the entire project from the highest part where there is the main triangular room, considered the most public space in the school, to the lowest level establishing a relationship between all the parts of the project.

The architecture of Miralles is made to emphasize the actions of the man; to enjoy the light, the space, the views, and to attract the physical sense of the movement. The detail scale is a smaller representation of the general conception of the building that reminds to the specific place. Some details of the school remind rocks in the castle, with its cracks, the balconies allow looking the movement of people above, as in the city, etc. The relation with the history of place is an assimilation of abstract and vernacular. On the other hand, Helio Piñón saw that the logic of the city was given by two directions, one that follows the contour lines and another that follows the slope. Thus solved the program with horizontal corridors and vertical stairs. H. Piñón explains in an interview about this project:

"When communicating these planes in a transverse direction with stairs, spaced regularly, we arrive at the same solution that the first neighbors of Morella adopted when they decided to settle in the southeast slope of the hill that they had decided to crown with the castle"

The references between Miralles' architecture and the configured form of the city are not obvious. The relationship between the square of the Church Santa Maria and the triangular polyvalent hall of the school, between the staircase San Juan and the ramp that divides and organizes

the School, etc. The new design establishes relationships with the physical memory and social memory of people, between what they already know and what is new. In the secondary school this relation is not physical or social. It is a result of the logical organization of the historic streets. These streets were designed following the contour lines of the topography and were communicated by vertical staircases that came across them. In the case of Piñón's design, the main conscious relationship is with the history of the profession, with the International Style, and this school is possibly one of the last works that represents it with great fidelity.

According to P. Ricoeur, each architect is determined in his relationship with an established tradition. Insofar as the context keeps within him the trace of all the life histories of the citizens of before, the new design will project the new ways of inhabit that will be integrated into the mess of already outdated life histories.

Conclusion

Space syntax adds to traditional urban morphology methodology and proves to be extremely useful to study the programming and evaluation stages of urban design. A prerequisite shown in this paper claims the need for an accurate choice of historic maps and ethnographic reports, data previously gathered at a qualitative, interdisciplinary level.

In the study about the missing gate Alòs in the old fortification walls of Morella, we have detected a negative impact. But, the traces of the gate Alòs have not been erased, they have become inaccessible. Urban form is studied with this methodology in order to locate unconscious conflicts and demonstrate that the urban form has memory. Recovering the memory that has been forgotten is a tool to understand, discuss and make controversy. Only from research, we can configure a critical point of view. At the end, those who will decide the history will be the inhabitants of Morella.

The purpose of this communication is not a police research, we do not have to look for guilty for what it was done wrong, we want to look back to understand the present. The "duty of memory" in the case of historical heritage is often not a citizens claim, but the architect has the opportunity to remake history with the project.

One of the lessons of Freud's Psychoanalysis is that we forget less than we think and this idea can be used in urban form studies; we can find a traumatic experience of childhood with the help of specific processes, what is called "talking cure". Nowadays medicine proves how we can recover the mobility of an arm from the recovery of the feelings of moving it, which are in the past, but can be brought to the present and change the future. Happy memory is a balance between remember too much and forget too much.

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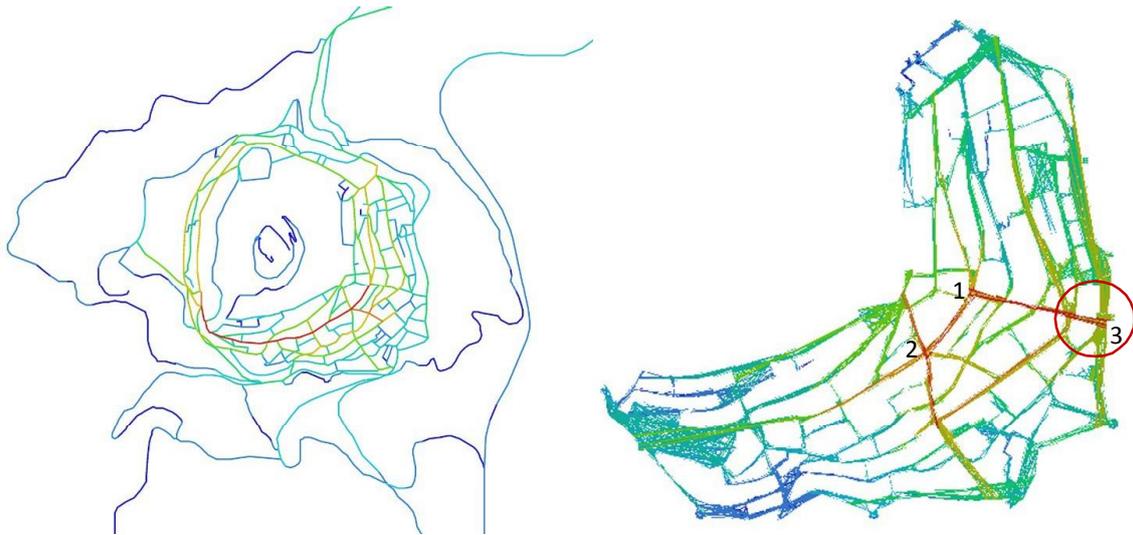


Fig. 1a. Map of the road structure of Morella with the syntax depthmap model, analyzing the connection in and around the city. FIGURE 1b. Map of visual integration in public space outdoors inside the old fortification walls in Morella



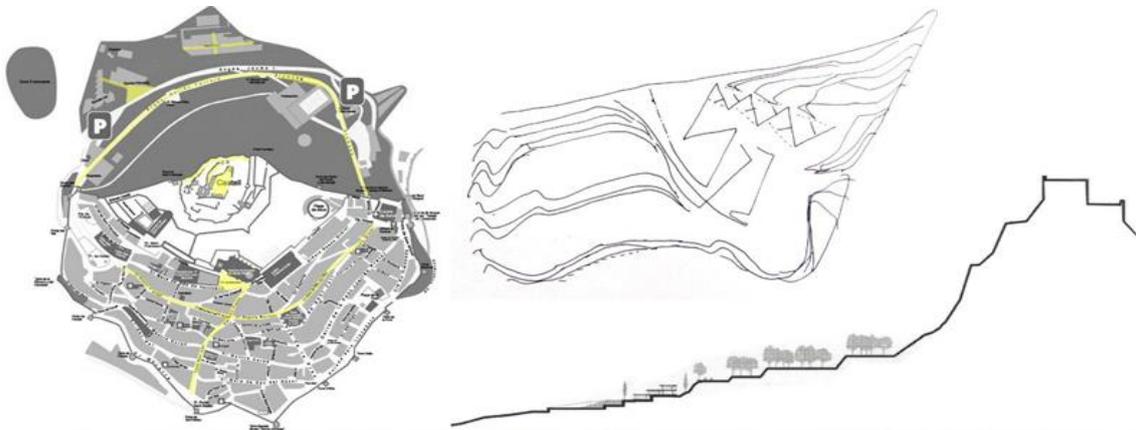
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Fig. 2a The lost road. Morella 1730.

Fig. 2b The lost gate. Engraving from Morella by Tomas de Rocafort, 19th century beginnings.



Fig. 3 The remains of the missing gate; View of the street that goes from the City Hall to the Tower Alòs, currently hidden by the street that is five meters above; View of what was the Aljibe Square;



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Fig. 4 We can see in the figure two drawings of the architects, the first from Enric Miralles and the second one from Helio Piñón, in relationship with the castle of Morella. The first picture is a photo of the rocks of the castle of Morella, the second picture a corridor in the Primary School, the third picture the main street of Morella, and the last picture is a corridor of the Secondary School.

Conference topic

E.1) Urban Space

Architetture fondate, architetture montate. Per un disegno dello spazio urbano

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Keywords: Spazio pubblico, arredo urbano, elementi fondati, elementi montati

Abstract

586 *Despite the presence of so many outstanding works of architecture, the design of public space in Rome is almost always indefinite and of a low quality. The obelisks, fountains and monuments marking its piazzas and streets rarely correspond with urban furniture of any particular quality or capability to definitively shape the space of the city. Cobblestone pavers do not provide public space with that extra quality which makes it sensitive to use and at the scale of the city's inhabitants. The competition announced some years ago by the City of Rome-Ufficio Roma Capitale for the renewal of the path through the historic centre linking the Trevi Fountain with the Pantheon offered one of the first occasions for rethinking the design of public space in the city. The competition was followed by only a few projects and of scarce importance, lacking any capacity to definitively redeem urban space or provide this path with any particular relevance, unlike examples offered by other European cities during the same period. Beginning with the project submitted by the author to the aforementioned competition, the proposed text will investigate a methodology for redesigning urban space based on two concepts, corresponding with two categories of urban furniture: rooted elements, the stable elements that model the surface of the city and the support to assembled elements, the mobile and adjustable structures more directly compromised by the functional values of elements of urban furniture. It is my belief that the organisation of these two typologies of elements may provide the city with a greater definition of its public environments and redeem the anonymity to which so many of its most representative spaces have been consigned.*

Introduzione: piano stradale e immagine della città

L'immagine della città non è data solo dalla sua struttura edilizia o dalla morfologia urbana. Non sono solo la disposizione e la conformazione delle quinte verticali dei suoi edifici a definire l'aspetto fisico e l'identità di una città. Il piano orizzontale della pavimentazione costituisce un elemento fondamentale nella definizione della qualità di uno spazio urbano.

Lo sguardo umano, per fisiologia rivolto prevalentemente verso il basso, trova nel piano di calpestio la prima referenza visiva per la percezione dello spazio in cui muoversi e su cui organizzare le proprie attività. Un suolo neutro, di un materiale uniforme e non caratterizzato non può dirsi una pavimentazione urbana, in quanto è privo di misura e domanda alle sole quinte edilizie perimetrali il compito di definire la scala dello spazio. Viceversa, un piano segnato da linee direttrici, marcato da differenze di quota, occupato da elementi di arredo trasmette modalità organizzative che, oltre a conferirgli una misura rispetto all'invaso spaziale che lo accoglie, invita alla sua fruibilità.

Il piano orizzontale della pavimentazione urbana risolve la discontinuità tra quote differenti, separa ambiti spaziali diversi, dà risalto a singoli episodi edilizi, organizza gli accessi agli edifici, media il rapporto con gli elementi vegetali, si presta a organizzare le attività, anche minute, che si svolgono nei differenti settori urbani e nei diversi momenti della giornata. Costituisce, dunque, il primo supporto per la vita urbana.

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Temi e disegno dello spazio urbano

Una nuova attenzione al disegno degli spazi urbani aperti come luoghi di identità e di fruibilità sociale, è stata prestata, a partire dagli anni Ottanta, da Vittorio Gregotti sulle pagine di Casabella¹. I temi del progetto del suolo, del disegno e dell'embellissement dello spazio pubblico, del trattamento del verde e, più in generale, dell'assegnazione di significato al vuoto non edificato tra gli edifici hanno segnato una reazione alla visione moderna, contrapponendo la continuità della città storica alla dispersione e all'ampiezza indefinita del vuoto residuale tra i volumi edilizi².

Il recupero dei caratteri specifici degli ambienti della vita collettiva, intrinseci dei segni della storia dei suoi abitanti, è stato contrapposto al termine astratto di vuoto urbano, senza aggettivazioni, rispondente a un'idea di appropriazione dello spazio naturale come contraltare dell'artificializzazione prodotta dall'organizzazione urbana in unità abitative di matrice

¹ Cfr.: Vittorio Gregotti, "Gli spazi aperti urbani: fenomenologia di un problema progettuale", Casabella, n. 597/598, gennaio-febbraio 1993, pp. 2-9.

² "Mentre nella città storica la relazione fisica tra pieni e vuoti veniva definita in termini di proporzioni e qualità percettive, nella "città aperta" del Moderno questa relazione tende ad impoverirsi con l'avvento di una concezione meramente positivista dello spazio urbano, concepito come intervallo e distanziamento tra gli oggetti edilizi. Lo "spazio aperto" della città moderna non è quindi stato pensato, codificato, teorizzato come "cosa" concreta - e quindi in termini architettonici come spazio da disegnare e costruire con finalità estetica: è stato definito astrattamente, ma solo in negativo, come il vuoto risultante dalla disposizione sul terreno dei pieni dell'architettura." (Pierre-Alain Croset, "Il moderno e la codificazione degli spazi aperti", Casabella, n. 597/598, gen/feb 1993, p.11)

lecorbusieriana. Si è visto chiaramente come quella natura incontaminata evocata dalla modernità non può sussistere all'interno dello spazio urbano e, di fatto, le aree libere senza disegno né aggettivazioni della città moderna e contemporanea sono ridotte a spazi di risulta, vuoti residuali, terrain vague.

Il progetto degli spazi aperti evocato da Gregotti si estendeva a interessare i nuovi territori urbanizzati. Le vaste aree periferiche, infatti, non contemplano i rapporti spaziali tra pieni e vuoti della città consolidata e, purtuttavia, costituiscono oggi i catalizzatori di nuove forme di urbanità. Non più intese come spazi tra le cose (si potrebbe dire spazi tra le case), queste aree della dispersione accolgono, giornalmente o periodicamente, grandi masse di persone provenienti dal centro urbano e dagli ambiti territoriali circostanti, attratti da attività specifiche, indipendenti dalle funzioni dell'abitare. I centri commerciali, gli impianti per manifestazioni sportive, per eventi fieristici e concertistici, i parchi e le aree attrezzate per il gioco e il divertimento, le smisurate distese lastricate per il parcheggio delle autovetture, le grandi strutture produttive o industriali dismesse e sottoposte a processi di rifunzionalizzazione sono spazi senza qualità che reclamavano una nuova consistenza di connotati urbani. Allo stesso modo, le nuove periferie erano -e sono- in attesa della definizione di nuovi caratteri urbani con cui connotare gli spazi della socializzazione, per riscattarli dalla condizione residuale di aree di scarto urbano, abbandonate dal controllo progettuale e assoggettate a fenomeni di degrado.

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Nel ventennio susseguente le analisi gregottiane, molte delle dinamiche enunciate si sono evolute, trovando risposte non sempre pienamente convincenti, ma comunque tali da identificare soluzioni concrete al grande tema degli spazi della nuova socialità urbana. I complessi commerciali e direzionali si sono conformati come grandi contenitori urbani, includendo un'idea di città che, per quanto limitata ad attività monofunzionali, contempla spazi per l'incontro e la socialità. In maniera analoga, le aree dismesse dei grandi impianti industriali o di settori portuali e ferroviari riconquistati alla fruibilità pubblica sono stati convertiti in spazi per la collettività, con definiti caratteri urbani. All'interno dello stesso comparto urbano consolidato, d'altronde, i complessi museali, i centri culturali, gli edifici polifunzionali, i nuovi spazi commerciali, nonché altre strutture come le hall di hotel o le coperture di edifici di rilevanza pubblica sono stati ripensati come luoghi urbani e ridisegnati come spazi pubblici, o ad uso pubblico, fruibili per periodi di tempo definiti. Luoghi controllati, dunque, recintati, specializzati, soggetti a orari di apertura e chiusura, e sottoposti a sistemi di controllo e sicurezza.

Temi e disegno dell'arredo urbano

Nella città storica, gli elementi che occupano lo spazio urbano hanno sempre rivestito un ruolo fondamentale nella definizione dei suoi caratteri. Monumenti celebrativi, obelischi, fontane, scalinate, cancellate, lampioni, edicole costituiscono i cardini visivi di un'organizzazione spaziale che condensa caratteri simbolici e aspetti funzionali. In età barocca, in parti-

colare, si è visto come l'affermazione del valore spaziale di alcuni cardini del tessuto urbano, l'accentuazione di assi prospettici o la rilevanza assegnata ad alcuni crocevia, per identificare luoghi singolari legati a particolari avvenimenti storici, sia stata assolta da accorgimenti spaziali che si possono includere nella categoria dell'arredo urbano. Le edicole, le scalinate, le quinte prospettiche, le concavità e convessità applicate su settori di facciata degli edifici e altri artifici simili denotano una chiara volontà di segnare il tessuto urbano con dei riferimenti spaziali di scala diversa da quella propriamente architettonica e di mediazione con la scala umana. Nella città moderna, solcata dal flusso ininterrotto delle autovetture, dalla congestione del traffico, dall'invasione dei parcheggi, nonché dalla disseminazione incontrollata delle insegne pubblicitarie conseguenti l'esplosione del consumo di massa, l'attenzione rivolta alla scala del cittadino, con le esigenze basilari della socializzazione e dell'identificazione con i propri spazi di vita, si è ridotta ai minimi termini. Il rifiuto moderno del concetto di rue corridor -abiurato da Le Corbusier come causa del degrado delle condizioni di vita e salubrità della città storica-, nell'annullare la scala umana a vantaggio dell'invadenza del traffico veicolare e dell'espansione delle attività commerciali, ha ridotto il piano della pavimentazione urbana a una colata d'asfalto indifferenziata: un suolo neutro per evitare intralci alla circolazione su ruota e per non distrarre l'attenzione dalle attività commerciali installate lungo il suo tracciato. In questo modo si sono ridotti i margini dell'integrazione tra spazio urbano e attività sociali; si sono cancellate le sovrapposizioni storiche prodotte dalle occupazioni temporanee dei resti antichi da parte delle strutture moderne, in quell'imprevedibile gioco di contrasti di materiali, forme e colori che, fino a poco tempo fa, caratterizzavano città come Roma, laddove antico e moderno convivono da secoli, in un rapporto complesso di rimandi mutui.

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L'arredo urbano, visto come ostacolo o elemento d'intralcio alla libera circolazione dei mezzi, per una circolazione urbana che ricusa soluzioni di continuità del piano di pavimentazione, ha assunto un ruolo meramente strumentale, relegando il suo disegno alla produzione industriale, uniformata a caratteri di mera funzionalità. In questo modo, si sono persi i caratteri e i rapporti spaziali che un tempo vincolavano gli oggetti d'uso dell'arredo urbano alla città e ai cittadini. La velocità delle comunicazioni e l'ampiezza degli spostamenti hanno prodotto caratteri di dispersione e dilatazione che hanno interferito inevitabilmente anche sui rapporti sociali, con la conseguente perdita di un controllo formale e funzionale dello spazio pubblico. In considerazione di ciò, in anni recenti, in tutte le città sono stati avviati programmi di riqualificazione dei principali spazi urbani, per riaffermare una loro fruibilità collettiva. Le modalità attuative si sono basate, prioritariamente, sulla pedonalizzazione degli ambiti interessati, assegnando al piano di pavimentazione un ruolo di rilevanza primaria nel ridisegno dei diversi invasi spaziali. In questa ottica, l'arredo urbano acquisisce nuove formulazioni, rispondenti alle necessità fruibili di una città che torna a considerare il cittadino quale principale soggetto e fruitore dei propri spazi.

Roma: progetti e realizzazioni degli spazi e dell'arredo urbano

A partire dagli anni Settanta, il fermento culturale che ha investito la città di Roma ha interessato anche i suoi spazi e i nuovi usi cui questi si potevano destinare. La manifestazione dell'Estate Romana³, promossa dall'assessorato alla Cultura diretto da Renato Nicolini, ha segnato il primo momento di ripensamento del valore sociale dello spazio urbano. In una città fortemente ancorata alla tradizione, con un'atavica e tenace resistenza al cambiamento, le nuove forme aggregative e culturali avviate dalla manifestazione hanno risvegliato nei cittadini, senza distinzioni di classe, un senso di appartenenza che ha permesso la loro riappropriazione della città⁴.

Il carattere effimero dei progetti realizzati per dare luogo agli eventi, con le polemiche suscitate in rapporto all'uso dello spazio urbano, ha comunque avviato una riflessione sulla necessità di predisporre interventi strutturali, che travalichino la transitorietà della singola manifestazione, per produrre un miglioramento stabile e definitivo dell'ambiente cittadino. La riappropriazione temporanea di alcuni luoghi-simbolo della Roma antica e di altre aree trascurate da un'organizzazione pianificata, ha contribuito a segnare il loro destino e, seppure senza lasciare tracce fisiche tangibili, le ha dotate di una memoria che non è da escludere possa permanere nel tempo con maggiore stabilità di quanto non sarebbe stato con realizzazioni di carattere duraturo.

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E' stato rilevato come il fenomeno dell'Estate Romana abbia incarnato una condizione della postmodernità, costituendo una prova in controtendenza rispetto al mercato commerciale, attraverso la ricerca di nuove formule di fruizione della cultura e degli spazi di aggregazione sociale, per una cittadinanza ampia e senza distinzioni sociali. Essa ha interpretato, di fatto, l'emergere di una nascente esigenza, volta a recuperare il piacere dell'aggregazione di massa e di socialità, per una fruizione culturale partecipata, attraverso spettacoli non sottoposti ai dettami del consumo commerciale, e per la messa in scena di nuovi parametri di gusto e di critica⁵. In tutto ciò, il disegno dello spazio urbano, seppure di natura effimera, ha costituito un supporto fondamentale e un precedente per riscoprirne caratteri e potenzialità di luoghi promossi quali nuovi centri di vita e di socializzazione democratica.

Negli anni 1981-85, sotto l'assessorato di Carlo Aymonino al Centro Storico,

3 Cfr. Nicolini, Renato, Purini, Franco, L'effimero teatrale, Roma, 1981; Nicolini, Renato, Estate romana, Siena, 1991.

4 È stato detto, al proposito, che le manifestazioni dell'Estate Romana hanno conferito al pubblico, o meglio ai diversi pubblici coinvolti, il compito di divenire gli interpreti di una nuova modalità di utilizzo della cultura e dello spazio urbano che si sviluppa in diversi percorsi di fruizione e divertimento.

5 L'Estate Romana ha capovolto l'accezione negativa connotata al concetto di consumo: l'attenzione si sposta dalla fatica della produzione al piacere di consumare. Il consumo culturale, tradizionalmente considerato superfluo dai custodi della cultura alta, viene difeso dai teorici dell'effimero in virtù della sua gratuità che si oppone alle logiche economiche che sottostanno al capitalismo e del suo edonismo che si differenzia dall'omologazione culturale del socialismo reale.

a Roma sono stati avviati studi e progetti sulla città che hanno segnato un momento di svolta nel modo di concepire e vivere il centro storico, adottando modalità più “strutturate” di quanto fatto dalle iniziative promosse con l'Estate Romana. La piazza, per Aymonino luogo urbano per eccellenza, spazio di raccordo tra architettura e città ed elemento-cardine di ogni progetto di architettura, è diventato uno dei temi centrali per ripensare la qualità dello spazio urbano. Di fatto, secondo Aymonino, ogni intervento progettuale instaura una relazione con ciò che si conserva della città storica proprio attraverso gli spazi aperti e, tra questi, la piazza assume un valore simbolico di primissimo piano⁶. In analogia con la piazza michelangiolesca del Campidoglio, molti architetti -tra cui lo stesso Aymonino- si sono confrontati con questa impostazione urbana, elaborando proposte di qualità basate, tuttavia, sulla finitezza di risposte esaustive e definitive, che non ammettono deroghe a un disegno già compiuto in tutti i suoi elementi, compreso l'arredo urbano.

Specificatamente centrato sul tema dell'arredo urbano, a metà degli anni Ottanta, sempre sotto l'assessorato di Aymonino, l'iniziativa promossa per la riqualificazione di via Veneto ha richiamato l'attenzione di architetti “di grido” per la realizzazione di chioschi e di altri elementi di arredo da collocare lungo il tracciato viario, in relazione con le attività commerciali e di ristorazione dislocate sui marciapiedi della strada⁷. Il carattere dell'iniziativa ha assunto, un carattere di eccezione, per il significato e la memoria che la strada ha acquisito nell'immaginario collettivo quale simbolo della dolce vita romana degli anni Sessanta. Di fatto, il campionario di soluzioni elaborate ha proposto, per la prima volta in modo chiaro e diretto, il tema del ridisegno degli elementi d'arredo dello spazio aperto della città, aprendo il campo all'interrogativo sul rapporto da definire tra i caratteri fisici, simbolici e funzionali dei singoli luoghi urbani e la ripetitività standardizzata della produzione industriale degli elementi di arredo.

Nello specifico del concorso per via Veneto, si è potuto verificare come, scartata l'ipotesi di intervenire mediante una normativa generale, che non avrebbe consentito il controllo qualitativo degli interventi, sia stato impostato un piano di riqualificazione dell'immagine della strada basato sui progetti dei singoli elementi d'arredo. Ciò ha prodotto soluzioni fortemente connotate, all'altezza del valore simbolico che la strada esprime, ma con i limiti di una eccessiva “personalizzazione” dei singoli progetti, ognuno dei quali ha acquisito la rilevanza espressiva di un “pezzo d'arte”, collocato in una sorta di promenade architectural, più che di un elemento d'uso pubblico a disposizione della collettività. In questa diafrasi si esprime la condizione contraddittoria implicita nei progetti di arredo urbano, laddove convivono, in maniera non sempre risolta, l'affermazione espressiva del “segno autoriale” e la condizione seriale e funzionale del prodotto industriale, come anche un rapporto instabile tra compiutezza

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6 Cfr. Carlo Aymonino, *Piazze d'Italia. Progettare gli spazi aperti*, Milano, 1988.

7 Cfr. Sandro Giulianelli, Antonio Simbolotti, “Il progetto di riqualificazione dell'immagine di Via Veneto”, *AU-Rivista dell'Arredo Urbano*, n. 15/16, lug/dic. 1985, pp. 64-121.

dell'immagine del singolo elemento e sua adattabilità all'uso cui è destinato.

Il concorso Centopiazze, bandito alla fine degli anni Novanta all'interno della "nuova stagione concorsuale" promossa dall'amministrazione comunale di Roma -inaugurata con il concorso per l'Auditorium al Villaggio Olimpico, cui ha fatto seguito quello del Borghetto Flaminio lungo la via Flaminia-, ha proposto una sperimentazione progettuale applicata in settori urbani periferici, da ridefinire come nuovi fulcri urbani, sulla linea di quanto realizzato con successo in altre metropoli europee negli stessi anni⁸. L'iniziativa non è stata impostata, tuttavia, sulla base di un programma unitario, per cui le singole proposte si sono configurate come soluzioni parziali di condizioni locali fortemente differenziate, sia dal punto di vista spaziale, che amministrativo e gestionale. Tutto ciò ha favorito una sperimentazione allargata sulle modalità di attuazione negli spazi urbani, favorendo il manifestarsi di una eterogeneità di progetti che, tuttavia, non hanno identificato le linee di un'ipotesi riconoscibile sui caratteri del nuovo spazio pubblico, come avvenuto qualche anno prima, in particolare, nella città di Barcellona⁹.

592 Ciò che, invece, ha fornito risposte più convincenti sul tema sono state le realizzazioni di alcuni edifici singolari, di grande impatto urbano, che includevano il disegno di spazi aperti d'uso pubblico. E' il caso dell'Auditorium-Parco della Musica di Renzo Piano, con la piazza centrale a esedra quale fulcro spaziale dell'intero complesso edilizio e di un più ampio settore urbano, e del Maxxi di Zaha Hadid, con il giardino artificiale d'ingresso, segnato dalle direttrici curvilinee che conformano lo stesso edificio e che, da segni di pavimentazione, acquistano spessore per farsi elementi di arredo e di conformazione dello spazio aperto. I due complessi edilizi, in modi tra loro differenti, hanno fornito una lettura dei nuovi caratteri dello spazio aperto a uso collettivo, richiamandosi alla conformazione chiusa delle piazze centrali medievali, o proponendo una composizione compromessa con il carattere aperto e dinamico della realtà contemporanea. In entrambi i casi, l'organizzazione degli elementi di arredo dello spazio aperto ha prodotto luoghi dotati di caratteri di stabilità conformativa, eppure flessibili nell'uso e articolabili per raccogliere e organizzare le attività da offrire agli abitanti.

Per un nuovo concetto di arredo urbano: elementi fondati ed elementi montati

La conformazione degli elementi di arredo urbano si confronta con una questione duplice: da un lato, devono istituire un dialogo -in analogia o

8 Cfr.: Antonio Pizza, "La progettazione degli spazi pubblici in Catalogna. Identità, criteri, soluzioni", AU-Rivista dell'Arredo Urbano, n. 20, ott./dic. 1986, pp. 42-57. Ignasi de Solà Morales, "Questioni di stile. L'architettura degli spazi pubblici a Barcellona", AU-Rivista dell'Arredo Urbano, n. 20, ott./dic. 1986, pp. 68-75. Jauma Sanmartí, "Quattro città spagnole. Progetti urbani a Madrid, Barcellona, Valencia, Siviglia", AU-Rivista dell'Arredo Urbano, n. 20, ott./dic. 1986, pp. 86-101.

9 Ignasi de Solà Morales, "Questioni di stile. L'architettura degli spazi pubblici a Barcellona", AU-Rivista dell'Arredo Urbano, n. 20, ott./dic. 1986, pp. 68-75.

per contrasto- con l'ambito urbano in cui si inseriscono, affinché possano considerarsi parti effettive del suo contesto spaziale; dall'altro, devono rispondere a una propria, insita condizione "oggettuale", che li vede come elementi autonomi, ripetibili e indifferenti allo spazio in cui si collocano, per soddisfare le esigenze d'uso da cui traggono la loro ragione d'essere. Radicamento e astrazione sono, dunque, i caratteri cui deve rispondere questa categoria di elementi. Analogamente, devono essere dotati di caratteri fisici che ne accentuino la visibilità e il grado comunicativo, per facilitarne l'uso, eppure che ne trattengano l'accentuazione espressiva, per evitare l'eccessivo protagonismo all'interno dello spazio urbano.

In definitiva, si vuole formulare la tesi secondo cui il piano della pavimentazione urbana e gli elementi di arredo che su di esso insistono appartengono a una categoria progettuale che riguarda una scala complementare a quella propria dell'architettura, per stabilire con essa rapporti di integrazione spaziale. Il piano di pavimentazione deve essere modellato per assolvere le funzioni di raccordo altimetrico del suolo urbano e deve essere disegnato per organizzare la disposizione planimetrica degli elementi complementari nello spazio; questi ultimi popolano il piano di pavimentazione per conferirgli misura, utilità e vita. Gli elementi di arredo urbano sono, dunque, sistemi spaziali di mediazione tra la scala degli edifici e la scala umana, ovvero utensili che consentono lo svolgimento delle attività sociali nello spazio pubblico della città, assolvendo specifiche funzioni e prestandosi a essere di supporto ad altre attività temporanee o estemporanee. Con ciò si vuole affermare una differenza fondamentale tra gli elementi che conformano lo spazio urbano, suddividendoli nelle due categorie opposte e complementari degli elementi fondati e degli elementi montati.

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Una premessa insita in questa prospettiva prevede un nuovo rapporto con la produzione industriale, che fornisce elementi di arredo standardizzati e uguali in ogni contesto. La strategia qui indicata intende differenziare gli elementi che possono essere prodotti industrialmente e collocati tali e quali nello spazio urbano, da quelli maggiormente vincolati alle connotazioni singolari dei diversi contesti e ai diversi usi. I primi saranno definiti elementi "montati", i secondi elementi "fondati".

Per elementi "fondati" s'intendono gli apparati fisici che appartengono al plateatico stradale ovvero gli elementi solidali e in continuità fisica con il piano di pavimentazione, come marciapiedi, cordoli, muretti e tutti gli elementi vincolati stabilmente al piano di calpestio, quali supporti fissi delle attività urbane. Essi individuano aree uniformi, separano settori differenti specializzandone l'uso, stabiliscono discontinuità spaziali evidenziando passaggi e occlusioni, qualificano i diversi ambienti mediante elementi singolari, costituiscono, soprattutto, il supporto fisico per l'installazione e l'organizzazione degli elementi montati. Gli elementi "montati" sono composti dalla grande varietà di oggetti, più o meno mobili e più o meno liberi, disposti nello spazio urbano per assolvere specifiche destinazioni d'uso. Essi hanno un carattere temporaneo che prevede il loro spostamento nello spazio, la possibilità di una sostituzione nel tempo, nonché la rimozione

definitiva al termine del loro ciclo di vita. Questi elementi sono conformati in accordo con i criteri ergonomici, dovendosi rapportare in maniera diretta e "fisica" con il fruitore. Prevedono, inoltre, la possibilità di articolarsi nello spazio, per rispondere a tempi di utilizzazione differenziati, riducendo la propria occupazione di suolo nei periodi di mancato uso, o aprendosi e articolandosi nello spazio urbano per favorire la loro utilizzazione.

Per un nuovo concetto di arredo urbano: progetti per Roma e Toledo

Un'applicazione progettuale del concetto di arredo urbano derivato da questa duplice connotazione dei suoi elementi costitutivi è stata sperimentata in occasione del concorso bandito dal Comune di Roma, nei primi anni Novanta, per la Riqualificazione spaziale di due percorsi del centro storico¹⁰. Il progetto ha preso in esame il percorso storico e turistico che da piazza Fontana di Trevi conduce alla piazza del Pantheon, predisponendo una soluzione che prevede un sistema di pavimentazione continuo che salda le differenze di quota tra i diversi settori urbani ed è segnato da cordoli attrezzati che accentuano le connotazioni dei singoli spazi attraversati dal percorso, conferendo a questo caratteri di continuità.

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Contro l'indifferenza conformativa del suolo stradale, funzionale al traffico automobilistico, il progetto rivendica l'esaltazione delle discontinuità, degli episodi singolari, dei salti di quota, che riferiscono delle diverse e spesso contraddittorie fasi di crescita della città. Il progetto del suolo, o di architettura fondata, consiste nella ristrutturazione del plateatico stradale, mediante un'operazione di nuova pavimentazione e di articolazione delle differenti quote, con piani basamentali, elementi di raccordo e cordoli attrezzati, che inglobano in un disegno unitario le componenti minori di arredo -panchine, cestini porta-rifiuti, elementi di illuminazione, fioriere-, e ristabiliscono un rapporto spaziale con le stesse quote archeologiche. Il progetto di architettura montata consiste nel ridisegno delle strutture di arredo di maggiore dimensione ed impatto visivo -padiglioni di vendita, box delle informazioni turistiche, pensiline di sosta-, localizzate in punti singolari, quali elementi di connessione spaziale tra le diverse parti della città, di cui disvelano e commentano gli episodi di discontinuità, come nuovi segnali urbani dotati di un'immediata riconoscibilità.

Il concetto di arredo urbano su cui si fonda il progetto vede nelle strutture a padiglione -ma anche nelle altre componenti minori di arredo- gli elementi-cardine di una nuova configurazione dello spazio pubblico, non più costituito da oggetti chiusi e indifferenziati, disseminati in maniera più o meno casuale nelle piazze e lungo i tracciati viari, ma da elementi flessibili, aperti, trasparenti e percorribili, strettamente integrati ai caratteri spaziali e funzionali dei luoghi della vita collettiva. Il sistema di arredo applicato sul percorso storico-turistico del centro storico di Roma garantisce, dunque, la continuità della percorrenza urbana, accentuando la singolarità dei

¹⁰ Concorso per la riqualificazione spaziale di due aree del centro storico di Roma. Comune di Roma-Ufficio Speciale Interventi Centro Storico. 1992. Progettisti: Antonello Monaco, Paola Veronica Dell'Aira.

diversi episodi spaziali attraversati.

Un concetto analogo di organizzazione dello spazio urbano basato sullo stesso sistema di elementi di arredo è stato applicato nel concorso promosso dall'amministrazione comunale di Toledo per il Conjunto Monumental del centro urbano¹¹. Anche in questo caso, il progetto propone, all'interno di un tessuto storico fortemente caratterizzato, l'immagine programmaticamente moderna e astratta di una serie di elementi funzionali, dimensionalmente rilevanti, poggiati su un sistema basamentale articolato, vincolato alle connotazioni spaziali del luogo in cui si inserisce.

Non si propone, pertanto, un riferimento o un "adeguamento" diretto del progetto al contesto urbano, basato su una supposta "compatibilità formale" dei suoi elementi per legittimarne la localizzazione. Proprio all'interno di un ambito spaziale fortemente caratterizzato, si avvalorava la capacità del progetto di arredo di non cedere ad accorgimenti di tipo formale per fondare la propria legittimazione, quanto ad istituire un rapporto di tipo "strutturale" con i diversi ambiti spaziali. La sua inclusione nella struttura urbana di Toledo è determinata, dunque, da un apparato che interagisce con la configurazione del sito, conferendogli nuove funzioni. Il sistema dei padiglioni-chioschi stabilisce un dialogo per contrasto con l'impianto labirintico della città spagnola, rivendicando un'autonomia dalla forma urbana e dalla stessa immagine della città.

L'area principale di applicazione del sistema di arredo è la plaza de Zocodover, luogo d'ingresso e di distribuzione delle principali percorrenze del urbano, che esemplifica la modalità mediante cui la disposizione degli elementi di arredo può conferire nuovi caratteri anche ad ambiti edilizi fortemente conformati. La dislocazione dei chioschi commenta il disordine dovuto alla forma irregolare dello spazio. Questi si raggruppano verso il centro della piazza, seguendo gli allineamenti determinati dalle nuove linee di forza disegnate sulla pavimentazione. Negli ambiti urbani limitrofi, di dimensioni più contenute, il disegno del suolo e la disposizione dei chioschi conferiscono allo spazio nuove configurazioni e ad essi stessi il ruolo di nuove referenze urbane.

In entrambi i casi applicativi relativi alle città di Roma e di Toledo, il progetto di arredo urbano basato sulle due tipologie descritte, trova negli elementi "montati" dei padiglioni di vendita i cardini visivi di una nuova organizzazione dello spazio urbano. Questi apparati, di differenti dimensioni e configurazioni, saranno localizzati in postazioni strategiche del tessuto urbano, per assumere il ruolo di fulcri di nuove relazioni spaziali e funzionali tra i diversi settori della città e di nuovi segnali, capaci di stabilire un'immediata identificazione visiva. L'impianto compositivo del singolo padiglione gli conferisce una unitarietà strutturale che ne permette la realizzazione seriale e l'adattamento a differenti conformazioni spaziali. Le diverse configurazioni possibili delle parti più propriamente funzionali, sottostanti il piano modulare di copertura, rispondono alle relazioni spaziali che ognuno

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11 Concorso di arredo urbano per il Complesso Monumentale di Toledo. Ayuntamiento de Toledo. 1994. Progettisti: Antonello Monaco, Inmaculada Roa Cachero.

di essi instaura con lo spazio in cui è collocato. L'abaco delle soluzioni dimensionali e spaziali predisposto esemplifica le possibili articolazioni delle parti, in rapporto alle utilizzazioni specifiche e alle diverse localizzazioni urbane.

Ancora una volta -come nelle architetture di scala maggiore-, la risoluzione di un tema spaziale è affidato alla dialettica instaurata tra due sistemi di progetto: un sistema basamentale di relazioni con lo spazio urbano che lo accoglie -costituito dagli elementi fondati- e un sistema aereo di oggetti autoreferenziali, assimilabili a templi -costituito dagli elementi montati-. Questi ultimi rimandano alle forme atemporali e assolute che campeggiano nelle città, a segnare in maniera stabile e definitiva la sua storia e a indicare, forse, il suo destino.

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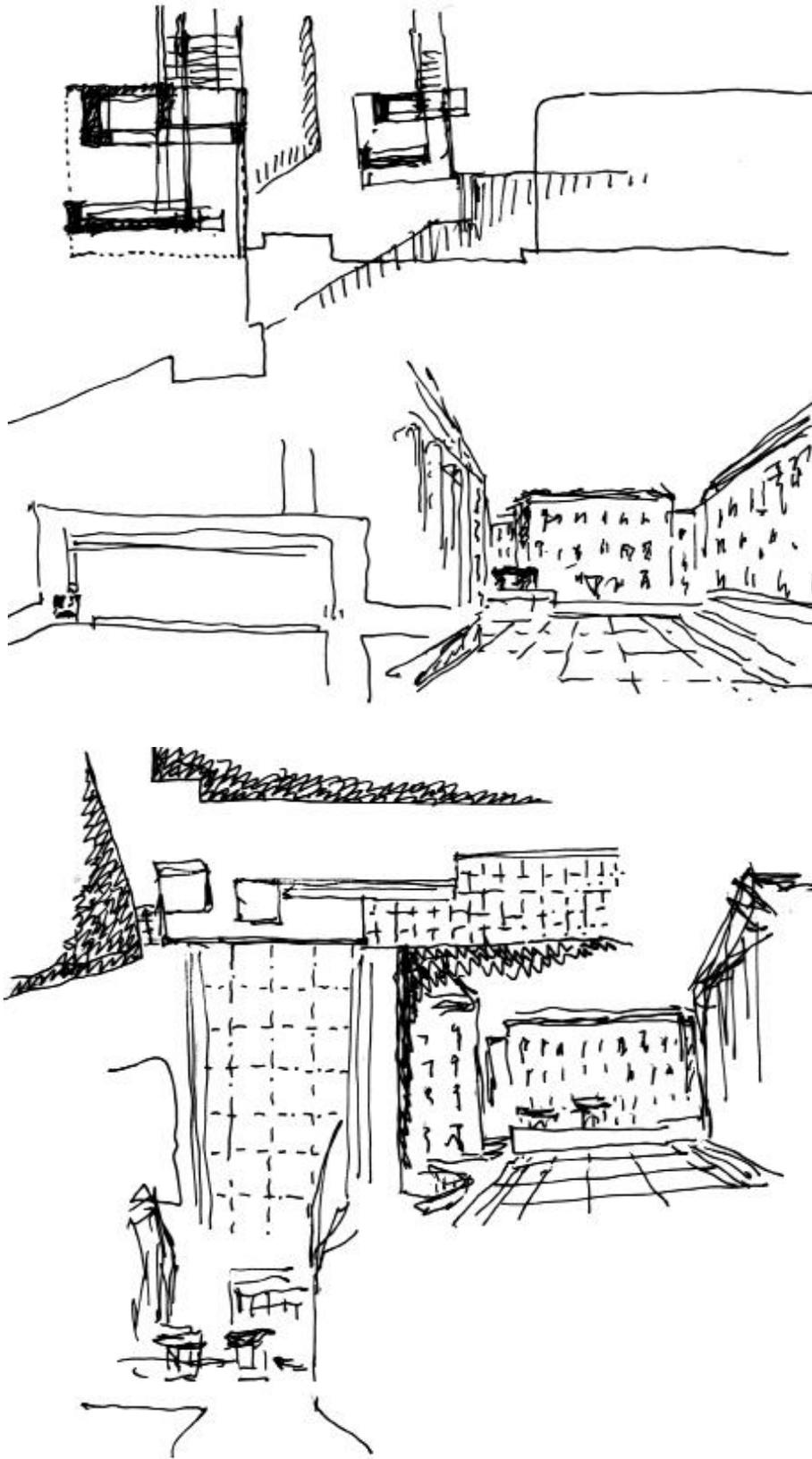


Fig.1 A. Monaco. Roma, bozzetti di studio del padiglione - architettura montata
Fig. 2 A. Monaco. Roma, bozzetti di studio del piano di pavimentazione - architettura fondata

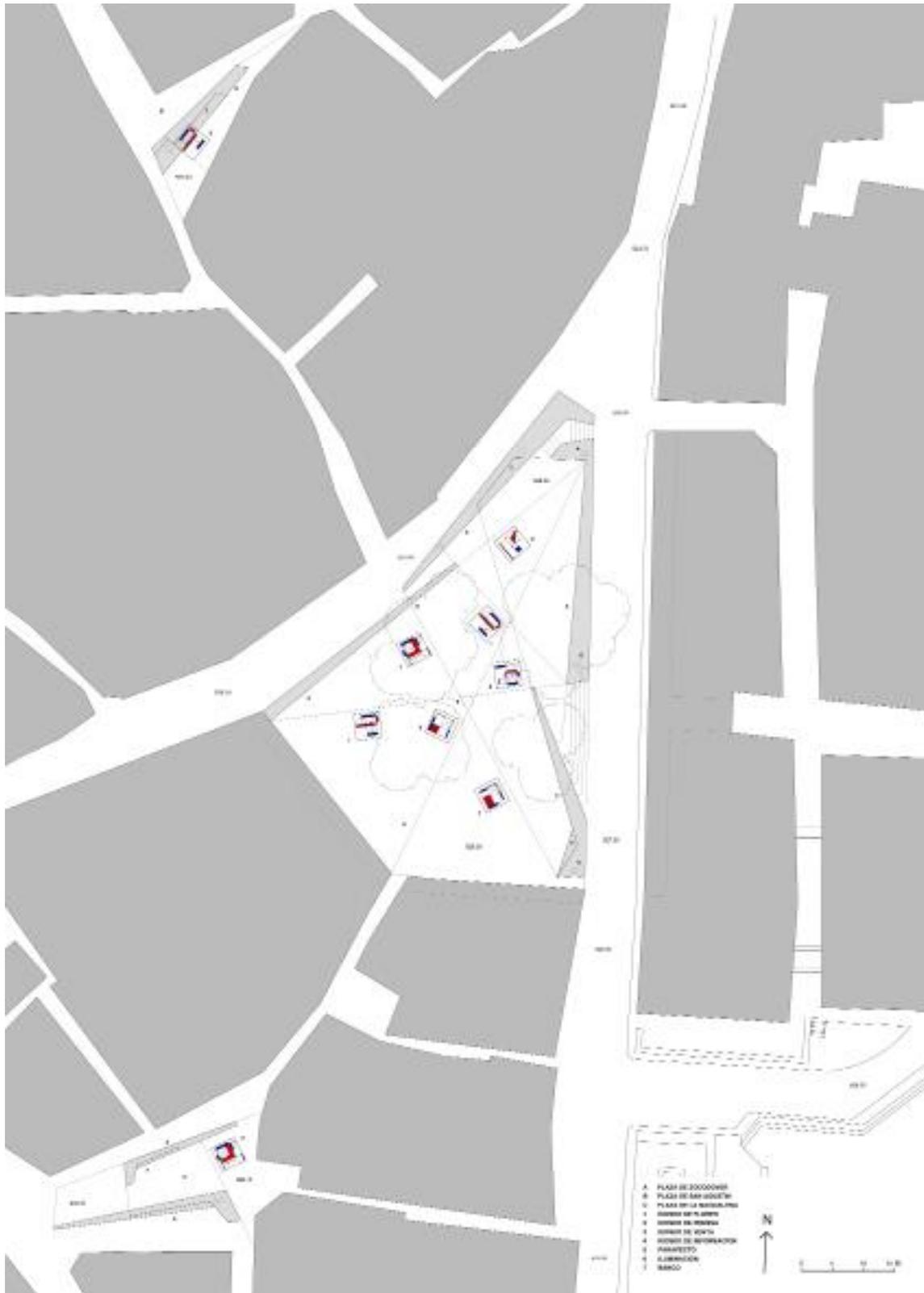


Fig. 3. A. Monaco. Toledo, planimetria della plaza Zocodover

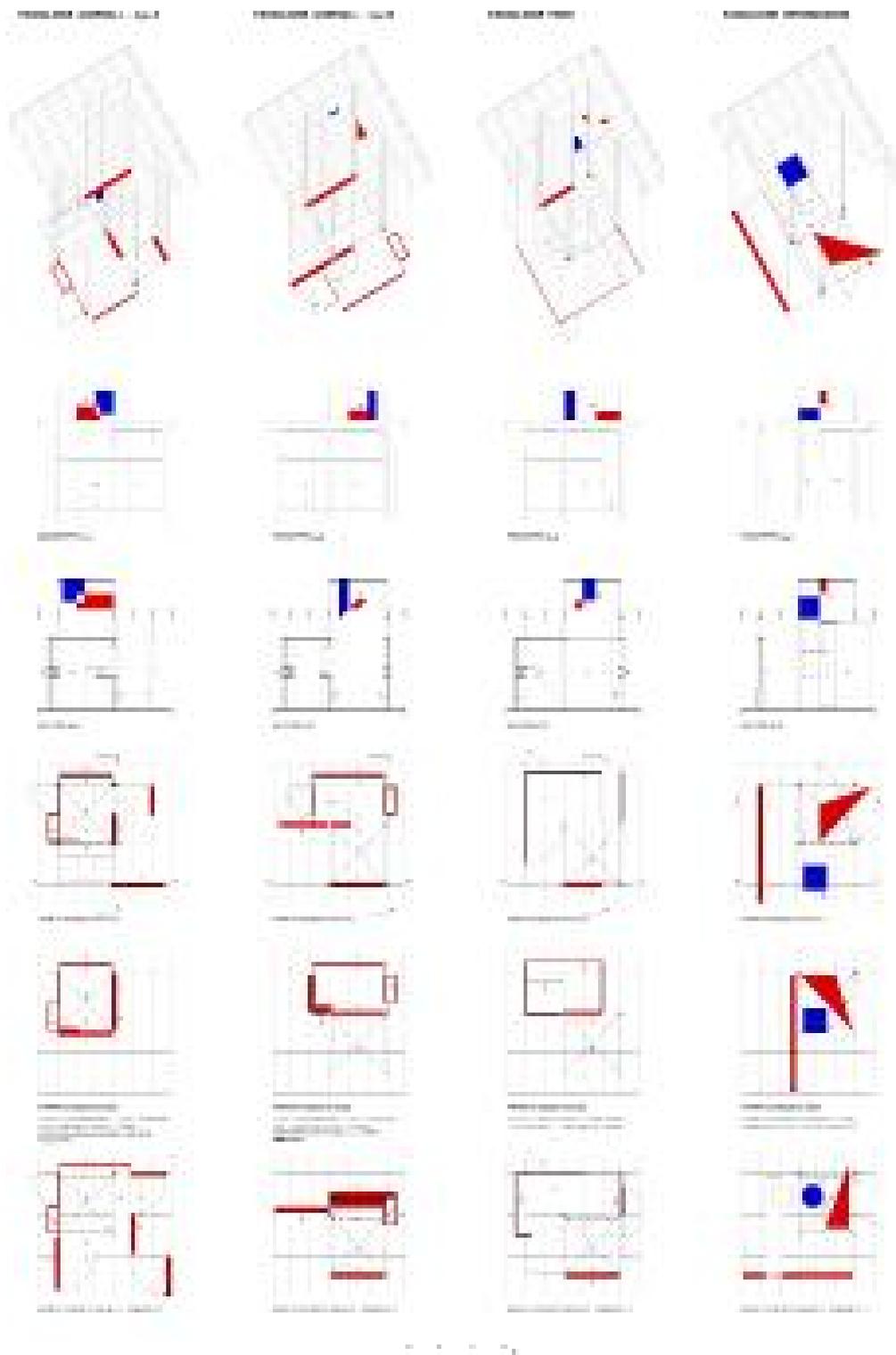


Fig. 4. A. Monaco. Toledo, abaco del padiglione di servizio

Urban Stairs and Architecture

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Keywords: Urban Stairs, Architecture, Urban Composition

Abstract

In this paper a relation between stairs in urban space and architecture that surrounds them is described. Historical examples of great importance from Rome - Spanish Stairs and Capitol Complex is considered here as a model for contemporary design.

600 *These examples are contemporary solutions placed in the structure of the city, which is becoming more complicated and multilayered. Linkage of volumes and open spaces is done in such a way that these, based on buildings structure, arrange key places from the point of view of public relations areas. Public stairs are here multifunctional structures that offer not only a wide range of activity but also created new compositional urban points of a city center areas.*

Rome, similarly to other cities built in diversified topography, created a coherent urban structure, where it became a simple necessity to overcome height differences in the urban space. Slopes and platforms created a base for overcoming heights within the area of this structure, and stairs appear as something absolutely essential.

Compositional conditions and place in the hierarchy of public spaces determine the nature of the solutions adopted – from stairs hidden in the urban tissue, with forms completely adjusted to the existing development, to monumental projects in the scale of the entire city.

Therefore, the story of Learning from Rome in the first part of the paper, will be told here from the position of a flâneur, who during his sentimental strolls around the city rationally perceives the space formed by centuries and sees the beauty of urban compositions of the structures in this unique city.

This perception is directed towards praising the values of the composition, created over centuries, which in the urban scale demonstrates unique diversity, and at the same time accepts masterpieces of architecture in a non-standard way; although, admittedly, the very location of the city on hills and the coherent tissue of its historic city are features typical for many other historic cities.

This paper is a form of a conceptual essay, consisting of three parts.

In the first part (Urban Stairs in Rome – Classification Proposal from the Perspective of Urban Structure) it demonstrates possibilities of investigating parts of the city space from the point of view of urban wholes contained in its structure. It concentrates on selected types of space (urban stairs), and simultaneously it tries to demonstrate relations that are crucial from the perspective of historically formed spatial wholes, and it provides a proposal of classification for the purposes of detailed studies.

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The second part (Urban Stairs and Contemporary Architecture) is a short reflection on some contemporary architectural solutions, proposed in the city scale by structures which go beyond the size of a building only, and become an important urban part of the city.

The third part (Urban Stairs in Architecture – Diploma Work Examples) contains examples of diploma designs prepared at the Faculty of Architecture, Cracow University of Technology, proposing architectural solutions that make use of urban stairs.

Urban Stairs in Rome – Classification Proposal from the Perspective of Urban Structure

The best known stairs in the public space of Rome are, obviously, Spanish Steps and the stairs in the urban complex of the Santa Maria in Ara Coeli church, Campidoglio and Altare della Patria, nevertheless, the stroll discovers tens of other examples of places designed around stairs. Of course, the stroll stands for a reference made of the contemporary space in the form we can observe today.

One should perceive these spaces from several points of view. First of all, it is important to provide a direct description of the space, its form, and type

of its enclosures. Secondly, the appearance of the internal composition should be demonstrated. Thirdly, one should focus on view relations, resulting from the possibility to move around – these are details of composition in the scale of the city (external).

The classifications provided below are based on theories pertaining to urban enclosures and urban composition, formulated by Polish scholars – Kazimierz Wejchert (Wejchert, 1974) and Janusz Bogdanowski (Bogdanowski, Łuczyńska-Bruzda, Novák, 1973). K. Wejchert (Wejchert, 1974, p. 25) defined the urban enclosure as follows, 'All types of limitations create a kind of "enclosure" around an observer stopping in a specific point, irrespectively of the absolute size of the section of the environment perceived.'

The main principle that governs the understanding of an urban enclosure by Prof. J. Bogdanowski relates to the analogy of a room in a building – in such a room we can distinguish a floor, a ceiling, walls with window and doors, as well as detached elements within the enclosure (Bogdanowski, 1981, p. 52).

Certain terms referred to below need to be clarified.

The terms 'positive space' and 'negative space' are used according to the definition of Ch. Alexander (Alexander et al., 1977). In the historic area of Rome, the negative space is quite rare. This term could be adopted to refer to some archaeological areas.

602 The terms of coherent and free composition refer to the definition of a form used by J. Żórawski (Żórawski, 1973). Coherence and freedom of composition pertain to internal properties of a form and determine the strength of internal relations between elements of the form. In the coherent form, any change of its elements causes a change of the entire form (sizes of elements, symmetry, rhythm). In the free form, where relations between elements are loose – changes do not have any significant effect on its change as a whole.

The coherent form is presented here as a designed one – that is resulting from an assumed conscious concept of construction (although often implemented over centuries), or as an organic one, where the accumulation and adding of elements has built an inseparable urban whole.

Shape

In an obvious way the diversity refers to the size and dimensions of the enclosure (floor plans and heights of buildings). Parameters of stairs will be a crucial element – differences in altitude, inclination of the stairs, height of individual steps, landings).

Other important elements of the shape characteristic are the spatial type, the type of flight, side connections, and side walls.

Spatial type

The most fundamental differentiation resides in the relations between stairs and the space of a street, a square, a specific building or a complex of

greenery.

Stairs can be lined with the space of the street, constituting its structural element, linking different levels or combining streets on different levels.

Stairs can also be an element of a spatial system consisting of several levels. Less frequently stairs act as an element that forms the basic structure of a square.

Relations between urban stairs and buildings call for a separate account. Although obviously we do not refer to stairs that constitute an internal structure of buildings, still in some buildings stairs contained in their structure need to be regarded as having an urban dimension. The Colosseum, Trajan's Column, some links between individual levels in Mercatus Traiani, or Altare della Patria itself are the best known historic examples.

A separate group is a group of stairs formed as entrances to important facilities. From several steps to extensive structures spanning several levels, they demonstrate diversified solutions, which not only allow for pedestrian traffic but also emphasise the role of the building itself in compositional terms.

a	Part of the street	Scalinata via Dè Ciancaleoni, Scalinata via dei Quattro Cantoni, via di Monte Polacco
b	Street	Salita dei Borgia
c	Simple link between streets	Scalinata dei Borgia, via del Sambuco
d	Link between streets on two superimposed levels	Scalinate al Traforo Umberto I and via Milano
e	Connection of the street to a square – on one side	Scalinata piazza Iside
f	Connection of the street to a square – on two sides	Scalinata dei Borgia, Scalinata piazza Suburra
g	Buildings on the axis – on one end	Scalinata di Piazza di Spagna, Scalinate via del Parco Oppio, via Tommaso Grossi and via della Domus Aurea
h	Buildings on the axis – on two ends	
i	As the composition of a square	Scalinata abside Basilica Santa Maria Maggiore, Scalinata largo gaetana agnesi,
j	In front of a building, as an element of the composition of a building	Scalinata abside Basilica Santa Maria Maggiore, Scalinata Chiesa Santa Caterina da Siena, Chiesa Santi Domenico e Sisto

k	Basic element of the structure of a building	Trajan's Column, Coloseo, Scala Santa, l'Altare della Patria
l	Basic element of the structure of a complex of buildings	Mercati di Traiano
m	Completing element of the structure of a building or a complex of buildings (entrance, external connection of the structures)	Scala Basilica San Martino ai Monti (scalinata via G. Lanza), piazza via Milano and via di S. Maria Maggiore
n	Solutions in parks, at contact points with a street, a square	Scalinata via Labicana Colle Oppio, Scalinata Via Serapide Parco Oppio
o	Covered element	Scalinata dei Borgia,

Type of flights

It is quite a simple classification, which demonstrates the degree of development of stairs and of inscribing them in the existing urban structure

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a	Simple flight	Scalinata via Dè Ciancaleoni
b	Several flights, one axis	Scalinata dei Borgia,
c	Several flights, polygonal axis	Scalinata piazza Iside
d	Several flights, complex system	Scalinata Largo Gaetana Agnesi Scalinata via Labicana Colle Oppio

Side connections

The system of stairs usually reconciles additional relations within the framework of a structure – these are entrances into buildings or plots, as well as links with streets or squares.

a	Streets	Scalinate via del Parco Oppio, via Tommaso Grossi and Scalinata via della Domus Aurea
b	Entrances to buildings	Scalinata dei Borgia
c	Entrances in fences	Scalinate via del Parco Oppio, via Tommaso Grossi and Scalinata via della Domus Aurea

Side walls

Walls of an urban enclosure are important elements, determining its character. Here the classification is quite simple – it corresponds to types of space (A, B – positive space, C – negative space), as well as a situation where stairs are located as an element of a larger whole of the enclosure. The Spanish Steps could be a characteristic example here. The side walls

do not constitute an important compositional element here. Along their larger part the lateral walls do not present any impressive composition. In parts these are sections of internal block spaces, exhibiting considerable formal freedom.

	Full built-up line, coherent composition, designed	
b	Full built-up line, coherent composition, organic	Scalinata via Dè Ciancaleoni
c	Free composition of forms	
d	Greenery	Scalinata Largo Gaetana Agnesi, Scalinata Via Labicana Colle Oppio
e	Balustrade and opening to the space below	Campidoglio, Scalinata Largo Gaetana Agnesi,

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Internal composition

We perceive the concept of Urban Stairs in conditions of the urban enclosures they create or co-create with other spatial elements. The internal composition will determine basic types and relations of these elements.

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Hence the proposed differentiation: type of composition, type of space, dominating elements, type of the stroll, landscape closures – upwards and downwards, landscape closures – essential interim levels, far view, connected enclosures – downstairs, connected enclosures – upstairs, and detached elements.

1.2 Internal composition			
1.2.1 Composition type	a	Coherent, designed composition	Scalinate via del Parco Oppio, via Tommaso Grossi and Scalinata via della Domus Aurea
	b	Coherent, organic composition	Scalinata dei Borgia, Scalinata via Dè Ciancaleoni
	c	Free composition	Scalinata piazza Iside
1.2.2 Space type	a	Positive	Scalinata via Dè Ciancaleoni
	b	Negative	

1.2.3 Dominating elements	a	Volume	Scalinata via Dè Ciancaleoni
	b	Greenery	Scalinata Largo Gaetana Agnesi
1.2.4 Type of the stroll	a	Straight	Scalinata dei Borgia,
	b	Changes of directions	Scalinate via del Parco Oppio, via Tommaso Grossi and Scalinata via della Domus Aurea
1.2.5 Landscape closures – downwards	a	On the axis	Scalinate via del Parco Oppio, via Tommaso Grossi and Scalinata via della Domus Aurea
	b	Freely	Scalinata piazza Iside
1.2.6 Landscape closures - upwards	a	On the axis	Scalinata dei Borgia, via Francesco Giambullari
	b	Freely	
1.2.7 Landscape closures – essential interim levels	a	On the axis	Scalinata dei Borgia,
	b	Freely	
1.2.8 Far view	a	Upwards along the entire flight	
	b	Downwards along the entire flight	Scalinata via Labicana Colle Oppio
	c	Connected with the steps upstairs	Scalinata Largo Gaetana Agnesi, Scalinata via Labicana Colle Oppio
	d	Connected with the steps downstairs	
	e	Essential interim level connected with the stairs	
	f	Additional, side relations	

1.2.9 Connected enclosures – downstairs	a	Positive	
	b	Negative	
	c	Street	Scalinata via Dè Ciancaleoni
	d	Square	
	e	Coherent, designed composition	
	f	Coherent, organic composition	Scalinata dei Borgia
	g	Free composition	
1.2.10 Connected enclosures – upstairs	a	Positive	
	b	Negative	
	c	Street	Scalinata via Dè Ciancaleoni
	d	Square	Scalinata dei Borgia
	e	Coherent, designed composition	
	f	Coherent, organic composition	
	g	Free composition	
1.2.11 Detached elements	a	Within the space of the stairs	piazza Suburra
	b	Upstairs	Scalinata di Piazza di Spagna
	c	Downstairs	Scalinata di Piazza di Spagna

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Composition from the outside

The role of the complex in the composition of the entire city or district is investigated here. We can distinguish - an important element in the composition of the city, an important element in the composition of a district or an urban compositional sequence, or a complex hidden in the urban tissue.

1.3 Composition from the outside

1.3.1 Important element in the composition of the city	a	Connections between sequences of enclosures	
	b	Domination of the form	
	c	Coherent, designed composition	Scalinata abside Basilica Santa Maria Maggiore
	d	Coherent, organic composition	
	e	Free composition	
1.3.2 Important element in the composition of a district or an urban compositional sequence	a	Connections between sequences of enclosures	Scalinata via del Parco Oppio, via Tommaso Grossi and Scalinata via della Domus Aurea Scalinata via Labicana Colle Oppio
	b	Domination of the form	
	c	Coherent, designed composition	Scalinate via del Parco Oppio, via Tommaso Grossi and Scalinata via della Domus Aurea
	d	Coherent, organic composition	
	e	Free composition	
1.3.3 Hidden in the urban tissue	a	In built-up urban tissue	Scalinata via Dè Ciancaleoni, Scalinata via dei Quattro Cantoni
	b	In a building, a complex of buildings	
	c	In the greenery complex	
	d	Coherent, designed composition	
	e	Coherent, organic composition	Scalinata via Dè Ciancaleoni
	f	Free composition	

Urban Stairs and Contemporary Architecture

Contemporary architecture demonstrates examples of interventions in the urban structure of the city to the extent that goes beyond the traditional understanding of architecture as isolated buildings. These are examples of large structures (railway stations, shopping malls, hybrid structures) or functionally detached complexes (hospitals, universities). Some of them are connected with the need to design a structure based on public spaces closely related with the entire project, linked to the structure of the city in

different ways. Frequently Urban Stairs are a fundamental element moulding the entire composition and determining the basic relations with the urban tissue.

From amongst the best known examples, one should emphasise the Parisian Beaubourg¹ (R. Piano, R. Rogers, G. Franchini, 1977), Stuttgart Neue Staatsgalerie (J. Stirling, 1984), the new edifice of Bibliothèque Nationale de France (D. Perrault, 1996), or Ewha Womans University in Seoul (D. Perrault, 2008). They need to be distinguished from other examples, where in the urban environment spatiality is constructed separately by architecture and separately by Urban Stairs. And examples here could be Parc de Belleville (M. Viollet, 1988) or Place de l'Europe, Flon, Lausanne (B. Tschumi, 2001).

From the morphological point of view, what we deal here with is an interesting example. In a one architectural creation there appears an urban whole – determined by relations of buildings and its interiors, and of the open space, of a public nature, which creates sequences of enclosures and becomes an important part of the space of the city. In this situation the architect decided how individual typological elements would be combined – in terms of architecture as well as urban design. A piece of the urban tissue at an interim level between architecture and the existing urban tissue is designed.

Urban Stairs in Architecture - Diploma Work Examples

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This part of the paper presents 5 diploma works prepared in the Institute of Urban Design, Faculty of Architecture, Cracow University of Technology. We can see the answers of Urban Stairs in Architecture in specific conditions of the inner city of Cracow and Warsaw. In each of them the main task was to interpret complex spatial situation, where solutions adopting urban stairs were a necessity or an assumed attraction.

Business Avenue, Przemysław Pasko

Bachelor degree diploma on Architecture and Urban Design, Faculty of Architecture, Cracow University of Technology, 2013, supervisor: Anna Agata Kantarek (Fig. 1)

It is a project for a Business Centre located in the central part of Cracow – near the main Cracow Railway Station on Pawia Street.

The main idea is to shape an office building (with additional functions) as a base for a ramp of a roof alley to reach a 32 metre high platform with an excellent view of the Old Town of Cracow. The passage starts at a small public space on the ground level being an extension of a pedestrian route coming north from the railway square and the Galeria Krakowska shopping mall via Pawia Street.

As a form it dominates the nearby buildings and the railway entrance to

¹ Centre Beaubourg was designed as one whole, consisting of the building, the square, and the external stairs on the elevation as a specific vertical square. The stairs were accessible and included in the public space of the city. Regrettably, they are no longer accessible today.

the City from the north. The elevations are covered with greenery.
9 overground floors, height difference of the urban platform - 32 m.

Development of Border Area of Praga Północ and Praga Południe in Warsaw with a multifunctional building, Marta Kiwior

Master degree diploma on Architecture and Urban Design, Faculty of Architecture, Cracow University of Technology, 2014, supervisor: Anna Agata Kantarek (Fig. 2)

The building is located in an important place in compositional terms and it constitutes a pedestrian passage over railway tracks.

Its form is intersected with urban stairs, which link individual functional levels, constituting a spatial shopping street.

Levels from 1 to 3 house service and retail outlets, completed with catering facilities and a cinema with a small art gallery. The next three levels house mainly offices. On the highest level of the stairs there is a terrace and an entrance to a footbridge - they are extended with an amphitheatre with a screen with an option to install a temporary stage.

6 overground floors, height difference of the urban stairs - 15 m.

Revitalisation of Postindustrial Zabłocie Area in Cracow, Anna Lorenz, Piotr Lorenz

610 Master degree diploma on Architecture and Urban Design, Faculty of Architecture, Cracow University of Technology, 2015, supervisor: Anna Agata Kantarek (Fig. 3, 4)

The design pertains to the revitalisation of a post-industrial district of Cracow and is an interpretation of the principles contained in the detailed plan. The solution is based on the creation of a pedestrian public space, which is the backbone of the revitalised district. Two structures are proposed, which are a combination of multi-functional facilities and urban stairs.

One of them is the Cultural Centre – a structure that links a pedestrian route with a footbridge across the Vistula River. Individual functions are accessible from subsequent levels of the urban stairs (a dance school, an auditorium, art workshop halls, co-working spaces, a coffee shop with a summer cinema).

4 overground floors, height difference of the urban stairs - 23 m.

The second structure is a co-working centre with a coffee house club, solved as an enclosure of a collision-free crossing over a railway line and linked to the level of the railway platforms. Subsequent levels are accessible from the inside of the structure, as well as from the urban stairs; there are the coffee house club, conference halls, retail outlets, and co-working space there.

5 overground floors, height difference of the urban stairs - 20 m.

Canyon. New Workplace in Nowa Huta. Cracow, Agnieszka Biesaga

Master degree diploma on Architecture, Faculty of Architecture, Cracow University of Technology, 2016, supervisor: Anna Agata Kantarek (Fig. 5)

The design contains a regulatory plan for a part of a revitalised industrial district, which has been divided into plots intended for production purposes. One of the structures is solved as a hybrid building, where the production function is accompanied by offices, service outlets, as well as a museum of technology and a restaurant.

In the rear of the plot there is a production hall along with all the necessary access roads. From the side of the street the building has been designed around an open composition of stairs located in its centre, combining individual levels (multi-level courtyard) and providing access to individual functions.

This way the building forms not only the structure itself, but an urban enclosure open towards the street and constituting an attractive completion of the public space.

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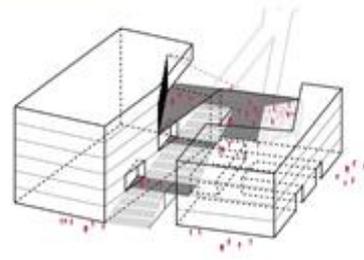
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- Biesaga A., Canyon. New Workplace in Nowa Huta. Cracow
Master degree diploma on Architecture, Faculty of Architecture, Cracow University of Technology, 2016, supervisor: Anna Agata Kantarek



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Fig. 1 Business Avenue, Przemysław Pasko (Pasko, 2013)
 a - location on Krakow plan, b - perspective view, c - top platform plan, d - elevation from Pawia St., e - perspective view



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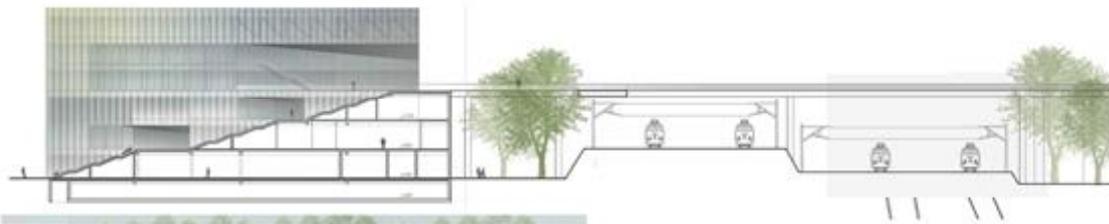
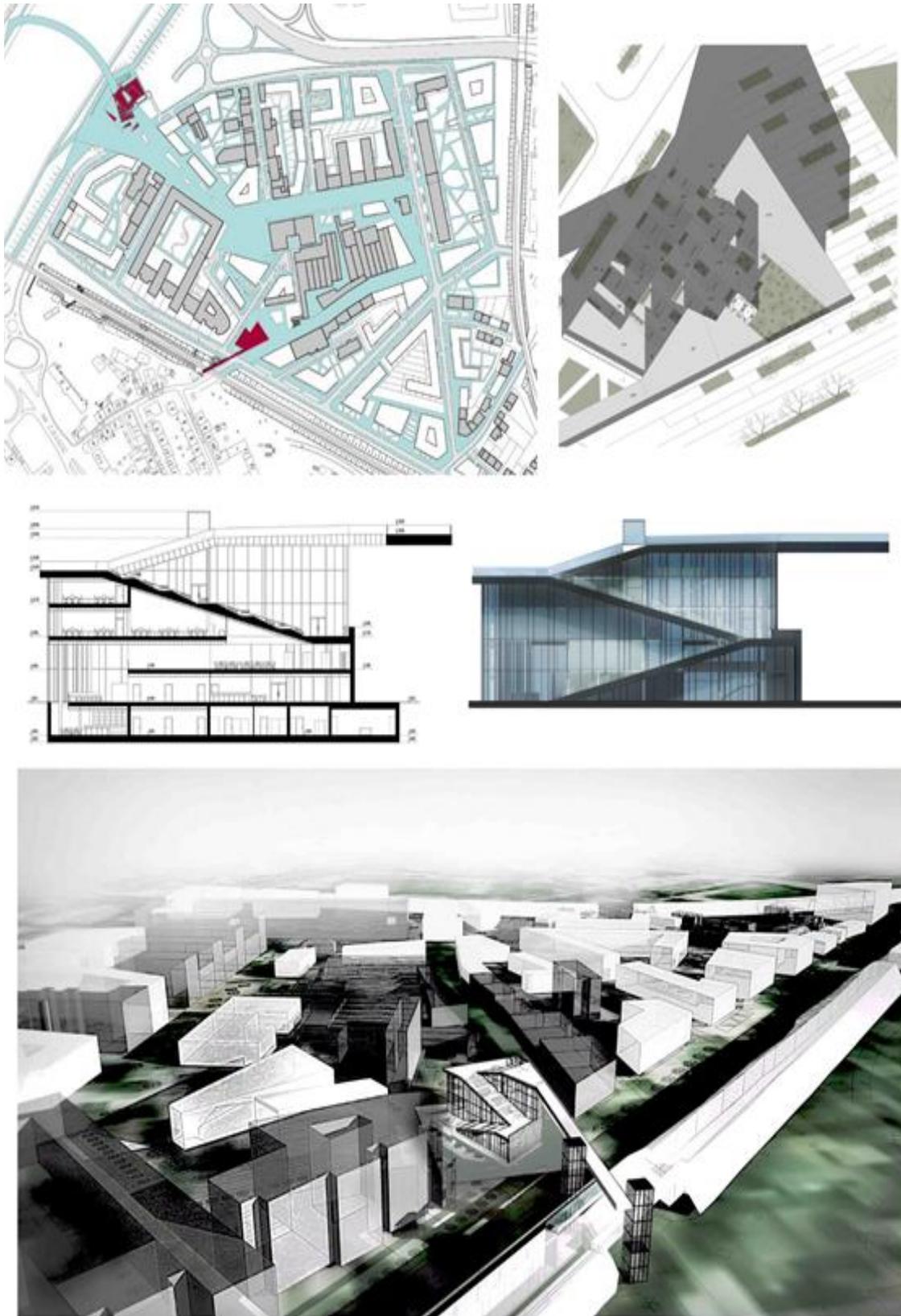


Fig. 2 Development of Border Area of Praga Północ and Praga Południe in Warsaw with a multi-functional building, Marta Kwiior, (Kwiior, 2014)
 a - regulatory plan, b - perspective view, c - street elevation, d - structure scheme, e - Urban Stairs section, f - perspective view, g - top level plan



Fig. 3 Revitalisation of Postindustrial Zabtocie Area in Krakow, Cultural Centre Anna Lorenz, (Lorenz, Lorenz, 2015)
 a - Master Plan, b - roof plan, c - perspective view, d - axonometry, e - elevation, f - perspective view, g - section



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Fig. 4 Revitalisation of Postindustrial Zabłocie Area in Krakow, Co-working Centre Piotr Lorenz, (Lorenz, Lorenz, 2015)
 a - Master Plan scheme, b - roof plan, c - section, d - elevation, e - perspective view



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Fig. 5 Canyon. New Workplace in Nowa Huta. Krakow, Agnieszka Biesaga, (Biesaga, 2016)
 a - perspective view, b - section scheme, c - plot, d - museum level plan, e - street elevation,
 f - perspective view, g - Canyon section

Tactical and strategical urbanism: the combination of different methodologies related to a morphological form of the street in the historical city

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Keywords: Tactical Urbanism, historical center, urban morphology

Abstract

The object of this research is *Via Carteria*, a street in the historical center of Modena (Italy) that is characterized by a typological form of the Emilian streets: the porch. In the past, it was popular because it was the area for artisans and artists in the historical center. During the years this characterization was lost: the artisans' workshops were closed, the street was blighted and more insecure to cross, in particular during the evening and the night.

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From 2010, to change this condition, the public administration of Modena decided to improve the economic and social development of this street through a renting-scheme for the empty workshops in *Via Carteria*, aimed at emerging artists and designers.

The activation of this plan increased - and is still increasing - the number of shops, restaurants and bars around this area. The proximity to the main monuments of the city qualifies *Via Carteria* as one of the most inspiring streets of the historical center.

In 2014, the association *Architetti di Strada* (lit. Street Architects), from Bologna, had the opportunity to work on this street during an event *Rainbow Advertising art*. The association's work consisted in a participatory laboratory to design urban home-furniture (called: *Inside-Outside*). This event showed how the combination of different methodologies leads to more effective regeneration results than a single-methodology approach. This paper explains the different approaches to the same morphological form of the street in the historical city, and analyses the potentiality of their combination.

Introduction

The studies of Italian historical centers as collective places, their analysis and the architectural and urban interventions are some of the most important researches from the first part of the nineteenth century.

This paper describes a specific case-study, *Via Carteria*, one of the historical streets in the center of Modena that is still characterized by its Middle Ages traits. The potential characterization of this street was, and still are, so strong, in the consequent dynamics of the organism of the historical center. The importance of this street was reinforced by its inclusion in the recovery program for the historical center by the public administration, and also by the construction of a specifically strategic project for the renewal of its social environment and its historical tradition as artisans' streets.

In this case the old and the new methodologies and strategies work together. The combination of strategies, the morphological condition of the street and the related dynamics between the historic organism of the center of Modena promote a positive effect of the tactical intervention explained in this paper.

Modena: a historical center in the history

Modena is one of the Emilian cities that lies on the "spinal cord" of Emilia Romagna region: *Via Emilia* ("Emilia road"). This roman construction street underlines all the implant of the Emilian cities and Modena as well. From the roman ages, the city was characterized by specific transformation phases that changed the morphological condition of Modena: from the Middle Ages, to the fifteenth to the nineteenth century, with the change of the form to a Renaissance city, and the final transformation of the historical center at the end of the nineteenth century with the demolition of the walls around the center and the early phase of the construction of the first periphery at the beginning of the twentieth century.

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The main structure of *cardo e decumano* has been kept during the centuries: it is still visibile in the direction from east to west by *Via Emilia*, from south to north the direction is not so clear as the first, but the focal point is defined by *Piazza Grande*, the oldest and most important square that hosts the Cathedral of Modena (*Duomo*).

The interventions and the strategic goals of the public administration, from the XIX century to the beginning of the XX century – the demolition of the walls around the historical center, the construction of new artificial squares to improve the hygienic conditions and to create new nodes for the historical organism in addition to *Piazza Grande*- damage the stable condition of the historical part of the organism-historical city and improve to lost the original and clear structure.

The only constants elements are the streets and their morphological characterization that underline their functions and their roles in the city dynamics. The *Via Emilia*, for example, in the nodes that cross the perimeter where there was the old walls – east *node* and west *node*-, is still characterized by big square and is also emphasized from the position in there of some of very important functions of the city – for example in the east

node, *Largo Sant'Agostino*, there are the old hospital and *Palazzo dei Musei* (lit. "Museums palace"), the building that hosts the most important and old libraries of Modena- and the dimension of the buildings are larger than those in other parts of the historical center.

Via Carteria: natural consequences of the morphological condition

Via Carteria is in the medieval part of the historical center of Modena and has been left mostly untouched by the transformations of the city in subsequent centuries. It is the direct connection between the main directions of the center – from north to south and from east to west long Via Emilia- also the street is very close to a series of important buildings -for example the University and the cathedral – and the main squares of the historical center.

In the history, from the XIV century, Via Carteria was very famous because it was the street of the paper workers, from which it derived its name– the English translation "Carteria" is "paper mill". During the centuries, Via Carteria continued to host artisans and craftsmen – this significant characterization is underlined by the morphological conditions: porches elements take a relevant part of the street's section and these underline the mixed function and the sign between public and private relations (Cervellati, Scannavini, De Angelis, 1977, p.31), as usual represent the porch- (Panzani, 2012). This condition can be observed with a visual analysis of the horizontal perception of the street for pedestrians: there different point of view from the street completely change its aspects: the sections of the street, the different typologies of the facades and the path on the street and the path under the porches. Its condition started to decline, together with its historical role, since the 1970 when the conditions become less favorable. During the years this characterization was lost: the artisans' workshops were closed, the street was blight and more insecure to cross, in particular during the evening and at night.

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For this reason, from the '70, the public administration started to work to requalify the whole neighborhood (Righi, 1983), an operation that lasted until 2010.

In the 1975, the Urban Planning Department of Modena Municipality approved the first renovation urban plan about this area. (Cervellati, Botti, Ferrari, Ronzani, 1986) The plan underlines a lot of interventions that involve urban environment and social, commercial and economic activities. The interventions not only involved the public administration, but also the owners of the building apartments and of the shops on the street and the citizen that live there. (Cervellati, 1977).

In the '80, the Renovation Urban plan was structured in a strategy divided into three phases.

The first was articulated in different actions in the public pavements:

- street: to renew the urban aspects and the public urban pavements - to remove the concrete on the street and to cobble it, as well in the historic description-

- porches: to remove the concrete and to put earthenware tile.

The second phase was about the renewal of the building structures and the apartments with private owners; and of public properties used as public houses to convert the migration from this part of the historical center to the periphery.

The third phase was focused on the integration and the complementary role of the public administration and the private owners to encourage the new activities and the new occupation of the empty apartments with low and affordable rents.

To promote this renewal policy, in the '90 the public administration started a new action: it bought the still empty shops and converted them in laboratory and workshop for young artisans. These new spaces for the creativity were, and still are, also with a very low rent to help the young artists and to support them to start a new activity. At the same time, this strategic decision from the public administration wanted to improve the social life and the events on the street. For this reason, also with low rents, the municipality started to create different collaboration and new ventures, for example the creation of a new international street art contest.

From 2010, to change this condition, the public administration of Modena decided to build a plan to improve the economic and social development of this street. The plan consisted in a scheme to rent all the empty workshops in *Via Carteria* to emerging artists and designer. The rent was extremely low, and the tenants could work in the space for 2 years only and, during this period, they must organize monthly events in their workshop.

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The activation of this plan increased, and it is still increasing the number of shops, of restaurants and bars around this area. The proximity to the main monuments of the city (in particular the cathedral, the museums and the libraries) and to the university qualifies *Via Carteria* as one of the most interesting and vibrant streets of the historical center.

The artists were involved also in one of the recent projects to design the new public lighting. In this case, the municipality asked the artists, that have the laboratories in *Via Carteria*, to make a drawing for the new lighting. (Public Administration of Modena, 1983)

From strategic to tactical

In 2014 the association *Architetti di strada* [1] – lit. “Street Architects” – worked to design a new urban furniture for *Via Carteria* during a three-day event.

The event was a promotion of a new platform of young artist – *Rainbow Advertising Art*. The association worked on an idea between public space and art exhibition and used the old street *Via Carteria* as a complex space to realise this idea, in a tactical intervention and a short-term action.

For this idea, “the historical center, as cause and effect of the actual urban condition of the city, is the potential example to experiment different approaches of re-qualifications, because it represents a fundamental part of the city and, at the same time, the more typological character-

ized in different ages.” (Cervellati, Scannavini, De Angelis, 1977, p.31). For these reasons, characterized for this particular history, *Via Cartiera* is a perfect example and, at the same time, a perfect scenario for this kind of experiment.

Definition of *Tactical Urbanism*:

“A city and/or citizen-led approach to neighborhood building using short-term, low-cost and scalable interventions intended to catalyse long-term change.” (Lydon, Garcia, 2015)

The idea of *Tactical urbanism* is a new approach to define different and various small and temporary actions in a micro urban scale. This type of approach does not want a specifically change – neither drastic nor defined for the city – but a new option to revive the space and to see in a different way places or spaces. A new state of mind to think about transformation and using time for the change in a urban form and to understand better if the action could become a new long term intervention or what it is better to change for a better new idea about.

“Abitare la città [inhabit the city]- Inside Outside”

The Title of the project “Abitare la città [inhabit the city]- Inside Outside” is eloquent of the idea of the mainly action of the project.

The title explains in two words what is the action that the project wants to do: to use home-furniture and to converted them in urban furniture.

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It is a simple idea, but the context and the way that we have used to involve the people has led to an interesting combination. The people were involved in this participatory project both to help for the realization and also during the final event. The approach to the project, in its simple idea, had been explain in different levels.

This idea for the project came from the director of a web platform for new artists, who wanted to organize a three-day event (from Friday to Sunday) in Modena, to present her new web-platform and to promote it. She asked AdS (Architetti di strada) to organize the furnishing of the street. From this concept - giving visibility to new artists and the chance for visitors to look at their works - we started to think about the idea of home, the place where the people feel good and comfortable. This “home” sensation represented the perfect solution to observe the works of the artists and to understand what feelings these works convey. From this idea of home and of contemplation, we decided to “turn” the street into a home-environment, where the people could feel comfortable to stay and to watch the artworks and the live shows.

The project started at the beginning of February.

The event was held the first weekend of May (3, 4, 5), after one and a half month for the preparation.

The time-line was structured as follows:

- 1 week to decide the concept and to define the “rooms” and the related topics
- 1 week to find the basic furniture that were needed for each room and the communication of the project to involve the people

- 1 month to work on the furniture and prepare all the staff (we organized 2 meetings every week with the participants of the laboratory)

From April to May 2014 the association Architetti di Strada worked directly in the street to create an idea of public and intimate space: a space that inspires the people to feel comfortable as their home, but public. All the work of the association to create the space with new kind of house furniture are defined in a workshop “do-it-yourself” to design the urban home furniture for the new street-home.

The complexity of the project includes also different kind of partners to make the project more insive, the partners offer different kind of people for the participation to the workshop: High School of Arts A. Venturi, Comune di Modena, Via Carteria Association, Rainbow Advertising Art Project, La Scossa Association, and different organizations to offer the furniture to use: Onlus Overseas, Tric Trac, Porte Aperte.

The project was undertaken with the help of the storekeepers of Via Carteria, and of the A. Venturi high school students. The aim was to design and build a series of pieces of furniture: starting from 6 different topics concerning the idea of “living”, the designers of the workshops asked the participants to create the furnishing that was later used to decorate the street spaces.

Every “room” conveys a topic about the idea of home and of the feelings about that.

Specifically: the entrance with “the space”; the kitchen with “the temporary”; the sitting room with “relations”; the living room with “love”; the bar with “safety”; the bed room with “desire”.

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As white papers, the pieces of furniture were used by the working group to express with a free interpretation and different style – drawing and writing – the personal meaning of the topics to transform the furniture and to convert it in a collective work. The painting of the furniture directly on the street offered to understand the social dynamics of the street, to increase the confidence and the collaboration with the citizens that live in the neighborhood and to add to civic consciousness and to appropriation of the public space.

The objective was to transform the urban street area into a “house environment”: each furnished “room-area” was meant to express the intimate and convivial feeling of the “domestic space”, blending the boundaries between public and private spaces. The comfortable feeling of the home-furniture and the opportunity to move them according to how the people wanted to be was received positively by the audience, and the citizens of Via Carteria were proud of being part of this project.

To emphasize and to better understand the reaction of the people to the tactical design action, during the event the group asked the visitors this simple question:

“If I say HOME, what do you think?”

The idea behind the question was to investigate the concept of “living” and the relation between public and private space. The answers were

completely different for culture and origin of the people and they underlined the different perspectives that people have around the relation. For many of people, the public space is an extension of the private one, while for others it emphasizes the completely different approach to the public life, around the roles and the restriction that the public space has.

Conclusion

Everyday symbols, as the home furniture used for the project, are so powerful to directly connect the people and to make the public space more comfortable. The idea to use public furniture as a part of own home is a positive solution to involve the citizen in the realization process, to reduce the distance from the public concept (and of the public administration as well) and the people and to create direct relation between unknown people, increasing the knowledge of the neighborhood and making the street safer.

The creation of new kind of opportunities to work together makes new connections between different kind of associations, and different kind of institutions – school and public administration's department – that in other way, it would be impossible to relate in the same project.

624 After the project all the people, in particular the association and the artisan workers of Via Cartiera, continue the work together and make the street a public and vibrant space. This kind of example shows how the combination of the tactical and the strategical intervention can be used to foster a long-term vision of the urban transformation.

Note

1 *Architetti di strada* is an association that works to create an answer to the social and residential needs. It is composed by architects, engineers, urban planners, sociologists, experts in human rights, in communication, in participation, and in environmental sustainability. The association addresses those who usually do not have the opportunity to express their opinions, those who are ruled out. Its approach is built on listening and creating network.

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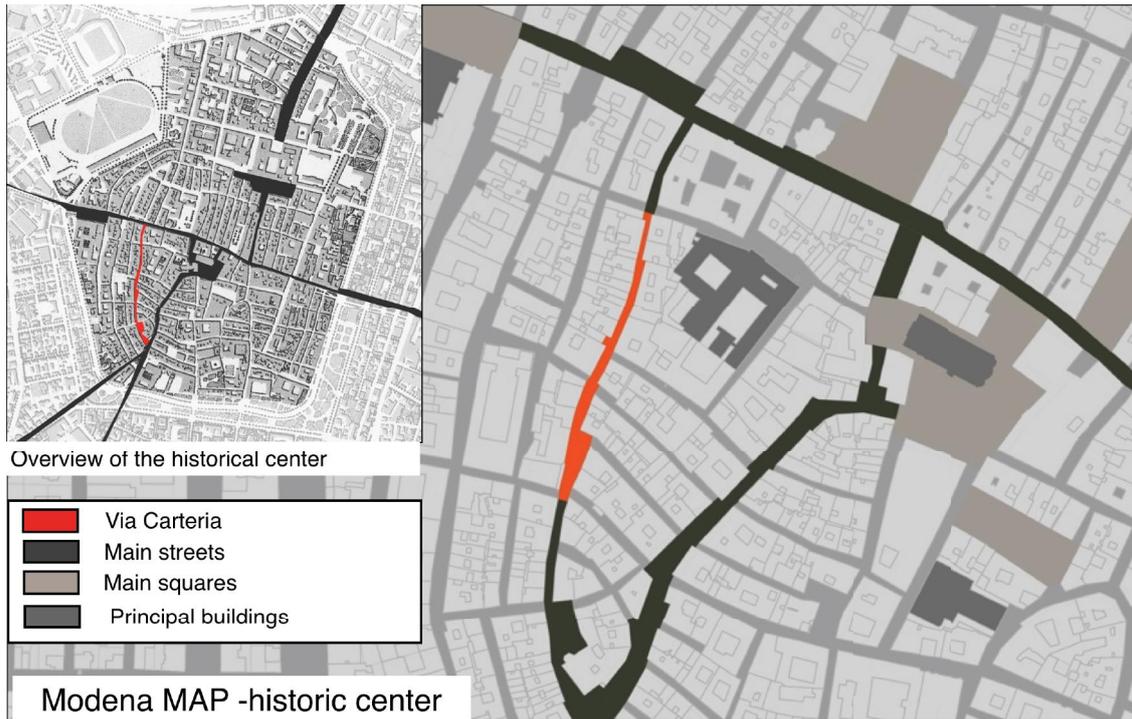


Fig. 1 Modena Map and the overview of the historical center and a specifically focus on Via Carteria and the neighborhood

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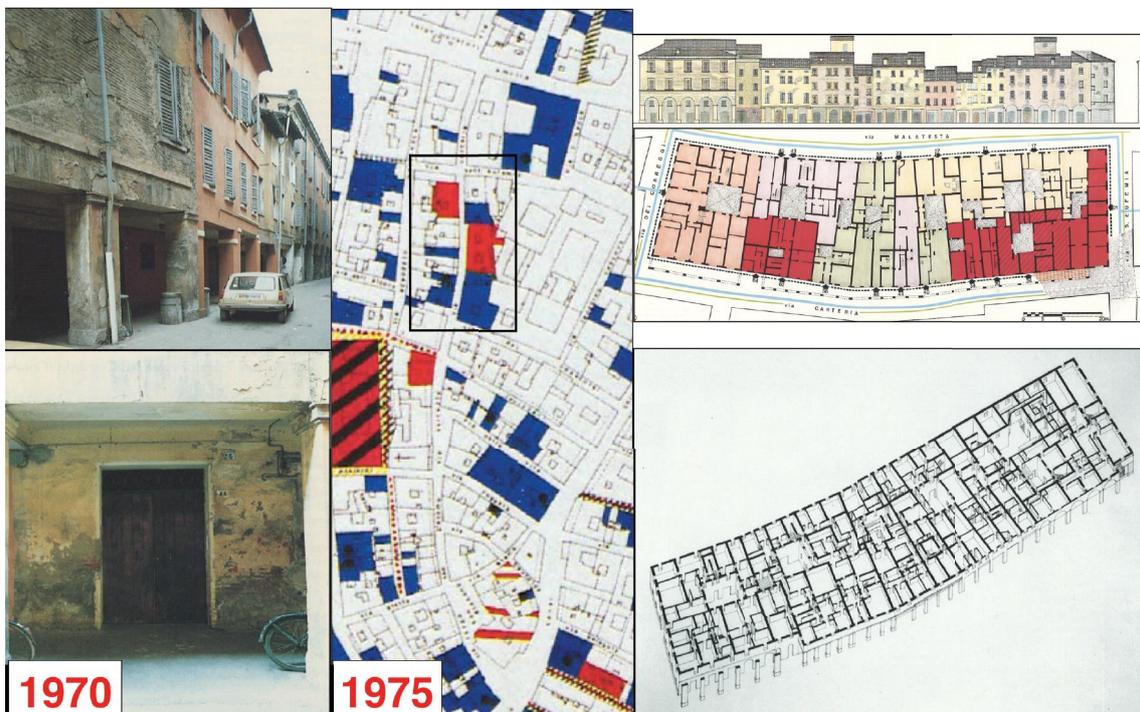


Fig. 3 From the 1970 to 1980 Via Carteria situation and the transformation process

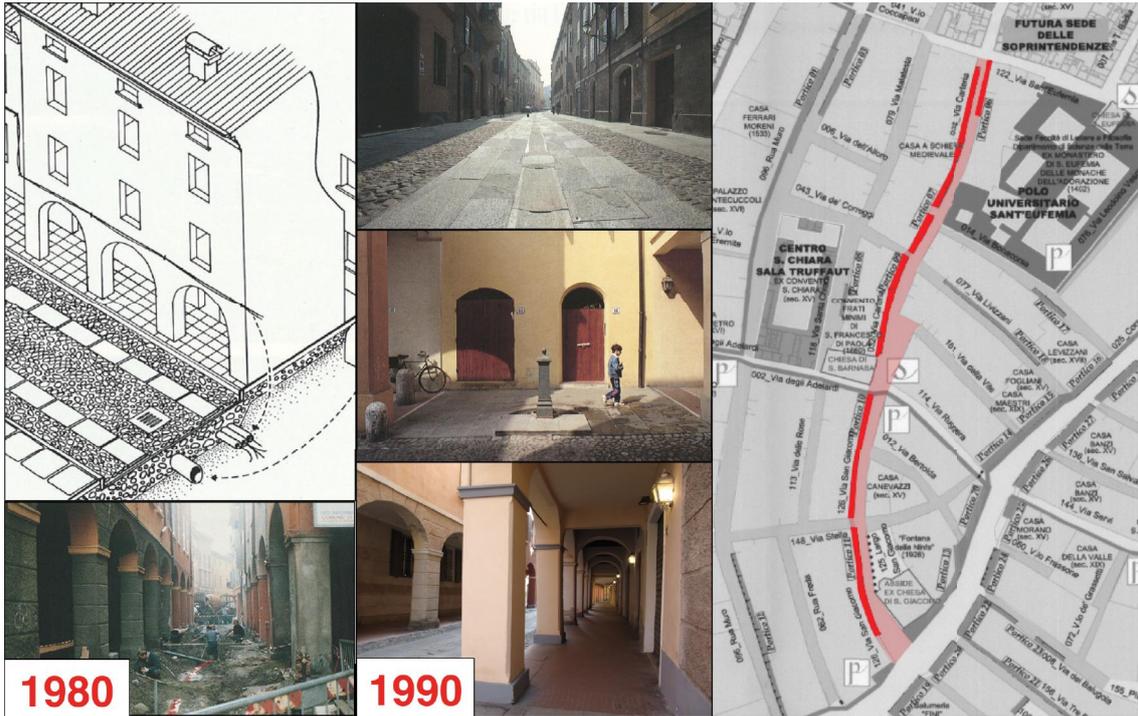


Fig. 3 From the 1980 to 1990 Via Carteria situation and the transformation process



Fig. 4 From the 2000 to 2010 Via Carteria situation and the transformation process

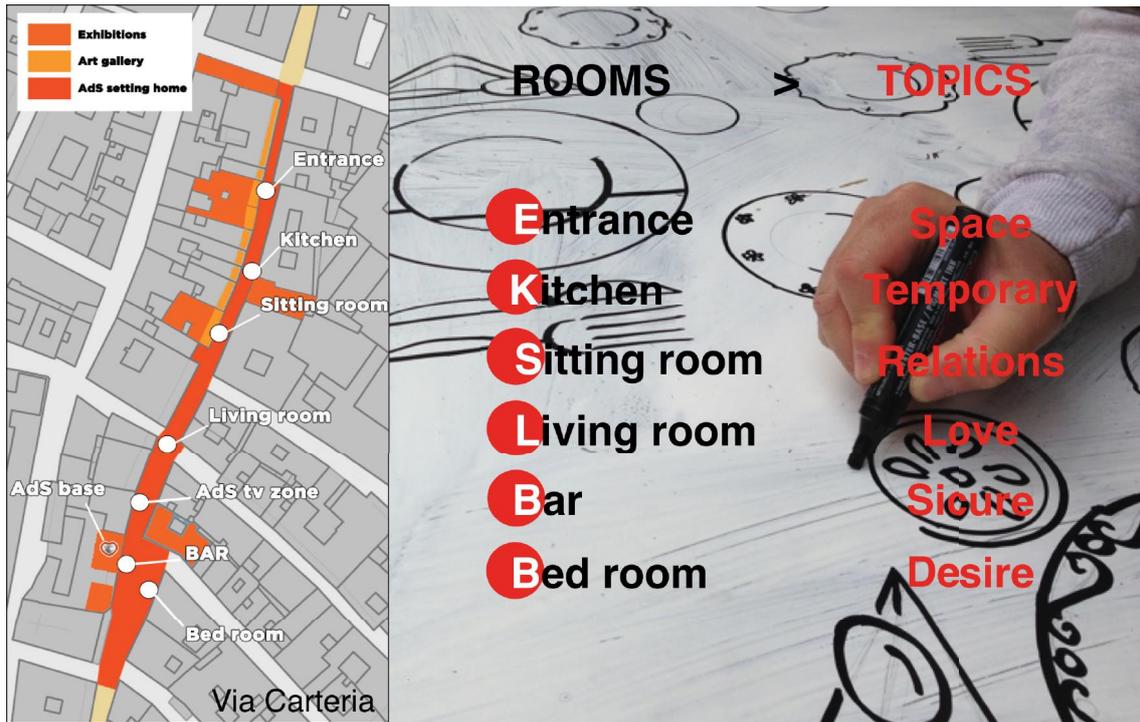


Fig. 5 Via Carteria map, the recognition of the action's area and the relative "rooms"- topics

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Fig. 7 The moment to paint the urban furniture directly on the street



Fig. 6 The "sitting room" and the daily use during the event



Fig. 8 The kitchen during the day



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Fig. 9 The kitchen during the night – to emphasize the different use of the same furniture in the different moments of the day



Fig. 10 The “living room” and the confidential idea that the furniture come up.



Fig. 11 An old woman uses the urban-home chair as she wants for a solitary relax moment.

Av. del Oeste in Valencia: modernity design throughout old town

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Keywords: Av. del Oeste, urban renewal, urban design, expressionist rationalism

Abstract

632 *The avenue opened in the west side in Valencia old town -Avenida del Oeste- is in fact the last large urban intervention into historical city centres in Europe. It was developed in its origins the approach of those interventions in Paris along the 19th century. Avenida del Oeste follows other Spanish models as well, on its social and national conditions, and their plan outlines: Gran Vía in Madrid and Via Laietana in Barcelona. It was planned in the beginning of 20th century, but it was finally built from 1941 to 1975 – the last huge urban intervention in a Haussmann way. But the real significance of the avenue is, on the first hand, its drawing. Its lines refer to the 1920s modernity in architecture, creating a urban patchwork related to previous urban fabric through the drawing of round corners. The point was the perfect scene for expressionist rationalist architecture that finally will build several wonderful architectural pieces. On the other hand, because of the problems that produced its long construction and its drawing lines, the avenue built up a unique catalogue of architectural styles in that period. But the main approach must be focused in the way this new avenue is opened on the west of the old town through the historical city –that was executed only in less than a half- and also on the unfinished relationship that awaits a post-intervention to for a real connection of old pre-existence urban fabric and the new wide avenue.*

Introduction

The avenue opened in the west side in Valencia old town -*Avenida del Oeste*- is in fact the last large urban intervention into historical city centres in Europe. It was developed in its origins the approach of those interventions in Paris along the 19th century. *Avenida del Oeste* follows other Spanish models as well, on its social and national conditions, and their plan outlines: *Gran Vía* in Madrid and *Via Laietana* in Barcelona. It was planned in the beginning of 20th century, but it was finally built from 1941 to 1975 – the last huge urban intervention in a Haussmann way. But the real significance of the avenue is, on the first hand, its drawing. Its lines refer to the 1920s modernity in architecture, creating a urban patchwork related to previous urban fabric through the drawing of round corners. The point was the perfect scene for expressionist rationalist architecture that finally will build several wonderful architectural pieces. On the other hand, because of the problems that produced its long construction and its drawing lines, the avenue built up a unique catalogue of architectural styles in that period. But the main approach must be focused in the way this new avenue is opened on the west of the old town through the historical city –that was executed only in less than a half- and also on the unfinished relationship that awaits a post-intervention to for a real connection of old pre-existence urban fabric and the new wide avenue.

Several cities into Valencia old town _ urban location of the Avenue

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Avenida del Oeste in Valencia –from now on the Avenue- is the last, large urban intervention opened into a historic centre in Europe. As we shall see bellow, its later execution makes it one of the hugest new urban spaces opened into a historic environment in Europe along the 20th. And, in the same time, it gives an interesting architectural catalogue of buildings covering a wide range of styles as well.

The avenue lies on the West side of Valencian Old Town. That's why it received its name referring to such location in the existing ancient city, although while in construction it was changed into its current name, *Baron de Cárcer Avenue*, the Mayor who was its main starting developer. As a first, brief approachment to this study case, it's necessary to locate the avenue into Valencia City and its history. Valencian Old Town –locally known as *Ciutat Vella*- is identified with the 14th century city surrounded by last medieval wall. But not all the city inside it is a homogeneous one. There are even three ancient, successive cities into that mediaeval precinct. *Ciutat Vella* is the result of the three concentric circles that spread on the river Turia floodplain.

Valencia was founded by the Romans in 238 B.C. -as *Valentia*- in an ancient island in the river Turia as an interesting crossing point in the roman strategy sense. In one hand, it was a sure inland place but only 7 km. far from the coastal connection to the sea. In the other hand, it was a new foundation in the middle of two main tribal centres in the territory, around 25 km. far, and it was way for a total control of them. Nowadays, North-East core of *Ciutat Vella* around the Cathedral corresponds with the

roman city. Many blocks of houses in this area still recall the roman street grill still existing in the city underground. As the roman city was destroyed and knocked down, it created the basis for the next, upper Visigoth one reflecting the former Roman lines.

With the Muslim conquest in the 8th century a new, larger city was built around the Roman and Visigoth city following the Muslim street patterns. So, around the block recalling roman streets a new area appeared plenty of narrow, streaming streets and intricate small squares. This new Muslim city –derived in Balansīya- almost cover the whole ancient island and built a huge Muslim wall in the 11th century that still can be seen on cadastral parcel plans.

After the Christian conquest in 1238 a final wall enclosure was built corresponding with the current *Ciutat Vella*, once the weak river branch was dried. That final, Christian wall contained the whole city along centuries, with huge vacancy spaces among the streets connecting the core with the wall gates, especially in the West. This new area between the Muslim and the Christian walls is the last part of the city being built. This medieval city mainly reached 19th century with very few extensions around it and with its connection to the coast. As Valencia is not a coastal city in the purest sense - even in Roman times there was a fluvial port. But in the Middle Ages a stepping stone was finally established, which is the origin of current huge Valencian port. The name of the second historic settlement of the city by the coast refers to that “Step”, “*Grau*” in local language or *Grao* in Spanish. So, in the 19th century Valencia still was a concentric city with a long extension to the sea, with *Grau* area with fishers' and port workers' humble settlements. And, as happened in the most of largest cities in Europe, Valencia started to demolish its walls in 1865 because of the lack of hygienic and sanitary conditions into the old town. (Fig.1. Historic center into city growing and parts: Valentia, Balansīya, Valencia.) But especially along the last 20th century Valencia experienced a huge growth both in population and in extension. In fact, *Ciutat Vella* was virtually the entire city in 1904 -as can be seen in the drawing- to become less than 5% of the city in the year 2000. This huge variation left step by step the city Centre in a second scene. Into that growth can be identified several periods: an initial series of renewal plans till the 30s, an ancient centrality city till the 50s, the decrease of it till the 80s, and a new refurbishment interest from 1984.

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As shown above, *Avenida del Oeste* lies on the youngest part of *Ciutat Vella*. That's why there's a fewer average of monumental buildings on it and, in the same terms, it's got a fewer heritage character. And it was planned to articulate the whole city between old quarters and new surrounding extensions –just as the proper project's author explained-.

Urban renewal context as background _ hygienist context of the Avenue

The general approach of the Avenue refers to sanitary renewals made all over Europe as a reflection of Paris interventions by Baron Hausmann. The layout of the Parisian boulevards is the origin of the project's concept

(Benevolo, 1978). But the Avenue wasn't thought as an only intervention into the city. It was the hugest intervention into a complete plan of interventions into the existing town, in a series of plans approved from 1892 to 1928 but not executed.

The trace of the Avenue is the outcome of a process of three plans, with the initial need to cover a minimal renewal of the old town when Extension Plans were purposed. That initial condition to attend not only the future, new parts of the city but to sanitize the ancient city as well, is the reason of consequential refurbish plans. As a brief statement of the plans, they're a succession of three projects by 1892, 1911 and 1929, as outlined as follows. The first one is 1892 Ferreres' Plan, who was the first time purposing incisive avenues crossing the entire old town; he developed two options from NW to SE and the opposite that, if built together could have affected almost 60% of the existing old town; it was just a plan because of economic matters. The first avenue purposed from SE to NW will be the idea form further *Avenida del Oeste*.

The second project was 1911 Aymami's Inner Renewal Plan. It was the first time showing a series of punctual interventions all over the city to adapt old town to modern times. But this project was not even started too. Among the series of small intervention the plan purposed two bigger ones: a short Royal -Palace- Avenue and the first time drawn long West-side Avenue. This one is the real start to current Avenue.

The third project was 1929 Goerlich's Plan, the true start of the Avenue as can be seen nowadays. As previous plan wasn't developed, city architect Goerlich took it and simplify actions. So he left just a bigger intervention called West Avenue, and several smaller interventions in corners, crossing streets and small squares all over old town. But economic matters blocked the project execution again. (Fig.2. Urban structure comparative on interventions: Madrid, Barcelona and Valencia)

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Just two years later, in 1931, Town Hall decided to develop the Avenue as a separate project of Goerlich's 1929 Plan. This new project consisted in five sectors to be continuously executed from South to North. But the national social and political situation led to the outbreak of Spanish Civil War, what finally delayed the project execution. All in all, the Avenue started to be built in 1941 after War was concluded, but once again economic situation extended its construction for over 35 years. Unfortunately -for the project, but not for historic centre- the whole trace of the Avenue wasn't built, and only 2 of the initial 5 sectors were brought to life.

In that national scene, there're two parallel urban interventions closely related to the project background: *Gran Vía* in Madrid and *Via Laietana* in Barcelona (Sánchez Lampreave *et al.*, 2011). They're the huge interventions in Spain in both main cities in the country, and they were developed into the same social, economic and cultural framework conditions but some years previously. In scale, if *Avenida del Oeste* was entirely built it could be longer than the Catalan one and in quite similar length to Capital city example. (Fig.3)

A comparison among them can be seen easily in the analytic scheme

above. Using the same key parameters it can be compared everyone's trace, width and length –in red-, and also the same in the surrounding streets –in black-. These remark the different urban patterns existing in the initial city. Both extremes in each case are finally mark to shown the connections established into each town.

As a reading of all, those parameters indicate the importance that *Avenida del Oeste* could have if finished, and the great similarities among them. As a sample we can focus on their length: while *Gran Vía* in Madrid reached 1,35 km. and *Via Laietana* in Barcelona 1,05 km., whereas Valencia *Avenida del Oeste* was planned to have the same extension than the first one. And this was finally executed only in 0,65 km., shorter than the second sample.

In the light of the above, those numbers talk about the real size thought for Valencia's avenue, in a direct relationship with another great interventions in the country.

Modern project into a historic environment _ expressionist delineation of the Avenue

636 The executive project drawn by Goerlich is the reason of the expressionist atmosphere originated in the Avenue, as a step further than its prior Inner Renewal Plan. The main distinguishing feature of the plan delineation is the way of solutions for the street crossings through round corners, as in vogue after the 20s. In fact, current city centre mainly owes its scene to the singular, prominent figure of Goerlich. This architect was born into a well-off family of tradesmen coming from Austro-Hungarian Empire whose father settled in Valencia. Goerlich received a careful education on arts, travelling throughout Europe and contacting to vogue avant-gardes, as can be read in the expressionist lines purposed for the Avenue. The detail of round corners gave the Avenue a particular *genius loci* that the expressionist rationalist architecture (Llopis and Lagardera *et al.*, 1998) took in profit very soon to build a huge catalogue of interesting, expressionist buildings as well.

Just from first drawings, the design of the Avenue reflects the influence of current expressionist streams in its delineation. There two phases to arrive to the final version. The first one can be found on the drawing of general plan for the old town, Goerlich's Inner Renewal Plan. The whole city centre is treated with round corners solution, that when built will give a new character to the town. But the Avenue -as the biggest implementation among all the interventions of the plan- is where a finest soft articulation of streets and corners can be seen. In a second more detailed scope, the construction project of the Avenue shows an executive scale. In this approximation level is where lines and measures are drawn to be built.

But the highest influence of the project, lines aside, was its collection of pictures. Goerlich was a great drawer and, consequently, a great artist. So, as he didn't have enough with the plans he completed the project with several perspective drawings of the final image of the city. These pictures strength was so hard that had a decisive influence on further

architectures. In fact, as Goerlich was a storehouse of art, his proposal of buildings for the new old town were in fact designed and built by other architects.

The Avenue design in detail, in urban fabric terms, projected a new urban axis crossing throughout the earlier quarter of *Ciutat Vella*. As said above, this quarter was the later space to be included into the Christian walls, and it was early the settlement for a huge number of workshops industries related to silk that gave its name, Velluters –velvet workers-. The urban pattern shows a more or less a regular grill of streets laid from East to West, from the inner part of the city to the outer side of the walls, in connection to roads and the countryside. So, the flood of necessary water for the workshops was guaranteed by an efficient water ditches' web.

That series of more or less parallel, narrow streets had finally a decisive influence on the further Avenue. The short width of mediaeval blocks brought out several round corners in the Avenue, and its construction yielded slender, too expressionist buildings opportunities. This definitely gave its expressionist atmosphere to the avenue, as an endless succession of expressionist corner buildings. Definitely mediaeval times have been connected to the modernity in a historic environment.

The existing city gave several corners in the delineation and consequently an immediate way to distribute the new lots as well. At this point, we can deep into new lots geometry through an analytic study. We find that the former city not only conditioned the new blocks width. In addition, its street grill regularity can be read also in new lots size. The Avenue new lines created 47 new lots, 34 of them in a corner (72%). The majority of them, 37 lots exceptions aside, have between 250 sqm. and 600 sqm, (78%), being 21 lots having a medium size of 400 sqm. (45%). This is another interesting characteristic form *Avenida del Oeste*, that gives such size uniformity to further buildings and provides a better dialogue of languages and styles. We can see deeper the distribution of lots in next figure. (Fig.4. *Avenida del Oeste* parcels plan.)

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As can be seen, there's an evident difference in scale between former lots and new avenue lots. And, in the same way, there's a huge difference in high. While existing city is plenty of 2 or 3-storey high buildings, the new avenue will build 11 to 14-storey high ones, what generated a cutting interruption of urban front continuity. The truth is that there's an incisive cutting through the existing city, producing a hard shock between ancient three story high houses and new fourteen story high almost-skyscrapers. And, in the same way, the Avenue opens the narrow streets just ending in it, making the double width in many cases, what leave ancient buildings out of context. But these are points to be solved from now on, when the perspective of time started to include 40s to 70s architecture buildings into the historic environment.

Expressionist urban space into history

The genius loci of the Avenue is reflected and amplified in the wide period of time covering its constructions. As the Avenue started to be built with

first expressionist buildings in the 40s, further architectural streams had to adapt their aesthetic languages to those slots geometrical conditions, such as short width and round corner.

On the other hand, another main characteristic of the Avenue is its disorderly construction of buildings. Instead of putting up one block after another –as happened in the avenues opened all over Europe–, the buildings here were appearing one by one, separately, as the owners were able to purchase a slot wherever along first two sectors of the plan. Thanks to that, we can find together buildings separated 30 years in their construction... and in their expression. The final continuous mosaic of styles from one extreme to another of the Avenue creates a single cohesive unit to the group of buildings as own strengths.

But the truth is that there's an incisive cutting through the existing city, producing a hard shock between ancient three story high houses and new fourteen story high almost-skyscrapers. And, in the same way, the Avenue opens the narrow streets just ending in it, making the double width in many cases, what leave ancient buildings out of context. But these are points to be solved from now on, when the perspective of time started to include 40s to 70s architecture buildings into the historic environment.

When in the 50s the Avenue was widely built, it became the main city commercial centre in Valencia. As *Gran Vía* in Madrid represented from the 30s the modernity spirit and urban way of life, in Valencia *Avenida del Oeste* figured the cosmopolitan new times as well. In addition to that, there were buildings with new uses including cinemas, commercial galleries, and hotels or –as it in fact happened in Valencia– it was built the first building devoted completely to offices.

Subsequently, the modernity arrived in Valencia via *Avenida del Oeste* as a perfect materialization of new times. The modernity icons of the new buildings appear in parallel to a great number of similar urban interventions in Western scene. Another pictures of modernity in the same way can be found in earlier examples such as Oslo, the commented case of Madrid... or later others such as Tangier or Bucharest. All they show the way in which old towns are updated and adapted to modern times through huge urban interventions into historic milieus.

Finally, when in the 70s Valencia City Council decided not to continue the remaining three phases of the Avenue, suddenly its lucky changed. In that moment it started a time of decay and abandon only partially stopped by the rise of interest in the surrounding heritage. In fact, its position into city centre, next to monumental buildings can make the Avenue becoming a large gate to the varied historic heritage of Valencia.

The set of buildings marking the trace of the Avenue depict a new architectural reference in *Ciutat Vella*, with a particular attractive into its cultural, vernacular surrounding. Quoting famous book "*Townscape*" by Gordon Cullen in 1974:

"...let's put one next to another a whole series of buildings and, as a whole, collectively, we will provide much more visual pleasure than the one that would give each of them contemplated separately.

... let's put half a dozen buildings next to each other, and we will see that it is possible the existence of another art, quite different from that of architecture."

That's effectively the final value provided by Valencia's *Avenida del Oeste*. A walk along this urban space provides an unspeakable visual pleasure because of both their scale and buildings. Shapes and styles that, on the other hand, must be harmonized with the strong, mediaeval-baroque architectural surroundings. Perhaps *Avenida del Oeste* is probably, as in words by Rob Krier, "the best avenue in Europe" – at least in an expressionist sense. In that sense, *Avenida del Oeste* in Valencia a set of outstanding pieces of architecture covering styles from expressionist rationalism to international style, functionalism or formalism (Urrutia, 1997), all of them with the common background of an expressionist trace of the avenue that gives its real distinctive mark.

Conclusion

As we could see above, *Avenida del Oeste* in Valencia belongs to the group of huge urban interventions in Europe. Both scale and formal definition provide this intervention a place among national and international refurbishing projects of urban space in the 20th century. Born as a hygienist 19th century beginning and it finally represents a modern, cosmopolitan 50s avenue can be considered another history chapter into city centre.

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To conclude, *Avenida del Oeste* is finally the bigger concentration of expressionist buildings avenue and, therefore, it could be the *more expressionist avenue* in the world. And its value increases in the way that it was planned to cross throughout Valencia historic city centre for finally taking part in it.

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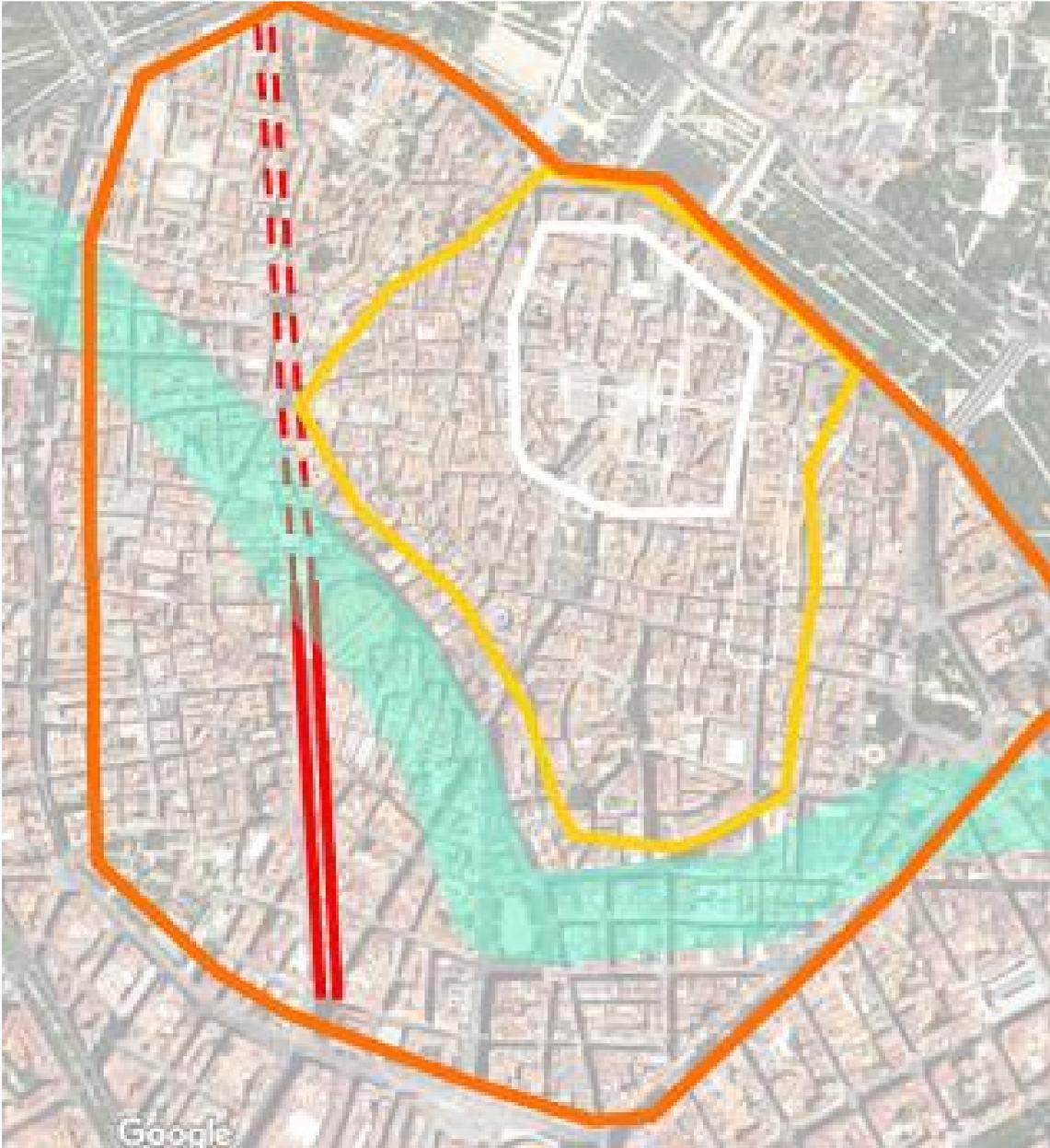


1940



2000





Conference topic

E.2) Architecture and Criticism

New-old ideas for new-old cities The case of louis i. kahn

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Keywords: Kahn, City, Reinterpretation, Rome, Jerusalem

Abstract

644 The architecture of Louis I. Kahn changed radically in the 1950s. Such was the transformation that it is difficult to find his unmistakable mark in works so different like the Miesian Parasol House (1944) or the Palladian Fleisher House (1959). All these differences have been widely recognized by leading architectural critics and some of them even venture to place that process of changing while he was at the American Academy in Rome between 1950 and 1951. They are absolutely right in terms of time and place. But the real question arises when they have to establish the reasons for such a radical change in a short stay in Rome. The answer, however, is more difficult.

The three months that Kahn spent in Rome were really intense. His position was a Resident Architect (RAAR). Contrary to what one might think he was more a kind of a college friend than a Professor. His job allowed him to travel and also encouraged him and so Kahn used to do it a lot. Some of those travels were nearby but he also made a far journey that got him to Egypt and Greece. This Mediterranean journey is also known by everyone because of its great drawings. Even some architectural critics point a possible influence of this travel on his late work. But no one has dwelt upon it so far.

The present abstract (as it is a part of my Ph.D. about the influence of this European travel on his work) will try to find the traces of the Mediterranean historical cities in Louis I. Kahn's work. Firstly, I will analyze the stage of Louis Kahn at the AAR and especially his contact with the historical cities; secondly, I will go into detail about the lessons were given to Kahn; and finally, I will explain how Louis Kahn use these lessons to design a contemporary building, like the Hurva Synagogue (1968), in another historical city such as Jerusalem.

Introduzione

Louis I. Kahn's architecture witnessed a critical change in the 1950s. This transformation was so radical, in a way that it looks challenging to discern the touch of the same designer in the works he made before and after this turning point. In fact, this change is reflected through the two unbuilt houses that the architect designed almost symmetrically to reach that point: the Miesian Parasol House (1944) or the Palladian Fleisher House (1959).

On one hand, the Parasol House project (1944), designed in collaboration with Oscar Stonorov, is a proposal for a competition promoted by a furniture company [1]. The result was a composition of five different typologies of houses which were based on the repetition of a single prefabricated element shaped as an "umbrella" [2]. This solution could be arranged in a form of a large plane that shapes a continuous and homogeneous space (even in various levels) which, in fact, solved the structural problem. Thus, all load-bearing walls allowed their structural functions to be overtaken, and the space could be designed just with lightweight materials, which could move freely underneath. This means that even the same furniture could be a part of these light partitions. The result was a limitless, ambiguous, light and functional domestic space that could be configured independently to the rules dictated by the grid of the "umbrellas".

On the other hand, the Fleisher House (1959) was a private commission [3]. The house is a large square that is divided into 16 small ones, while leaving a monumental central void. Besides, there are four other smaller squares, in that central space, which form a cruciform heart. Actually, these four squares are the "servant spaces" of the house, thus the other twelve squares may remain without these functions and just be as "served spaces". However, the main characteristic in this house, is the spatial autonomy of all squares introduced through the powerful appearance of its construction made by load-bearing perimeter walls. This means that there is a high and recognized spatial independence on each of them. Hence, the entire house was designed as a spatial concatenation of autonomous units that is arranged in a grid, so that each unit owns its domestic space [4].

If both houses are compared, the space of the Parasol House will be conceived in a centrifugal movement, and the space of the Fleisher House will be a centripetal one. The first example promotes an unlimited, ambiguous and continuous space, whereas the second promotes bounded, clear and closed spaces. When the first proposal asks for dematerialization, asymmetry and functionality, the second calls for gravity, symmetry, and monumentality.

Both examples clearly illustrate the change that Kahn's architecture experimented between the 1940s and the 1950s. This transformation has been widely recognized by architectural critics. Even some of them venture to place it during his stay at the American Academy in Rome between 1950 and 1951, and they are right. However, the real question arises when highlighting the reasons for this strong transformation in just three months; a question that this paper attempts to answer.

The American Academy in Rome (AAR)

Fortunately, after many failed attempts in the last years, Louis I. Kahn arrived at the American Academy in Rome (AAR) in December, 1st 1950. He went to the AAR to work as an “Architect in Residence” and, in that year, he was in charge of five Architectural Fellows (Amisano, Byrd, Daltas, Jova, and Dawson) and two Landscape Fellows (Hawkins and Patton) [5]. However, he was not their professor, or at least in an orthodox way, as his duties were just “to act as an advisor” and “to accompany” the Fellows (both Architecture and Landscape) “on occasional trips” [6]. They travelled frequently. around the Mediterranean Sea.

During his first month at the AAR, Kahn and the Fellows made several tours around the Ancient Roman architecture of the city. In fact, they visited the Imperial Roman architecture guided by famous American archeologist Frank Brown [7]. Unfortunately, there were no documents reflecting the places they visited. However, in that year, Brown focused on the great Imperial Roman architecture, both in the city and its surroundings [8]. They also travelled to cities nearby Rome like Ostia, Tivoli, Tarquinia, and even Naples. Nevertheless, the most important trip for Kahn took place in early 1951 with other five Fellows [9].

646 Their first stop was Egypt, where they arrived in January, 6th 1951. There, the group visited the most important places of its ancient civilization (Upper and Lower Egypt) as common tourists. Then, twelve days later, they took a plane to Greece. In this country, Kahn and the Fellows made only two trips; one around the Peloponnese and other to the Delphi Sanctuary. The reason was because all of them wanted to see Athens in depth. After spending ten days in Greece, the entire group went back to Rome.

This was another crucial moment for Kahn’s career, as he got hired by Yale University to design the extension of its Art Gallery, as soon as he arrived to AAR. Thus, he immediately bought a ticket back to the US[10]. Nonetheless, he had enough time in February to make another trip to Tuscany, where he visited Firenze, Siena, Pisa, Lucca and Bologna with some Fellows, and Venice and Milan in his way back in the last week of that month. Consequently, it can be stated that the three months that Kahn spent in Rome were intense. Even more intense as he spent most of his time travelling, painting and studying the same old European architecture that had encouraged him to become an architect thirty years before. The same architecture that walked with him for the rest of his life from that moment. This trip collapsed the mental barrier that the International Style had erected in his mind [Kahn’s] between the present and the past; in this case, literally, [...] the past that he had loved and he had soaked up in at the University of Pennsylvania returned tumultuously to him: Rome above all. [13]

Reintroducing the mass. From Rome to New Haven

Louis Kahn spent nearly all January travelling with some Fellows across Egypt and Greece. When he came back to Rome in late January, as mentioned before, he found a letter from the Director of Yale University’s

Department of Art offering him the possibility to design the extension of their Art Gallery.

This was a great opportunity for an architect, thus Kahn didn't hesitate. Accordingly, he bought a ticket a few days later to return to his country in late February. Even if that includes not finishing his duties as a Resident Architect in the Academy.

Once again, fate smiled to Louis Kahn. not only because this was a great opportunity for any architect; or because this challenge took place at the same university where he had been teaching for several years; or even because this opportunity meant to increase the tight volume of work he had in his office at that time. All these reasons were true. However, the main reason behind accepting this offer, is because he could apply the lessons learnt in Rome. An implementation that he couldn't apply twenty years before after his first trip to Europe because of the Wall Street Crash of 1929 [12].

Kahn introduced his traditional sources through Yale Art Gallery, as he represented in this work one of the main architectural concepts of the Roman Architecture: Mass. Besides, he highlighted this concept in two different places. The first one is the blank brick wall of the main façade of the building. While the second one reveals its famous tetrahedral concrete slab.

The wall: Mass

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One of the main characteristics of the Yale Art Gallery is its main elevation. This façade prevents the unpleasant south sunlight from getting through the building, because its main function is to exhibit pieces of art. Besides, this façade plays the role of a barrier between the Gallery and one of the busiest and noisiest streets of the city. Hence, those reasons drove Kahn to design a blank wall. Nonetheless, he wanted to add another meaning to the wall. Therefore, he did not cover the thickness of the wall, so that he could express a new feeling; the same feeling of mass that he felt in Rome. Consequently, several Roman walls were reflected in his work. However most of them are anonymous and they are in different states of conservation- or even ruined. Nonetheless, there are few famous walls like the great Pecile wall in Hadrian's Villa, which is very similar to the Gallery's one because both have some horizontal rhythms of shades. Nevertheless, if an ancient Roman wall with a direct influence on the Gallery, is to be considered, the back wall of the Forum of Augustus would be the most accurate one. A wall that Kahn undoubtedly noticed as any tourist could ever observe nowadays.

The aim behind this text is not merely to analyze the concept of this wall but rather to focus on its material condition. This wall is mainly built in opus quadratum based on two grey stones called peperino and pietra gabina. It has also three lines made with travertine marble which divide its façade horizontally. Those two elements design a façade similar to the Gallery's one, as it can be seen by comparing both of them.

In addition, there are further similarities between these two buildings. If

this Roman wall is being approached from via Tor de Conti -across the piazza del Grillo-, then a hole can be seen on the upper side and through this hole, the entablature and the first marble columns from the Temple of Mars Ultor can be noticed.

In other words, if these elements are abstractly seen, just as pale grey structural elements, the architectural concept is close to Kahn's building. As a proof of that, the image of the Forum can be compared to the north-eastern corner of the Gallery. Both are built with two different elements. On one side, a big blank and grey wall with white horizontal stripes. And on the other side, a white architrave architecture with voids between its elements. Even if these voids are pieces of glass in the Gallery.

Nonetheless, there are more similarities between the Gallery and the Forum. The plan of the Forum of Augustus shows that its wall is non-loadbearing as it just supports itself. While the rest of the building is made with an architrave construction system apart from that wall. This same difference can be found also in Gallery's plan, for this building is just a wall attached to a "temple". Therefore, in both cases, the walls are just an enclosure element and they don't belong to the structural system of the entire building. The result looks as if a white Greek temple had been added to a grey Roman wall.

648 These two different structural schemes were not just seen by Kahn during his Mediterranean trip but they were also drawn, and therefore understood. On one side, with the massiveness of the pylons and walls of the Temple of Horus at Edfu or the powerful basement of the Greek Acropolis. And on the other side, with the lightness of the Temple of Zeus at Athens or the load balance of the elements of the Temple of Apollo at Corinth. Therefore, it can be stated that the independent juxtaposition of the blank brick wall with the architrave structure of this building that launched the change for Kahn's architectural work started during his stage in Rome [11].

The Slab: Density

As previously mentioned, Louis Kahn introduced the Roman density in the Yale Art Gallery through its blank brick wall, yet it was not the only place where he removed the characteristic lightness of the International Style. He also transferred the previous Roman density into the structure system. For instance, he introduced the density on the vertical structure -the pillars- just simply increasing their size. Nonetheless, the transformation of the horizontal structure -the slab- was more complex and it needed a deeper analysis.

In this case, the slab included both, the structural system and the mechanical requirements necessary for the proper operation of this type of building (museum). The final solution was the acclaimed and well-known tetrahedral ceiling slab. Despite this form, this slab does not work like a space frame, but like a conventional system of inclined "T-shaped" beams [14]. Nevertheless, the most important characteristic of this slab was not about the way it works or the way it is built; or rather about what is not built. The slab of the Yale Art Gallery is built with two elements: inclined "T" be-

ans and inclined surfaces. Both configure a hollow tetrahedral structure without a base surface. This form is then repeated throughout the two directions. Therefore, the final image of the slab is composed by a homogeneous horizontal element based on a triangular geometry and its hollowness is its main characteristic. Thus, this slab transmits as well a strange feeling of lightness. Nonetheless, this feeling is not real because this slab is 60% heavier than the necessary one [15]. Consequently, this feeling is “apparent” and unreal but similar to the one Kahn observed in Rome. as an example, the Baths of Caracalla where “there was the will to build a 100-foot high vaulted structure where people could bathe. Eight feet would have sufficed. It is wonderful, even in ruins” [16].

Nonetheless, this system provides enhanced sound quality and allows the passage of all necessary facilities through their interstitial spaces (parallel beams). Additionally, this system attempts to be cheaper as it combines multiple systems in one, and is left in view without any finish layer to cover. This tetrahedral slab can also be compared to other two Ancient Rome solutions. The first one is the hypocaustum slab, an innovative constructive system Kahn could see during his stage in Rome just a few months before to design his own solution. This Roman slab is the combination of two different systems -structure and facilities- in one single element like Kahn's one. Similarly, this Roman slab was also a very thick and small-density element. The reason behind it, is to allow the passage of the facilities -in this case the heating- by its hollow interior as happens with the slab of the Yale Art Gallery. 649

And the second one, are the domes or the vaults built, for example in the Pantheon or in the Basilica of Maxentius, respectively. In both cases, their weight is lightened using two different techniques. On one hand, they use coffers to insert some “voids” in the slab. And on another hand, they used a lighter material as they built the layers upwards. Despite these techniques, both buildings do not lose the feeling of mass and gravity characteristic on the Roman architecture as well as happens on the Yale Art Gallery.

In fact, this re-introduction of the density in architecture is related to Kahn's stage at the AAR. This idea is introduced in some of his drawings such as the inner space that can be observed because of the doors of the thick walls of the Temple of Horus in Karnak or through the shadow that draws the niche of one wall of the Baths of Caracalla. Therefore, we can state again that the hollow slab of the Yale Art Gallery is linked with the essence of the Roman architecture by hollowing the structure without losing its massive feeling [17].

Kahn and Rome

After more than fifty years, the new personality exhibited by the Yale Art Gallery had a great impact in the whole architectural world. The mass of its wall and the density of its slab were a great breakdown with the International Style's ideals of lightness and transparency.

However, this breakdown was especially significant in Louis Kahn's career as previously explained. In fact, the next projects that followed the Yale

Art Gallery, paved the way for several researches that influenced his entire career. For instance, from the mass of the Trenton Bath House (1954-55) to the Kimbell Art Museum's (1966-72), or from the density of the Adler House (1954-55) to the Philips Exeter Library's (1965-72).

To conclude, mass and density were not the only lessons that Kahn learnt from Rome and the Mediterranean architecture [18]. For example, we can link the space of the Pantheon with the Exeter Library (1965-71), the plan of Augustus Mausoleum with the First Unitarian Church (1959-69), or details of the Ara Pacis with the wood of the Fisher House (1967). Relatively, these new lessons will be discussed in depth in coming occasions.

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The competition, entitled "Equipment for living", was sponsored by an American furniture company called Hans G. Knoll Associates. Hence, the ultimate aim was the design of furniture that they could subsequently make and sell, although the architects decided to focus more on architectural elements than in the furniture themselves.

Kahn himself wrote "the roof is the house umbrella". Kahn LI. *The Louis I. Kahn Archive: Personal Drawings*. New York: Garland; 1987; 56.

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Unfortunately, Kahn could only work on it for a couple of months, although this was enough for him to develop a clear proposal that showed its new architectural and domestic thought.

Except for the Living Room, which was formed by two spatial units.

There was not a "Landscape in Residence" that year.

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Louis Kahn was at the American Academy in Rome from December 1, 1950 to February 25, 1950.

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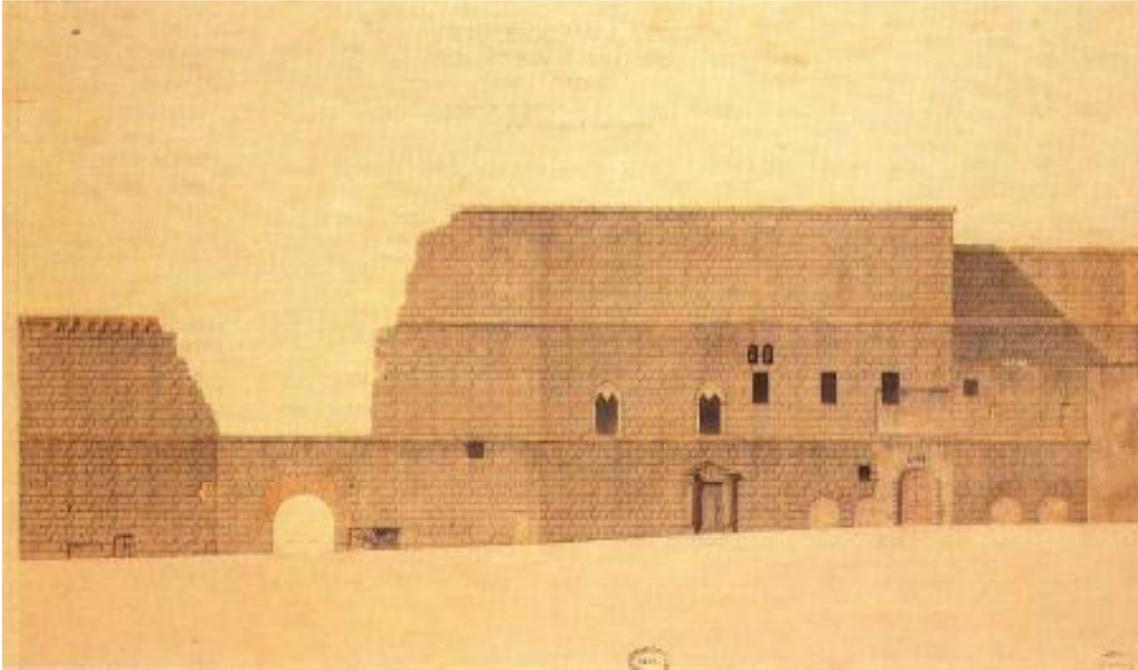


Fig. 1 The back wall of the Forum of Augustus
Source(s): Jacques, Annie et al. 1985

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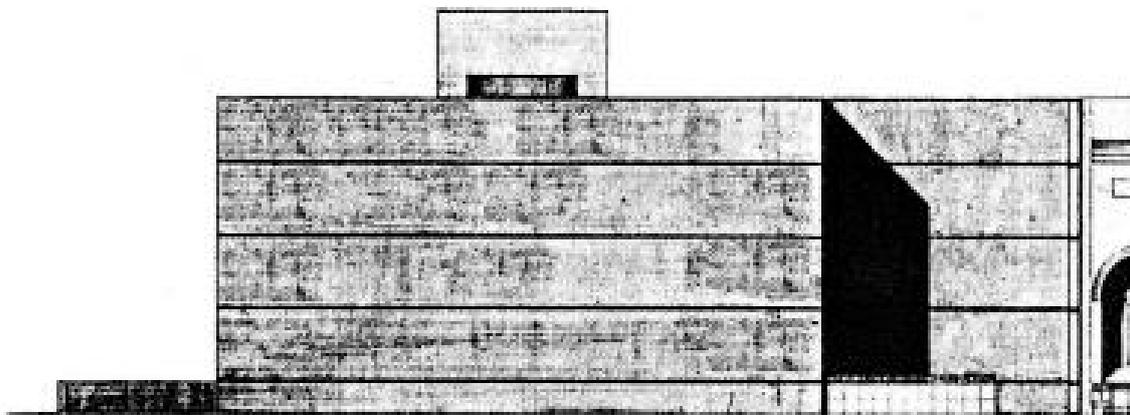


Fig. 2 The South-West wall of the Yale Art Gallery.
Source (s): Brownlee, David and De Long, David, 1991

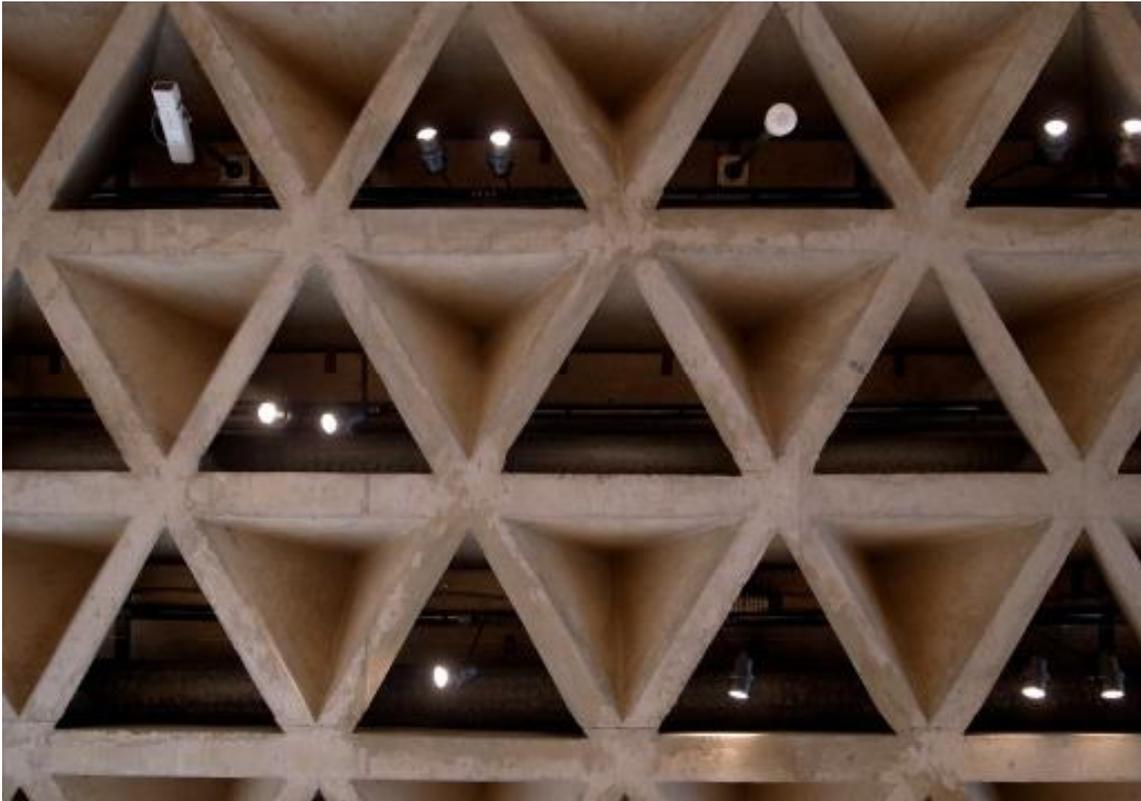


Fig. 3 The tetrahedral ceiling plan of the Yale Art Gallery

Source (s): Author

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Fig. 4 The coffers of the Pantheon's dome

Source(s): Author



A theatre as an urban knot grafted in the historical fabric

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Abstract

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The project for the Carlo Felice theatre in Genoa, badly damaged during the latter stages of the Second World War, kept Carlo Scarpa busy for several years, near until the end of his life. However, the project never left the paper. In it there are enclosed and brilliantly solved key issues in the approach to the subject of the graft in the historical centre. The theatre is in fact thought to become a real knot between the ancient city, the nineteenth-century city and the most recent expansion of the old town. By overturning the traditional Italian theatre hall in the foyer you get a new, extremely distinctive public space: the theatre stages the theatre, it presents itself to the city. The study aims to retrace the two main phases of the project by Carlo Scarpa, highlighting those methodological aspects still valid today in the process of integration into the historic fabric, as well as that marked an evolution in the process of formation of modern space for the show.

Introduzione

Il progetto per il Teatro Carlo Felice di Genova, gravemente danneggiato durante le ultime fasi del secondo conflitto mondiale, ha mantenuto occupato Carlo Scarpa per diversi anni sul finire della sua vita. Tuttavia il progetto non ha mai abbandonato la carta. In esso sono racchiuse e brillantemente risolte alcune questioni chiave nell'approccio al soggetto dell'innesto nel tessuto storico. Il teatro è infatti pensato per diventare un vero nodo tra la città antica, la città ottocentesca e la più recente espansione del centro. Ribaltando la tradizionale sala teatrale all'italiana nel foyer si ottiene un nuovo spazio pubblico molto particolare e distintivo: il teatro mette in scena il teatro, si presenta alla città. Lo studio mira a ripercorrere le due fasi principali del progetto di Carlo Scarpa, evidenziando quali aspetti metodologici sono ancora oggi validi nell'integrazione nel tessuto storico, e quali hanno segnato un'evoluzione nel processo di formazione dello spazio moderno per lo spettacolo.

Senz'altro la città di Genova, come del resto l'intero territorio nazionale, costituisce un vero e proprio banco di prova per l'innesto del moderno nel tessuto storico e nella città consolidata. Le tradizioni costruttive costituiscono al tempo stesso un vincolo e un'opportunità. In particolare il mutare del Teatro Carlo Felice nei secoli precedenti l'intervento richiesto a Carlo Scarpa ha avuto delle ripercussioni sui circostanti brani di città. La trasformazione è infatti implicita nel termine innesto, che non è un semplice adeguamento.

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D'altro canto la forma stessa del teatro in genere si è modificata, evoluta gradualmente nel tempo, a partire dalla cesura dell'epoca medievale con il teatro classico dei Greci e dei Romani. Lo studio vuole collocare dunque il progetto di Carlo Scarpa per il Teatro Carlo Felice di Genova nel processo di sviluppo dei caratteri del teatro all'italiana fino ai più recenti progetti di riqualificazione, recupero e restauro nel tessuto storico, sul territorio nazionale.

Un teatro come un nodo urbano innestato nel tessuto storico

Luka Skansi fornisce un'attenta disamina dello stato di fatto del Carlo Felice, con cui Carlo Scarpa ha dovuto misurarsi nell'ideazione di una soluzione di massima, poi rielaborata a distanza di circa sei anni, e infine ancora variata.

Le distruzioni belliche hanno reso pressoché inutilizzabili le strutture del teatro barabbiniano. Il rilievo dello stato di fatto eseguito nel 1951 testimonia come siano resistite, sebbene fortemente danneggiate, le due facciate monumentali (il pronao – l'antico ingresso regio – verso piazza De Ferrari e il fronte verso via XXV aprile), la struttura muraria della sala teatrale (che si sviluppa con la tradizionale pianta a campana) e alcuni spazi interni, in particolare il vestibolo dell'antico ingresso, con le otto colonne isolate che ritmano lo spazio tripartito. [...] Risultano invece inagibili la torre scenica, l'antico foyer collocato al primo livello sopra l'ingresso da via XXV aprile, come la maggior parte dei collegamenti verticali che conducevano gli spettatori ai livelli superiori dei palchi. [...] il teatro ha il compito di chiudere

la monumentale cortina edilizia di piazza De Ferrari con il proprio fronte longitudinale. Barabino colloca infatti su questo fronte l'ingresso regio con il pronao caratterizzato da sei colonne doriche scanalate. Tuttavia questo affaccio non corrisponde all'asse del teatro, che trova invece il suo fronte naturale su via XXV aprile. [...] con il Piano Regolatore del 1954 si aggiungono nuove aspettative urbane all'edificio teatrale. Il Carlo Felice si trova, in pratica, in una condizione di snodo tra città antica, città ottocentesca (tra il grande asse di viale XX settembre e la Galleria Mazzini) e la nuova estensione del centro storico.¹

Nonostante il progetto di Scarpa sia rimasto su carta, si parlerebbe a torto di "fallimento", giacché alcune delle sue più brillanti intuizioni di fatto sono state ereditate nella poi realizzata opera di Aldo Rossi.

Così l'architetto a proposito del Carlo Felice: *Esiste un progetto molto interessante di Carlo Scarpa – presentato molto prima del concorso a cui ho partecipato – che manteneva completamente il pronao per svilupparsi poi nel teatro vero e proprio e nelle sue parti laterali.*²

Si noti che, al contrario, la distruzione del pronao del Barabino era invece comune a tutti i progetti presentati al concorso di allora.

656 E ancora: *Il problema che mi sono posto era quello di cercare di incarnare, di assumere questa realtà storica, in una nuova realtà, in una nuova rappresentazione che avrebbe automaticamente tratto forza dagli elementi esistenti, quasi archeologici. [...] L'innovazione principale per ciò che riguarda la città è stata quella di creare, nella zona degli antichi ingressi, una continuità tra piazza De Ferrari e la Galleria Mazzini – oggi restaurata e ricca di negozi – che si trova dall'altra parte. Questo spazio di passaggio, è una sorta di piazza coperta in parte illuminata da una luce zenitale che arriva dall'alto mediante un elemento conico che attraversa e che illumina anche i vari foyer. Una delle caratteristiche del progetto è il superamento della classica pianta settecentesca a palchi, che forse per molti motivi non funziona più e che sarà riproposta invece nel progetto di ricostruzione del teatro La Fenice. Questo perché il palco è un'istituzione dell'aristocrazia ottocentesca che falsa notevolmente i calcoli relativi al numero degli spettatori in quanto, se in passato i proprietari li dividevano con guardie del corpo o figli giovani, oggi sono occupati solo da due o tre spettatori.*³

Il Teatro Carlo Felice di Genova dunque non giunse mai a realizzazione secondo il progetto di Scarpa, come del resto nessun altro teatro dell'architetto. Soltanto alcuni limitati lavori di demolizione per il teatro di Genova segnarono l'avvio di un cantiere presto interrotto.

La pratica di ripensare continuamente le proprie opere fino alla fase di costruzione, e in realtà anche mentre la costruzione era avviata, è, per altro, quasi un tratto distintivo del modo in cui Scarpa intendeva

1 Esmeralda Valente, Vitale Zanchettin (a cura di), *I teatri di Carlo Scarpa*, Electa, Roma 2010, pp. 41 - 42

2 Aldo Rossi, *Teatri, teatrini e spazi scenici* in Gino Malacarne, Patrizia Montini Zimolo (a cura di), *Aldo Rossi e Venezia. Il teatro e la città*, Edizioni Unicopli, Milano 2002, p. 32

3 *Ibidem*, pp. 32 - 34

la pratica dell'architetto. Ecco perché gli elaborati esistenti possono essere considerati senza dubbio cosa piuttosto lontana dalle sue reali idee ed intuizioni. Tanto più che il teatro è un tema del tutto inedito rispetto all'esperienza professionale dell'architetto. I tre successivi stadi di elaborazione del progetto sono rappresentati in più di 700 elaborati grafici. Dietro ogni veduta prospettica vi sono quindi centinaia di disegni tecnici, forse meno affascinanti ma risolutivi rispetto a problemi concreti.

Dall'Archivio dell'Ufficio Speciale presso gli uffici tecnici del Comune di Genova risultano in particolare: una prima versione prodotta per la concessione edilizia del 5 ottobre 1964, una seconda versione risalente al 3 giugno 1970 e una terza versione (variante della seconda) del 29 giugno 1973.

Le suddette varianti interessano prevalentemente il ridotto, le sue dimensioni, il suo orientamento e i suoi accessi, nonché la concezione dei due fronti principali, l'uno verso la Galleria Mazzini, l'altro verso piazza Piccapietra. Il teatro si poteva infatti intendere come un vero e proprio filtro tra i due spazi urbani della galleria e della piazza.

Il pronao, oltre a fungere da ingresso all'edificio dalla piazza, diventa l'asse portante di un percorso pedonale urbano che attraversa il teatro e conduce fino al portale della galleria ottocentesca su piazzetta Labò.

[...] Al centro del percorso trasversale dell'edificio, appartenente ancora al dominio del flusso pedonale della città, viene collocato l'ingresso al ridotto, che viene così completamente separato dal resto della macchina funzionale del teatro. Questa sembra essere la principale ragione per la quale i due ingressi monumentali al teatro vengono trasformati in snodi: da una parte entrambe servono l'atrio e il successivo sistema distributivo interno, dall'altra si collegano al sottostante prolungamento della galleria e alla sala piccola.[...] Prima di entrare nella sala, lo spettatore ha la possibilità di affacciarsi per l'ultima volta sulla Galleria Mazzini. In fondo all'atrio si sviluppa una curiosa rampa raddoppiata che porta inizialmente a un pianerottolo che fuoriesce dalla linea della facciata. Qui il visitatore ha la possibilità di scorgere la lunga prospettiva della promenade commerciale attraverso due finestre a diamante, trasformate nel prospetto in elemento di caratterizzazione del "portale" pedonale.⁴

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In sintesi il progetto di Carlo Scarpa, in tutte le successive rielaborazioni e varianti, si incardina su tre aspetti fondamentali e di rilievo: la prosecuzione dell'asse della Galleria Mazzini entro l'involucro del nuovo edificio, la concezione del foyer con corridoi pensili affacciati su uno spazio comune e l'apertura di una grande finestra che dall'interno avrebbe permesso di guardare verso la Galleria. In virtù di queste intuizioni il foyer è reso un vero e proprio nodo urbano, nonché può dirsi del tutto riuscito l'innesto del nuovo nel tessuto storico.

⁴ Esmeralda Valente, Vitale Zanchettin (a cura di), I teatri di Carlo Scarpa, Electa, Roma 2010, pp. 42 - 43

Il foyer dunque si trasforma, da semplice luogo di accesso e transito, a mezzo di inserimento, di penetrazione della città nell'edificio teatro; in esso i corridoi pensili alla stregua di palchetti avrebbero permesso di osservare il movimento degli spettatori prima e dopo gli spettacoli.

Scarpa sviluppa il foyer in continuità con il piano direttamente sovrastante il corridoio esterno proveniente dalla Galleria Mazzini. La quota dello stesso è leggermente sopraelevata rispetto a quella della platea. Lo scopo principale dell'architetto è dunque quello di mettere in comunicazione i due livelli con il terzo, rappresentato dall'accesso principale del teatro. Da qui lo studio approfondito delle scale di connessione e delle aperture nei solai e lungo i percorsi, a favorire la continuità visiva e spaziale.

Di fatto il foyer realizza una messa in scena del teatro stesso, trasferendo, o ancor meglio ribaltando, il sistema teatrale delle grandi sale all'italiana, caratterizzato dal tipico contatto visivo, all'esterno. E' difficile tuttavia comprendere con certezza se questo processo fosse stato da intendersi come una sorta di "risarcimento" che Scarpa ipotizzò, configurandosi di contro la cavea come uno spazio fortemente unitario, o addirittura come una modalità di spettacolarizzazione della quotidianità.

Il progetto presentato nel 1973 può dirsi una semplificazione del precedente, sia a livello funzionale, sia a livello strutturale. Il ridotto acquisisce lo stesso asse della sala principale, con il palco collocato al di sotto della fossa dell'orchestra, divenendo al tempo stesso più capiente e facilmente accessibile dalla galleria pedonale interna. Altra sostanziale modifica è rappresentata dall'unificazione formale, di fatto in un unico elemento architettonico, tra la torre scenica e lo spazio relativo alla sala teatrale vera e propria, affacciati su piazza Piccapietra.

A proposito della sala vera e propria: *da una parte predispone un grande involucro spaziale interno che abbraccia la platea, nascondendo così l'andamento retto delle strutture murarie; dall'altra lavora sulla configurazione volumetrica del proscenio.*⁵

E' da sottolineare l'aspetto di primaria importanza che quest'ultimo riveste nell'opera dell'architetto. Esso è inteso come un vero e proprio punto di snodo tra due sistemi rappresentati da un lato dal palco, dall'altro dalla sala teatrale. Scarpa reinterpreta uno dei principali e più riconoscibili caratteri del teatro all'italiana, dà nuova veste e autonomia al proscenio, vero e proprio spazio di diaframma.

La critica contemporanea ha riconosciuto nella concentrazione prospettica dalla platea verso lo spazio della rappresentazione come senso dell'organizzazione della sala teatrale una negazione del teatro all'italiana, tra i cui principali autori e progetti di riferimento sono annoverati: Friedrich Gilly con lo studio per la sala Schauspielhaus di Berlino 1798, Gottfried Semper con l'Opera di Monaco di Baviera 1865 e la Festspielhaus a Bayreuth 1876.

Nella relazione di progetto il Teatro Olimpico di Vicenza di Andrea

5 Ibidem, pp. 44 - 46

Palladio, “il più classico teatro moderno per spettatori ‘uguali’” è definito dall’architetto come il punto di riferimento principale.

L’accostamento a Palladio tuttavia non sorprende, in quanto si può dire, a ragione, che i due teatri di fatto sintetizzano e facciano al fine coesistere due concezioni antitetiche dello spazio per lo spettacolo. Entrambe tra l’antico e il moderno. Da un lato infatti vi è la sala per spettatori eguali, tipica del teatro delle origini, dall’altro la concezione della scena moderna, con la città ricreata in Palladio, con la messa in scena verso la città in Scarpa. Parlare di negazione del teatro all’italiana è pertanto, come accennato in precedenza, darne una definizione parziale, giacché il caratteristico impianto si trova appunto ribaltato nel foyer, innestato nel tessuto urbano.

Conclusioni

Agli interrogativi se, in riferimento alla sala all’italiana, si possa parlare oggi esclusivamente di trasformazione dell’esistente, e su quali siano le principali ragioni del successo della tipologia, tali da decretarne la persistenza anche in contrasto con il panorama europeo e occidentale in genere, si può a ragione rispondere osservando che l’Italia è il paese in cui sopravvive, ancora in uso e con le tradizionali tecniche scenografiche e di spettacolo, il maggior numero di teatri storici al mondo: un patrimonio che occorre preservare e conservare, e al tempo stesso in continua evoluzione. L’individuazione di un processo formativo per lo spazio moderno per lo spettacolo vuole dunque aprire una nuova modalità di lettura del teatro come oggetto architettonico, ribadendo la centralità e l’autonomia dell’architettura teatrale come disciplina operante in un contesto per eccellenza multidisciplinare.

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In sintesi si può dire che il progetto per il Teatro Carlo Felice di Carlo Scarpa sia esemplificativo del successo della tipologia del teatro all’italiana, oggetto di un continuo processo di trasformazione a partire dal tessuto urbano. Infine si è osservato come il progetto di Scarpa possa essere accostato al palladiano teatro Olimpico, in quanto in grado, al culmine del processo evolutivo, di far coesistere due concezioni antitetiche dello spazio per lo spettacolo.

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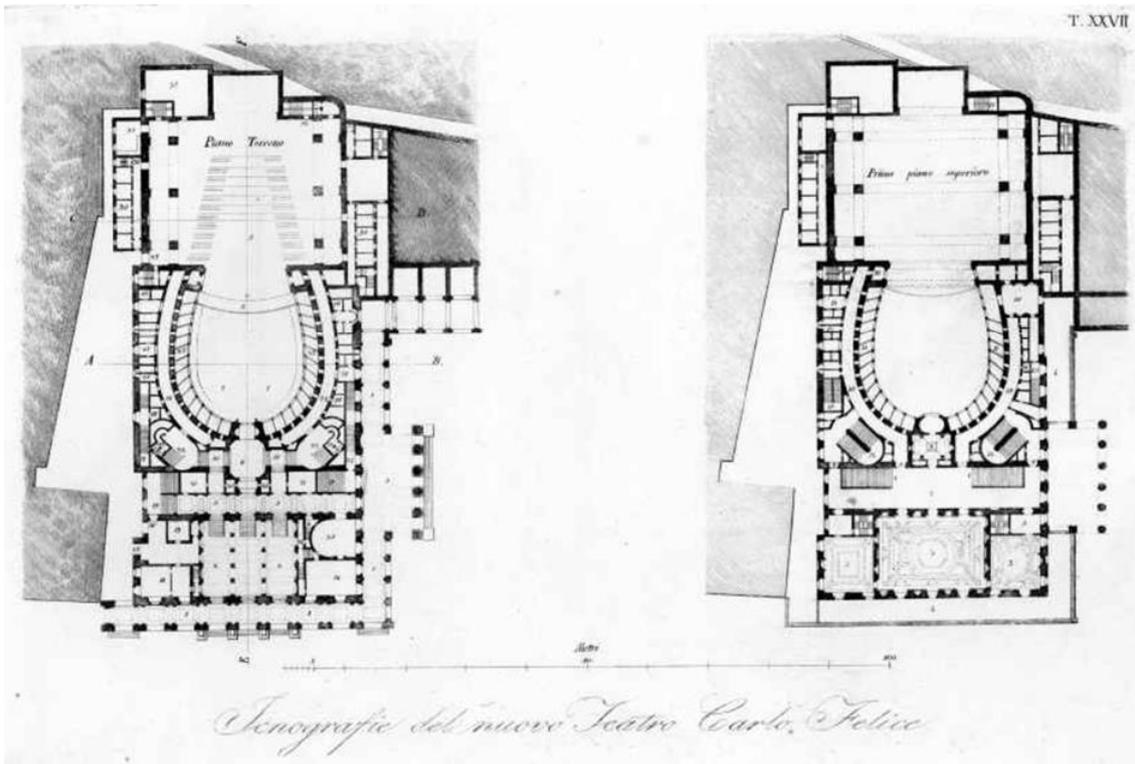
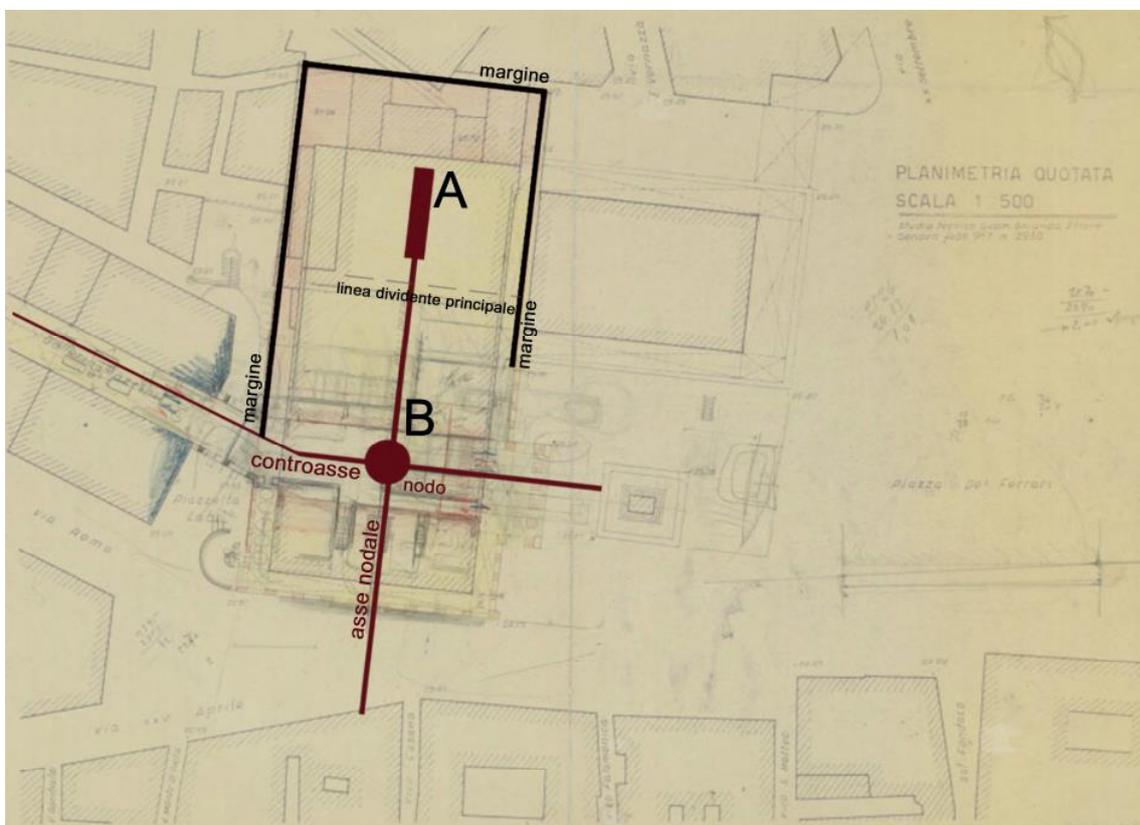


Fig.1 Incognografia del nuovo Teatro Carlo Felice barabiniiano

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Fig. 2 Schema tipologico del Teatro Carlo Felice di Carlo Scarpa, A= scena, B= spettatori



Le città si studiano...presentazione di una ricerca

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Abstract

The reflection I propose concerns some projects developed but not builded in Rome between 1980 and 1990.

These projects allow us to develop a reflection on themes and methods used in contemporary design in the historical center. In them the functional distinction and design definition of the architects may identify some ways of architectural design in a stratified context such as the historical center of Rome.

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This projects are the one for archaeological site of the Imperial Forums designed by Leonardo Benevolo and Vittorio Gregotti in 1984; the project called "The modification of Rome" by Alberto Samonà and others, 1985; the design presented at the XVII Triennale in Milan coordinated by Franco Purini and others, in 1987, and at last, a project-manifesto for Roma developed in 1991 by Franco Purini.

In these projects, very different from each other, we may identify a sort of "beginning" or "foregoing" to which they are directly or indirectly reference, and especially a designing process by which we can deduct as many lines of development and interpretation of the design approach to existing city, meaning with it all of the material dimension and the imaginary one that defines the cityscape.

“Le città si studiano per tre ragioni e cioè in prima istanza semplicemente per studiarle e per catalogarne gli elementi e per individuarne le fasi storiche di crescita, in seconda istanza per scoprirne le leggi formative, infine per dimostrare, al contrario che queste leggi non esistono.”

(Franco Purini, Norma e sregolatezza)

I *fatti* che riguardano la città e l'architettura possono essere letti attraverso sistemi alternati di *permanenze* e *mutazioni*, e tali sistemi si susseguono in modo ricorsivo nelle varie epoche, in tal senso la declinazione del “nuovo” riguarda imprescindibilmente sia ciò che è permanente e ciò che muta e si trasforma.

Tale posizione non intende sottrarre al *contemporaneo* la determinante specificità che appartiene ad ogni momento culturale, ma piuttosto mira a sottolinearne i caratteri peculiari per via di *differenza* seguendo l'indicazione che ci dà Giorgio Agamben nel suo recente scritto.

Il paragone frequentemente usato, che propone di leggere la città come un *testo* consente di descriverne l'attualità come un'entità sdoppiata, composta da una realtà materiale e da una compresente realtà immateriale, e tale compresenza più o meno evidente nei secoli precedenti, ha oggi assunto un carattere particolarmente problematico. La storia della città è sempre stata scandita dalle immagini che la rappresentavano e la raffiguravano, e che costituivano il riflesso della materia urbana nella sua *imago*. E tale rappresentazione ha sempre assunto il ruolo di orientamento critico e di ideale indicazione, per il *destino* della città, se non addirittura il carattere di ammonimento.

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Le città possono dunque essere lette attraverso modelli, ipotesi ideali di cui la città fisica è traduzione e declinazione, in cui la misura della distanza da essi ne costituisce la stratificazione iconografica tanto quanto la loro affermazione come ad esempio il Campo Marzio Piranesiano e, tra molte altre, la Roma *reale* di epoche successive.

Ma ciò che produce la *rivoluzione moderna*, ad opera del Movimento Moderno sull'architettura e sulla città è a ben vedere paradossale. Attraverso un principio di astrazione si sovrappone e spesso si sostituisce alla città un'entità immateriale, *grafica*, che è il *disegno dell'invisibile*. Questo invisibile oltre a separare lo sguardo tra realtà e astrazione, non è percepito se non da chi conosce un nuovo codice, composto da sistema di segni che raffigurano le piante, l'attacco al suolo degli edifici. Questa indipendenza sancisce la nascita della nuova entità immateriale della città. Secondo Romano Guardini l'astrazione, poiché seleziona ciò che è fisso e immobile, ciò che non viene toccato dal tempo ma che ne è la sua iconografia è qualcosa di “indipendente dalla vita”, e nella rappresentazione della città moderna questo tratto di autonomia e indipendenza della forma rispetto all'esistenza assume un significato radicale. Se nel Campo Marzio Piranesi

compie un montaggio *memorabile*, nella città razionale l'anonimato, la ripetizione, il modello realizzano il progetto.

Il Piano non è l'unica rarefatta e estrema rappresentazione dello spazio urbano, si susseguono immagini sempre che evidenziano sempre più i caratteri di autonomia rispetto alla realtà fisica della città. Tutte le sperimentazioni di Archigram, Superstudio e numerosi altri gruppi di architetti sono immagini *trasgressive* e radicali che tentano il ricongiungimento tra lo spazio urbano e la sua rappresentazione prospettica. Non a caso le tecniche di rappresentazione sono riconducibili a quelle artistiche in senso proprio: tra tutte il collage e il montaggio. A questi si aggiungono i tentativi diversi ma sporadici, di riportare lo spazio urbano alla *descrizione* prospettica: il Town design ne è un esempio. Il rimando è a disegni *pittoreschi* che evidenziano lo spazio nella sua essenza visuale. Nelle rappresentazioni di Gordon Cullen e della scuola inglese, che verrà accolta da alcuni italiani, tra tutti Giancarlo De Carlo, la città è di nuovo descrivibile, traducibile e rappresentabile nella sua materialità attraverso scorci prospettici, inquadrature, percorsi e visuali.

Si sono determinati due *uomini*, due condizioni di esistenza del rapporto con lo spazio. E credo che in queste due dimensioni distinte e opposte si consumi il termine dell'umanità: connaturata allo spazio in cui essa vive e si rappresenta o *disintegrata* dalla realtà che è oggetto di realizzazione ad opera dei sistemi finanziari.

664 A fronte della congestionata successione fatta di accumulazioni, elisioni, sostituzioni, de-costruzioni, sottrazioni, per non dire vere e proprie distruzioni, che hanno riguardato la città dello scorso millennio, ci troviamo oggi nell'impossibilità di una unitaria anche se ideale ricomposizione del testo urbano e soprattutto della sua immagine. Anche la pratica del frammento, intesa sia come azione conoscitiva, come sperimentazione alternativa che ha origine dall'esistente, e infine come condizione strutturante la narrazione urbana, sembra aver esaurito la benefica azione dialogica che fino ad oggi aveva avuto nel configurarsi come categoria ri-fondativa del pensiero architettonico sulla città. Le ragioni riguardano prima di tutto due differenti posizioni della cultura architettonica attuale: la prima rappresentata da quella che potremmo definire del "realismo scettico", che si fonda su una graduale e inarrestabile conquista dello "spazio urbano come spazio dell'immagine" – individuato come ambito di manifestazione e di presidio del potere - da parte dell'economia; la seconda posizione occupata dal tentativo di sostenere una ricerca di avanguardia che concentra la propria attenzione negli ambiti della "contaminazione" del disciplinare, tentando di formulare programmazioni trasversali con l'obiettivo di ritagliare per l'architettura un nuovo ruolo nella dimensione iconica dell'urbano. Queste due posizioni costituiscono altrettanti raggruppamenti che contengono inevitabilmente diversificazioni al loro interno, ma possono certamente descrivere la varietà del panorama architettonico contemporaneo. La prima posizione, detta del "realismo scettico", è definita dalla corrente neo-funzionalista, che affonda le proprie radici nella modernità, che oppone il programma al progetto, fino

alle più radicali posizioni che ne affermano la sparizione, spostando la dimensione espressiva dalla ricerca linguistica alla sperimentazione delle possibilità della tecnologia. Questa corrente che ha la propria origine nella scuola olandese ed in particolare, nelle formulazioni teoriche di Rem Koolhaas, ha seguito differenti diramazioni la cui attenzione tematica si è concentrata sulla residenza collettiva, come definizione parametrica e seriale, più che come ricerca tipo-morfologica, e su edifici in cui la dimensione tecnologica costituisce ambito di sperimentazione particolare che aveva il sopravvento sulla definizione spaziale.

Una grande parte della ricerca architettonica della seconda metà del nostro secolo ha concentrato la propria attenzione sull'espansione urbana tentando di rispondere in modo significativo a quella parte della città che chiedeva il diritto a un proprio "codice". La periferia, termine che ha in sé il principio costitutivo dell'accerchiamento, prima di essere considerata una parte della città veniva scomposta in questioni, in domande e necessità: la necessità di alloggi, l'esigenza di nuovi spazi per l'abitare, etc. Questo per alcune complesse ragioni. Gli anni della ricostruzione avevano rappresentato il tentativo da parte degli architetti di determinare la rinascita del paese soprattutto attraverso la costruzione della "casa", come a riformulare un'identità comune, e a riconfigurare il "collettivo" a partire dallo spazio domestico.

Con il postmoderno cadono le coppie dialettiche e cade anche l'attenzione per la città come spazio di conflitti, Roma non è più città aperta, l'esterno urbano come ambito di rappresentazione e manifestazione della società, quando non è addirittura eluso, assume sempre più il carattere di un interno. La Storia assume nel contesto fisico e culturale italiano il carattere della *consuetudine*.

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A fronte di questo si attua inevitabilmente una riduzione che porta a due opposte pratiche: quella che afferma la necessità dell'istantaneità delle soluzioni, dando al Tempo il predominio sullo Spazio attraverso la sostituzione del progetto con il programma; e quella, opposta, che riconduce il fare architettonico ad una sfera *super-ideologica*. Si tratta del recupero di una dimensione teorica che riconosce la condizione genetica del pensiero come derivante da un'idea, e che quindi poggia su una struttura univocamente determinata.

Qui di seguito riporto un estratto di una ricerca da me condotta su dieci progetti per Roma mai realizzati.

L'oggetto di studio è di fatto il *corpo materiale di Roma*, traslato in uno spazio eventuale generato dalle proposte architettoniche non realizzate o semplicemente ipotizzate per la città.

La prima parte della ricerca riguarda i singoli progetti rispetto ad un contesto fisico e culturale cronologicamente ravvicinato, ed è sottesa da una dimensione interpretativa volutamente orientata, che ha come riferimento il progetto urbano e il ruolo dell'architettura nel rapporto con la città e la struttura urbana. Si tratta di un rapporto alternato e frammentato in cui sono riscontrabili movimenti di andata e ritorno, rimandi e rispecchiamenti. Essenzialmente definitivo ma anche inclusivo,

contenendo in sé l'istantanea ragione formale della città, il progetto urbano è strumentalmente utilizzato come *medium* tra architettura e città, la cui "rappresentazione" costituisce la fonte primaria per ogni immaginazione architettonica.

Si tratta di dieci progetti per Roma elaborati dal 1966 fino ad oggi e mai realizzati.

La non compiuta realizzazione produce alcune riflessioni che io credo siano di notevole interesse. Nonostante la necessaria definizione del tempo in cui sono stati prodotti, i dieci progetti sostengono con la loro esistenza una realtà divisa tra passato, presente e futuro della città, definendone tre ambiti corrispondenti. Il primo è quello di appartenenza dell'architettura al proprio tempo, in cui sono stabiliti i legami diretti tra struttura urbana e progetto, in cui emergono le ragioni contestuali rispetto ad una situazione storica concreta in cui esso si configura in prima istanza come avvenimento, nonostante, e soprattutto in attesa della sua realizzazione. Il secondo ambito della ricerca costituisce il momento di una riflessione del progetto come proiezione in un tempo successivo alla sua definizione, in cui si evidenziano le ragioni relazionali, sia rispetto ad altri progetti che alla avvenuta trasformazione urbana in cui esso è stato coinvolto. In questo secondo tempo si determina la distanza tra progetto e realizzazione, che essendo stata interrotta, ha generato una sospensione. Si tratta di fatto di un potenziamento della rappresentazione del progetto stesso che

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Per questo solo alcune parti del progetto emergono e si evidenziano costruendo un nuovo sistema di relazioni potenziali. Questo momento è di grande importanza e interesse poiché costituisce un procedimento selettivo che lentamente elide tutto ciò che è superfluo, che porta il progetto a tendere ad una forma sintetica pura. L'architettura in un viaggio nel tempo abbandona via via le parti che non le sono indispensabili per la propria esistenza immateriale, fino a diventare "distillato" di se stessa. È da qui che procedo nel terzo ed ultimo ambito cronologico, quello in cui il progetto è reso un'architettura primaria ed assoluta, isolata ad una distanza siderale rispetto al contesto che la doveva accogliere, pur non essendone la negazione, una distanza in cui permane la vita del progetto e che ne alimenta il confronto. Si configura un doppio, una città in cui le architetture progettate compongono uno spazio urbano immateriale eppure reale. Non si tratta semplicemente della dimensione intimamente aperta del contenuto profondo nonché essenziale dell'opera, ma della possibilità di essere nuovamente immessa nel circuito immateriale delle immagini/rappresentazioni dell'architettura.

In questo scritto riporterò solo una parte della ricerca, per evidenziare le precedenti considerazioni sull'*incompiutezza*: la ristrutturazione dei Lungotevere di Franco Purini e Laura Thermes e che, nella ricerca generale, introduce il primo ambito cronologico, quello degli anni Sessanta.

Il progetto di ristrutturazione dei Lungotevere di Franco Purini e Laura Thermes fa parte degli inizi di una riflessione teorica e progettuale sulla città

che potremmo idealmente individuare a partire dai disegni degli “Studi di strutture urbane” e dal manifesto del 1966 prodotto con lo Studio Atrio Testaccio “I motivi di fondo - Sulla Tecnologia - I problemi della città”. Si tratta dell'avvio di un percorso di conoscenza che contiene quei temi e quelle questioni che sono riconoscibili tuttora come permanenze nel pensiero e nell'opera dei due architetti. La prima è sintetizzabile schematicamente nella triade “architettura - costruzione - consumo”, in cui il rapporto tra oggetto architettonico e informazione, intesa etimologicamente come un processo di costruzione-formazione oltre che dell'oggetto anche della sua *imago*, è considerato come problema aperto interno all'architettura e anche come superamento della definizione-appartenenza dell'oggetto architettonico a qualsiasi categoria di organicità. Il fine è di arrivare nella definizione del progetto, al punto più prossimo esistente tra struttura formale e architettura.

La seconda evidenza la convinzione dell'irriducibilità della conoscenza a prodotto della storicizzazione del passato, e la conseguente affermazione di inutilità di una legittimazione storica o storiografica sostituita con l'operatività intesa come azione di conoscenza a tutti gli effetti. Così anche la dimensione critica e l'interpretazione ricadono nella sfera più vasta pertinente alla poetica - poiché l'architettura è essa stessa un'arte - ma tuttavia al di là dello stile, e riguardano solo l'architetto, per il quale il procedimento compositivo è azione identificativa della distanza da porre tra sé e il passato, il presente e il futuro.

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Infine, ma non per concludere, la tecnica ricondotta ad essere una modalità costruttiva che si esprime attraverso una semplicità primaria, archetipica, in cui gli elementi architettonici sono composti con gesti costruttivi minimi. Il carattere primordiale della strutturazione degli elementi assume rispetto alla tecnica costruttiva il ruolo di ricondurre l'elemento alla propria materialità attraverso una composizione intelligibile nella processualità che l'ha generata. Il binomio “innovazione tecnologica e ricerca formale” consente il superamento dei consolidati rapporti tra l'architettura, lo stile e la storia. La tecnologia perde la semplice accezione di studio delle soluzioni tecniche da mettere in atto per risolvere un problema tettonico al fine di unire la visione statico-tettonica con quella architettonica. Nella dimensione tecnologica del progetto architettonico l'innovazione costituisce la base su cui innestare un nuovo linguaggio. Spinta da un'intenzionalità programmatica che si radica nella ricerca e nelle sperimentazioni architettoniche post-belliche, nella evidenza costruttiva delle architetture razionaliste, ed infine nell'ambito di una permanente critica al Movimento Moderno, la tecnologia assume per i giovani architetti romani, un ruolo incentrato su innovazione e ricerca formale. Da un lato si delinea una continuità con le sperimentazioni degli anni cinquanta in cui i nuovi materiali sono soprattutto ragione ed espressione delle nuove possibilità formali, dall'altra si evidenzia un panorama di grande intensità espressiva in cui il principio moderno della serializzazione viene positivamente assoggettato alla costruzione architettonica.

Per concludere, esiste una dimensione diretta nel quale il progetto espresso dalle soluzioni tecniche si compie come materiale architettonico, ma in esso risiede anche una seconda dimensione ideale e immateriale che raccoglie il pensiero sull'architettura, ne traduce una dimensione più universale, alla quale possiamo, anche ad essa, continuamente attingere.

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La lezione di Roma nell'architettura di Alessandro Anselmi e Francesco Venezia

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Abstract

For many architects, who attribute to memory a fundamental role in their creative process, Rome and its multiple spatiality have been and continue to be extraordinary sources of inspiration.

Its ruins, expression of the fragment and unfinished condition, have been used as a bare architecture, plugging in a new building, or as a layer on which build up the following one. Their building systems and urban role have attracted architects from different eras.

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Its Renaissance buildings show how architects have been able to adapt the principles of symmetry to the irregularity of the sites, generating exciting new solutions.

Thereafter, the baroque architects change the relationships between architecture and urban space and create innovative devices for shape the light.

This great repertory of space, intervention strategies, architectural themes that Rome offers, is used by many modern and contemporary architectes that, starting from their experience of those places, have studied them and reuse, reinterpreting them in their projects.

Among them, the intervention aims to deal with two Italian architects: Alessandro Anselmi (1934-2013) and Francesco Venezia (1944). Both have selected from this extensive repertory buildings and places, that, captivated by their memory, could emerge later, providing strategies and meanings to their projects.

Roma è stata e continua ad essere fonte di ispirazione per molti architetti, che hanno tratto, da questo eccezionale palinsesto, spazialità, forme, elementi da utilizzare nei loro progetti.

Il rapporto tra storia e progetto è fecondo quando suggerisce idee e strategie di intervento che, reinterpretate e aggiornate, permettono all'architettura di divenire poetica, di stimolare risvegliando ricordi e emozioni.

Si è scelto di descrivere le idee e le strategie di intervento che Roma ha suggerito a Alessandro Anselmi (1934-2013) e a Francesco Venezia (1944), due architetti italiani, che nel momento in cui la lezione del Moderno è stata messa in discussione, hanno ricercato, ognuno con le proprie modalità, in un diverso rapporto con la storia, una via alternativa sia allo storicismo-postmodern che alla "Tendenza".

Per Anselmi la storia è "il contenitore di tutti i possibili antecedenti logici della progettazione (la storia come scienza) e di tutte le tracce fisiche contenute nel territorio (la storia come realtà). I primi permettono all'elaborazione progettuale di rapportarsi agli *archetipi* e quindi di dare senso alle nuove forme della progettazione, le seconde permettono il radicarsi del progetto nel luogo e quindi la possibile costruzione della sua identità. L'interpretazione storica insieme alle capacità creative dell'architetto possono essere considerate *l'energia del progetto*"¹.

Nell'intervento alla giornata di studi "Storia e Progetto"² del 2009, Anselmi chiarisce come la storia, in seguito alla rottura avvenuta negli anni '60, non è più una sequenza di eventi consequenziali, collocabili cronologicamente secondo una successione verticale, ma diventa un eterno presente, orizzontale, nel quale gli avvenimenti coesistono. La modificazione del concetto di storia comporta inevitabilmente anche la variazione del suo ruolo nel progetto, assumendo le due modalità dette in precedenza: il progettista è libero di prelevare ciò che vuole all'interno di questo eterno presente; il rapporto con la storia è sempre meno legato ad una ricerca di elementi stilistici o di regole e sempre più rintracciabile nella realtà dei luoghi. "L'architetto - afferma Anselmi - deve sviluppare e maturare una sensibilità che gli permetta di sentire la storia attraverso il luogo"³.

Anselmi matura questa sensibilità a Roma, città nella quale nasce e si forma come architetto. Egli stesso riconosce che le sue idee progettuali, i temi ricorrenti sui quali lavora, sono influenzati dall'essere romano. "Credo che un architetto formatosi a Roma, indipendentemente dai suoi maestri e dà ciò che va osservando, sarà in qualche modo diverso da quello che si forma a Milano, Parigi, Londra. Mi spiego: l'architettura romana è sempre stata segnata dalla forte plastica, da grossi spessori murari, dagli ornati molto pronunciati, dalla luce molto intensa che genera una

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1 Alessandro A. (2000), *Saper credere in architettura* (Clean Napoli) 28-29.

2 Alessandro A. (2009), *intervento* alla Giornata di studi *Storia e progetto*, 11 giugno 2009, a cura di Conforti C., Marconi N., Ramazzotti L., Falzetti A., Facoltà di Ingegneria, Università degli studi di Roma Tor Vergata.

3 Ibidem.

spiccata tridimensionalità”⁴.

I volumi plastici e l'uso dell'ornato al fine di generare ombre ed effetti chiaroscurali sono i dispositivi utilizzati da Bernini e ripresi nella seconda metà del Novecento da Luigi Moretti. Louis Kahn, dopo il suo soggiorno a Roma nel 1950 presso l'American Academy, progetta edifici caratterizzati da grossi spessori murari e da spazi cavi fortemente chiaroscurati. Mario Ridolfi impiega forme plastiche, ma anche elementi strutturali in rilievo rispetto alle tamponature in modo da generare ombre. Angiolo Mazzoni contamina i volumi con esili superfici.

Anselmi fa riferimento a questi architetti, ma anche direttamente all'antichità e alla storia urbana di Roma che gli forniscono i temi progettuali che diventano costanti del suo lavoro. Le rovine, espressione dell'idea di frammento e di non-finito, sono per Anselmi le uniche in grado di rappresentare la condizione contemporanea; analogamente, le sue architetture non sono mai volumi unitari e conclusi, ma composizioni incomplete e non-finite. Il circo di Massenzio e le mura Aureliane, alle quali Anselmi si riferisce in diverse occasioni, suggeriscono come frammenti sparsi, di epoche diverse possano essere riconnessi da un recinto o un muro. La Roma degli assi sistini e delle scalinate rinascimentali e barocche indica a Anselmi un'altra modalità di ricomporre i frammenti: la costruzione di un vuoto urbano, direzionato e misurato dalla prospettiva.

672 Insieme ad altri spunti prelevati dalle arti figurative, temi progettuali come lo spazio prospettico, la scena urbana, Recinto e frammenti, Piano e superficie, danno forma alla sua architettura. Queste stesse categorie sono state scelte dall'architetto per descrivere le sue opere esposte alla mostra *Alessandro Anselmi. Piano superficie progetto*, tenuta al MAXXI nel 2004.

Si è scelto di esemplificare la lezione di Roma nell'opera di Alessandro Anselmi attraverso due progetti che mostrano come i riferimenti che egli preleva dalla città, selezionandoli in base alla sua sensibilità, si traducano in strategie urbane su cui strutturare il progetto e in dispositivi architettonici per produrre determinati effetti e figure.

Il primo progetto, del 1984, è destinato alle residenze speciali sull'area degli ex frigoriferi del mattatoio di Testaccio. (fig. 1) L'incarico prevedeva la demolizione del fabbricato preesistente e la sua sostituzione con quello progettato da Anselmi. Per non alterare i rapporti di scala che caratterizzano il luogo, il nuovo edificio assume l'area di sedime di quello precedente e l'altezza degli isolati circostanti. All'analisi delle caratteristiche del contesto, Anselmi lega la riflessione sulla complessità degli aggregati urbani e la riporta nel progetto. Il corpo di fabbrica si frammenta in due muri tridimensionali per inserire tra loro uno spazio pubblico: una gradinata che termina con un belvedere che permette una vista dall'alto dall'alto del quartiere e dell'adiacente monte dei Cocci. Questo elemento reinterpreta il dispositivo tipicamente romano delle scalinate che giungono a un luogo elevato dal quale si vede il

4 Anselmi A., (2000), *op. cit.* 38-39.

panorama della città.

I due muri tridimensionali "alludono a porzioni di antiche mura cittadine, integrate con gli ampi ritmi delle bucaure dei grandi palazzi di Roma"⁵. Quest'ultimi sono evocati anche dalla gradonata addossata alla base della facciata che fronteggia la vasta piazza antistante. Tale prospetto è caratterizzato da una scansione orizzontale prodotta da modanature che interagiscono con l'andamento leggermente zigzagante delle finestre, creando ulteriori effetti chiaroscurali. Inoltre, un grande portale, reinterpretazione delle porte urbane all'interno delle mura o di quella del recinto che circonda il mattatoio, permette nuovamente allo spazio urbano di penetrare nell'edificio. Le quinte interne sono, invece, definite da un esile telaio. Tra questo e la massa muraria che contiene gli alloggi si collocano ballatoi che danno accesso agli appartamenti e favoriscono l'incontro tra gli abitanti.

Anselmi utilizza la stessa idea spaziale - la costruzione di un vuoto urbano, direzionato e misurato - nel progetto per Rezé-les-Nantes, un agglomerato urbano privo di emergenze architettoniche, ad eccezione dell'Unité d'Habitation di Le Corbusier. Quando bisogna trasformare aree periferiche prive di coerenza e identità, Anselmi ritiene che gli strumenti ai quali l'architetto può ricorrere siano le mappe che permettono di conoscere la storia dei luoghi e il "percorrere il territorio per percepire le variazioni di ritmo degli spazi, i passaggi, le strozzature, i luoghi di concentrazione delle funzioni ma anche i luoghi di concentrazione dei simboli"⁶. A Rezé le mappe rivelano l'esistenza di un tracciato nord-sud, risalente all'epoca gallo-romana. Anselmi progetta un vuoto direzionato secondo questo tracciato, che ha come limiti un muro curvo e un edificio preesistente che indirizzano lo sguardo verso l'Unité d'Habitation. Ritornano le spazialità recepite a Roma e in particolare, l'idea che un muro, anziché essere elemento di separazione, sia, invece, un elemento di riconnessione di frammenti sparsi. Claudia Conforti, nel saggio introduttivo alla monografia su Anselmi, osserva che è il quartiere San Giovanni a Roma, dove l'architetto è nato e cresciuto, a suggerirgli questa inversione del ruolo urbano delle mura. Lì "il segno di limite, di confine, di esclusione spaziale, connesso alla cinta muraria è messo in crisi dalla particolare struttura del quartiere, del quale le mura costituiscono l'asse di gravitazione topologica: monumenti e siti, dislocati qua e là delle mura, ricevono senso e funzione urbana dalla dorsale che li attraversa"⁷. Analogamente, il muro curvilineo che Anselmi progetta a Rezé "organizza, in un coerente insieme urbano, preesistenze sparse: una chiesa neogotica, alcune ville, La Maison Radieuse di Le Corbusier. Anche qui la natura concettuale del muro - limite, confine, separazione - viene contraddetta e ribaltata nel suo contrario: il muro

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5 Alessandro A. (1984) 'Progetto per le residenze speciali sull'area degli ex frigoriferi del mattatoio al Testaccio', in Conforti C. e Lucan J. (a cura di), *Alessandro Anselmi architetto* (Electa Milano) 86.

6 Alessandro A. (1990) 'Il limite del progetto', *Anfione Zeto* 4-5, 47.

7 Conforti C. (1997) 'L'apologia dell'architettura nell'opera di Alessandro Anselmi', in Conforti C. e Lucan J. (a cura di), *op. cit.*, 7-8.

non divide, ma anzi diviene la calamita lineare che attrae spazi e edifici, istituendo gerarchie prospettiche e connessioni spaziali”⁸.

Ritorna anche la costruzione per assi prospettici che informa la crescita di Roma: a Rezzè, tuttavia, Anselmi non impiega il vuoto direzionato dalla prospettiva in quanto forma simbolica dell'architettura, ma un tracciato nord-sud che appartiene a quel luogo specifico e per questo può strutturare quel progetto specifico. Egli, infatti, conclude la relazione del suo progetto con queste parole: “La lettura di una cartografia, la scelta di una traccia storica, l'individuazione di un percorso, la spazialità liquida dentro la quale sono immersi frammenti, costituiscono le parti con le quali si è voluta costruire una scena urbana che non fosse una scenografia”⁹.

Francesco Venezia riconosce un ruolo importante alla percezione e alla variazione del punto di vista, più che per comprendere un luogo, come dispositivo da utilizzare per creare un'architettura poetica. In una lezione dal titolo *Il controllo dell'orizzonte*, propone numerosi esempi di artisti, che assumendo posizioni diverse da quella eretta, percepiscono la realtà in modo diverso dal consueto e, di architetti che progettano dispositivi che permettono di vedere il paesaggio, lo spazio o alcuni suoi elementi in modo inusuale. In questa lezione Francesco Venezia rileva come la conformazione topografica di Roma offra punti di vista molteplici che permettono di percepire la città in modo sempre diverso. Ad esempio, la cordonata che conduce a piazza del Campidoglio è per l'architetto napoletano “una straordinaria macchina del controllo dell'orizzonte”¹⁰.

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“Quando siamo in basso prevale l'immagine della cordonata; in alto, protagonista è la balaustra monumentale. La piazza è inghiottita dalla linea dell'orizzonte, che è in basso insieme a noi, ai nostri occhi; si intuisce appena per l'evidenza delle due testate dei palazzi laterali, i cui fronti sono risucchiati nell'imbuto prospettico. Vediamo emergere sul fondo la parte alta del terzo edificio, quello frontale. Cominciamo a salire lungo la cordonata e, mentre la balaustra rimane inchiodata al suo posto, si attenua progressivamente l'imbuto prospettico dei due palazzi laterali e comincia a sorgere sul bordo della piazza la statua equestre di Marco Aurelio. Quando siamo sugli ultimi gradoni vediamo per intero la statua sul suo alto piedistallo, l'edificio frontale con la doppia scalinata a cui è addossata la Vasca dei Fiumi. I due palazzi sono ora in una prospettiva tranquilla, corretta quel tanto dal loro impianto sui lati del trapezio inverso, voluto da Michelangelo per la forma della piazza. La piazza ci appare nella sua splendida unità. Come un sole è sorta sull'orizzonte ... Issando il nostro orizzonte abbiamo letteralmente fatto sorgere nel nostro campo ottico elementi che prima erano in parte invisibili. Raggiungiamo il fondo della piazza, ci voltiamo: è ora la parte prossima della città, in basso, ad essere esclusa dal nostro sguardo. La balaustra con le sue statue di

8 Ibidem.

9 Anselmi A. (1990) *op. cit.*, 50.

10 Venezia F. (1995), 'Il controllo dell'orizzonte', in Venezia F. (2011), *Che cosa è l'architettura. Lezioni, conferenze, un intervento* (Electa Milano) 52.

schiena ci appare sospesa sul vuoto, in diretto colloquio con la parte meno prossima e con il profilo della città. L'urbanistica, l'arte di costruire la città, ci si rivela come qualcosa che ha a che fare con il movimento, con il nostro movimento e con quello collegato del nostro orizzonte"¹¹.

In un altro saggio, *L'architettura del suolo* (2008), Venezia osserva come Giovan Battista Piranesi in alcune delle sue *Vedute di Roma* abbassi il punto di vista per vedere le sostruzioni delle rovine antiche e rappresenti solo questa parte, omettendo quella superiore in modo da concentrare su di essa l'attenzione.

L'architetto napoletano, oltre alla modificazione del punto di vista per percepire le cose in modo inusuale, è, come Piranesi, molto interessato agli elementi costruttivi che ancorano l'edificio al suolo. Egli rintraccia nelle sostruzioni delle rovine romane soluzioni di grande interesse che utilizza nelle sue opere: quelle della Domus Aurea ritornano nel suo progetto per la Stadhalle a Regensburg del 1987 e la *concameratio* del basamento del Mausoleo di Augusto ispira quello per la riqualificazione di piazza Abbazia a Corato del 2009.

A Regensburg, l'area di concorso si sviluppa lungo la riva del Danubio, a ridosso del monumentale Ponte di pietra e sulla sponda opposta al centro antico. Il bando di concorso richiedeva di progettare la Stadhalle, un ponte e la sistemazione delle rive del fiume, soggette in questo tratto a periodiche esondazioni. Francesco Venezia propone un basamento composto da una successione di muri paralleli raccordati da archi, che evoca, fondendole insieme, le strutture delle sostruzioni della Domus Aurea, del teatro Farnese a Parma, del Palazzo della Ragione a Padova e quella del vicino Ponte di pietra. (fig. 3) Questa piazza coperta avrebbe ospitato il mercato, che si svolgeva già nell'area, mentre durante le piene si sarebbe trasformata in uno specchio d'acqua suggestivo per i riflessi gli archi. La Stadhalle sarebbe sorta sopra questo imponente basamento come costruzione autonoma, strutturata su un diverso asse di simmetria.

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A Corato, invece, l'area di progetto, pur collocandosi nel centro storico, è costituita da uno slargo irregolare e slabbrato, delimitato da fabbricati fortemente degradati. Il progetto di Venezia restituisce unità al sito attraverso una figura rigorosa e chiara: un cerchio che definisce la forma di due muri concentrici che isolano la piazza rispetto agli edifici circostanti, creando un luogo di pace e di quiete. (fig. 4) L'idea del progetto è suggerita dal riemergere dalla memoria dell'architetto della *concameratio* che definisce il sistema costruttivo del basamento del Mausoleo di Augusto caratterizzato, appunto, da due muri circolari concentrici raccordati da setti, tra i quali si forma un'intercapedine. In passato, il Mausoleo è stato adibito anche a giardino, che viene rievocato nel progetto per Corato inserendo alberi di melograno tra i due setti. Lungo il muro interno, Venezia colloca un sedile, coperto da una pensilina, che si interrompe in corrispondenza dei tre ingressi. Altri cerchi concentrici individuano piccoli salti di quota all'interno della piazza, permettendone anche l'uso

11 Venezia F. (1995) *op. cit.*, 53.

come teatro, secondo quanto richiesto dall'amministrazione comunale. In alcuni punti il muro esterno si deforma per inserirsi all'interno di vuoti tra gli edifici circostanti in modo da integrarsi con le costruzioni esistenti. Francesco Venezia voleva che gli elementi che compongono la piazza fossero percepiti come un reperto archeologico, da tempo insediato in quello luogo.

Un altro aspetto delle rovine che attrae Francesco Venezia è la loro natura frammentaria e di non-finito, aspetto che interessa anche Anselmi in quanto espressione della condizione contemporanea nella quale niente può essere più riportato ad unità; a Venezia, invece, perché permette di comprendere le cose nella loro stratificazione temporale, nel loro mutare nel tempo. Per l'architetto napoletano, le rovine non sono solo "nutrimento per la formazione intellettuale e tecnica" degli architetti, ma anche materia da predare e inserire in nuovi progetti per dare loro una nuova vita: costruire sulle rovine inglobandole, inserire frammenti antichi all'interno di nuove costruzioni era una pratica usuale dell'architettura fino alla nascita dell'archeologia come disciplina scientifica. Dall'inizio del XIX secolo "le rovine, invece di essere oggetto dell'attività di geniali predatori, diventano oggetto di una scienza che si propone di ricostruire attraverso i resti del passato la storia e l'arte dei tempi remoti, su cui si stende una rete di riflessioni, ricostruzioni, congetture interessantissime, altamente scientifiche, ma assolutamente infeconde rispetto a quello che è la vita... La separazione ... che io definisco fatale tra il mondo del costruire e il mondo delle rovine che hanno sempre nutrito la costruzione..., ha segnato l'inizio del declino dell'architettura"¹².

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Nelle sue lezioni, Francesco Venezia indica numerosi esempi della relazione fruttuosa tra rovine e architettura, tra i quali ricorre la chiesa di Santa Maria degli Angeli di Michelangelo creata negli spazi delle terme di Diocleziano, nella quale il non-finito diviene progetto, è esibito configurando la facciata della chiesa.

Un altro edificio citato spesso da Francesco Venezia è il Palazzetto di Pio IV in via Flaminia di Pirro Ligorio dove i frammenti delle mura della villa di papa Giulio II e una fontana di Bartolomeo Ammannati sono inseriti nel nuovo edificio, che assume, quindi, una pianta trapezoidale.

Quando, nel 1981, Venezia riceve l'incarico di trasferire e sistemare a Gibellina Nuova un frammento della facciata del palazzo Di Lorenzo, resa rudere dal terremoto, opera nello stesso modo di Pirro Ligorio: ingloba la facciata nella composizione. (fig. 5) In realtà le condizioni sono diverse: il frammento del palazzo Di Lorenzo non si trova in situ ma vi viene trasportato per ricordare il tragico evento. Venezia sceglie di non restituirgli il ruolo di quinta urbana all'interno dell'abitato poiché esso è integralmente nuovo e privo delle dimensioni e regole insediative che definivano quello antico. Propone, invece, di rimontare la facciata in un interno di proporzioni adeguate. Crea, quindi, un cortile murato, la cui pianta rettangolare si struttura su un rapporto di 1:4. Dei quattro muri che

12 Venezia F. (2011), 'La separazione fatale', in Venezia F. (2011), *op. cit.*, 16-17.

delimitano questa stanza a cielo aperto, due sono raddoppiati: quello verso nord forma uno stretto corpo di fabbrica, leggermente separato dal volume principale da una piccola asola vuota; quello nel quale è incastonato il frammento, crea al primo piano una galleria che permette di affacciarsi, verso l'interno attraverso i balconi della facciata rimontata e, verso l'esterno, mediante bucatore nel nuovo setto, che assumono lo stesso ritmo e dimensione di quelle dell'antico palazzo. Nel fronte opposto, un'unica finestra centrale, collocata in corrispondenza al balcone della facciata del palazzo Di Lorenzo e all'apertura nel muro esterno, permette allo sguardo di attraversare questa serie di setti e di vedere il paesaggio. In questo modo la facciata conserva la sua natura di rudere, non ha un uso, non racchiude uno spazio, è attraversata dalla luce e integrata nel paesaggio naturale. Tutte le scelte progettuali sono, infatti, finalizzate a fare in modo che sia la stanza aperta verso il cielo che lo stretto corpo di fabbrica staccato mediante la piccola asola siano, come le rovine, incomplete e non-finite e che, come queste, affidino le qualità degli spazi che delimitano all'interazione tra materia e luce, che rende tangibile il loro mutare nel tempo.

Un ultimo esempio mostra che ciò che di Roma affascina maggiormente Francesco Venezia è la sua stratificazione. "Amo Roma, il centro storico di Roma, perché là è avvenuto un miracolo: abbiamo avuto la città antica, poi la città medievale che ha devastato l'antica occupandone le rovine, e infine la città rinascimentale, che ha voluto riconquistare l'antico con le sue simmetrie, ma ha dovuto fare i conti con l'intrico della città medievale ed è nato ... quel continuo adattarsi di modelli ideali a siti irregolari per le contorsioni delle strade"¹³. Nel Rinascimento, infatti, l'architettura si basa sul principio della simmetria, ma a Roma gli architetti devono confrontarsi, costruire all'interno delle irregolarità dei tessuti medievali. Questa difficoltà genera un'invenzione straordinaria: le simmetrie parziali. L'architetto napoletano studia attentamente i tre libri *Edifici di Roma moderna* di Letarouilly e recepisce come gli edifici illustrati, nonostante si collochino in lotti definiti da sagome molto irregolari, si strutturino su assi di simmetria che variano ogni volta che il lotto assume una nuova giacitura.

Quando Francesco Venezia nel 1993 partecipa al concorso per un polo giuridico e economico e una biblioteca universitaria ad Amiens è la lezione di Roma appresa da Letarouilly a suggerirgli una soluzione che valorizzi le caratteristiche del luogo e risponda alle numerose richieste del bando. Venezia specifica come Amiens sia un caso eccezionale del suo lavoro, uno dei pochi progetti nel quale il contesto e i suoi caratteri determinano l'idea di progetto. L'area si colloca lungo un canale dal quale deriva la sua forma irregolare; dalla parte opposta del canale, sorge la Cattedrale su un piano la cui quota è superiore di sei metri e mezzo rispetto a quella prevista per il polo universitario. Il bando chiede di preservare la vista della parte alta della cattedrale dalla strada lungo il fronte settentrionale del

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13 Venezia F. (2010), 'Conversazione tra Antonio Monestiroli e Francesco Venezia', *Casabella* 800, 36-37.

nuovo edificio e quella dal percorso che divide trasversalmente il lotto. La prima scelta di Venezia è di riproporre il modo degli architetti rinascimentali romani di adeguare gli edifici alla sagoma irregolare del lotto, contrapponendovi all'interno spazi regolari e simmetrici; queste due diverse giaciture creano una serie di spazi di risulta che possono accogliere attività che richiedono piccole dimensioni e che, secondo l'architetto napoletano, sono di grande interesse. (fig. 6) La seconda scelta dell'architetto consiste nel collocare i due ingressi al polo e alla biblioteca, uno di fronte all'altro, lungo la strada che divide trasversalmente il lotto e che si allarga formando una piazza trapezoidale che rafforza la prospettiva verso la cattedrale. Il rapporto con quest'ultima è evidenziato sul fronte lungo il canale da una trave in calcestruzzo aggettante, posta all'altezza della quota del sagrato. Questa trave connette le due parti e crea una cornice che con la sua ombra mette in evidenza la parte basamentale dell'edificio, segnata anche da un rivestimento diverso: l'alternanza tra lastre di pietra di Saint Leu e mattoni nel basamento, soli mattoni nella parte superiore. Il fronte settentrionale è caratterizzato da un portico, separato dal volume retrostante in modo da permettere che la luce penetri negli ambienti esposti verso nord.

Attraverso queste architetture si è voluto illustrare diverse modalità che il rapporto con lo straordinario patrimonio architettonico e urbano di Roma assume nell'opera di Alessandro Anselmi e Francesco Venezia. É un rapporto che deve continuare ad essere, come è stato in passato, fonte di ispirazione per gli architetti, ma anche materiale e palinsesto sul quale costruire nuovi spazi nei quali la vita continua.

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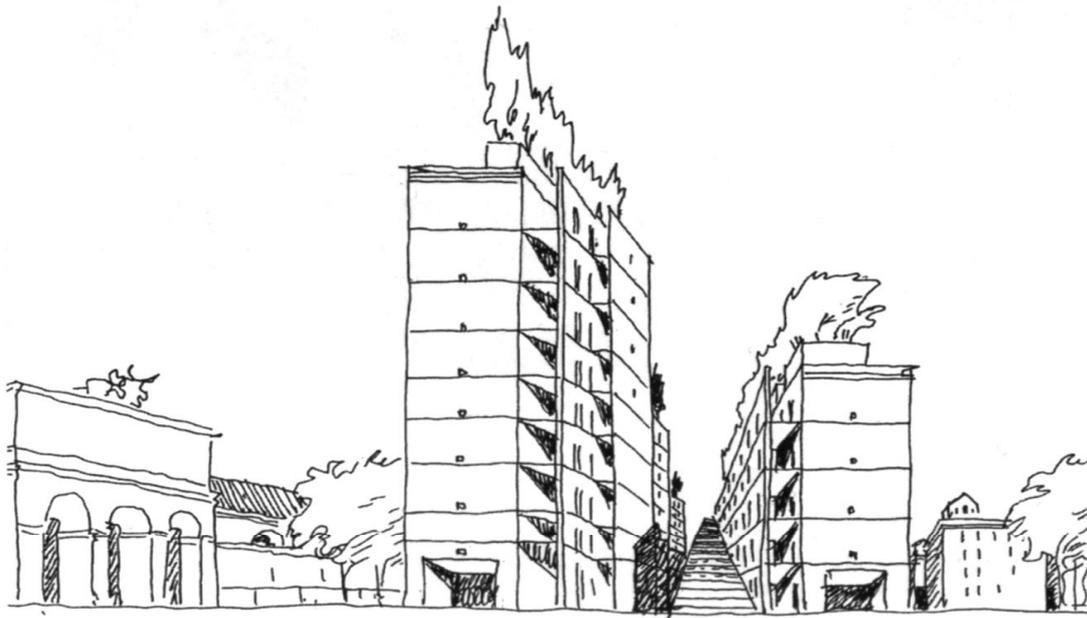


Fig. 1 Alessandro Anselmi, Progetto per residenze speciali sull'area degli ex frigoriferi del mattatoio di Testaccio a Roma, 1984.

Fig. 2 Alessandro Anselmi, Progetto per Hôtel de Ville di Rezé-les-Nantes, 1986.

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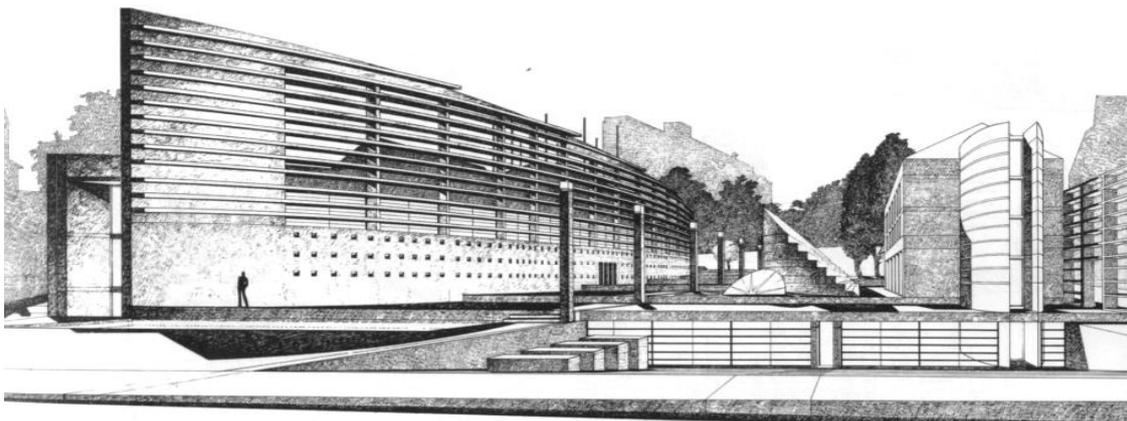
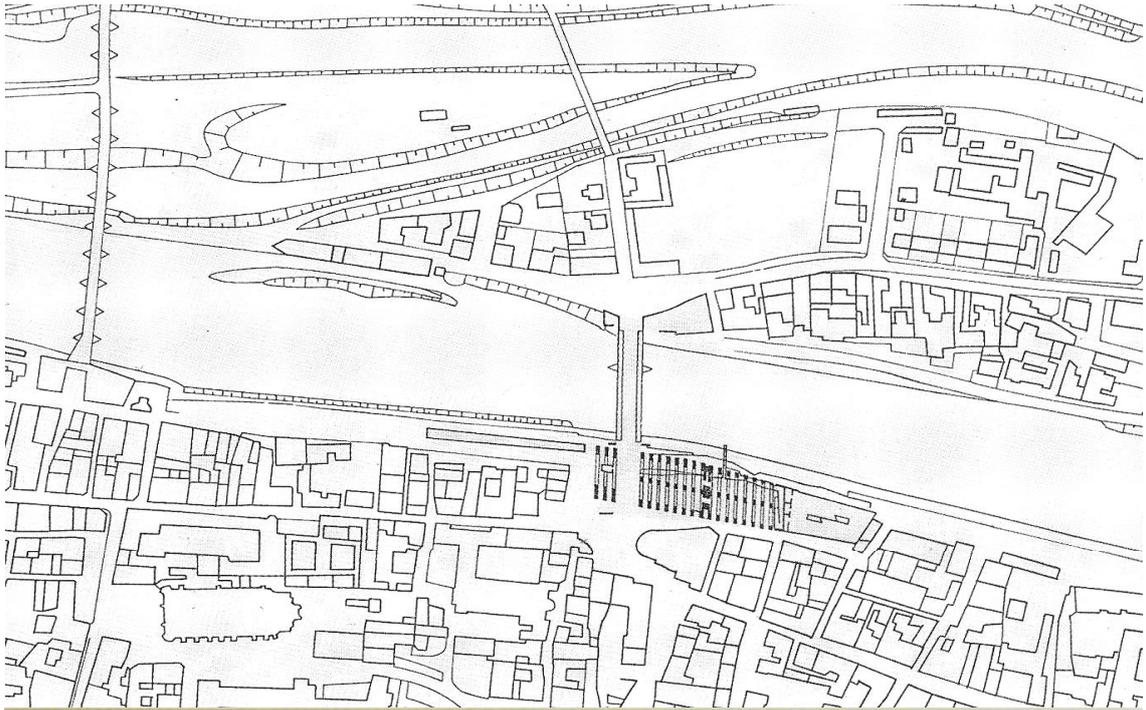


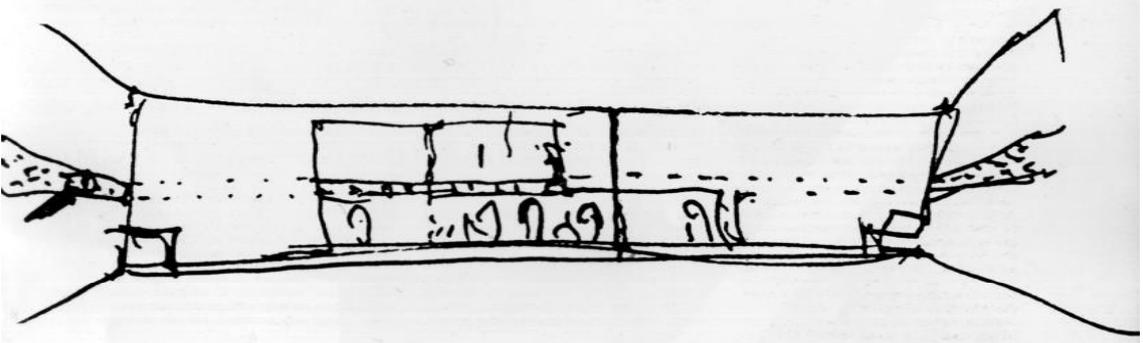
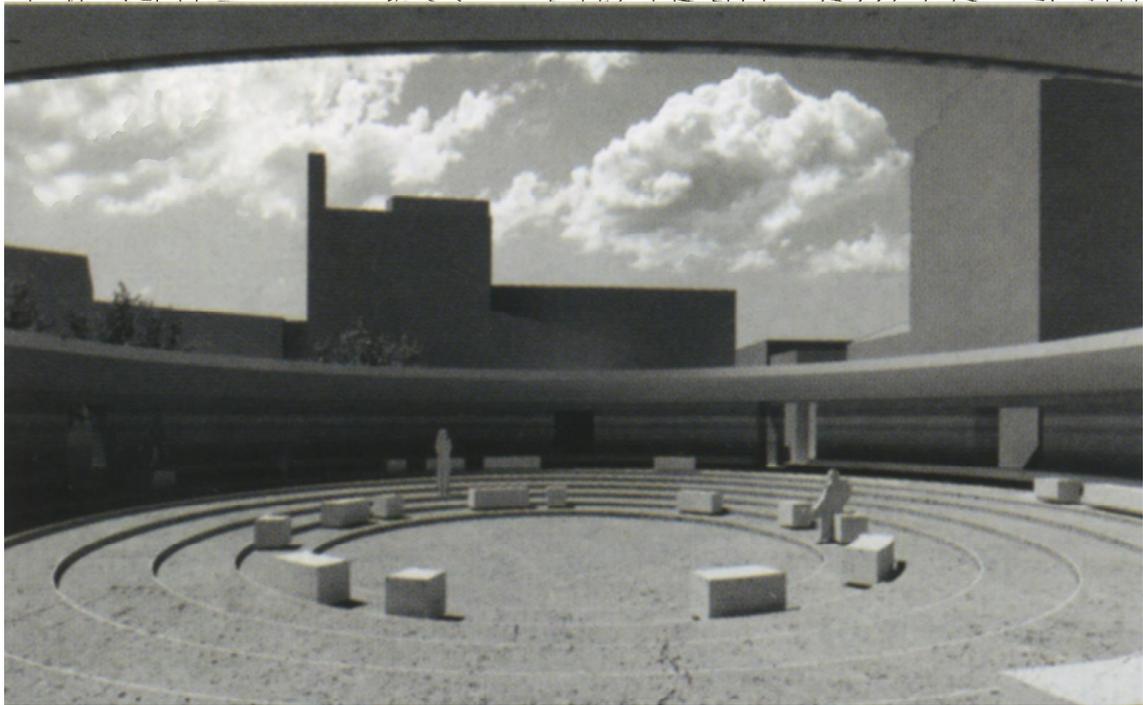
Fig. 3 Francesco Venezia, La Stadhalle a Regensburg, 1987, planimetria generale.

Fig. 4 Francesco Venezia, Progetto per la riqualificazione di piazza Abbazia a Corato, 2009.

Fig. 5 Francesco Venezia, Un museo a Gibellina, 1981-1987, schizzo di studio.



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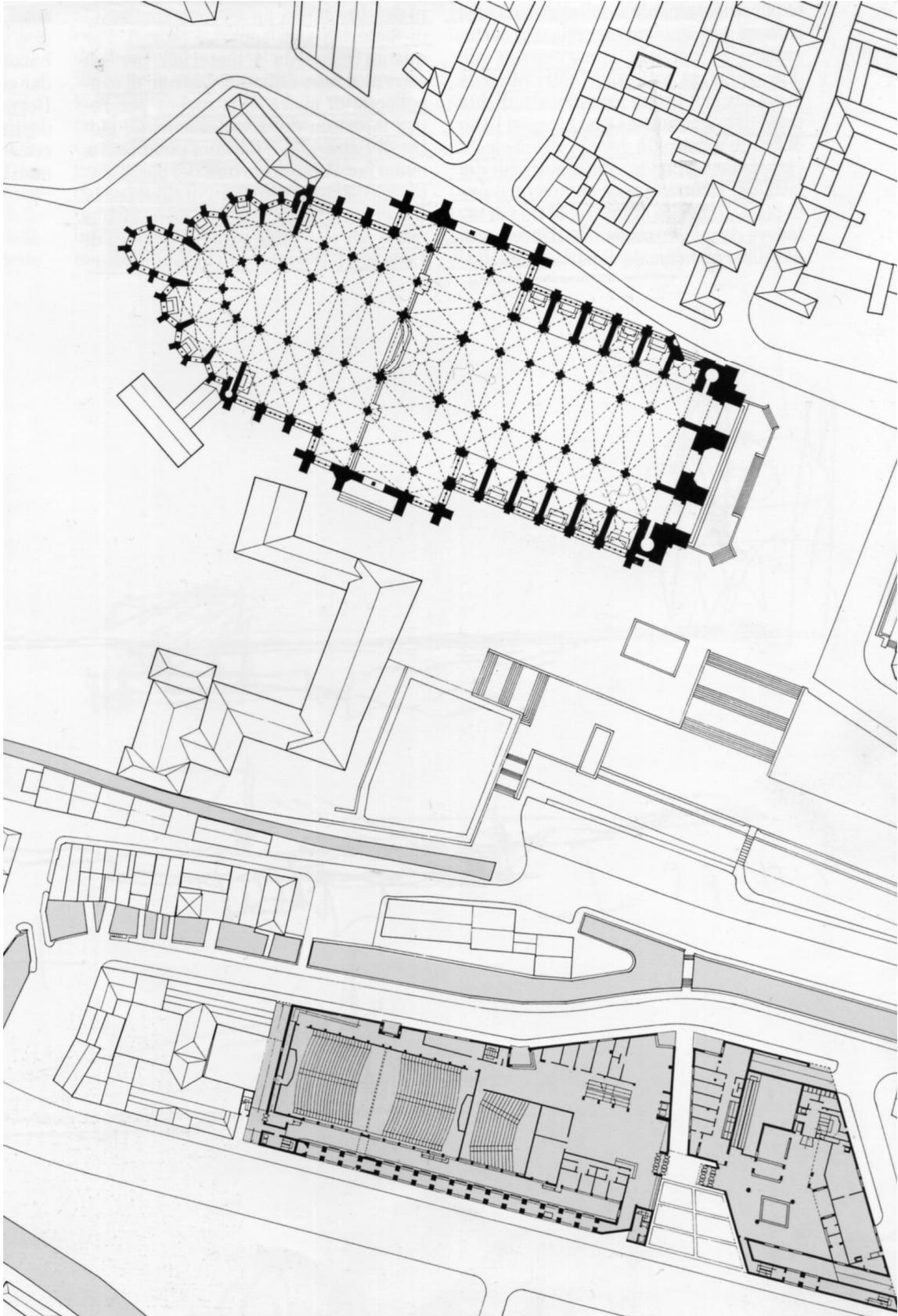


Fig. 6 Francesco Venezia, Polo giuridico ed economico e biblioteca ad Amiens, 1993-1997, planimetria generale.

Architectural Form and Urban Design: Kahn Interpretation of Rome

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Keywords: Kahn, Rome, Order, Form, Design

Abstract

682 *This report reviews the contribution made by Louis Kahn in the reading of urban morphology and architecture of Rome. It also covers related topics which have been identified as significant themes linked Kahn's interpretation of Rome, like the notion of Form as organism «made of inseparable parts» and the fundamental role of proportions and congruence. In his original reading of Roman Architecture, Kahn's was influenced both by Paul Philippe Cret and, indirectly, by Le Corbusier. Indeed, Kahn met Rome with the knowledge gained in the cultural climate of Philadelphia between Thirties and Forties, where he worked with Cret, then with Kastner, Stonorov and Howe in the field of social housing, and he contributed as co-founder of American Society of Planners and Architects, working in urban planning with the most important european masters of the Modern Moviment in United States. This background opened Kahn's eyes when he come to the American Academy of Rome in 1950, and he found the key to re-invent masonry architecture using modern technology. Looking to the «Architectural order» of Rome, that «implies integration of space, structure and mechanics», Kahn started to design small cities and buildings able to achieve the integrity and "resilience" of the great architecture of the past, in which legibility, sustainability and structural consistency, reveals the value and the timeless deep meaning of the Urban Form as organism.*

Introduction

This paper reviews the contribution made by Louis Kahn in the reading of urban morphology and architecture of Rome. The text particularly presents a new interpretation of the topics which have been identified as significant themes of Kahn's reading of Roman architecture, such as the concept of Form «made of inseparable parts» and the fundamental role of the notions of proportion and congruence in his idea of Order. In his deep and modern interpretation of ancient Architecture, Kahn was influenced both by Paul Philippe Cret and, indirectly, by Le Corbusier. In fact Kahn visited Rome in the Fifties with the substantial knowledge gained in the cultural climate of Philadelphia between Thirties and Forties, where he first worked with Cret, then with Kastner, Stonorov and Howe, important architects who were directly influenced by the work of Le Corbusier. In the Forties, Kahn also played a very important role in ASPA, the American Society of Planners and Architects (1943-1949) founded by Josef Hudnut (at that time Dean of Harvard University), where he worked in the field of urban planning and social housing with some of the most important European masters of the Modern Movement who had emigrated to the United States, like W. Gropius, R. Neutra, M. Breuer and many others. The architects of ASPA (Kahn became President before the dissolution of the society between 1947-1949) promoted the unity between Architecture, Urban Planning and Environment Design and they were engaged in experimenting with new planning methods and design with new technology and new materials. It was also because of his substantial and varied background in Philadelphia that when Kahn came to Rome at the age of 50, he was able to recognise the potential of the organic nature of urban morphology built seamlessly by the masonry architecture, and he started to design with a totally new awareness. As Kahn said during an interview, it was there that he «realized a sense of order and design» and since then «he felt secure» (Lesser 2017). Looking at the «architectural order» of Rome, Kahn found “his voice” and began to build modern complexes and buildings with the same integrity of the great architecture of the past. According to Michael Graves, at AAR in 1950, Kahn «finally felt he was at home with architecture (...) He realized that the structural, technical and social aspect of architecture didn't work well for him». But from that moment for Kahn it was clear that «architectural order implies integration of space, structure and mechanics» (Kahn 1955), so that he started to design each building conceived as «a whole composed by elements related to each other by a relationship of necessity in which all contribute to the same purpose» (Strappa). It was the revelation of the “Form as Organism” that so clearly distinguished Roman architecture and its urban fabric.

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Looking for a new monumentality generated by the power of materials and coherence of construction methods

After a period of working as an apprentice for Cret, Kahn began designing projects in the field of urban planning and public housing in Philadelphia alongside George Howe and Oscar Stonorov. He then decided to

follow a different path from that marked out by the masters of the International Style; this change in direction had its origins in his research into structure and construction. In fact, his need to carry out detailed studies of ancient building techniques – and how they could be correlated with modern technology and new building materials – led him to apply for a fellowship to study at the American Academy in Rome. Kahn wanted to give to modern architecture a new shape and a new monumentality generated by the same structural coherence and expressiveness of historical constructions. As he wrote in a letter to AAR in the 1946, Kahn was looking for answers «on the problem of structure in relation to new architectural space».

684 The three months he spent between Rome, Egypt and Greece, from December 1950 to February 1951, were a revelation for him. Kahn was particularly impressed by the order of Roman architecture, resulting from procedures that translated the unity within many cultures, techniques and languages into the organic forms of its buildings formed by “inseparable parts”. From the examples of the masonry-built architectural masterpieces of the Romans and the Renaissance as well as the special effects of Italian cities, Kahn found the answer on how to design buildings that possessed the eternal quality of the past. Already in 1944 Kahn had come up with the idea of unity of form in his essay Monumentality: «Monumentality in architecture may be defined as a quality, a spiritual quality inherent in a structure which conveys the feeling of its eternity, that it cannot be added to or changed». He believed that everything was connected and was striving towards the congruence of the parts with the whole, since it was based on the principle of a governing order and an animating form, which materialised itself in architecture that was founded on a special way of looking at the lessons of history. For Kahn order was not a constraint but an organised procedure that governed and gave meaning to complexity, by emphasising the function of each single part. Bearing this in mind, we can see the powerful effect of the breakthrough he achieved in the 1950's in the designs for the Yale Gallery of Art, built immediately after his return from Rome, and even more so in the Bath House complex in Trenton, where Kahn fully expressed what he later called “ the discovery of the modern plan”. From that point on, he would make the distinction between serving elements and served elements, both in the sense of distribution and in that of function and structure, and succeeded in evoking the total spatiality of the Romans and the organic malleability of the Mediterranean architecture he loved so much. In every one of his design projects, despite the specific restraints stemming from the requirements of the commission, or local conditions, Kahn defined his structural choice as a “choice of light”: «structure is a maker of the room and it is also the giver of life of this space». He used it to create a living space that elicited function, and thus made obsolete the slogan of the Modern Movement “form follows function”, pointing the way towards the rediscovery of organic, masonry-based architecture in the modern age.

«Order I believe is mostly the structure»

Kahn learned from historical cities that it is the process which makes a shape of each building and of the city. From the “order of construction” the city grows through the transformation’s process of the buildings. It is the case of the Roman Palazzo, generated by the merger of a series of typical row houses. Kahn studied this dynamic process not only in Rome, but much before (as a lot of UPenn publications attested), in Philadelphia when he studied in deep the transformation process of the typical row houses, when he worked in urban planning and social housing (from the Thirties to the Fifties) in the office of Paul Cret and then with John Molitor and with Kastner and Stonorov and George Howe. Was because of this important background that Kahn was able to understand in an innovative way the profound meaning of the notion of organism based on the process of construction and development of the shape from the “order of construction”, as Nature teach us. So often Kahn mentioned the fundamental lesson of the order of Nature to which we have to look at. Furthermore, according to him, the ‘knowledge of order’ was the most important thing, as he passionately declared to students at the International University of Art in Venice (1971): «We have to know how nature can help us, because nature is the creator of all things... but man needs to know her orders. We need to know the order of water, the order of air, the order of spaces and the order of structures, the order of time, the order of construction, the order of materials. Man intuitively knows the order of stone, but he needs to know the order of concrete and steel, he mustn't just use them, he needs to know their order». In Kahn's mind therefore design and construction was part of a process that goes from the generative Form to the built Shape, to embodying in the best way the deep meaning of the Institution. And similarly to the organic process of growth, the quality and beauty of the result will derive according to ability to follow the order which presides over the materials and the elements. According to Louis Kahn, the «Shape came out from the choice of structure» (...) and «The structural idea embodying the need of air, light, quiet, noise, etc., makes the structure grow into life of fibre (?) enveloping the space so that its nature can be felt». It is an idea of space which derives from the Rome lesson and implies the legibility of the structural design and construction process. Kahn called this quality the miracle of the span, when he said: «Today our growing knowledge in the structural nature of materials tends to minimize the miracle of the span. The columns are thin and the space can be great. Stability, once expressed by solid walls, piers and vaults of masonry, is now expressed by columns, slabs and space, frames in steel and concrete. We can build strong, open structures of grace and little weight. In a sense we build ‘hollow stones’. Such structures suggest their exposure and the harbouring within the structure of the service needs. Such mechanical elements as air conditioning, plumbing, heating, electrical, together with elevators, stairs, closets, anterooms, washrooms and hallways may be considered the “servants” of larger spaces. This suggests a concept of space-order in which these minor spaces may have a consistent archi-

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tectural relationship to the larger spaces they serve. It is conceivable that these servant rooms are hollow columns themselves supporting the greater spaces. Thus architectural order implies integration of space, structure and mechanics. Most buildings today do not show evidence of having achieved this integration. This may be considered as a stage of awareness in our growth to reach architectural maturity. The maturity of this architecture will depend on motivation of the community and the strength of the will to create what a space wants to be. (...) It may also be expected that the first evidence of this integration may be "archaic"» (Kahn 1955). Kahn used to make his drawing «in imitation of the building process, starting from the bottom up and making special emphasis on the construction joints» and he clarified that it was «on the way up this representation of the grow-out – the expression of the building process – » that he found «the basis of the scale and proportion». It is worth emphasising how these two notions are important in organic masonry architecture in which all parts are related to each other by a relationship of necessity. According to Paul Cret as much as Le Corbusier, the study of proportions is the most important study in architecture. We know that the more organic a structure is, the more we have to work on the proportions of each element to design the whole because the character of the structure changes in relation to the changing of proportions and congruence between elements.

686 Like ancient architecture, Kahn's works express the importance of the joint as key element of the reading of the organic process of growth. Moreover was Roman architecture which gave to Kahn (through Frank Brown's research and his visit at Ostia and Villa Adriana etc.) the evidence that «the plan is a society of rooms», so that, talking about architectural integrity he wrote: «The rooms relate to each other to strengthen their own unique nature. (...) Rooms must suggest their use without name». The typical organicity of the «substantial unit block» (Bettini 1978) of the more important Roman buildings, with the roof as a special function to unify the space, became a constant in Kahn's work. As a matter of fact he affirmed: «The arch, the vault, and the dome mark equally evocative times when they knew what to do from how to do it and how to do from what to do. Today these forms and space phenomena are as good as they were yesterday and will always be good because they proved to be true to order and in time revealed their inherent beauty» (Kahn 1957).

The notion of Form as organism in Kahn's work

Kahn firmly believed that the purity and beauty of the generating form should be evident and perceptible. This beauty was not to be thought of as an end in itself, but as the end-result of a creative process bent on ensuring architectural integrity. This concept of architecture was made clear by Kahn when he said: "from beauty comes wonder and from wonder realization that the Form is made of inseparable parts, parts that you cannot separate". When he maintained that form is 'what' and design is 'how', he was harking back to his Beaux-Arts trained teacher, Paul Philippe Cret (1876-1945), for whom designing consisted in knowing how to give form to

an idea, how to make it buildable and meaningful by choosing the proper proportions that were needed to achieve spatial and structural unity in an architectural organism composed of finite and mutually dependent elements. This is a loftier concept of Design, seen not as a simple overlapping of beauty and function, but as something which guides the process with which the architect renders visible the idea-form in a series of cross-references, repeating and multiplying the same element. Design thus conveys the essence of the thing, and is not merely an aesthetic embellishment or a juxtaposition of decorative components. It reveals that which is usually hidden – the form becomes tangible. In this regard Kahn wrote: «Form is the area in which the architect can give the best of himself because of his knowledge of the inseparable elements (...). If a construction possesses this quality of inseparable elements the project has a chance of being legible» (Kahn 1974). These ideas are also to be found in Kahn's unfinished works or those that remain at the design stage; sometimes they are in fact on a much greater scale, from a single building to a whole city. When he was designing new institutions for Jerusalem and Venice, for example, Kahn intended to create his own idea of a city where, like in Rome, the past, present and future permeated one another and epitomised the highest values for the advancement of the individual and for the life of the community. His project for the Palazzo dei Congressi and the new buildings for the Venice Biennale were envisaged in both their versions (1968-1972) at such an urban scale of complexity as to affect an entire city area. The famous writer Dino Buzzati described the design project for Venice as «an invention that is logical, imposing, and in no way provocative» (“Corriere della Sera” 31.01.1969). By creating “a place rather than a building”, Kahn would have produced for Venice a model that would stitch together, enrich and complete the urban fabric, transforming it into a living, dynamic organism. Today words like sustainability and resilience are now part of common parlance, but in the Fifties Kahn was one of the first, if not the first, to recognize these concepts and put them into practice, thus adding an ethical dimension to his work. In the conference *Harmony between Man and Architecture* (1974), Kahn affirmed: «Architecture is not really divided into town planning, urbanism or a number of other departments such as programming or the study of the environment. An architect has no need for all these titles. If I had to give a lecture on town planning, I should not want to call them that, but rather “architecture of high intention”».

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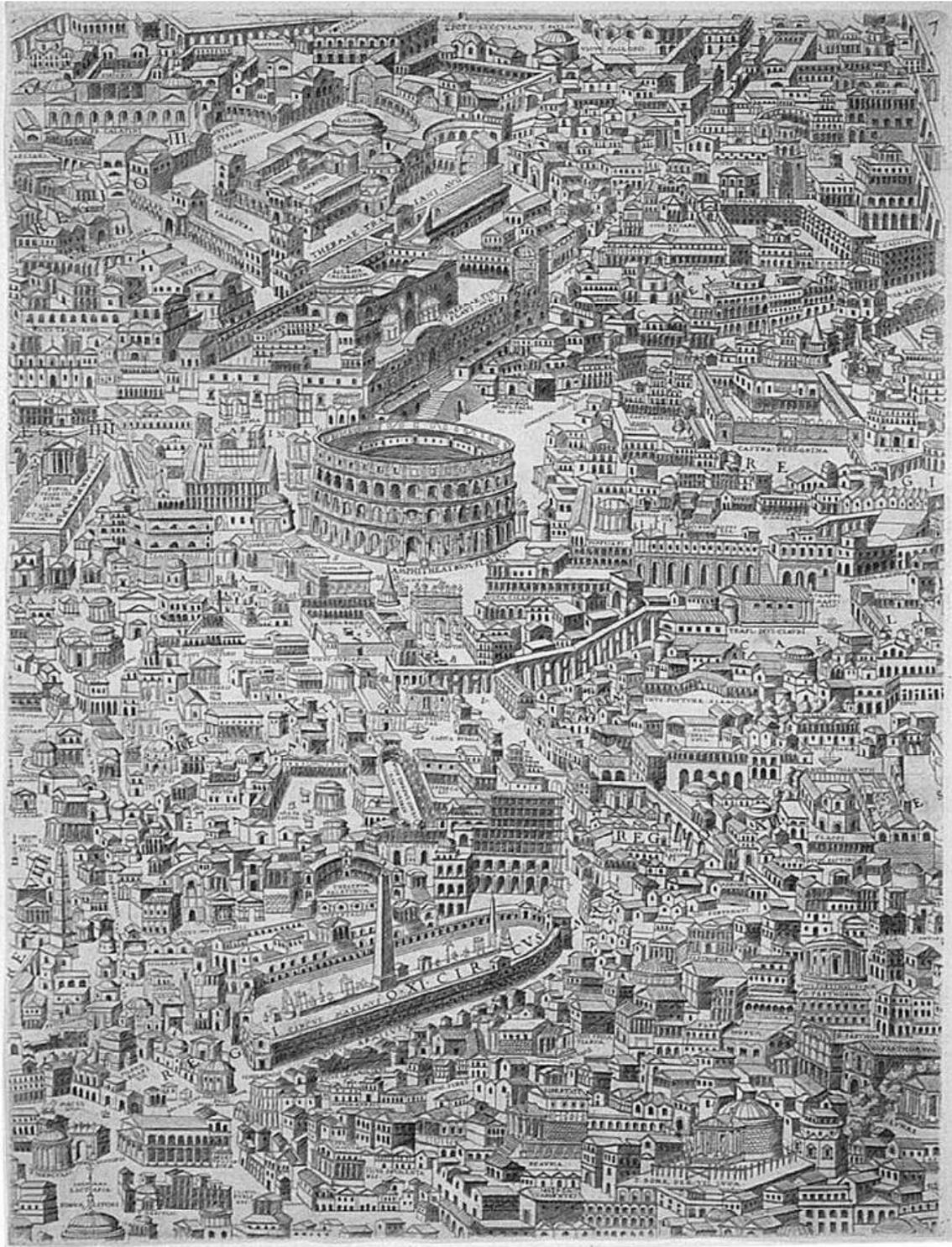


Fig. 1, Pirro Ligorio, (1501-1583), *Imago antiquae Urbis*, 1561, tavola 7



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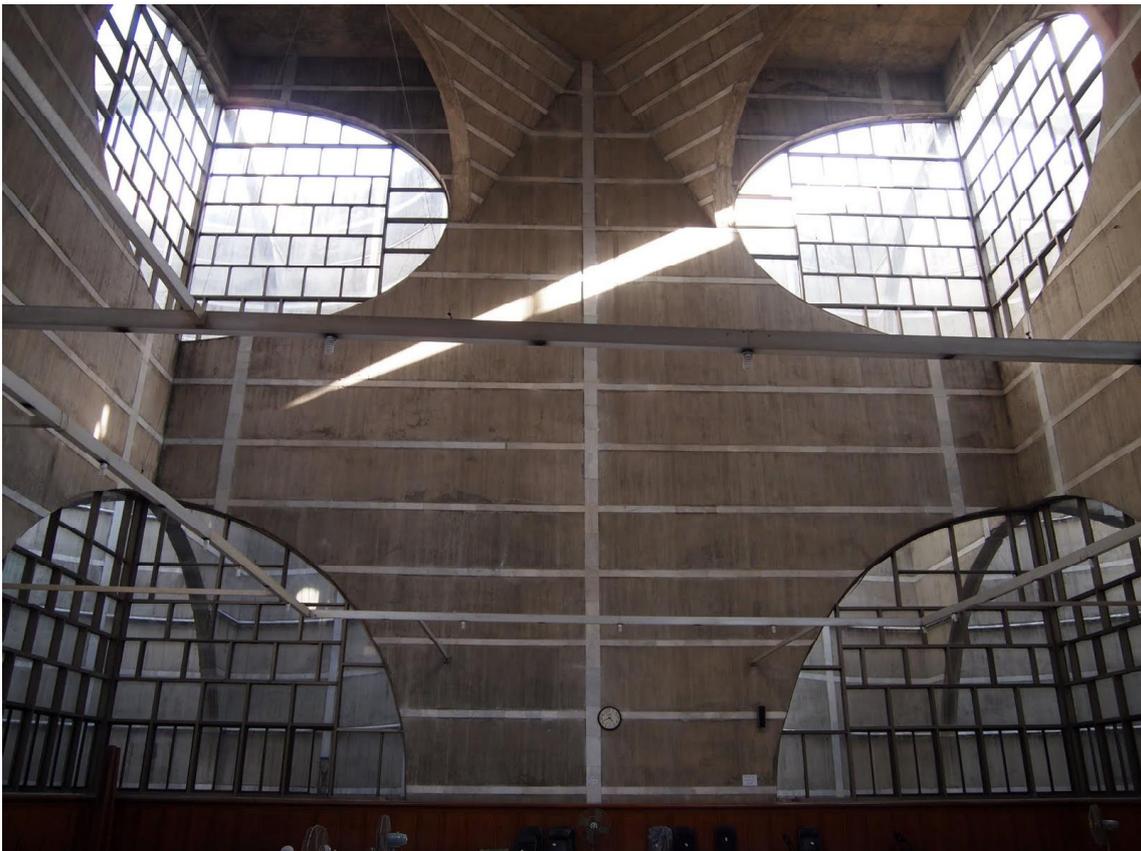


Fig. 2, E. Barizza, foto Phillips Exeter Library by Louis I. Kahn, Rookingham County, NH, 1965-1971,
Fig. 3, Louis I. Kahn, dettaglio del "giunto come ornamento" nel parlamento di Dacca, 1962-1974f

Conference topic

F.1) Urban Growth and Transformation

Revive old city with contemporary design; on the topic of shopping areas as urban public spaces

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Keywords: Urban fabric, public space, shopping place,
contemporary, traditional

Abstract

694 *Public spaces like shopping areas are indispensable places for human. The buying and selling of goods played a very important role in the development of towns and cities (Dixon, 2005). Shopping places has been changed with modern movement. At the same time, these spaces embrace particular events that have collective social, historical and cultural associations; projections of these events influence the physical transformations, which can each be re-identified through time. One of the basic features of traditional shopping areas is the association between urban fabric and social structure (Biol, 2005). However, contemporary shopping places has been emerged as closed box independent from tissue of city which lost their spatial values. Therefore, especially in historical cities, the unity of 'urban fabric-shopping place' is impaired.*

The "space- time" relation in modernity shifts because of breaking ties of western societies with the traditions and is leading to the loss of identity (Hall, 1996). This study discusses the space design of contemporary shopping areas as important public city places and the interpretation of traditional impression in today's modern architecture to refer to values of place. With this aim, "Mediacite" shopping center in Belgium designed by Ron Arad and eastern covered bazaar will be examined as case study. The "Mediacite" was created in the context of modern design criteria, although the architect has revived the sense of traditional design principles in the place. This project ties together all the disparate elements of its site to create a new axis through the city of Liege (Uffelen, 2013).

Introduction

As Vitruvius mentioned in 15 century B.C. “the discovery of fire is the main reason why people come together and live with each other”. The light and heat of fire have been the main reason and the first step of social sharing and living together. According to statements of Vitruvius, beginning from the Ancient Greek and Roman Architecture up to present, the key role of fire forms the concept and design of public places such as commercial areas where people come together.

In the traditional definition the city is defined as “center of social life, significant both for the number of the inhabitants and for the ability to deliver multiple economic, political and cultural functions. Today the city means the urban space where most of humanity lives following on going rhythms and dynamics: the city is the culture that must be constantly nourished and renewed, on pain of death and with it our civilization, a place of communication (Gambassi, 2016).

Urban public spaces have been critical sites of cultural, social, political, and economic life from early civilizations to the present day. The form and function of these spaces have varied dramatically, based on particular cultural, social and technological arrangements and requirements, yet retaining a host of similar features (Stanley et al.,2012). This study aims to analyze traditional architecture impression on contemporary design in the manner of shopping places. The changes and transformations of these places as public spaces will be discussed in terms of form and function.

The introduction of new spatial structures into historical urban complexes and their skillful integration with the historical context, as well as the adaptation of existing buildings that have historical significance is an important issue in today’s urban planning and modern architecture (Barnas, 2015). Detecting the various expressive components as clear representations of a unique cultural orientation that capture an historical moment, is what makes up the culture of the city (Gambassi, 2016).

This study evaluates the architecture of contemporary shopping areas and how they could be integrated to historical environments. From this point of view “Mediacite” shopping center as an example of contemporary design is untied with the historic fabric of Liege city. As Gambassi (2016) mentioned in the sense that everything flows and changes, preservation is transformation and mutation: storage is also mutation, launching a project phase that is responsible and aware of cultural identity. So there is no conservation without innovation. In the content of the study, the different approaches of modern architecture when it faces the historical cities will be analyzed. Commercial buildings; has been constructed in different types, scale and application form for their purposes during the historical process. With today’s vital and physical changing and development, differences of architectural identity should be discussed.

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Shopping places as public spaces

Definitions of public space are closely related with the meaning of its ‘public’ component and public spaces relation with the public realm, the domain of social life. As these descriptions differ, so do the meaning, role and form of public spaces due to different socio-cultural structures of societies. Throughout history, although there are differences across societies, it can

be said that in all societies public spaces enable some basic activities such as exchanging information, demanding personal and political rights, and carrying out social conduct; i.e., the formation and continuation of social groups (Carr et al., 1992). Due to the balance between public and private activities, which presents the values of societies to some extent, each culture places different emphasis on public life. This diversity emphasis on public life; there appear different kinds of public spaces among societies based on their historical, cultural and social identity. Since the balance between public and private activities is a shifting one, the value that is put on public space also evolves and changes throughout history and is determined through physical, social, political and economic factors (Slessor, 2001; Carr et al., 1992).

Smithsimon (2000) defines public spaces as the centers of social life where provide people with the possibility to interact with each other and learn about and identify the society they live in through their everyday uses. This conception also incorporates privately owned spaces like shopping centers and retails besides publicly owned spaces like public parks and streets. As Carr et al. (1992) define, shopping places are not only retail environments; they are also a type of public space mostly aim to satisfy 'needs in public space'.

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The history of public spaces begins with Greek agora and continues with Roman forum. Greek's agora, usually located in the center of the polis and the focal point of the town, both functioned as a market place and the gathering place for political assembly. In other words, it had both an economic and political importance (Mattson, 1999; Zucker, 1959). It also served as meeting place of citizens for daily communication and formal and informal assembly. Historical narratives often abruptly jump from these classical settings to medieval Europe where plazas and public squares were the main places for public life which contain important buildings people gathered, public celebrations and plays took place in the Middle Ages and Renaissance, (Carr et al., 1992). The shopping streets and marketplaces with their central location, which remarkably grew beginning from 11th century, were the crucial public spaces of the medieval times. In medieval cities a great part of the business life was also taking place in the narrow, open streets of the city. Street was the work place, the place of buying and selling, meeting and negotiating and the place where religious and civic ceremonies were held (Jackson, 1987).

By the 18th century, as a result of rise of bourgeoisie, the shopping streets developed in Europe (Koolhaas, 2001). Just before the Industrial Revolution, market places in cities were no longer spatially sufficient for the evolving trade. As a result, starting from Italy during the 16th century, and in northern Europe in the 17th century, the central streets of cities were lined with shops, pubs and coffee shops, where the shops were organized by type (Coleman, 2007). Besides the growth of new public spaces for leisure and public entertainment in 18th century, 19th century was marked with the emergence of new consumption places serving also as important public spaces like the shopping arcade, passages, shopping street, bazaar and department store (Rendell, 1998).

Since the end of 20th century, due to the globalization with the increasing use of technology in the design of several spaces, forms, usages, characteristics and definitions of shopping places have been changed dramatically.

The blurring boundary between public and private, especially in the economic sphere, have led to the popular use of semi- public spaces such as shopping malls as public spaces which are well-maintained, attractive and secure for most (Smithsimon & Bindner, 1999). The activities that were once taking place in public spaces, like streets and squares now, are shifting towards to take place in closed spaces like shopping centers. The increasing use of closed shopping areas as gathering places and social life centers which are isolated from rest of urban fabric can be seen in the developed communities (Sennett, 1987; Mattson, 1999). Integration of urban fabric and modern shopping centers as an enclosed public space is crucial for the quality of city urbanity. The characteristics of contemporary public spaces affect the identity of historical cities and urban fabrics.

Historic Urban fabric and public spaces

The city is never finished: it is actually a continuous spatial activity. The “culture of the city” is the identification of the various units of expression as obvious and sensible representations of a specific cultural orientation that characterizes an historic moment (Gambassi, 2016). According to Topc-u (2011) Identity of a city depends on identity elements that result from different reasons such as city’s history, cultural values, architecture, social and economical structure, topography, climate, being eastern or western city and openness to other cultures, etc.

According to Kostof (1999) the urban fabric consists of an urban society, the inhabitants of the area, individual/civil housing units, street patterns or street networks, monumental buildings and public spaces, such as squares, parks commercial areas or open spaces. The components of any city exude a definite sense of place and identity and form urban fabric.

As Özasan (1995) defined, there is a need to understand the historic urban fabric’s true architectural values, background and inherent qualities, to avoid both possible imitations of past forms and further destruction, to achieve a functional, meaningful and identifiable contemporary design.

During the last century, unprecedented development of the urban environment has strongly influenced urban transformation. Rapid urban expansion, densification, inappropriate modern interventions, gentrification, and changes in uses are occurring worldwide, directly affecting the historic urban environments (Descamps, 2011).

Auge’s (1995) definition of ‘absent-space or non-space’ gives a clear account of the facts of; first, the transformation of urban space, and the loss of social, cultural and historic characteristics of urban fabric that is reconstructed within buildings. According to Auge, contemporary shopping center is a building within which ‘non- place’ or ‘non-space’ is defined just as in the other building types of modern city. The senses of ‘place’ and ‘space’, which contributes to the formation of ‘collective memory’, seem to disappear in shopping spaces that are designed to replace public spaces in new cities of modernity.

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The modern architectural project “Mediacite” in old city “Liege”

In the modern era, the functional integration of the ancient city has almost completely disappeared. The technological innovation and the use of new

transport and communication technologies that followed the Industrial Revolution have caused a fragmentation of the city, undermining its public spaces. (Madanipour, 2003). Urban areas and public places evolve and change according to the needs of their inhabitants. Therefore, it is of the utmost importance to determine the role of contemporary architecture in contributing to this change in ways that conserve the special character and quality of the historic environment and combine with it (Macdonald, 2011).

As it was mentioned previously, shopping malls are accepted as urban public spaces because of their urban public space qualities. Although they are private properties, as Gruen and Smith (1960) claimed modern shopping places become the centers for urban regeneration projects in the world and “multi-purpose town centers”. The integration between urban fabric and traditional shopping areas (such as bazaars, arcades, passages and etc.) in both east and west architecture, could be seen clearly as one of the crucial criteria of design. As architect Ekinci (2013) criticizes, contemporary shopping centers are settled as mono block boxes independent of their environment and disintegrate the urban fabric. This situation could cause loss of identity and cultural values in the city particularly in historic urban fabrics.

698 In this context, the eastern bazaar does not present itself as an enclosed, box-like building object but rather as a land-like, topographical and fabric articulation. Bazaar persists through time and retains its historical and cultural values in the contemporary world as it is not only ‘formed’ but also ‘formative’ (Leatherbarrow, 2015). In order to clarify our argument, “Mediacite” an example of modern shopping center in Belgium and “eastern covered bazaar” as the traditional shopping places will be compared in terms of design features and integration with urban environment (Fig. 1). Mediacite exemplifies a model for how the qualities of a traditional bazaar become a reference for the formation of an alternative modernity in a historic city.

Linguistically, the term used for Bazaar, originates from the Persian word, ‘chihar/char’, which means ‘four’. This word, as it is used in the original Persian form, ‘Char-Su’, does not signify any trading place; it simply means ‘four sides’. In eastern culture ‘four’ suggests the intersection of four directions, which can be (socially) interpreted as meeting or coming together around a meeting point. The architectural embodiment of this concept gave the shopping place its overall shape. In fact, the bazaar can be considered as a complex which is constructed by the interconnection of meeting venues through a street-like pathway (or in some cases it can be an alley or a passage). The organic structure of bazaar causes the topographic extension and integrate with the urban fabric (Moazemi, 2013). (figure 1)

Mediacite Shopping Center was constructed at one of the oldest districts of Liege, named Longdoz (Fig. 2). The construction of Gare de Longdoz, Longdoz train station, in 1851 converted this agricultural place to an industrial one. Due to the train station several factories settled around the area and this accelerated the development of the region. The train station improved not only industrial progress but also social life; it led to the opening of shops, cafes, hotels and transportation companies, which all made the region a popular place. However, in the late 60’s

the region lost its popularity and vivid life as factories and other industrial centers closed, which also led to the closure of Longdoz train station as natural consequence. Liege, one of the world's foremost centers of steel production and since in economic decline, contemporary design of Israeli architect Ron Arad "Mediacite Shopping Center" as stands as a symbol of the city's revitalization in 2009 (Moazemi, 2013). (figure 2)

Mediacite is an outstanding contemporary shopping design because of most obvious features. This building is the first BREEAM certified retail center in Europe. The Building Research Establishment Environmental Assessment Method, or BREEAM for short, sets the standard for best practice in sustainable building design, construction and operation and has become one of the most comprehensive and widely recognized measures of a building's environmental performance. Médiacité meets all of the BREEAM criteria for sustainable development (URL1). This ecological building, accommodates economic, retail, cultural and leisure activities in the same place. (Moazemi, 2013).

According to Leatherbarrow (2015), fluidity is the fundamental element that leads to a topographic formation. The feature of connectivity encourages the interaction of inside and outside spaces as well as inside and outside communities. As in the case of the bazaar, connectivity and fluidity are the key elements for Mediacite, which caused it to be developed in a land-like form. Arad describes the building variously as a "river", "snake", "souk" – even a "commercial favela", but just as Calatrava has built a 21st-century railway shed, Arad's structure is a 21st-century descendant of the roofs that bridged old Europe's shopping arcades and eastern bazaars. (Dunmall, 2010). The mall snakes through the fabric of the refurbished old market at one end, extending a total of 350m long to connect to the new Belgian national television center at the other.

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A new urban axis has been taking shape in the Southern Belgian city of Liège, starting at the Santiago Calatrava designed train station, via a pedestrian bridge, and up until a shopping and audio-visual center designed by Ron Arad. Two entrances of Mediacite Shopping Mall, is the starting and ending points of the main axis of the transparent tunnel construction (Fig. 3). The different forms and lighting of these two entrances are indication of specific binding of two culturally different points of the city together. The first entry in the intersection point of the structure and heart of the city is in outdoor form, as the other entrance which has been reached the side of the sea and the city was designed to be covered. (figure 3)

The crucial point in the design of the entire structure could be called transparent tunnel construction located as a street bazaar in middle axis. This tunnel is 350 meters long, starting from the center of the old market town lying along the urban, while the other end is connected to the new building of the Belgium national television. The enlarged spots along this tunnel, which assumed the role of main axis, created gathering and meeting areas like four sides of traditional bazaar (figure 4).

The building form and shape of structure has managed to become part of the city fabric and nested inside urban development. This feature is quite clearly shows in the interior spaces. Transparent materials and natural lighting provided indoor-outdoor connection help the visitor to feel urban of the city and to watch the views inside (figure 5).

The atrium of Mediacite Shopping Center that connects two different

spatial points of city is a long thin axis. This axis which is designed in the form of 'tunnel', roofed with the material, color and transparency has been successful in reviving the central areas of the social space. Ron Arad, preferred red material, to create a sense of movement and vivacity on the users of space. The artificial red material used in the structure and texture, also caused movement and vitality in the city. This material composed a sense of contradict with calm tissue of city as well as being part of the it. The design of the roof bonds these elements through a network of steel ribs which undulate over the cores of the mall's length, sculpting the volume of the commercial space below. Mirrored into the floor pattern, it draws a curved pathway which pulls one through each of the zones, revealing diverse vistas along the way (figure 6). As it exits the volume of the main building – at two piazzas linking the old market and new mall – this overhead ribbed structure wraps downward, merging into the facade to close the envelope (Moazami, 2013).

Conclusion

This study attempts to reveal some principles which could help us deal with the question of how to create a more responsive alternative modernity and at the same time a more negotiable ground between tradition and modernity in a historic city. Mediacite could be considered as a model which demonstrates an alternative approach to contemporary shopping architecture in a historic urban fabric.

700 Cities which have lost their old populace, could regain the former prestige of urban fabric with contemporary designs. However instead of being 'timeless' and 'non-place' designs like today's box-shaped enclosed shopping centers, should be a part of urban fabric and unity with it and enduring negotiation between historical background and present. Within this framework the eastern traditional bazaar has kept its existence for centuries as a connective and continuous ground between past and future. Arad's attribution to the bazaar regarding his modern design Mediacite can be interpreted from this aspect. Likewise, the concern of Arad in the topographical approach is to construct a more flexible ground for the negotiation of what is existing and what is new.

Mediacite, along with the new gare des guillemins (train station) by Santiago Calatrava and the opening of Grand Curtius – a mega museum housing gems from the heritage collections of liege – in 2009, are all drivers for economic redeployment and cultural-social regeneration within the Liege city.

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URL 1: <http://www.archello.com/en/project/mediacite-li ge/839825>



Fig. 1 Schematic plan of 'Tabriz Bazaar' in the left and 'Mediacite' shopping center in the right. The circulation and connective axes in the middle are descriptive common elements (Anon, 2009) (www.archdaily.com).

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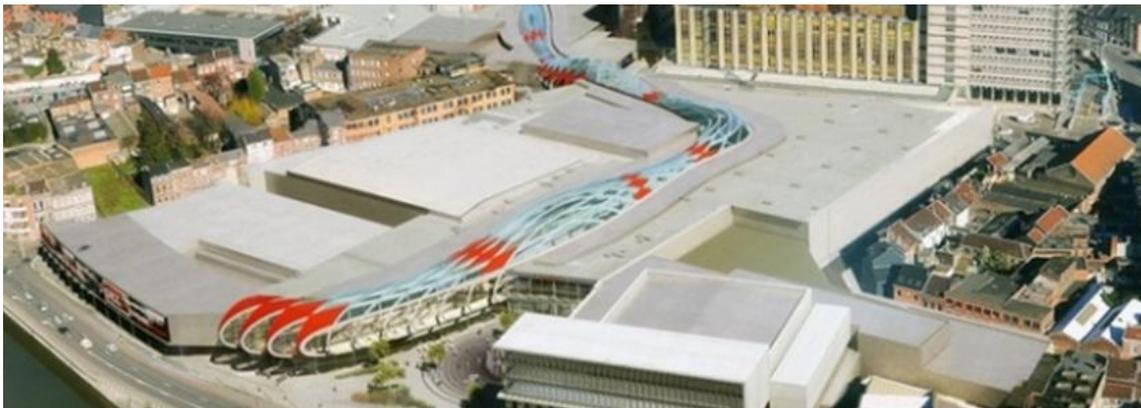
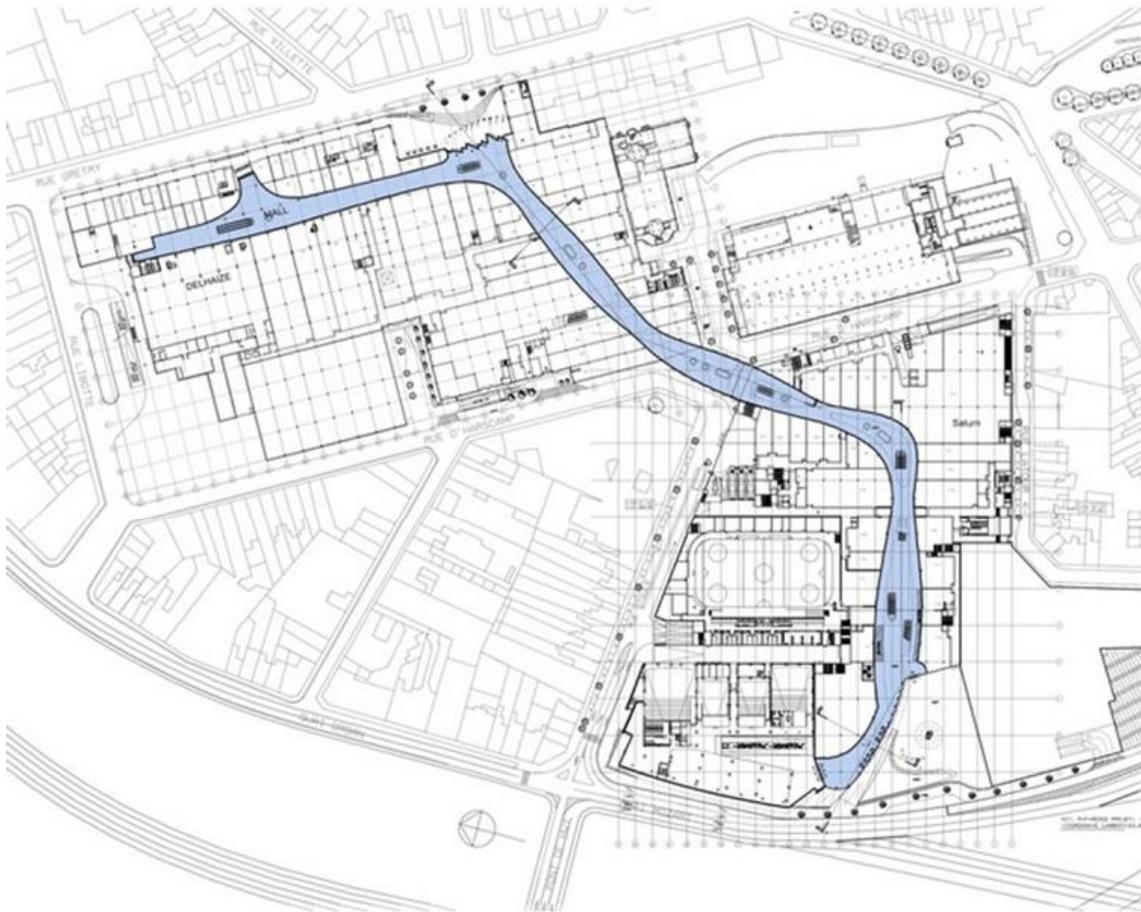


Fig. 2 The topographic extension of Mediacite shopping center in Liege, Belgium (<http://www.ronarad.co.uk>)



Fig. 3 Two entrances of Mediacite shopping center from city center and river Muse side (<http://www.ronarad.co.uk>).



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Fig. 4 Meeting points along main axis of Mediacite (<http://www.archdaily.com>).

Fig. 5 The relation between inside and outdoor in Mediacite Shopping Mall (<http://www.archdaily.com>).

Fig. 6 Interior space of Mediacite atrium (Personal Archive).

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Marina di Ginosa: the swamp became a town The “reclamation characters” as new design principles for the coastal “wet-cities”

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Keywords: reclamations, “rural-urban” fabric, planned city,
urban growth

Abstract

706 *The article proposed investigates the urban development of Marina di Ginosa, a new town founded in twentieth century as a part of reclamation works that changed the structure and identity of the western plain along the Ionian coast, near Taranto. In it converge two separate but synergic experiences: both the hydraulic-settlement re-arrangement designed by Opera Nazionale Combattenti in 1920 - which anticipates the design principles of the later interventions in the Pontine Marshes - and the work of Ente per la Riforma Fondiaria in the Second postwar, which carried out the residential transformation of the coastal farm lands.*

The analysis reveals a complex program in which the reclamation of Stornara marsh and the later subdivisions of the “new lands” into small plots are aimed toward a “rural urbanization”, implemented mainly with the construction of towns, villages, farm houses and so-called “service centers”, whose importance is emphasized by the absence of earlier settlements in the territory.

Within these phenomena, the transformation process of Marina di Ginosa summarizes the strenuous attempt to adapt the marshes to human needs, represented by the first temporary village built in the mid-twenties as a sort of morphogenetic nucleus of the future town, still visible in the structure of the current urban organism dedicated to the tourism, despite the chaotic development of the last forty years has denied the syncretism based on the integration of the farmland structure as a planned matrix of the urban fabric.

This condition characterizes by now the entire coastal strip extended from the area of Metaponto to the boundary of Taranto industrial district and its crucial environmental issues.

The aim of the research is to find new design principles in the stratified urban-rural process, to define a coherent development strategies able to connect the contemporary uses of the waterfront and “woodfront” with the reclamation nature of the place.

Introduction

Uno dei principali processi insediativi che ha interessato l'Italia nel XX secolo è la bonifica delle aree costiere, le cui finalità hanno programmaticamente travalicato le sole istanze produttive per proporre una visione organica dell'abitare applicata alle paludi. Tutto questo avviene secondo due distinte ma congruenti esperienze: la "Bonifica integrale", che a partire dagli anni '30 aggiorna secondo nuove e moderne esigenze temi e progetti già studiati dalla seconda metà dell'Ottocento (Bevilacqua, 1986), e la Riforma Fondiaria degli anni '50. Le trasformazioni eseguite in quel periodo sono incentrate sulla "costruzione" delle cosiddette terre nuove mediante un imponente programma per la realizzazione di infrastrutture idrauliche, viarie ed irrigue, che fungono da strutture soggiacenti per gli appoderamenti. È l'urbanesimo rurale come azione strategica di lungo respiro, acme antropico del completo affrancamento dagli acquitrini.

Fra le aree del Mezzogiorno interessate dal fenomeno, la pianura ionica compresa tra i fiumi Tara e Sinni si contraddistingue per il sistema alternato di gravine e crinali che ne condizionano la morfologia, attraversando paludi e stagni fino a raggiungere il margine costiero delimitato da dune e boschi. Un organismo territoriale in cui gli interventi di riassetto idraulico e fondiario degli ultimi due secoli ne hanno radicalmente cambiato l'identità, occupando le originarie aree umide con nuove terre da coltivare, integrate dalla realizzazione di borghi rurali e case coloniche (Ortensi, 1948). Questa strategia ha generato una maglia insediativa dove singoli borghi e centri di servizio sono divenuti dagli anni Sessanta i nodi morfogenetici dai quali si è irradiata l'urbanizzazione massiccia della costa. Un processo che per rapidità, intensità ed estensione, ha prodotto scompensi nella chiara distinzione tra il tessuto urbano, l'area umido-boschiva e i poderi, sempre più asserviti ad interessi speculativi all'origine di complesse patologie insediative. Quanto esposto è particolarmente significativo in uno di questi borghi, Marina di Ginosa, la cui memoria di città della bonifica, latente nei tracciati urbani che legano la sua struttura ai poderi e ai canali, è stata offuscata dallo sviluppo che da quarant'anni sta introducendo modelli e linguaggi globalizzati privi di qualsiasi relazione critica con l'esistente, soprattutto con i margini che racchiudono l'interazione con la campagna, il bosco e il mare.

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Margini che in questo studio sono interpretati come sintesi morfologica del palinsesto urbano-acqueo, per individuare possibili strategie progettuali in grado di riattivare processi morfogenetici che riconnettano non solo Marina di Ginosa, ma in generale i borghi di fondazione comparabili, alla bonifica e alla graduale costruzione di quell'organismo agrario-insediativo di cui sono parte e da cui traggono i motivi della loro esistenza.

La palude che divenne città

La distesa di acquitrini che caratterizzava la piana ginosina occupava un'area racchiusa tra il sistema montuoso della Murgia tarantina – profondamente segnato dal sistema di lame e crinali - e la fascia sabbiosa

comprendente il cordone dunale e una delle pinete marittime più importanti del Mediterraneo. Un territorio le cui diverse componenti sono tenute assieme dai corsi d'acqua, assunti nella prima metà del Novecento come "struttura portante" per la costruzione di canali, argini e strade di bonifica, in un'area pressoché priva di insediamenti e infrastrutture. Solo lungo il crinale settentrionale erano presenti nuclei urbani consolidati, posti lungo la via Appia, percorso matrice che raggiunge il fondovalle in prossimità di Taranto. A completare il quadro di un territorio costruito solo lungo il suo perimetro, la strada litoranea collegava i centri magno greci di Taranto e Metaponto, quest'ultimo oggetto di bonifiche già nel IV secolo a.C. (De Siena, 1999). La realizzazione della ferrovia nella seconda metà dell'Ottocento ricalcando quel percorso storico è divenuta nel secolo successivo il principale percorso di penetrazione per il disseccamento delle paludi e la conversione agricolo-abitativa della costa. Operazioni rese possibili da un articolato insieme di leggi che dagli anni Venti ha mutato l'approccio progettuale al tema, marcando il passaggio dalla bonifica "idraulica" alla bonifica "integrale", riassunta dal decreto del 1933 (Musci, 1932), e coerentemente al disegno politico del regime, che mira a promuovere la civiltà rurale come espressione identitaria della nazione, inculcando una cultura insediativa dichiaratamente oppositiva alla strategia urbano-centrica della città nordeuropea e americana (Muratore, 2002). Il *modus operandi* che quei provvedimenti diffondono tra i progettisti del tempo danno luogo ad un fertile dibattito che vede impegnati, fra gli altri, architetti come Petrucci, Piccinato, Montuori, Pagano, Scalpelli, Cancellotti, Calza Bini, riverberandosi anche nei progetti post-bellici nati sotto la Riforma fondiaria, ai quali si deve la seconda e decisiva fase di organizzazione delle "terre nuove", nata secondo i nuovi ideali della ricostruzione ma fortemente debitrice di quelle esperienze. Progetti che prefigurano il podere abitato come inedita forma stanziale di sfruttamento intensivo della pianura sottratta alle paludi (ONC, 1948) e che le borgate come Marina di Ginosa sintetizzano, accentrando una serie di funzioni a servizio dell'abitato sparso dei campi.

È questo il contesto nazionale nel quale l'Opera Nazionale per i Combattenti inizia negli anni '20 la Bonifica della palude Stornara, una vasta piana chiusa tra due fiumi, il Bradano e il Lato. Un esercizio sperimentale che, da una parte, influenzerà un decennio dopo altri e più iconici progetti, vale a dire la bonifica delle Paludi pontine e del Tavoliere di Puglia (Caracozzi, 2007; Piemontese, 2010), dall'altro porrà le basi per la successiva costruzione dei nuovi borghi rurali, funzionali all'auspicata modernizzazione agricola. Obiettivo principale del progetto Stornara è la trasformazione del suolo acquitrinoso in un territorio pianificato adatto allo sviluppo agricolo e abitativo. Nucleo fondativo dell'intero sistema è lo scalo ferroviario di Ginosa a ridosso del mare, l'unico presidio logistico in un'area priva di adeguati collegamenti con le aree urbanizzate. Attorno ad esso viene organizzato un villaggio per ospitare i tecnici e le maestranze coinvolti nelle opere, pensato come nodo morfogenetico della bonifica nel quale convergono le strade-argine, che intersecano le paludi legandosi alle

trame antropiche dell'entroterra. L'impianto è caratterizzato da un asse territoriale che collega la stazione al nucleo urbano di Ginosa e da due assi paralleli e ortogonali al primo, la ferrovia, introiettata nella struttura generale del progetto, e la strada-canale, che attraversa i maggiori stagni da prosciugare.

Fulcro dell'intero progetto è il villaggio, fin dall'inizio pensato come nodo generativo della futura borgata rurale (ONC, 1925). La stazione ne rappresenta l'elemento baricentrico attorno al quale si articolano gli edifici pubblici e produttivi, è il fulcro gerarchico della maglia poderale, dove sorgono le prime case coloniche, tipologicamente distinte in base alla grandezza del terreno da coltivare e alla forza lavoro prevista (Perrone, 2010, p. 28; Ortensi, 1948). Una strategia interscalare che mantiene la sua coerenza dal reticolo infrastrutturale dei canali e delle strade secondarie fino ai singoli edifici, fissando principi morfologici e sintattici che trovano applicazione anche nell'ampliamento del villaggio come borgata negli anni '50. Una mutazione che avviene in continuità con quel primo esperimento dell'ONC e in rapporto agli elementi architettonici, urbanistici e infrastrutturali oramai indissolubilmente integrati alle trame idrauliche. Mutazione espressa anche dagli assi "cardo-decumanici" della bonifica che divengono assi urbani e traducono il reticolo idraulico-fondiaro nella struttura dell'abitato, come dimostra il primo piano regolatore del 1949. Uno dei principali elementi ordinatori dell'impianto è il percorso costiero, parallelo alla linea ferroviaria e posizionato lungo il limite meridionale dei canali di scolo, a sua volta origine di un ulteriore asse che culmina nel centro civico-religioso e nel campo sportivo, entrambi collocati all'estremità occidentale del borgo (Perrone, 2010, p. 32). In stretta connessione con questo "sistema di riferimento", si dispone la sequenza cartesiana degli isolati, la cui aggregazione è contraddistinta dalla distinzione tipo-morfologica delle singole aree urbane racchiuse tra gli assi fondativi dell'ONC, carattere poi enfatizzato con i futuri sviluppi. Il tessuto ippodameo del 1949, con l'ubicazione dei principali edifici e spazi pubblici in corrispondenza del suo baricentro insediativo, mostra notevoli affinità con alcuni principi urbanistici adottati per altre borgate rurali, come Villaggio Marconi, Arpi, Borgo Domizio, Pomezia. Caratteri comuni si riconoscono infatti nel rapporto tra percorsi matrice e percorsi d'impianto, nel tipo aggregativo, nella densità edilizia, nella posizione degli edifici rispetto ai margini del lotto, nella specializzazione gerarchica del nodo urbano principale ed infine nell'ubicazione delle funzioni specialistiche.

Nell'impianto originario del borgo e della maglia poderale si innestano i progetti della Riforma fondiaria, finalizzati sia ad incrementarne le funzioni produttive – emblematica a riguardo è la costruzione del tabacchificio al margine ovest dell'edificato – sia ad ospitare il crescente accentramento della popolazione rurale, in prevalenza costituita da migranti e braccianti stagionali (Ente per la Riforma Fondiaria in Puglia, Lucania e Molise, 1963). Negli anni Sessanta Marina di Ginosa subisce un'ulteriore decisiva trasformazione, non più per sostenere esclusivamente la modernizzazione agricola, ma per rispondere ad una diversa prospettiva, da borgata rurale a

città balneare, un fenomeno i cui presupposti erano già potenzialmente presenti nelle baracche e nelle tende improvvisate, erette negli anni '30 in prossimità del primo villaggio operaio (Bozza, 2005, p. 169). Gli effetti morfologici che scaturiscono da questa nuova istanza trasformativa consistono prima di tutto nella crescente distanza del centro gerarchico del borgo dai suoi originari limiti verso la campagna e il bosco, e poi nel generale ampliamento della struttura urbana, che assorbe al suo interno le colonie balneari, i lidi, gli alberghi e le case a schiera, con i lotti allineati alla trama idraulica e poderale della bonifica. In questa fase il torrente Galaso, i canali, la ferrovia e il bosco rappresentano le invarianti di quello che progressivamente sta assumendo la dimensione e le complessità di un vero e proprio organismo urbano, condizionandone direzioni, nodalità e densità edilizie. La struttura fissata negli anni '50 e '60 subisce così una terza ulteriore espansione lungo gli assi fondativi della Bonifica della palude Stornara, sia a nord, superando il limes territoriale della Riforma fondiaria, sia a sud della ferrovia, sottraendo spazio alle dune e al bosco. Il nuovo assetto urbano comprende ora non più uno solo ma due nodi accentranti: il primo nucleo del villaggio-stazione e il Centro servizi progettato dall'architetto Francesco Padula nel 1954, destinato a traslare il fulcro morfogenetico della borgata. Il suo impianto, definito secondo criteri che il progettista stesso definisce di «economia razionale», è identificato soprattutto dalla chiesa e dalla scuola che articolano la piazza e la sua relazione con il parco, inserendosi nelle geometrie cartesiane del tessuto. I due edifici fungono anche da traguardi visivi per l'intero organismo poderale, creando in questo modo una relazione che riassume la natura agraria del borgo. Si tratta di un approccio olistico al progetto che purtroppo non si ritroverà nei più tardi interventi di trasformazione, tradendo in molti casi l'efficace corrispondenza interscalare fra le trame dei campi e il tessuto edilizio. La negazione di quei principi è il risultato inevitabile delle pressioni speculative che dagli anni Sessanta hanno investito la costa, dal Metapontino fino a lambire il polo industriale di Taranto, corrodendo i margini boschivo-dunali e convertendo i suoli agricoli in aree edificabili. A Marina di Ginosa tutto questo ha provocato due diversi ma convergenti fenomeni: il primo consiste nei conflitti tipo-morfologici generati dalla nuova edificazione, che ha introdotto dismisure e rapporti estranee all'originaria congruenza fra la campagna e il borgo; l'altro riguarda il degrado urbano e semantico che affligge le aree di transizione fra la città e gli spazi non edificati. Queste ultime sono rappresentate da una terna di margini tra loro connessi: quello città-bosco, dove le recinzioni e i muri di confine separano il perimetro dell'area naturale protetta dalla proprietà privata; quello città-poderi, in cui i campi del periurbano, spesso abbandonati, tendono a tornare paludi; il margine città-duna, dove la prima tende a far scomparire la seconda. Le barriere che accomunano le criticità dei tre margini di potenziale relazione sono la perfetta espressione del disconoscimento collettivo che attribuisce loro soltanto un limite all'incremento edilizio, non una risorsa identitaria da salvaguardare e valorizzare come sintesi delle complessità del palinsesto urbano-rurale. Al contrario, lo svi-

luppo avviene per accumulazione di parti autonome che non entrano in relazione critica con l'esistente né arricchiscono la struttura dell'abitato di qualità significative in virtù delle specifiche istanze sollecitate da questo particolare luogo. Un sistema di aree marginali in costante divenire, rappresentazione della "amnesia urbana" rispetto ai caratteri stratificati di una città nata da un progetto di bonifica idraulica in cui il sistema di percorsi e canali non era stato pensato solo per i prosciugamenti, ma perché fungesse da matrice del borgo in grado di connettere funzionalmente le architetture sparse di un territorio a vocazione agricola che oggi stenta a riconoscere le sue radici.

Fieldfront, Woodfront, Waterfront.

Tre condizioni morfologiche per l'aggiornamento del progetto

Le questioni esposte riassumono un'analisi che per sua natura è rivolta al progetto come esito ultimo di riflessioni critiche, allo scopo di "rammemorare" il carattere agrario-abitativo di questi territori. Il tentativo è colmare almeno in parte le lacune identitarie che affliggono i borghi della bonifica, in conseguenza delle trasformazioni che negli ultimi decenni hanno rifiutato qualsiasi rapporto con i processi storici stratificati e quindi anche con la loro espressione paesaggistica più autentica. Processi che invece narrano della "costruzione" ex-novo di un territorio, della mutazione strutturale e funzionale della costa paludosa in un organismo produttivo che pone al suo apice l'insediamento e il potere, polarità semantiche della bonifica integrale i cui riti fondativi sono rappresentati dai canali e dagli argini, dalle nuove strade, dalle borgate, dai centri di servizio e dalle case coloniche, dal successivo determinarsi di nuovi nodi e gerarchie interscalari.

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È in rapporto a questa Storia che occorrerebbe individuare le strategie di intervento (Strappa, 2016), le cui coordinate andrebbero cercate soprattutto nel recupero delle tracce morfogenetiche della bonifica – gli argini, le strade, i canali e i moduli dei poderi – che costituiscono il sostrato geometrico e l'invariante morfologica su cui questi borghi sono stati fondati e in rapporto ai quali è ancora possibile stabilire inedite connessioni capaci di re-innescare un dialogo proficuo tra l'insediamento e la sua origine acqua.

In questo senso le tracce lette nel palinsesto possono assumere il ruolo di segni-strumento per il progetto, dei quali fanno parte i moduli colturali-insediativi, unità di misura dello spazio fondiario le cui aggregazioni compongono l'impianto di molte città di fondazione del '900 e che a Marina di Ginosa assumono una sorta di valore assiomatico per la particolare chiarezza manifestata dal suo tessuto, dalla campagna all'isolato urbano. L'interazione tra i differenti segni-strumento consente di articolare gli allineamenti, i limiti, i nodi gerarchici, inverando il tipo insediativo e mediando i conflitti nelle aree di margine. Queste ultime sintetizzano gli elementi e le strutture del palinsesto non soltanto nella loro oggettualità ma anche nelle relazioni percettive che si generano reciprocamente fra le trame del suolo – introiettate nella struttura dell'abitato – e le emer-

genze dei silos, delle concimaie, delle torri per il recupero delle acque, delle case coloniche, dei campanili e delle torri civiche (Riondino, 2016). Una sorta di panottico urbano-rurale che nella razionale disposizione delle sue architetture manifesta notevoli possibilità progettuali se applicato alle aree periurbane. Sono esse infatti ad addensare maggiormente i caratteri tipo-morfologici dei segni-strumento, perché più nitidi sono i riferimenti alla storia e alle ragioni costitutive del territorio di cui fanno parte. In altra sede le aree di margine sono state definite limina (Rociola, 2016), proprio per evidenziarne le potenziali peculiarità come soglie di passaggio tra diverse ma interagenti coniugazioni insediative all'interno dello stesso palinsesto, focalizzato sulla bonifica nei suoi significati, dal prosciugamento idraulico alla città. Limina i cui caratteri sono attualmente offuscati o negati del tutto dalle problematiche trasformative prima descritte, un vero paradosso. A Marina di Ginosa essi corrispondono a tre differenti modi di interazione fra l'organismo urbano e il paesaggio, riassumibili con i termini Fieldfront, Woodfront e Waterfront.

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Il primo fa riferimento alle aree interposte fra il tessuto urbano e i poderi della Riforma, gerarchizzate dalle case coloniche. Dalle loro trame possono generarsi intersezioni con gli spazi interclusi fra gli isolati residenziali esistenti, generando "collisioni" urbane che consentano sia di riattivare ragionamenti attorno all'Origine del luogo, sia di individuare nuovi nodi gerarchici utili al loro recupero. Le aree intercluse dei Fieldfront possono allora essere l'occasione per aggiornare i rapporti fra città e campagna, parchi urbani-agricoli nei quali condensare i due estremi antropici della bonifica integrale, il coltivare e l'abitare, definiti spazialmente da ricuciture architettoniche per attribuire significato e qualità urbana ai frammenti edilizi sparsi che compongono la periferia del borgo.

Congiunto al Fieldfront, il Woodfront rappresenta il margine di contatto fra il borgo e la pineta, dove la cesura provocata dalle recinzioni delle case è responsabile del diffuso degrado determinato dall'incapacità degli edifici esistenti di dar vita a rapporti significativi con il bosco. Al contrario, quest'ultimo è stato sempre sopraffatto dall'espansione edilizia, riducendo la pineta ad area edificabile tout-court, indipendentemente da quelle istanze specifiche che avrebbero richiesto una precisa strategia di relazione, traducendo architettonicamente il bosco all'interno del progetto. Il protrarsi del fenomeno ha fatto nascere come reazione opposta i divieti normativi, imposti per salvaguardare questi importanti presidi naturalistici, negando così anche le residue possibilità di intervento necessarie per risolvere le criticità descritte, le cui possibilità più spiccate risiedono proprio nella vocazione di "bosco urbano" del Woodfront, dove le infrastrutture idrauliche della bonifica, già assimilate dal tessuto residenziale, diverrebbero ulteriori elementi di sintesi fra la città e la pineta, reinterpretando in modo inedito gli argini e i canali già realizzati dall'ONC nella vegetazione. Il terzo ed ultimo margine è il Waterfront, il quale condivide con il Woodfront la sostanziale indifferenza trasformativa che ha assimilato la duna e la spiaggia a qualsiasi altro lotto più interno. Il rapporto con il mare si riduce infatti ad una sequenza di recinti, di impedimenti visivi, di limiti inva-

licabili, di dune e pinete rimosse per lasciare spazio ai lidi e alle residenze turistiche. Tutto ciò, oltre a compromettere il cordone sabbioso, sempre più compresso nella sua larghezza e incapace di contrastare i fenomeni di erosione, ha determinato un fronte marittimo notevolmente disarticolato sul piano tipo-morfologico, privo di qualunque significativo rapporto con il mare anche a causa della ferrovia che separa in due parti il tessuto, isolando il Waterfront e rendendolo paradossalmente ancora più importante nel ruolo che esso può svolgere in quanto tessuto autonomo rispetto all'entroterra. In questo caso le ipotesi di intervento dovrebbero recuperare il ruolo dei pochi assi urbani che attraversano la ferrovia collegando l'abitato al mare e al bosco, che hanno una specifica, ma inespressa, vocazione gerarchica. Sono infatti gli unici sbocchi diretti della struttura urbano-rurale verso l'acqua, possibili "porte" in grado di esprimere la memoria trasformativa del luogo, e tuttavia oggi ridotte a semplici accentramenti edilizi. In tal senso, a Marina di Ginosa e in altri borghi di fondazione marittimi la ferrovia produce anche una sequenza di aree interposte fra i binari, il bosco e la struttura urbana, spesso abbandonate ma che al contrario sarebbero in grado di offrire nuove risorse spaziali e funzionali. Virtualmente legati al Waterfront e alla sua identità, i lidi balneari esistenti oppongono in realtà una serie di barriere che, per quanto effimere nella loro consistenza materica, provocano spesso effetti duraturi sul rapporto città-acqua, in molti casi irrimediabilmente perduto. Anche in questo caso occorrerebbe ricondurre il tema dell'architettura balneare ai caratteri della maglia poderale, che innerva l'organismo urbano, e ai suoi rapporti con il bosco, ricercando inoltre gli attraversamenti visivi che rendano i lidi "filtri urbani" tra la città e il mare – limina, ancora una volta – e non elementi di separazione ed esclusione come sono attualmente.

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Quelli indagati finora sono in sintesi alcuni ragionamenti in itinere che, legando l'analisi al progetto, tentano di fornire un contributo per risolvere le gravi patologie presenti in molti borghi fondati nella prima metà del Novecento come complemento delle bonifiche. Marina di Ginosa, in questo senso, rappresenta la verifica in fieri dei concetti indagati, estensibili a quei borghi che con essa condividono le "ragioni insediative" e storiche, assieme alle contraddizioni trasformative che il progressivo disconoscimento della loro identità da troppo tempo stanno causando.

Metodologia

La presente ricerca tenta di integrare il metodo storico-processuale con ulteriori strumenti utili ad interpretare due aspetti essenziali di molti organismi insediativi originati dalle bonifiche: la realizzazione ex-novo di un territorio pianificato "in sostituzione" di paludi e acquitrini e le disarticolazioni morfologiche che caratterizzano i margini di transizione fra i borghi e le aree esterne. In entrambi i casi, la lettura dei processi formativi può offrire solo risposte parziali, perché nel primo caso la bonifica integrale opera quasi sempre – e qui in modo particolare - per discontinuità, mediante progetti che nelle loro declinazioni applicano modelli morfologici

volutamente atopici, standardizzati dall'applicazione di un "linguaggio di stato" adattato successivamente ai singoli contesti macro-regionali; nel secondo caso invece la frammentazione tipo-morfologica delle fringe belts induce ad integrare la lettura con ulteriori apporti critici che leghino l'assetto razionale del suolo alla ricerca sullo spazio e il linguaggio, uno dei principi cardine su cui si basano i progetti dei borghi di fondazione novecenteschi. Alla ricerca di strumenti analitico-progettuali necessari a comprendere uno dei loro caratteri più importanti: il "sincretismo" morfologico tra potere e tessuto abitativo.

Forming process

L'analisi dei progetti originali degli interventi di bonifica, dei borghi e delle case coloniche, ha permesso di cogliere la reciprocità attentamente pianificata fra l'assetto idraulico del suolo e la morfologia dei borghi. Inoltre gli studi prospettici e i disegni di "ambientazione" rinvenuti con la ricerca d'archivio dimostrano il preciso intento perseguito dai tecnici di comporre anche la struttura percettiva degli insediamenti, dando senso compiuto alla loro precisa organizzazione tipologica. Grazie all'analisi di quei disegni è stato così possibile mettere a punto ragionamenti scritto-grafici finalizzati alla traduzione progettuale dei principi emersi.

Conclusioni

714 Quel che si deduce dal processo che conduce dalla bonifica della Palude Stornara alla borgata di Marina di Ginosa, è la funzione cruciale assunta dalle trame che la bonifica integrale imprime al suolo, costruendo un territorio in cui il rapporto olistico tra le infrastrutture idrauliche, i poderi e il tessuto urbano esprime il sincretismo trasformativo alla base del genius loci non solo del borgo indagato, ma più in generale dei borghi fondati come atto critico che manifesta l'abitare nelle "terre nuove".

Le opere di bonifica costituiscono quindi un vero e proprio "tessuto di relazione" su cui si basano congiuntamente le strategie pianificatorie della città e della campagna, una seconda natura che è anche un'implicita sintesi interpretativa della morfologia naturale del territorio, ai quali i borghi rurali e i più tardi villaggi turistici si sono adattati. È una vera e propria "riforma insediativa della palude", incentrata su due strategie collaboranti, con la prima che corrisponde ai tessuti delle case coloniche e la seconda costituita dalla rete puntuale delle borgate e dei centri di servizio, a supporto dell'abitato sparso. La seconda strategia è efficacemente rappresentata dalla Marina di Ginosa, il cui processo formativo è esemplare della graduale "conquista" delle paludi grazie ad una razionale opera di bonifica che nelle sue trame pianificate celava fin da principio il codice genetico per la metamorfosi urbana della costa.

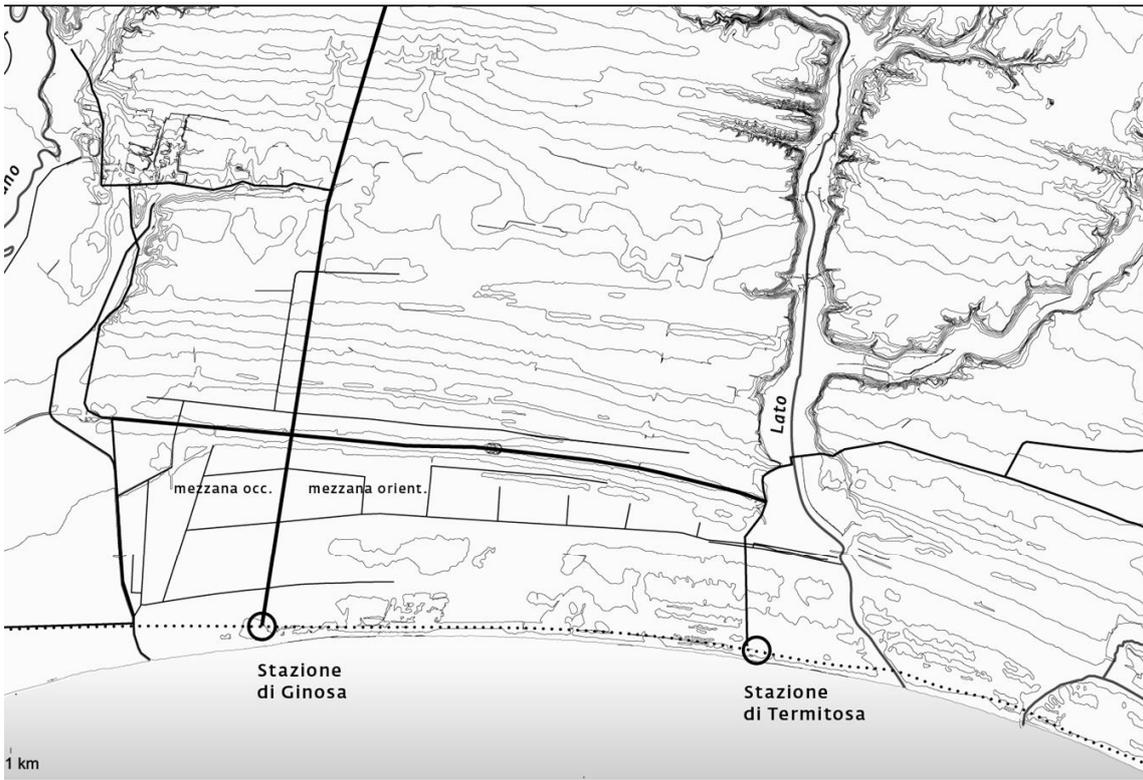
Il risultato di questo processo è racchiuso nell'attuale città in rapida espansione sotto la spinta dal turismo balneare, i cui effetti si riverberano negli interventi edilizi che soprattutto negli ultimi decenni hanno mutato la percezione e le proporzioni dello spazio urbano, rendendo a tratti irriconoscibili le origini del borgo, in particolare lungo i tre margini di transizione

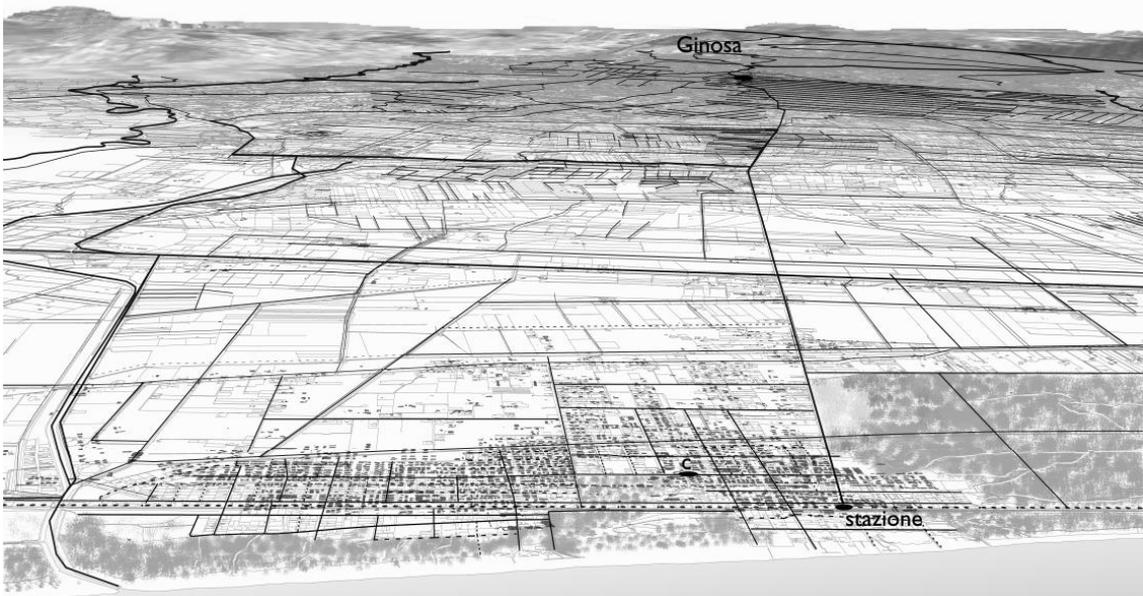
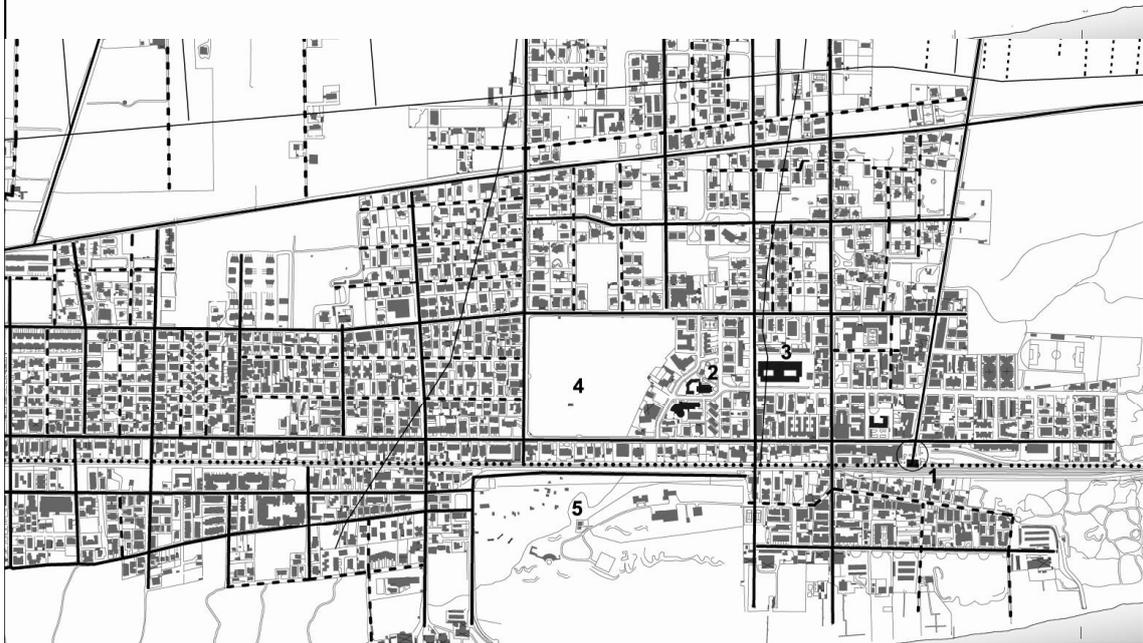
morfologica: il Fieldfront, il Woodfront e il Waterfront. Ad essi corrispondono specifiche criticità e conflitti che hanno portato nel tempo all'affermazione di stringenti vincoli ambientali e paesaggistici a protezione del bosco e delle dune, che se da un lato hanno posto rimedio alla bulimia edificatoria, dall'altro hanno trasferito lo sviluppo urbano verso la campagna, fagocitandola come se non fosse sede essa stessa di una memoria insediativa da custodire.

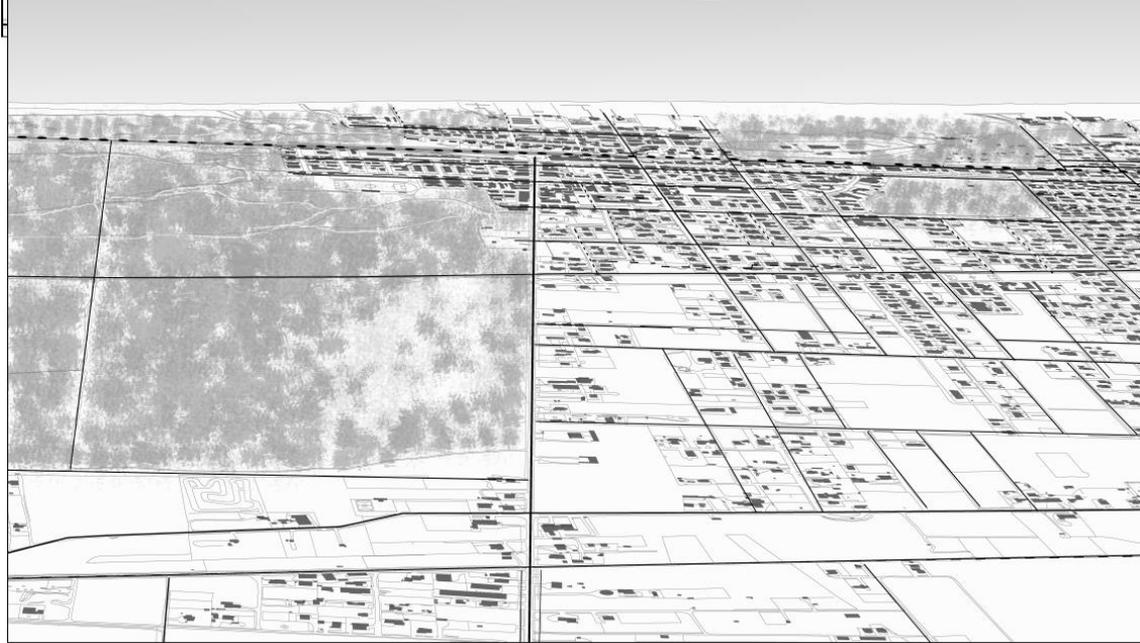
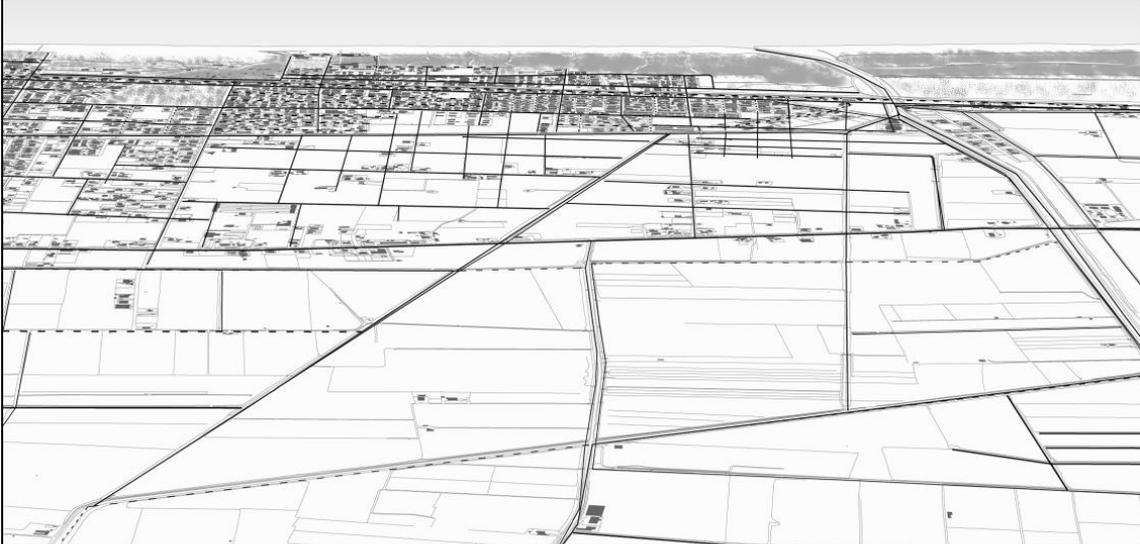
Riflettere sulle contraddizioni fra l'identità del borgo, che trova il suo significato più profondo nella bonifica e nella sua relazione dialettica con i boschi dunali e la campagna, e l'amnesia collettiva espressa nell'assetto attuale dell'insediamento urbano-rurale, è forse il nodo cruciale dal quale dover partire per cercare possibili soluzioni e per riscoprire con il progetto quella coscienza storica in grado di definire la distanza critica nel presente tra i diversi segni-strumento, verso una loro aggiornata interpretazione indispensabile alla salvaguardia di questi delicati palinsesti.

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Continuing intensity. A densification approach for the historic city of Naples

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Abstract

720 The article proposed investigates the urban development of Marina di Ginosa, a new town founded in twentieth century as a part of reclamation works that changed the structure and identity of the western plain along the Ionian coast, near Taranto. In it converge two separate but synergic experiences: both the hydraulic-settlement re-arrangement designed by Opera Nazionale Combattenti in 1920 - which anticipates the design principles of the later interventions in the Pontine Marshes - and the work of Ente per la Riforma Fondiaria in the Second postwar, which carried out the residential transformation of the coastal farm lands.

The analysis reveals a complex program in which the reclamation of Stornara marsh and the later subdivisions of the "new lands" into small plots are aimed toward a "rural urbanization", implemented mainly with the construction of towns, villages, farm houses and so-called "service centers", whose importance is emphasized by the absence of earlier settlements in the territory.

Within these phenomena, the transformation process of Marina di Ginosa summarizes the strenuous attempt to adapt the marshes to human needs, represented by the first temporary village built in the mid-twenties as a sort of morphogenetic nucleus of the future town, still visible in the structure of the current urban organism dedicated to the tourism, despite the chaotic development of the last forty years has denied the syncretism based on the integration of the farmland structure as a planned matrix of the urban fabric.

This condition characterizes by now the entire coastal strip extended from the area of Metaponto to the boundary of Taranto industrial district and its crucial environmental issues.

The aim of the research is to find new design principles in the stratified urban-rural process, to define a coherent development strategies able to connect the contemporary uses of the waterfront and "woodfront" with the reclamation nature of the place.

What is density: from the urban settlements to housing units

Starting from the current Italian condition, in which the historic cities cannot grow anymore but only remodel themselves within established urban standards, it is necessary a critical reflection on the topic of urban spaces densification. In fact cities don't renovate by subtraction of the built but by continuing additions and so through new processes of densification.

The term density, that is historically associated to the physical properties of a body expressed by the relationship between mass and volume, is absorbed by statistics and urban disciplines in the nineteenth century to measure the demographic-settlement phenomena that characterized the exponential growth of cities from the industrial revolution until today. The parameter of the building density, a necessary tool in the development of urban plans that expresses the relationship between the built volume and the occupied area, has broad qualitative implications that are rarely the subject of a critical review. In urban and regional planning we talk about density using the formulas "people per hectare" or "dwellings per hectare" (which result in an abstract regulatory mechanism to manage city growth) and we don't recognize the unavoidable consequences on uses, relations, proximity that characterized life within the cities. In 1961 the American sociologist Jane Jacobs underlines this aspect. She discusses the complex and delicate relationship between density and urban condition showing how high housing concentrations, even greater than one thousand inhabitants per hectare, are not only possible but also necessary to activate highly organized social systems. Her main examples are the solidarity networks of the Village in New York or the extremes of Hong Kong, where the illusion of unlimited size, represented in the pictures of Michael Wolf, really conveys what is the experience in megacities. In 1997 Richard Rogers reflects on the necessity of an high urban concentration from a sustainable point of view for the environment; he starts a debate on the importance of a low-impact development model able to face the weight of a growing population. A different approach is the investigation by MVRDV, a Dutch architectural firm, presented in the research "Farmax. Excursion on density" in 1998. The density is studied from many point of views trying to find some alternatives to the intense occupation of the Dutch landscape. The innovative aspect of MVRDV's research is the continuing alternation of theory and design praxis in the text flow. Subsequently they developed and investigated the same issue in "Metacity downtown": the research develops the idea of the city based on data and calculated by GIS for a renewal of some densely inhabited areas of the Ruhr.

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From the studies cited it is clear that the density is the link between the physicality of objects and their distribution in the space of the city.

Too often the visible declination of the complex concept of density takes the usual forms of the city made of skyscrapers on the one hand and on the other it does not go beyond the revival of the suburban model, where it is difficult to create new forms of urbanity because of the preponderance of individual needs and consumptions.

Researchers conducted so far show how there is no in-depth reflection on the idea of a city to work towards and on the change that has invested in a radical way the lifestyles of population: the design research and the interest on the spatial qualities of the settlements is put aside.

The concept of density, in our point of view, have to works on different

scales that goes from the whole territory to the single housing apartment. It determines a material and immaterial distance between parts of the city and of the building that generate conditions of habitability: «It is often the subtle differences in the quality, not quantity, of interactions, which make one city or neighbourhood more attractive than another» (Larice, 2006).

The city is built on itself and its densification activates new life cycles and this condition is clear looking at Italian cities, in particular in the city of Naples. Building on built is not a simple additive model but is an implementation of complex strategies that involve physical and immaterial aspects: a dense inhabited space is a space dense of relations and of cultural values.

The reflection triggered by research on the term density won't be only related to quantitative data but also to qualitative ones according to the opinion of Sorkin that says that density is «an agent that is physical, social and environmental». A dense city is a city capable of turning inside and to adapt its evolving forms. The contemporary city needs not only the building density but also a density of uses that is described by Sorkin «a neighbourhood where life is good represents also another style of density, the density of uses. [...] This suggested an idea of completeness both as satisfying density than as physical unit. Numbers can change but the intention still remains» (Sorkin, 2003)

722 The relation between the physical space of the city and its uses establishes various forms of density that are verifiable in the physical and social differences of the consolidated city. These forms of diversity starts new material, social and cultural relations and establishes an improvement of the environmental quality of the urban space and so a better quality of life.

The recognition and theming of the urban questions from the point of view of density has as objective to investigate to what extent and how the urban pieces of the dense historic city are able to generate urbanity and habitability. These conditions needs to be investigated for measuring the urban quality and the intensity of the urban experience. The research goal is to find formal answers through design projects of contemporary architecture able to generate innovating densification of the built heritage of the cities and at the same time to create new urbanities for people who inhabit them.

Why density: from density to intensity

Our reflections aims to explore operative impacts regarding the rethinking of the historical city for its continuation. We look for interventions capable of being integrated into the entire development of the city, regarded as a single environmental and built body. The proposed project starts in opposition to the homologation process that is sweeping the European cities. It recognizes the ability of a city to transform itself through actions and processes for the support and recognition of intensive places in its historical centers. The proposal starts from the knowledge on the dynamics of complex urban compositions within historic cities. The research aims to focus on density to understand what negative and positive aspects may result from continuing to densify the built space. The built environment directly affects personal relationships and neighborhood relations, while

spatial configuration is an important factor in determining satisfaction of people. The experience of living in high density environments is much more complex than living in lower ones. In dense contexts the balance among the need for privacy in the home (that is a basic human need), the need of sociality among people and the experience of urban spaces becomes ambiguous. An increasing population leads to the potential emergence of conflicts and unpleasant situations. This negative consequence (that only apparently is linked to numerical coefficients of people distribution) is mainly related to errors of spatial geometry in the city planning (like in the unlimited size of new megacities or the no-dimension in the suburban sprawl model). This fact contributed to a general negative consideration of density. The lesson of the historic city demonstrates that the buildings stratification as well as the commingling of public and private open spaces is a good formal construction for living. We have to start from this legacy. The density of the historic city generates authentic conditions of urbanity and does not favor the run-up of individual needs. Living in a dense built environment has some positive effects, among which: high potential of sharing; high organized social systems (that create culture and belonging so that the identities of places are preserved and reinforced); high recognizability and easy comprehension of the built space. All these aspects are strictly related to architectural form matters. The densification leads different conditions both physical and relational that are able to influence meaningfully the life of places. It is widely recognized that the quality of life in the historic Italian cities is a unique condition in the world. In dense contexts, relations both physical and human are influenced by proximity and contingency. This fact is not sufficient to say that both the qualities of space and of life are satisfying. We want to carry the study on the dense city starting from two concepts: atmosphere and intensity. They are complex terms of the articulated semantic geography. We use atmosphere as a combination of character and urban quality, while intensity as a synthesis of physical factors belonging to architectural form and those anthropic specific phenomena regarding a precise place/reality. Urban intensity is a typical feature of places able to give meaning to the environment atmosphere. Urban atmosphere as an interplay of social and aesthetic harmony cannot take hold because there is a lack of concrete connections between people and architecture. Intensity can be considered as own feature of tensional ensembles among different buildings, their architectural physical elements and the space in-between. In summary through them we intend to refer to all those factors necessary for the definition of a clear urbanity. We believe that architectural form significantly influences social relationships, their structure and conflicts. For these reasons, we will try to understand, through the typical architecture tools, positive and negative factors that exist in the body of historic cities and attempt to develop, through a deductive method, design hypothesis for dense urban spaces. We understand the limits of architecture: it cannot change society but contributes to improve life quality in our cities.

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How density: a methodology for design in the historic city

The research through the design project aims to study the formal structure of space and ways in which it is lived. The form of city space has been the subject of numerous studies. This proposal aims to observe the city as an architectural fact, considering it as a unity. The city observed as a cohesive body (not considering, for example, property limits or historical factors that influence space, such as physical limitations of built architecture) has been assumed in order to search those objective data determining different density factors. The subject of our design research is the ancient centre of Naples focusing on the site area of Policlinici.

The research has been structured into two phases. In the first phase we developed a methodological analysis on the physical body of historic heritage of the city. In the second one we tried to combine theoretical assumptions, objective and perceptive data in order to provide a new design approach for the area of Policlinici.

The first phase was structured in three different steps: the mass investigation (the geometry of space); the linguistic reading (the visible samples); the recognition of spatial devices (the construction of identity). We developed the design research through a description of places, by redesigning critically the studied contexts and building physical and virtual models.

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The mass investigation represented an in-depth reflection of the of the physical state of consistency places through the definition of objective data, we calculated this value by the relation of total constructed architecture and occupied soil (including empty spaces of both public and private property) and we physically visualized its geometric structure. Models and critical graphic representations has been accompanied by photos of places taken by some given rules. From this investigation, in addition to objective data, we tried, through physical and abstract models, to understand the relationship between different building bodies, the balance between their volumes and the physical consistency of the resulting spaces. The result of this phase has been the drafting of physical and virtual models that permitted an accurate comprehension of the dimensional and spatial relations between the built area and the empty sites of the city.

The linguistic scanning has been intended as a reading of the visible sphere of the city. It helped to study how the individual observable peculiarities of the different contexts were significant for the construction of urban quality that is a characteristic of dense urban fabric. We considered the complementary nature of these aspects, together with the volumetric one, an essential factor to understand how the quality of a place is built and developed. This scanning has been developed by a critical reading of some emblematic architectural objects pertaining to these contexts. The aim of this scanning is investigate the architectural component at different graphic scales, that are able to give back, based on the studied object – for example from the portal to the curtain wall construction – all the necessary information for the editing of the descriptive-cognitive schemes. These architectures have been revealed and redesigned in a critical way and have been included in their spatial, formal and linguistic composition. The intent was to proceed by subsequent addition of information layers. The outcome of this phase has been a synoptic abacus of the all information defined during the understanding of the places and

the editing of the materials.

The latest proposed analytical phase was the spatial device identification: recognising of the elements that produce quality. We identified with this term those elements of built architecture that are typical of historical Italian cities, able to combine the public sphere with the private one. We tried to investigate through inductive method the elements able to be expression of a clear identity. Those elements are necessary for the coherence of the architectural plan for the city: elements by which it is possible to speak of “architecture as a city” (Beigel, 2010). Thus the research aimed to examine details in constructed architecture able to make perceivable and intensive the urban quality. Such devices are absent elements in the consolidated city (although dense) and we believe they can correspond to those objects necessary to make density into a bearer of quality. These elements contribute to build urban intensity, so defined in this research, and represent the character of the city.

So the proposed urban readings has been developed at different dimensional scales. The mass investigation studies the researched city in its entirety; the linguistic scanning and the spatial device identification instead require further information on specific architectural ensembles and individual buildings. These three complementary phases of study tried to observe the dense urban phenomenon and turn it in a discretized form putting objective data beside sensitive factors. This detailed study has been useful to understand how everyday life, necessary to carry out quality and contribute to its definition, integrates itself in architectural forms.

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The second phase of the project tried to propose an architectural project able to support theoretical and analytical research's results. This research did not found the reason of the transformations, mutations, additions, stratifications, modifications of historical buildings, but these conditions themselves have been considered as facts. Many transformations, happened during the time, modified the landscape and the form of the ancient settlements. Outstanding transformations during time modified noticeably the dimensional relationship among urban spaces, but they did not often distort the original urban structure. These formal modifications did not change the authentic sense that represents contemporary cities, which is innate in those spatial devices that make unique and recognizable these fragile spaces. They try to maintain the delicate balance between tourism pressures and conservation of their identity character. The historical center of Naples is deeply inhabited and strongly transformed: continuous stratifications, additions and alterations influenced the configuration of spaces but did not change the elements that make order and identity in the city, that permanence which remains under different stratifications. The study of Naples has been a useful tool to understand the nature and the mechanisms of urban space composition that characterizes the dense city, the ability of urban spaces to absorb and re-invent history and the way of living cities.

The formal answer: an architectural project for the area of Policlinici in Naples

The ancient city of *Neapolis* was founded around 470 BC on an incline

which descends slightly from the north towards the sea. According to the theories related to Hippodamus from Miletus the city was structured with a plant of almost square shape, its side was seven hundred meters. It was made up by three main axes, *plateai-decumani* from west to east, in the current place names via of Anticaglia, via Tribunali e via S. Biagio dei Librai, whose street section is about six meters, these were intersected by twenty *stenopoi-cardi*, whose street section is reduced to three meters. «The ancients had been able to express in the most complete way, reproducing in the layout of their city the same sort of celestial spaces» (Poëte, 1929).

The configuration of the place impresses its indelible traits on the fate of the city (Poëte, 1929). The space resulting from this dense grid is defined as *insula* with fixed size. The ancient city, stratified to date, maintains single *insulae* on their original area, and by double and triple *insulae*, born in the centuries of a merger of several buildings and properties, in several cases after the foundation of the monasteries from the Middle Age.

The city of Naples is a place of complex dynamics and is a place of testing and verification for the work of architect because from this city it is possible learning from and at the same time learning by doing. Our approach for the ancient centre of Naples is at the same time extremely selective and widely inclusive. We need in fact to look at the whole variety of reasons contributing to the definition of the theme that is the object of the study and on the other hand to express results in terms of physical impacts on the body city.

726 The area of Policlinici is a big void in the urban structure of the ancient centre of Naples. This area is an exception in the urban fabric compared to the set of permanence that characterize the ancient centre of Naples, or rather the compact organization of *insulae* and streets. The project of the engineers Quaglia and Melisurgo of the "Society of Renovation" that envisaged the construction of three new hospital pavilions, is completely divorced from the context: the pavilions are in the centre of the free big area and they do not respect the shape of the ancient *insulae*. These, that in time have saturated all the available space, have absorbed within them a *cardo* and so have transformed into a double *insula*. The hospital pavilions were built on the area of the ancient monasteries of Sapienza and Croce di Lucca of XVI century. The destruction of the monasteries had many disagreements mainly by local historians. In the 80s of XX century one of the three pavilions was severely damaged by the earthquake and was later demolished: today the area represents an abnormal void in the Ancient City.

After the analytic and interpretative investigation of the area of Policlinici and more generally of the ancient centre, it has come to reconsider the possibility to densify the area reaffirming the idea of *insula* as a compact body, having this element provided a framework for a diversity of developments happened in time.

Reading the single and double *insulae* of the ancient urban fabric, the relationship between the built and empty spaces is equal to 1/10 in the first case and 1/15 in the second one. In the area of Policlinici this ratio is reversed and the resulting empty space is equal to 75% of the total area. The project aims to rethink this condition again in the contemporary to ensure that, through the incorporation of new residences and equipment,

reaffirm that mixture of uses, cultural and functional *mixité*, typical of the Ancient Centre of Naples. To rebuild the *insula*, through the densification of its borders, the project focused on the trace of an ancient existing street that was a *cardo* and used the extension of Via San Domenico Maggiore as a new artery around which it is possible to articulate a new system of public open and closed permeable spaces. This articulated system of buildings and public spaces - cloisters, courtyards, plazas, galleries, museums, civic centre, public areas, libraries, cafes, dining room, conservatory – together with the private spaces - residences for young couples and students, commercial activities and shops – guarantees a both physical and social porosity of built spaces so that the densification produces a cultural and functional enrichment for the city.

The new *insulae* have a variety of uses to guarantee a wide variety of users that will benefit from the new buildings and open spaces at different times of day and year. The double *insula*, highly recognizable through the extension of the *cardo*, contains in the west area the system of spaces dedicated to the university that is an extension of the San Pietro a Majella Conservatory (new music rooms, rehearsal and recording rooms, study rooms, public courts); this building part is a sort of hinge between the external areas of the new complex. The single *insula* on the west side has a predominantly more domestic and civic nature and it confronts with the main residential buildings on Via del Sole. The remaining part of the double *insula* on the east side is composed by public and collective buildings directly connected to the library and university building system on Via Santa Maria di Costantinopoli (Brau Library, Academy of Fine Arts, Faculty of Medicine, etc.).

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The project reinterprets the courtyard typology typical of the Neapolitan palace which over time has replaced the compact *insula*. The new project preserves the existing pavilions of the hospital of Policlinico and through new contiguous buildings proposes the courtyard again to generate a new system of buildings along both the single and double *insulae*. This system of courtyards assures a sequence of domestic spaces for both students and inhabitants that live inside the new complex but also more public spaces that interact with those present in the ancient centre of Naples.

The project focused on the inner redefinition of the *insula* and of its borders. In particular on Via Tribunali – that is an important axis of the ancient greek-roman structure and nowadays a touristic hub for the relevant monumental presences – the project reintegrates the presence of the church of Croce of Lucca and redefines Piazza Miraglia through the individuation of a new dimension closer that of other spaces of the ancient centre and besides gives a new urban façade on Via Tribunali with the building of the new *maison du quartier* in the single *insula* of the west part of the site area.

The guide line idea of the whole project was to define a new urban composition through a deep densification of the complete site area – from Piazza Miraglia to the borders of the two hospital pavilions – building a concatenation of buildings able to live alone and together a completion of the work developed in phases.

The density of the built spaces is one of the aspects that more easily is possible to perceive walking through a city: suddenly living in a place we can understand if the architecture encompass us in a sequence of spaces

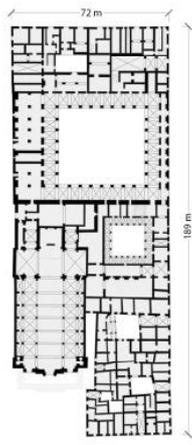
that we can measure with our senses, with our body, or not. A dense city is a city that people are able to measure and within which we feel safe: it is the place of the growing of civic life. Therefore with our project we tried to structure new dimensions of urban space with an intense sequence of solids and voids, building new architectures whose first aim is just to have a clear and recognizable civic force.

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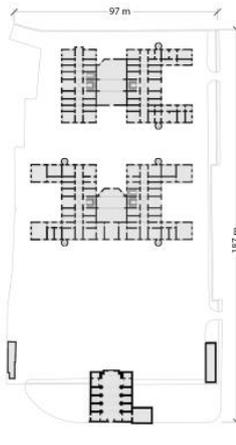
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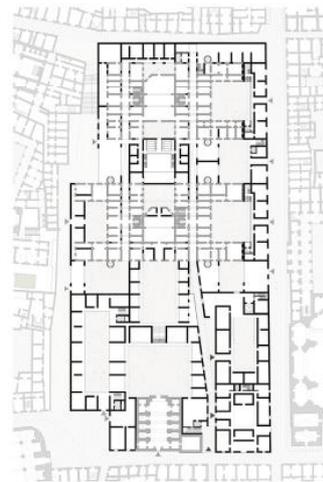
Typical single *insula*



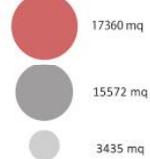
Typical double *insula*



Site area



The new *Insulae* of Policlinico





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Fig. 1 The ancient centre of Naples
Fig. 2 The site area
Fig. 3 Built and empty spaces of the insulae
Fig. 4 The project proposal

Conference topic

F.2) Historical Urban Fabric

Costruire nell'esistente. Gino Valle, Hans Döllgast, Aris Konstantinidis: tre case per tre città.

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Keywords: edilizia, costruzione, Valle, Döllgast, Konstantinidis

Abstract

Nel corso della seconda metà del novecento si susseguono una serie di esperienze progettuali che risultano emblematiche per la formulazione di modalità di intervento sulla città storica.

734 *Esse rinsaldano il valore della costruzione con quello della forma e reinterpretano i caratteri particolari dei luoghi, la trama strutturale alla base del processo edilizio, il linguaggio e le soluzioni abitative dell'area culturale di riferimento fino alla innovazione tipologica e al completamento o alla riconfigurazione di un ambito urbano. All'interno del tessuto medievale di Udine, Gino Valle innesta una casa per uffici e appartamento tra il 1963 e il 1965; la dimensione del fabbricato è stabilita dalla particella del lotto stretto in profondità, sul cui sedime si ripetono le unità delle case a schiera, e sulla facciata il portico a vocazione commerciale si lega allo spazio privato interno. Al termine di una stringa del tessuto seicentesco di Monaco di Baviera, Hans Döllgast costruisce la sua casa d'abitazione tra il 1953 e il 1954; l'edificio si pone come testa conclusiva di una successione di manufatti con tetto a spiovente e falde parallele alla strada, che si aprono sul retro ad orti e giardini, e si allinea alle preesistenze adiacenti nell'immagine di una cortina ininterrotta. Sulla scacchiera della maglia ottocentesca di Atene, Aris Konstantinidis colloca una casa d'abitazione unifamiliare nel 1961; il volume cresce letteralmente dalla terra e fissa la sequenza tettonica delle sue parti in relazione alla condizione orografica di declivio e all'alternanza dei corpi disposti lungo il margine del grande isolato.*

Queste tre architetture si confrontano con tre momenti differenti della crescita della città e s'interrogano, di volta in volta, sulla capacità «d'inserzione del nuovo nel vecchio».

L'edilizia, la storia, la modernità

In una pubblicazione del 1984 intitolata "Moderno non Moderno", Gianfranco Caniggia richiamava la crisi dell'architettura in un momento particolare in cui si procedeva unanimemente verso uno stile internazionale, attraverso un rifiuto del passato e una negligente ostinazione a rompere qualsiasi legame con il portato della storia, riducendo al minimo la possibilità di dialogare con l'esistente.

Eppure tra quelle righe scritte in modo garbato e affatto dimesso, si scorgono alcune questioni che riguardano l'architettura e la società civile del nostro tempo, riconducibili alla riflessione sul valore dell'opera costruita rispetto ad un dato culturale contingente, alla capacità di lavorare sul "piccolo" (le case e il tessuto) per dare forma al "grande" (la città e la metropoli), superando la tentazione di «rifare la città» quanto piuttosto di accettare il confronto con la «città quale era».

L'interrogativo di fondo è messo a fuoco dal sottotitolo di quella pubblicazione del 1984, che analizzava in maniera meditata e decisa l'importanza del "luogo e la continuità" o l'appartenenza necessaria e imprescindibile dell'edilizia (che non è una componente a sé stante) alla città.

Il punto di partenza risultava la triade vitruviana di solidità, utilità, bellezza, che caratterizza l'atteggiamento classico al progetto, non mimetico o in stile ma in grado di rifondare questioni antiche, aspirando continuamente ad una razionalità dell'opera, «alla sachlichkeit, alla sinteticità, chiarezza, coerenza che sembra ancora riferirsi alla "concinnitas" albertiana». E attraverso cui si legge la realtà e si riconoscono le sue "regole" – «come è regola il parlato, che ciascun popolo in ciascun luogo usa ed evolve, ciascuno a suo modo e nell'ambito della sua storia» – , la qualità degli spazi, il senso della forma quando esito della costruzione, in altri termini prendendo in carico la grammatica e la sintassi di un ambito specifico per innescare una innovazione tipologica e quindi una forma operante, senza ideologie o recondite limitazioni – «non vediamo perché ci sia da dubitare di una finestra usuale, a due battenti, ritagliata su un muro continuo, alta e larga quanto basta, fatta come ci è pervenuta, codificata da alcuni secoli di esperienze» e «non vediamo perché programmaticamente si debba rinunciare a coprire un edificio con un tetto» (Caniggia, 1984). La delicata «inserzione del nuovo nel vecchio», l'assunzione di temi generali rispetto «allo stratificarsi e l'intersecarsi delle espressioni artistiche» (Brandi, 1975), e a momenti differenti di crescita della città, sono gli strumenti messi in campo da ricerche ed architetti "minori" del novecento, capaci tuttavia di lavorare su oggetti semplici e inappariscenti che assumono il carattere dei luoghi e superano autenticamente la tradizione nella continuità – tradizione intesa come trasmissione nel tempo di modi d'abitare e procedure costruttive, memorie scritte e radicate nell'esistente –, essendo così moderni non moderni.

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Tre case e tre sistemi costruttivi

Gino Valle (1923-2003) innesta una casa per uffici e appartamento su via Mercatovecchio ad Udine, tra il 1963 e il 1965. Questa percorrenza è la

spina del tessuto medievale composto da stringhe parallele di case a schiera che si ripetono in maniera serrata, adagiate ai piedi del colle su cui è arroccato il castello.

Le facciate autonome ed il portico continuo che compone il basamento sono la traduzione "litica" di età rinascimentale della struttura a traliccio ligneo delle case originarie del duecento. I montanti e le traverse articolavano il corpo trilitico dei manufatti, mentre l'unità edilizia si distendeva in profondità fino a costituire la parte elementare dell'isolato. Le case a schiera hanno un duplice affaccio: «uno su strada e uno su quello spazio interno scoperto, di uso esclusivo di ciascuna casa, che è l'area di pertinenza» (Caniggia Maffei, 1979). Nella forma consolidata, riconoscibile negli aggregati storici, hanno una coppia di finestre sul fronte per ciascun piano abitativo mentre al piano terreno è presente un accesso alla bottega, alla stalla o al magazzino, che stabiliscono un rapporto diretto con l'esterno ed erano muniti di retrobottega, e poi un ingresso differenziato alla scala che conduce all'alloggio, collocato ai piani superiori. Ad Udine, le case a schiera su lotto gotico sono anticipate da un portico che connette strettamente le case alla strada, l'ambito privato a quello pubblico, esprimendo l'appartenenza del lavoro artigianale ai flussi e ai traffici economici urbani ed extraurbani e dichiarando la grande mutazione "funzionale" della casa nel passaggio alla fase trecentesca, in cui l'ambito domestico è sovrapposto a quello prettamente commerciale.

736 Valle mette a punto un'architettura in un brano di città in cui è forte il valore della permanenza. La dimensione generale del fabbricato, che chiude e completa un isolato di testata, è stabilita dal rapporto di 1 a 3 tra lato corto, rivolto al percorso principale, e lato lungo, affacciato su un vicolo secondario. È stata adottata, difatti, l'intera estensione dell'*insula* come misura per l'inserimento della parte nuova, che è caratterizzata, nell'attacco al suolo, dall'ariosità di un portico. L'intelaiatura portante dell'edificio è costituita da montanti e traverse in ferro, i tamponamenti sono realizzati da pannelli di rivestimento in marmo rosato, che fungono da parapetto, e da serramenti in alluminio con sistema a due ante scorrevoli. L'edificio è così composto. A piano terra si colloca lo "stanzone" del negozio, aperto all'esterno con grandi infissi a vetro e protetto dall'ombra del portico, su cui si trova il mezzanino su un solaio in ferro composto da travi principali e pezzi di raccordo secondari. Sul fondo, attigua alle case retrostanti, è presente una "crosta" compatta di vani a servizio e scale di collegamento ai piani superiori destinati ad uffici. In sezione, infatti, il volume si rastrema e gli uffici prendono luce e aria dalla strada, dal vicolo e da una piccola terrazza "di pertinenza" disposta nel punto d'attacco tra vecchio e nuovo. In alzato, la facciata è scandita da una sequela di bucatore che si infittiscono nella fascia alta di coronamento. La proporzione "monumentale" del basamento, tenuto alle estremità da pilastri a croce a tutt'altezza, è definita da una lunga trabeazione sulla quale s'impongono i piedritti del corpo edilizio, che mostrano la faccia piena degli elementi ad "I", e gli architravi in corrispondenza dei solai, che si presentano "rovesciati" e svuotati dall'ombra che incide l'anima a vista.

In analogia con i profili del nucleo medievale, la casa è conclusa da un tetto a falde, il cui cornicione aggettante, sorretto da travi a mensola disposte ad incastro nell'ultima piattabanda del telaio, rigira sui due lati del manufatto come un velo dal ricamo a trafori – consentendo alla luce naturale di penetrare filtrata e al cielo luminoso di intravedersi dal vicolo stretto. Il fronte lungo sul vicolo è rappresentato da un impaginato maggiormente “irrigidito”, in cui i piedritti si ripetono con un ritmo più fitto e dove si leggono, di volta in volta, i nodi e le giunture tra gli elementi orizzontali, gli incastri e le sovrapposizioni tra le membrature verticali. L'appartamento al piano attico, protetto dagli sguardi dei passanti, è completamente racchiuso nel cappello del tetto che s'interrompe per accogliere una terrazza quadrangolare pavimentata. Esso è un luogo scoperto intimo ed isolato, una sorta di accrescimento dell'oggetto edilizio secondo una “legge dei raddoppi” che accosta due stanze l'una all'altra.

Questa casa verniciata di rosso, collocata in mezzo alle case di pietra ed intonaco, dimostra come sia “dipendente” dal contesto, a cui si conforma senza intaccarlo, perché è il riflesso di un linguaggio che interpreta la costruzione tradizionale, la *modénature* e i dettagli senza compromessi o artifici inutili, così da offrire «una rigorosa espressione autonoma che mantiene, interpreta e rivaluta la configurazione cittadina» (Rykwert, 1979). Da questa attitudine tecnica e artigianale, che aveva prodotto un *modo medievale* di fare la città, si ottiene una forma riconoscibile della residenza, come lo sono le schiere in batteria su *strada*, con «una facciata in ferro che rappresenta una facciata in legno ... perché in fin dei conti – affermerà Valle – solo cambiando materiale mi sono ritrovato a recuperare questa specie di ‘memoria collettiva’ delle facciate che c'erano prima, che costituivano la città e che vengono a poco a poco sostituite» (Croset, 1989).

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Hans Döllgast (1891-1974) costruisce la sua casa d'abitazione a Monaco di Baviera sulla *Nederlinger Straße*, tra il 1953 e il 1954. L'edificio si pone come testa conclusiva di una successione di case a mansarda disposte in linea, corpi compatti con tetto a spiovente e falde parallele alla strada, che si aprono sul retro ad orti e giardini. L'impianto urbano e le planimetrie di questi edifici risalgono alle *traufenhäuser*, soluzioni abitative del seicento che risolvevano l'urbanizzazione e l'intasamento dei tessuti più antichi favorendo la plurifamiliarizzazione e le nuove esigenze sociali. Le *traufenhäuser* conservano caratteri invarianti: la pianta non si sviluppa in profondità ma ha un fronte molto largo, raccogliendo nella versione più matura fino a sei o sette finestre su strada, così che l'andamento della linea di gronda e del colmo del tetto corrano parallelamente al tracciato; questa tipologia è legata alla maggiore necessità di spazio libero sul retro ed è presente in molti villaggi rurali da cui migra verso la città, dove avviene il raggruppamento di lotti singoli di case che perciò conservano i tetti contigui; è spesso affiancata da piccole strutture, collocate sul retro e destinate a officina o deposito per il lascito degli strumenti da lavoro, e il sottotetto è fruibile e utilizzato come granaio o fienile e più tardi per l'al-

locazione di camere ulteriori (Dickinson, 1961).

«Intenzionalmente nessuna villa: una *reihenhaus* a Gern presso Monaco di Baviera, vincolato dalla contiguità, due strade e molti pochi soldi» (Gartenler Kurrent, 1987). Attraverso il ridisegno delle case adiacenti, Döllgast riporta nel progetto alcune misure essenziali e sviluppa un metodo conoscitivo “pragmatico” che fa i conti con i “ruderi” e i resti della realtà urbana. Egli assume, infatti, le posizioni lungo il sedime, gli allineamenti dei piani, le dimensioni dei corpi di fabbrica preesistenti per generare un frammento di edilizia che completa l’isolato e lo chiude nel suo “rigiro d’angolo”. La raffinatezza dell’inserito rispetto alla città consolidata sta tutta nell’espressività ontologica della costruzione, nel tono interlocutorio tra vecchie e nuove entità, nel superamento delle correnti artistiche delle varie epoche per un ritorno alle “origini” della forma.

Non a caso, Döllgast utilizza un sistema costruttivo locale e rintraccia una valida consuetudine abitativa, identitaria del paesaggio monacense, realizzando un insolito cantonale “cieco”, con mattoni a fughe larghe e solai in calcestruzzo grezzo, costituito da spazi interni concatenati in serie. Un edificio in muratura portante e copertura lignea, con linea di gronda parallela alla strada, si erge per due livelli e contiene il nucleo centrale del vestibolo con scala, lungo cui si susseguono le stanze domestiche. «Già all’ingresso tutto è dichiarato, la profondità e l’altezza ... così non ci si può smarrire» (Döllgast, 1957); l’ampio vestibolo attraversa il manufatto da lato a lato, mette in comunicazione la strada con il giardino retrostante e si prolunga, per mezzo di grandi infissi con porte e finestre, in un sistema di logge – spazi riparati e contenuti nell’incavo della parete, che permettono lo stare all’aperto e di riversare nella casa la luminosità dell’esterno. Tutte le stanze – il soggiorno e la cucina al livello rialzato, le camere da letto al secondo livello – sono connesse alla galleria del vestibolo e ricevono simultaneamente un’illuminazione diretta dalle finestre sui fronti corti, e indiretta dalla sorprendente “macchina scenica” della scala, che si riempie di luce grazie al “ritaglio” delle logge rivolte al giardino. Con questo espediente Döllgast “contempla” la bellezza della natura, che partecipa concretamente della vita quotidiana che si svolge dentro la casa.

I pianerottoli, gli scalini e la galleria sono rivestiti di pietra chiara, divenendo un’estensione della superficie esterna, nobilitati anch’essi per essere un luogo pubblico. Il lato corto ad est è segnato dall’accesso, munito di un’elegante pensilina a spioventi, sovrastato da una finestra a due battenti e una specchiatura nel muro che inquadrano con ordine la facciata; accanto c’è un raddoppio dell’asse e due finestre si dispongono allineate, con telaio bianco a doppia anta e persiane verniciate di verde scuro – un trattamento cromatico già in uso nelle vecchie case bavaresi. Il lato corto ad ovest ha la stessa ritmica nella disposizione dei vuoti ed è contraddistinto dalla fenditura continua delle logge fino al grande tetto a spioventi; il lato lungo, infine, che chiude il corpo di fabbrica a scala urbana e risolve l’affaccio sulla seconda strada che cinge il lotto, assume la forma severa di un prospetto cieco a capanna, con tre ridotte bucaiture sovrapposte lungo il centro, la cui laconicità è potenziata da cordoli

marcapiano dipinti di grigio che corrono a tenaglia per l'intera massa scatolare. L'ossatura lignea del tetto è ricoperta da scandole in ardesia e definisce la chiusura della casa verso il cielo, allineando la cornice con pluviale alle preesistenze adiacenti nell'immagine di una cortina ininterrotta.

A ben guardare, si scorge in quest'opera di Döllgast un'idea di abitare che riconosce la sua appartenenza ad una forma di stanziamento caratteristica di un lembo geografico, esito di un incessante processo antropico. La casa di Döllgast ha lo spirito delle «case dei boscaioli o delle case contadine» (Döllgast, 1957) disperse nelle campagne del sud della Germania, in cui la semplicità della forma si origina dalla relazione tra stanze – del lavoro, del riposo, della preghiera – che è poi la relazione tra le unità edilizie portate in città e affiancate l'una all'altra, dove le stanze si distendono e si accatastano per dividere lo spazio e i rumori della strada dalla quiete ritirata del giardino, qui segretamente celato come pezzo di natura ingentilito.

Aris Konstantinidis (1913-1993) progetta una casa d'abitazione unifamiliare ad Atene, tra le vie Archimidous e Klitomachous nel 1960-61. La casa affronta un duplice aspetto: completare la maglia di fine ottocento, risolvendo l'angolo di un isolato sfrangiato; chiarire il rapporto sintattico tra le parti in riferimento alla condizione orografica, che dalla strada vede il suolo risalire in maniera repentina verso uno dei colli della città.

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Dopo il periodo di formazione in Germania, Konstantinidis compie una serie di studi da autodidatta, attorno agli anni '40, sul paesaggio e sull'architettura popolare greca. L'apprendistato mira ad individuare la forma "autentica" della residenza che fosse in grado di esaudire le istanze moderne, pur rispettando i temi e gli aspetti della costruzione così fortemente intrecciati ai caratteri del territorio elladico. Una di queste indagini, corredata da un cospicuo apparato di rilievi sul campo e documentata da un numero rilevante di fotografie in bianco e nero, confluisce in un libro del 1950 che Konstantinidis intitola "Old Athenian Houses". Sul frontespizio sono impresse al fil di ferro la planimetria e la corrispondente sezione di una vecchia casa ateniese. Essa è dislocata sul fondo di una porzione di suolo stretto e allungato, confinata da alti muri e provvista di uno spazio scoperto che la separa dalla strada; questo "atrio", che segna il luogo d'accesso, è impreziosito da un'esile pergola con rampicanti. L'atrio conduce subito ad uno stanzone – presumibilmente utilizzato per il pranzo – staccato da terra grazie a pochi gradini, preceduto da un portico che protegge l'ambiente quadrato della cucina provvisto di focolare. Il primo livello, con le due camere da letto ed un'ulteriore camerella rialzata, è caratterizzato da una piccola terrazza con piante e pergola e da uno spazio intermedio che contiene i sevizi, ed è raggiungibile tramite una lunga scalinata addossata al muro di confine. Il fronte corto dialoga con lo spazio antistante attraverso un infisso a parete in legno, e il profilo della casa è delineato da due falde, con una pendenza accennata, coperte da coppi. Questo lavoro di riscoperta dei modi d'abitare ateniesi si ripete

nel tempo attraverso la visita e l'accertamento di innumerevoli manufatti, in cui si evincono i caratteri "atemporali" delle case: il cortile, o lo spazio scoperto recintato, è il luogo attorno a cui si sviluppa la casa, ritratta dal limite della strada, con le stanze piccole aggregate lungo il bordo e il corpo principale "staccato" da terra e affacciato sui dintorni.

Con la costruzione della casa unifamiliare su una delle propaggini della collina di Arditos, nei pressi dello Stadio Panatenaico, Konstantinidis dimostra di poter rielaborare tutto ciò che aveva appreso dalla studio dell'architettura minore greca, decifrando un brano di città incompiuto posto a stretto contatto con un'area archeologica e i suoi ruderi antichi.

Il volume abitativo cresce letteralmente dalla terra: attraverso i suoi pilastri snelli, il sistema a telaio cementizio si conficca in un basamento di conci di pietra sbazzata, un "terrapieno" che sostiene un giardino all'aperto e prende la misura del "piede" dell'edificato sparso lungo l'arteria veicolare. L'intera sommità, una "testa" di coronamento i cui fronti sono descritti dal telaio a vista verniciato di grigio e dai tamponamenti intonacati di bianco, si struttura su due livelli, si annette al giardino e custodisce il focolare domestico. Al primo livello, raggiungibile da una scalinata pubblica che si adagia sulla forte pendenza, le stanze principali del soggiorno (di forma quadrata con un pilastro centrale) e della cucina (cresciuta dalla prima per gemmazione) sono anticipate da un atrio, che si pone come passaggio intermedio tra dentro e fuori. Al secondo livello si radunano le stanze da letto, protese all'esterno in virtù di un balcone stretto con pilastri e ringhiera in metallo – il ricordo o la trascrizione dei sistemi lignei tradizionali –, una vera e propria "loggia" e un punto di osservazione privilegiato sullo Stadio Panatenaico e sulla fitta pineta tutt'attorno. Sull'altro versante, invece, le camere dispongono di finestre rettangolari e serramenti verde scuro, che rendono più discreta la partecipazione al paesaggio urbano. Le bucatore s'incrementano verso l'intima superficie scoperta, opposta alla strada, a cui si legano gli spazi domestici: essi risultano pervasi dalla luce e dai colori che provengono da questo giardino "pensile" lastricato, il luogo attorno a cui si cristallizza la bellezza silenziosa di questa casa *ateniese*, proporzionata con singolare monumentalità rispetto al contesto. L'appropriatezza della forma e la calibrazione degli spazi domestici, tutti riconducibili a una cultura locale, fanno risuonare in questo «contenitore di vita ... la bontà della vecchia abitazione "popolare" ateniese. Infatti, pervenendo alla sua soluzione e alla sua forma caratteristica, denuncia – dal punto di vista plastico e costruttivo – l'esistenza di un nucleo vitale, di un nucleo umano. E mostra ancora che la vera opera architettonica che modella in una perfezione costruttiva un determinato problema sociale – il determinato e comune bisogno di avere una casa – è qualcosa di simile all'indumento comune, al cibo comune, alla lingua comune, qualcosa di analogo al canto o al poema comune che sgorga dalla bocca di ogni uomo» (Konstantinidis, 1983).

La costruzione nell'esistente

Valle, Döllgast e Konstantinidis guardano alla realtà e alle sue permanenze, e l'attenzione per ciò che li ha preceduti, che non è *lingua morta*, permette alle loro opere di "germogliare", con un senso naturale di appartenenza, nel terreno fertile delle città di Udine, Monaco ed Atene. L'opposizione dialettica con il contesto si muove verso un orizzonte preciso: incarnare attraverso un'asciuttezza della forma il senso della forma storica – tanto si può dire pur riducendo il numero di parole – rispondendo con efficacia a bisogni elementari di vita. Perché sanno che l'esigenza di ritrovarsi in un luogo, di stare al riparo di una tettoia, di fermarsi all'interno di una stanza, di proteggersi sotto un portico, di sedersi all'aperto sono condizioni di vita radicate in gesti concreti, esperienze ineludibili dell'uomo. Relazioni "fisiche", o si potrebbe dire di natura *tettonica*: la struttura della parte nella totalità, la struttura degli spazi interni ed esterni, la struttura topografica di una porzione di terra messi costantemente in rappresentazione attraverso il progetto.

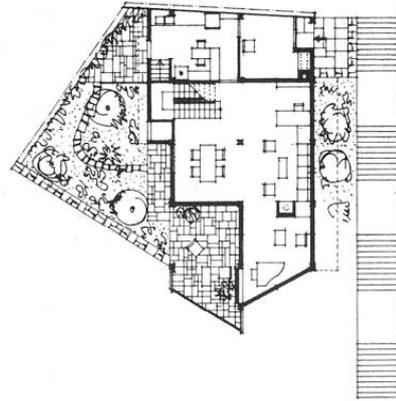
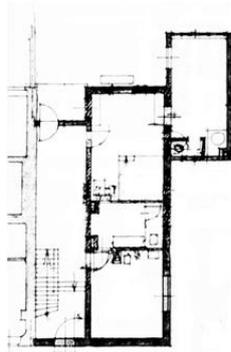
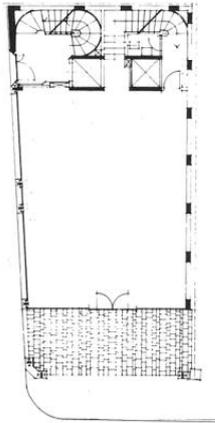
Questa postura del pensiero è fondata sin dall'inizio sulla costruzione e formulata a partire dall'esplorazione personale e approfondita delle realtà esistenti e della cultura che le ha prodotte, alla cui famiglie gli autori "biograficamente" si richiamano. La storia di queste famiglie si annida e si tramanda in ogni "voce" viva che resiste alla polvere del tempo; ciò avviene pure con l'architettura, che lentamente muta con il mutare inarrestabile dei bisogni – di una comunità e mai solamente di un individuo – che ha una sua logica e ubbidisce a un ordine. Valle, Döllgast e Konstantinidis conoscono e rispettano queste leggi e riscoprono l'identità dimenticata delle architetture semplici, popolari e anonime per risalire "all'antico splendore".

La ripetizione, l'attualizzazione e il costante perfezionamento del già costruito – elaborando una forma che si integra e "risente" della forma *oggettiva* del mondo circostante – consente loro di schivare i seducenti pericoli di un'esibizione compiaciuta e porsi con *verità* nella trasformazione inesorabile dell'esistente, perché «condizione della modifica è dunque la continuità cioè la perennità della costruzione come realtà» (Muratori, 1959).

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Learning from Squares

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Abstract

The portuguese term *praça* (square) is rooted in the Latin word *platea* and it is used to identify a public space of an exceptional character that is morphologically distinct from the channel-like spaces that streets make. However, very different spaces correspond to this apparently clear morphology, covered by varied nomenclature and which in some way are not a cultural constant.

746 The research project made by the Forma Urbis Lab, that led to the publishing of the books *Squares in Portugal* and *Squares in the Azores - A Public Space Inventory*, took on the job of fact-finding, graphic restitution and illustrating the main examples of squares in Portugal, with the intention for the work to be a representative body of the diverse typology, the state of development, dimensions and usages of this so particular type of public space.

Stemming from the research work that makes up the inventory of public squares in Portugal, two projects for very different public spaces were developed in our architectural office: one for a church square in a small village near Coimbra, in the centre of Portugal, and the other one for a new square in the Azorean island of Santa Maria. The first square has been an important public space since the early Roman occupation of the site; the second is a completely new public space that was previously occupied by an urban block.

The presentation underlines the influences and relations between the architectural research developed in the Academy and the practice of Project, i.e. how the research influenced the creation of reference spaces for the contemporary and future society.

Introduction

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From the academy to the office

Since the beginning, in the early 2000's, the research work that makes up the inventory of public squares in Portugal, developed in the Faculty of Architecture of the University of Lisbon, had a twofold aim. Firstly, it had to remain legible to the general public. On the other hand, it had to serve as an instrument for practising urbanism, as well as teaching it, insofar as it studies the selected spaces in a methodical and comparable way as being examples. Therefore, this study of one of the components of the urban layout used classical representation methods of the structures drawn at the same scale, as well auxiliary illustrations and characterisations, carrying out analysis with all the due rigour of our field.

Its operational nature rests on the ability to be a reference for designing contemporary urban structures, in the same way as our benchmark reference work, the *Encyclopédie de l'Urbanisme*, coordinated by Robert Auzelle and Ivan Jankovic, whose preface describes the work as "an irreplaceable instrument of work and culture" and we believed that this study could meet these same objectives for the Portuguese case.

The term *praça* (square) is rooted in the Latin word *platea* and it is used to identify a public space of an exceptional character, that is morphologically distinct from the channel-like spaces that streets make. However, very different spaces correspond to this apparently clear morphology, covered by varied nomenclature and which in some way are not a cultural constant. As urban features, the selected spaces are an integral part of the urban fabric, possessing a formal, functional hierarchical relationship with the other features that they comprise. In this way, analysis did not ignore the context, and the about one hundred spaces chosen were

always approached as being part of a whole that comprises the urban organism and its landscape.

While working in the inventory of public squares in Portugal as members of Forma Urbis Lab, the architectural office that some of us shared - DCTC. arquitectos, lda. - was also working on projects for public spaces, namely one for a new square in the Azorean island of Santa Maria, and the other one for a churchyard of a small village near Coimbra, in the centre of Portugal, and it made sense for us that the methodological approach to the study of squares in Portugal was also used as the departure point for the undergoing projects of new or remodelled public spaces.

Designing squares

The context and objectives of each project were different. Nevertheless, the morphological acknowledgement of each place was the common initial step of the design approach, with a similar methodology to the public squares inventory. Therefore, each space was represented with classically drawn features, such as plans and cross sections, as well as photographs of the environment, considering perspectives deemed to show the characteristics of the space, outstanding features and notes on details or the space's way of life, and a synthetic characterization text dealing with the urban nucleus, looking at historical development and morphological characterization, mapping the morphology of the space, its origins and its main uses.

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This primordial physical and social interpretation of the place was the key for the design and transformation of each of the public spaces. The first square - Praça Gonçalo Velho - is a completely new public space that was previously occupied by an urban block, while the second - the churchyard of Bobadela - had been an important public space since the early Roman occupation of the site.

Praça Gonçalo Velho, Vila do Porto, Santa Maria, Azores

Origin and Evolution

The urban nucleus of Vila do Porto is the foundational settlement of the human occupation of the Azorean Islands and dates back to the 15th century.

The main street that departs from the fort on its southern edge and runs along the ridgeline of the "hump" where the village sits structures both the urban layout and its image. One of the features of this structuring urban axis is to be dotted by exceptional public spaces, squares that invariably are aggregated in pairs, one on each side of the main street.

Located on the southern and more ancient part of the urban nucleus, the urban block that gave origin to the new square had undergone a slow and progressive process of ruin, and only a small number of warehouses on its south edge kept standing. The space was open, without any kind of treatment and led to an informal occupation of car parking.

The creation of a public space in Frei Gonçalo Velho Street, part of the main axis of the village, constituted a commitment that the City Council

of Vila do Porto took when purchasing a set of buildings in ruin. These void plots, since demolished, constitute assets of the municipality acquired under special conditions for the creation of a public space. The southern plots of the block, three of which were built, were acquired afterwards, thus allowing the full transformation of the urban block from private to public space.

Context

The space, which was object of the intervention whose project started in 2002, is consolidated in its outer limits, as it corresponds to the simple amputation of an urban block. However, the characteristics of the built elements that define it are very distinct, existing both well-maintained buildings and in ruin, erudite and vernacular structures alike, good and dissonant architectural quality, and also contrasting dimensions.

The new urban space that was created was combined with Largo Luís de Figueiredo, a small pre-existent square, in order to form a composite set of two exceptional spaces, articulated by the street Rua Frei Gonçalo Velho, with dimensions and characteristics comparable to the exceptional spaces that already dotted the structuring axis of Vila do Porto.

Although at the time of the project the space did not serve to support any special urban function, it is bordered by one of the urban blocks classified of interest of the “Ancient Area”, with buildings of public ownership in ruin, which were supposed to be transformed into one of the new public facilities from those contained in the municipal development programs.

Despite that fact, this new composite exceptional space would always be an urban element of articulation, the nodal point between Rua Frei Gonçalo Velho and the beginning of Rua da Misericórdia, and also conforming an inflection of the structuring axis of the village.

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Design

The project thus stems of the principle of the creation of an independent and identifiable space, referenced to an implied general evocation of the memory of the settlement itself that might be translated into an artistic element or embedded in the design of the space. It also sought to enhance the buildings of better architectural quality as opposed to mitigate the impact of the dissonant ones in a space that is to be of collective use, allowing mixed appropriations and contemplating some car parking spaces.

As acknowledged on the inventory of Squares in Portugal, the waves are used as a common composition motive of ornamentation of the pavement. Initially these waves appeared in the Lisbon Rossio and were later exported to other geographical overseas contexts, as far as Brazil and Macau, or reinterpreted in more recent urban contexts, such as in the Expo'98 Rossio dos Olivais, but always as a two-dimensional design. The use of waves as a three-dimensional composition motive stemmed from the topographical nature of the space and the wish of evocating the overseas genesis of the foundation of the settlement.

The solution was based on the continuity of the pavement from the main street, Rua Frei Gonçalo Velho; the progressive waving of the topography of the surface gradually increases to the intersection with the supporting wall, an element that absorbs the gap to the lower level of Rua da Misericórdia. This ripple is more evident in the northern top while it diminishes to the southern part of the square in order to allow uses and appropriations that require a more straightened surface. The dynamic effect of the waved surface is reinforced by a chromatic nuance achieved from the introduction on the black pavement of a progressive white marking on the edge of each wave.

In order to accentuate the pavement, predominantly black, it contrasts with the retaining, enclosing wall, white in vertical planes.

This wall hides the parking spaces and regulates the placement of alignment trees. More than shading the parking spaces, the trees filter out the impact of dissonant buildings in the square. The rhythm of the waves and the trees is further enhanced by the water gargoyles, ripped in the supporting wall and connected to each of the trees in order to take advantage of the runoff water when it rains.

Here we introduced a dark red color note on the treatment of metals - grills, gutters, etc. - and the trees themselves - *Paulownia tomentosa* - flowering in red.

750 The materials chosen seek to ensure a great continuity with the flooring of the "Ancient Area" of Vila do Porto, using cobbled black basalt and white limestone, recovering the vertical walls with plaster and whitewash of the village walls and using one of the species of trees previewed to be planted on the adjacent Largo D. Luís de Figueiredo. The introduction of a discreet contemporary note is given by the use of the rusted metal.

Lighting contemplates the continued existence of the street lighting framing the space, although introducing a new logic for the space itself. This accentuates the arboreal elements by illuminating their tops, and accentuates the design and shape of the floor through a skimmed light on the white face of the pavement of the waved surface, allowing an enhanced reading of the space during the night time.

Adro da Igreja, Bobadela, Oliveira do Hospital

Origin and Evolution

A closer look at the urban form of the small village of Bobadela, situated in the Beira, in the centre of Portugal, namely its urban layout, reveals the tension between the orthogonal nature of the Roman city, which can be seen in the alignment of the central area's buildings and the two backbone axes, one North – South which enabled the urban development of Senhora da Luz, and another East – West squashed in between the arch and the cemetery road, and the buildings and walls shaped by a snaking road, opened at the end of the 19th century, which encompasses the more central nucleus adjoining the Mother church.

This merging of the organisational and formal characteristics that can be seen in similar places with the architectural structures of a Roman city,

enables us to understand its origins, which date back to the establishment of a city of the Roman Empire. Although we do not know the name of this roman city, nor do we know a great deal about how it developed with time.

The continuing existence of an urban place in Bobadela that has brought urban centrality for almost two millennia is exceptional in urban development. Despite each cultural period's changing roles, when loss of meaning justified removal of many of their buildings, one common space bolstering this evolution remains visible. The churchyard continues until today as the small urban nucleus' most important space, marrying religious, administrative and social functions. It stands out as a symbolic, emblematic space for its inhabitants.

Context

The remaining structures of the old Forum of the Roman city have a clear presence in the central area of the village, composing part of the whole built ensemble along with the church, manor houses and vernacular buildings. Although it has lost its significance and suffered a process of dismantling for about fifteen hundred years, it is still possible to understand the importance of the Roman city by the amount of existing traces, namely the east entrance of the Forum, the Roman Arch of Bobadela, classified as a national monument. However, the overlapping of the churchyard and the forum were difficult to perceive, as features that were of major importance in defining the Roman space cannot be seen, such as the large temple located under the foundations of the 17th century mansion house.

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The space is demarcated to the south by the main church, an edifice that was rebuilt in the 18th century, and a massive old cedar tree, to the west by a sober 17th century mansion, to the north by a building constructed over the forum's north-eastern wedge, which is presumed to have been the Curia of the Roman city, whose walls include, together with reworked Roman features, constructions from differing periods, two highlights of which are a Manueline door and a protruding porch.

The eastern limit is not very well defined or consolidated, with various building and walls hugging the road's north – south axis. The Roman arch giving access to the forum plays the leading role as the composition's central feature. It stands out from the other major significant features, such as the pillory, the cross and even the small columned stretch.

Design

With the intervention undertaken in Adro da Igreja of Bobadela in 2006 it was intended to create a specific and identifiable space, able to merge in the same place two very different urban objects - the churchyard of the village and the Forum of the Roman city - allowing both its formal and functional coexistence, synthesized on an intervention that seeks an outstanding qualified architecture.

The planned rehabilitation will aim to give a new role to this area that

plays, in the urban context of the village, collective functions of great importance. Thus, we intended to enhance the historical and aesthetic value of the set, aligning it with the daily life of its inhabitants, current depositary of these values.

The project stems from the strengthening of the Roman Forum elements and its compatibility with the existing urban context of Bobadela, valuing the buildings better architectural quality and mitigating the impact of dissonant buildings.

As the principles of the intervention are based on an enhanced reading of the Roman pre-existences, it proved essential in methodological terms, confirming the idea formulated for the reconstitution. In this sense, places of archaeological survey were indicated strategically, focusing especially on the churchyard area and the likely limits of the Forum. The result of this operation and the traces found justified occasional adjustments in the development of the project.

The information obtained from the archaeological surveys has reinforced in the design of the square some hypotheses initially placed, particularly with regard to the constitution of the eastern gallery and the south limit of the ancient Forum, as well as rectify some intentions from the preliminary study of the project such as the drawing of the eastern extension of the cardus.

752 The solution is based, firstly, on the laying and recovery of pavements in the precise limits of the Forum, identifying the outer causeway, the outer wall, the gallery, the alignment of the colonnade, the courtyard and the basilica. These pavements are visually distinguished by the stereotomy of the granite pieces, in shape and size, noting clearly the alignments and accusing greater regularity in the gallery carpet than in the courtyard. The basilica, translating an interior space, is paved in recycled wood, with a level gap in relation to the ancient Forum courtyard pavement. The remaining spaces that did not belong to the Forum building are, as a rule, paved on the continuity of existing pavements.

Secondly, the solution proposed the strengthening of alignments using vertical elements, of which should be highlighted the rise and consolidation of the Forum northern wall, the elevation of the eastern wall of the Forum between the parish house and the road and also the placement of columns in the eastern alignment of the ancient colonnade and the north wall of the roman basilica.

Thirdly, we intended to create articulation elements between the Roman and contemporary structures, such as the ramp on the alignment of the arc, an operation that required the relocation of the local pillory from where he was placed in the remodelling carried out at the beginning of twentieth century, in the alignment of the cruise cross. In this context, the design considered the extension of the boxwood garden by the east wall, the resulting composition designs with rigour small living spaces on a sand bed box.

Final Remarks

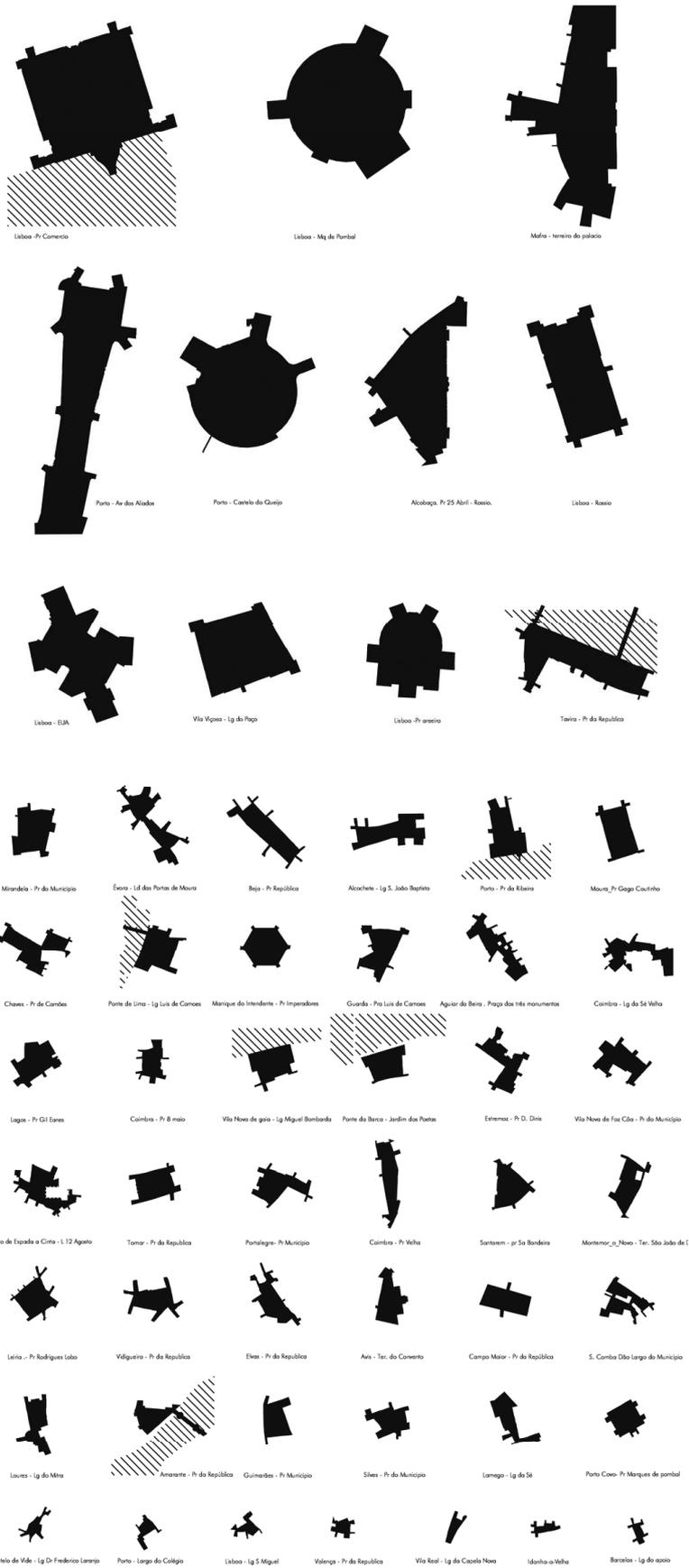
Regardless of the more immaterial contemporary networks established between humans, cities will continue to exist as physical realities, this fact brings more likely a future where it is more probable that there will be developments towards new meanings which will contain the tensions between the city's structural legacy and its constant renovation. The need to continue to reuse the existing built structures of the city is nowadays widely acknowledged, something that has always been part of the nature of the city is contemporary more accepted and defended by critics and public alike.

Peter Zumthor wrote that our old images, the images that we carry in our memory, are useful only if they help us find the new ones.

The cases presented on this paper configure two examples on how an interpretation methodology of the existing urban space, developed in the Academy and consisting in the recognition of the values of the spirit of the place, read in the morphology of the urban artefact itself, may contribute for the contemporary architectural and urban design of spaces with the

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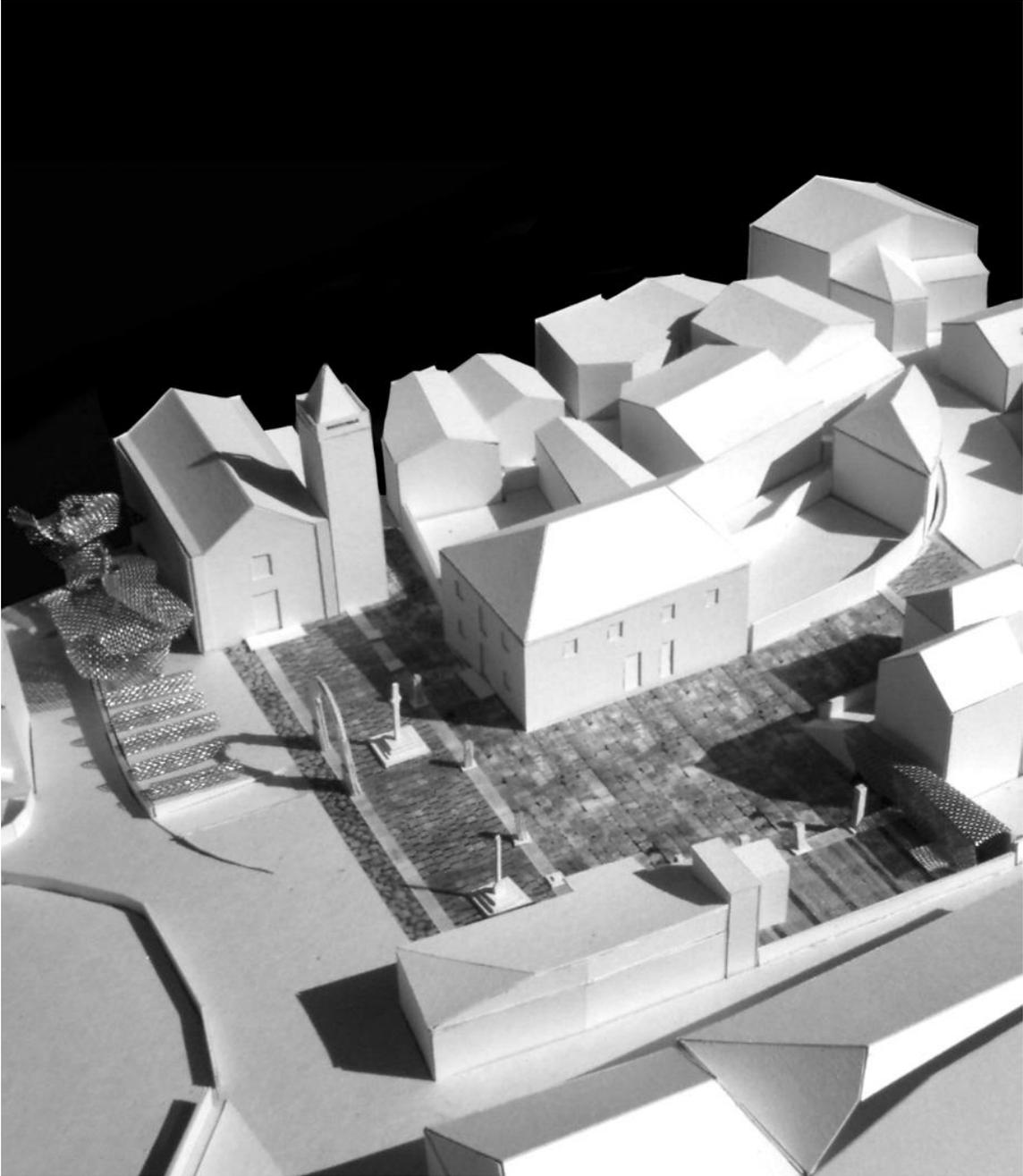




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Fig. 1 The Squares in Portugal - A Public Space Inventory. Squares layout comparative table.
Fig. 2 Praça Gonçalo Velho, Vila do Porto, Santa Maria, Azores. Project model.
Fig. 3 Adro da Igreja, Bobadela, Oliveira do Hospital, Coimbra. Project model.

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Processi di rinnovamento della città mediterranea fra permanenze e mutazioni

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Abstract

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Obiettivo della dissertazione è quello di indagare le potenzialità offerte dalla lettura dei fenomeni storicizzati, nel progetto di aggiornamento della Città contemporanea. Aggiornamento che ha come orizzonte critico-operativo quello di provare a risolvere le contraddizioni fra permanenze e trasformazioni; fra i luoghi della Storia e i luoghi delle nuove antropologie sociali; fra architettura ordinaria e architettura dei nuovi "linguaggi", facendo del loro quadro problematico la base stessa della revisione critica del progetto contemporaneo.

Tale studio si inserisce nell'ambito di una più vasta ricerca da anni condotta dal Dipartimento di Architettura del Politecnico di Bari.

Luogo specifico di tale studio è la città mediterranea, da noi indagata attraverso una serie di tesi di laurea aventi come città-campione: Atene, Siviglia, Taranto; città che, per il loro straordinario patrimonio storico-archeologico e per i fenomeni di trasformazione cui sono soggette da molti decenni, rappresentano un altrettanto, straordinario campo di indagine e sperimentazione.

Oggetto di tale sperimentazione è il tentativo di risolvere le contraddizioni provocate dalla discontinuità fra i tessuti consolidati e quelli immessi dalle recenti trasformazioni, per riconvertirli in possibili "dialoghi diacronici" destinati a formare una "nuova organicità" in un quadro evolutivo mirato al generale aggiornamento urbano.

Seguendo questo obiettivo, i progetti si offrono come esito di un approccio basato sulla "circolarità" di tale corpus urbano, provando a tramutare la criticità dei suoi rapporti interni, in un possibile dato di solidarietà, la stessa attraverso cui dotare la città degli strumenti necessari per fare dei processi di modificazione, fondamento di tutela del proprio patrimonio storico.

Premessa

“Le culture locali si comportano nei confronti delle architetture arrivate dall'esterno come un filtro, separando nello stile nuovo ciò che può essere confrontato con l'architettura già esistente. Il meccanismo è quello della traduzione: ogni volta che ciò accade, la cultura edilizia locale passa in rassegna tutti gli elementi di cui è composta; queste fasi sono riconoscibili e all'ingresso e all'assimilazione di architetture nuove corrisponde sempre una ripresa dei motivi locali. [...] Solo a partire dalla coscienza delle resistenze è possibile infatti l'innovazione. Questa deve avvenire nel senso delle trasformazioni urbane, i cui processi inerziali appaiono, nei loro risultati figurativi, governati da queste leggi. In questo senso le architetture rappresentano delle derivate temporali e parziali che registrano in un periodo limitato il punto di arrivo delle mutazioni delle città.” (F. Purini, *Luogo e progetto*, Kappa Edizioni, Roma 1981, p.27)

Spesso la città si manifesta come rappresentazione del suo complesso palinsesto storico, sia essa forma unitaria di architetture fra loro organiche, o risultato di disfunzioni derivate dalle diacronie che l'anno attraversata nel tempo fino ad esprimerla in luoghi esauriti o abbandonati. Luoghi, in ogni caso espressivi del suo stesso processo formativo, della sua stessa iconografia, tale da fare di ogni loro fenomeno, testimonianza ancorché passiva, manifestazione delle crisi che l'hanno attraversata nel tempo.

Intervenire in quei luoghi potrebbe significare oggi, dare consistenza a questa condizione, considerando lo stato di crisi come opportunità utile ad innescare processi di nuova organicità, fondata sulla “corrispondenza critica” fra inedite istanze di mutazione e testimonianze tralasciate dalla storia urbana.

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Tema della dissertazione è infatti quello di indagare le potenzialità offerte dalla lettura dei fenomeni storicizzati nell'aggiornamento della cultura del progetto contemporaneo. Si tratta di un'ipotesi che ha a margine la risoluzione del problema indicato da Hans Seldmayr come proprio dell'arte moderna, ovvero, quello di essersi estromessa dal suo generale processo evolutivo attraverso la rinuncia verso ogni propria ragione storica.

Scenario di questa contraddizione ne è da più di un secolo, l'insieme dei tentativi volti a porre in relazione, Tradizione e Modernità; Architettura ordinaria e Architettura pianificata, centri, di fatto, delle ripetute crisi della cultura moderna così come dei tentativi di rifondarsi attraverso il ritorno a sostrati consolidati, quali quelli coagulatisi nei fondamentalismi storicisti, rispetto ai quali è andata a farsi sempre più oppositiva la ricerca di possibili sincretismi linguistici, visti invece come campo di nuovi e fertili orizzonti di una Modernità, che, oppositiva -questa volta- a qualsiasi dogmatismo teorico e metodologico, vada a fondarsi sulla “riappacificazione critica con la storia”.

Ripensare questi luoghi come potenziali espressioni di “valori identitari”; come luoghi, che attraverso un confronto critico con la storia urbana, potrebbero offrirle forme mutative, retrospettive tanto delle nuove istanze urbanologiche, quanto di un loro ricongiungimento neo-semanticamente, è ciò che indurrebbe ad una revisione della nozione stessa di organismo urba-

no, "relativizzandola non solo a procedure, quali quelle del riannodamento/riammagliamento, quanto a quelle incentrate sulla reinterpretazione dell'azione -spesso problematica e disorganica- prodotta dal nostro Tempo nei riguardi della generale forma urbana.

"E' necessario riconoscere che il nostro compito è partecipare alla costruzione delle forme del tempo, anche del nostro tempo. Perché soltanto un folle può dire che il nostro tempo non abbia una sua grandezza" aveva auspicato Ludwig Mies van der Rohe.

Così intesa, la Città fisica si configurerebbe non solo come campo gnoseologico attraverso cui prendere conoscenza e coscienza delle idee e delle azioni in essa connaturate, quanto testo attraverso cui rielaborare il contingente, pur sapendolo (parafrasando Schopenhauer) costretto all'immanenza del divenire, a quella condizione cioè di temporaneità, retrospettiva degli zeitgeist che l'hanno e continuano ad attraversarla.

Si tratta di un tema che affonda le radici soprattutto nella Città italiana, in quella "vocazione all'accumulazione" riconosciuta da Ludovico Quaroni come esito del suo continuo "stratificarsi"; da cui il perenne conflitto fra permanenze e mutazioni; lo stesso, che aveva visto -ad esempio- nelle revisioni architettoniche introdotte dai nuovi tracciati dal "Piano sistino", la nascita di opposizioni insediative date ad attivare il generale processo "morfogenetico" della città di Roma; od, ancora, in quella città disvelatoci da Giovanbattista Piranesi, quale "luogo -ci indica Franco Purini- di un'insanabile conflitto tra identità e differenze".¹

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Conflitto destinato a perpetuarsi fino ai nostri giorni, diventando nel corso del '900 il centro del generale dibattito culturale e tecnico.

La condizione strutturale venutasi a creare dopo il Primo Conflitto Mondiale è ciò che aveva posto infatti come urgente, il confronto, da un lato, con le problematiche legate alle prime forme di ricostruzione e rigenerazione urbana, dall'altro, con l'innovazione tecnologica già attiva nell'area centrale europea; da lì i grandi interventi destinati a percorrere tutto il Ventennio con operazioni che vedranno, da un lato, la mutazione di molti tessuti storici, dall'altro, la nascita di nuovi quartieri ridisegnanti parti cospicue della città consolidata. Interventi entro i quali, centrale diventerà il confronto fra l'eredità ancora operante nei tessuti edilizi tradizionali, e quello delle nuove "forme" dell'abitare intanto profuse dai processi di modernizzazione internazionale; terreno, in ogni caso, di una sperimentare destinata a trovare esito, da un lato, nella declinazione storicista di una "diversa Modernità", dall'altro, nella dimensione del suo più autentico portato innovativo, quale quello dell'imprevedibile confronto con l'antico. Da lì, i tentativi di rifondare la disciplina e con essa la Città, destinati ad assumere nel corso del secondo Novecento, ancora due nuove principali direttrici: quella del ritorno alla natura storico-processuale dei fenomeni urbani, e quella, più rischiosa, mirata a scrutare possibili legittimazioni delle nuove istanze trasformazionali quale territorio di una crisi rispetto alla quale

1 Cfr., F. Purini, *Una contraddizione da rappresentare. Il disegno tra armonia e disarmonia*, 2013

–come sentenzierà poi Manfredo Tafuri- sperimentare un piano estetico capace di trasformare i suoi segni, in una sorta “trasversale e speculare utilità nella ricostruzione della città contemporanea”.

Le figure maggiormente interessate a questo processo saranno, nel primo caso, quelle di Saverio Muratori e poi di Gianfranco Caniggia, intenti ad organizzare una vera e propria scienza della ricostruzione delle fasi formative del rapporto morfo-tipologico alle scale della città e del territorio; nel secondo, quelle costituite da una pluralità di “scuole” che, da Ludovico Quaroni a Vittorio Gregotti, da Aldo Rossi a Giorgio Grassi ad Antonio Monestiroli alla generale Tendenza, dal GRAU a Franco Purini, andranno ad operare, in diversa misura, secondo un approccio teso a ri-sistematizzare il linguaggio “Moderno” attraverso la messa in contatto dei segni della sua crisi con quelli dei codici storici. Posizioni diverse, che vedranno metodiche progettuali fra loro altrettanto alternative, come quelle incentrate sul riammagliamento edilizio interno ai tessuti storici, profuse dalla scuola muratoriana, e quelle volte invece ad agire sulle opportunità offerte dalle criticità interne sia alla città consolidata che ai territori periferici, condotte dalle diverse altre scuole. Posizioni, che nell’acuirsi della crisi culturale sorta all’indomani dei fallimenti legati all’espansione della città promossa dalla Legge 167, sarebbero andati declinandosi in nuove prospettive di ricerca, spesso trasversali tra loro, aventi in comune, il riferimento alla Città intesa ora, ancorché come fondamento documentale, come fenomeno invece in fieri alla transitorietà dei suoi processi fisico-sociali. Prospettive, destinate a mutarsi ancora in tempi recenti contribuendo in misura sostanziale alla crescita del dibattito internazionale, lo stesso verso cui si rivolge la nostra ricerca, qui brevemente illustrata attraverso gli esiti della didattica condotta presso la Facoltà di Architettura di Bari.

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Alcuni esempi operati nella didattica della Facoltà di Architettura di Bari

L’area geografico-culturale sottoposta a questo studio è quella mediterranea, indagata attraverso città–campione, quali Atene, Siviglia, Taranto. Città, che per il loro straordinario patrimonio storico-archeologico e per i fenomeni di trasformazione cui sono soggette da molti decenni, hanno rappresentato un fertile campo di indagine sui possibili modi di risolvere le patologie generate dalla città contemporanea nei riguardi del patrimonio urbano consolidato, proponendosi come luogo ideale per un’azione culturale e pedagogica incentrata sullo stretto rapporto Storia/Progetto. Luoghi specifici ne sono diventati infatti, quelli disorganici, caratterizzati da significative preesistenze archeologiche o industriali; luoghi, le cui analisi conoscitive sono diventate fondamento del loro stesso quadro evolutivo incentrandolo sulla possibilità di convertire le attuali discontinuità in una possibile “nuova organicità”, restitutiva delle differenti “identità”.

Sul piano propriamente operativo, oggetto della ricerca è stato quello di provare a intersecare “codici” fra loro conflittuali al fine di individuare possibili piani di trasversale coincidenza critica, supposte compatibilità linguistiche, inclusive tanto del linguaggio urbano perpetuato dalle permanenze, quanto dell’azione di riconversione critica operata dai progetti,

nei riguardi dei fenomeni incoerenti. Da qui, il poter considerare gli esiti proposti, come derivate figurative della storia dei luoghi: auspicio di un possibile “equilibrio critico” fra identità consolidate e nuove istanze del Presente poste a sondare quel campo, sempre fertile, e mai acquetante, che è del rapporto [critico] fra Tradizione e Innovazione.

Atene. Progetto di rigenerazione urbana a ridosso dell’Agorà

(figg. 1A, 2A, 3A, 4A, 5A, 6A)

762 Le aree di intervento sono quella compresa tra gli scavi del Ceramico e l'ex-Gasometro, e quella che dal Tempio di Zeus arriva alla Porta di Adriano, quest'ultima, comprendente il quartiere Hermu, il Parlamento, lo Stadio, il Tempio di Artemide (tuttora in fase di scavo). Si tratta di aree pari alla dimensione di un quartiere, caratterizzate da vuoti “interstiziali” direttamente affaccianti nel core archeologico della città. Oggetto di approfondimento è stato quello di rinsaldare la loro relazione risolvendo le deformate insediative e infrastrutturali intervenute tra la fine dell'800 e il secolo scorso, agendo sulla ricomposizione dell'asse di Odos Ermou, quale mediano delle diverse articolazioni storico-insediative. Si tratta di un lungo percorso dividente la città in due parti: quella antica e quella costituita dalla maglia ortogonale novecentesca. Confluente a questo percorso è il tridente di via d'Hermes, attestante il Palazzo del Parlamento e gli scavi del Ceramico, con, a ridosso, l'ex Gasometro. Baricentro dell'area è l'Agorà, lambita sul limite settentrionale dai binari della metropolitana, rasentanti a loro volta, la Stoà di Attalo. Problema fondamentale, questo, da cui è partito il progetto prevedendo l'interramento del sistema ferrato e lo spostamento dell'attuale stazione metropolitana Theseion sul limite del quartiere novecentesco, al fine di liberare e pedonalizzare l'intero percorso, collegando quelle che oggi sono le sue implicite polarità, quelle, cioè, del Ceramico e del Palazzo del Parlamento. Qui, sfruttando i diversi salti di quota, il nuovo sistema ferroviario viene ad articolarsi come galleria semi-ipogea che, riammagliando i diversi percorsi, va ad intercettare le diverse aree degli scavi archeologici, rendendoli oggetto di visitazione museale. L'esito è quello di un dispositivo urbanologico che, riformulando le azione impresse dalla contemporaneità, va a restituire il complessivo palinsesto archeologico della parte centrale della città. Sintesi ne sono le tre polarità destinate a rendere iconico tale sistema: quella a sud, rappresentata dal progetto per il Museo del Ceramico e della Nuova Biblioteca dell'Antichità Greca; quella a nord, prevista come Gipsoteca dei reperti rinvenuti in situ al sistema ferroviario; quella della struttura temporanea, semovibile, prevista per la museificazione degli scavi del Tempio di Artemide.

Siviglia. Due aree di intervento (figg. 1S, 2S, 3S, 4S, 5S, 6S)

Progetto di rigenerazione urbana del quartiere La Bachillera

L'area di intervento è quella del quartiere spontaneo de La Bachillera, sorto in diverse fasi nel corso del '900. Si tratta di un “sistema” di caseggiati collocato lungo il fiume, prospiciente il parco naturalistico limitrofo alla

Expo. A margine degli edifici di recente edificazione, vi sono: il Monastero duecentesco, oggi in relativo stato di abbandono; la "Naves", residuo della vecchia stazione ferroviaria e della precedente destinazione produttività dell'area; la grande Centrale elettrica urbana.

Si tratta, nell'insieme, di un'area che, pur priva di ogni rapporto con la città consolidata, incarna la quasi totalità dei fenomeni che connotano la storia urbana di Siviglia: dai principali tipi edilizi, quali la casa a patio, propria del quartiere spontaneo; alla casa in linea degli edifici di recente edificazione; alle preesistenze storiche e industriali.

Obiettivo del progetto è stato quello di "risolvere" le attuali contraddizioni funzionali e tipo-morfologiche, coinvolgendole in una nuova struttura capace di trasformare la loro disorganicità in un sistema omnicomprensivo e "sincretico" delle rispettive identità.

Paradigmi di tale operazione sono stati il riconoscimento e l'adozione del quartiere spontaneo La Bachillera come matrice identitaria dell'area, e quello dell'edilizia recente, come istanza di trasformazione in attesa di una chiara e organica partecipazione alla natura stessa dell'area. Fenomeni che, assunti come principio organizzativo del nuovo impianto, hanno determinato la trama dei nuovi tracciati dando misura ai nuovi isolati per poi ripercuotersi nella sponda opposta del fiume, in una sorta di osmosi naturalistica data a legare il quartiere alla porzione di parco antistante.

Declinato secondo "moduli tipo-morfologici", a loro volta basati sulla variazione dei principali tipi edilizi formanti il quartiere spontaneo – quali la "casa a schiera" e la "casa a pseudoschiera" – esso propone un compatto continuum alterato di volta in volta dalla presenza di un edificio specialistico, che, posizionato e altimetricamente configurato in rapporto all'edilizia recente, riporta la sua stessa misura, determinando una piccola piazza, interna ad ogni porzione insediativa, e il compimento della commistione critica, operata sui generali fenomeni architettonico-insediativi preesistenti. L'esito è la mutuazione dell'attuale dis-misura che governa la struttura del quartiere, ricondotta ora a sistema gerarchizzante le diverse funzioni agenti al suo interno.

Culmini di questa strategia, sono: la piazza centrale che, analogicamente alle grandi plazas spagnole, attraversa e riannoda le diverse fasi insediative del sistema; la torre direzionale, data, col suo picco altimetrico, a comunicare la presenza del quartiere nella generale struttura urbana; il recupero e il ruolo della Naves, come cerniera fra il quartiere, il lungofiume, il parco.

Progetto di rigenerazione urbana del quartiere Cruzcampo

L'aria di intervento è quella della storica fabbrica di birra Cruzcampo, delimitata, a sud, da Avenida de Andalucía e dagli ex-edifici produttivi; a nord-ovest, da Avenida de El Greco e da calle Tarso; a nord-est, da calle de la Ada. Circoscritta da fronti edilizi di "recente" edificazione, essa si presenta come grande vuoto "interstiziale" fra le diverse e diacroniche componenti insediative.

L'ipotesi del progetto è stata quella confermare tale "radura" in un nuovo

disegno urbanologico capace di trasmettere la sua identità nel contesto delle nuove trasformazioni basate sull'intasamento dei vuoti edilizi esistenti. L'impianto morfologico "ripropone" infatti il grande "vuoto" di Cruzcampo riconfigurandolo come parco urbano nodale dei fenomeni presenti ai suoi margini. Da ciò, il progetto del nuovo tessuto dato a connettersi al quartiere di recente espansione, e quello incentrato sulla aggiunta, puntuale, di alcuni nuovi edifici specialistici, dati, strategicamente, ad esprimere le polarità dei principali percorsi.

I tipi edilizi formanti il tessuto di completamento -anche qui assunti come fonte di aggiornamento dei principali fenomeni insediativi della città- corrispondono all'esito della sperimentazione condotta sulla casa a patio che, aggregata in insule corrispondenti alla giacitura dell'edilizia recente, va a riconfigurarla come appendice del suo compatto continuum, esprimendo, nella nuova "unità" urbanologica, le diverse identità diacronica che attraversano questa parte della città.

Taranto. Progetto di rigenerazione urbana della costa nord del Mar Piccolo

(figg. 1T,2T,3T,4T,5T,6T)

764 Area di interesse è la parte di città collocata a nord del Mar Piccolo, rilevante non solo per la complessità della sua palinsesto archeologico e industriale, quanto per l'urgenza dovuta ai moti trasformativi che dall'ultimo secolo, soprattutto, stanno minando i suoi caratteri naturalistici. Qui, infatti, la città, col grande polo metallurgico dell'ILVA, col suo immediato "quartiere Tamburi"; coi "Cantieri navali Tosi" e quartiere "Paolo VI", collocato a ridosso del mare, in piena campagna, presenta la sua più problematica condizione.

Fondamento metodologico dell'intero percorso di ricerca è stato il riconoscimento delle componenti processuali e tipo-morfologiche, necessarie a comprenderne l'identità formativa, così come le criticità intervenute coi processi degenerativi al fine di sperimentare procedure compositive aventi come obiettivo, la riconversione e la ri-significazione critica di quegli stessi fenomeni.

L'ipotesi è stata infatti quella di mutuare tale condizione a partire dall'assunzione dei caratteri geomorfologici e dal palinsesto della sua struttura urbana, convertendo le rispettive diacronie e le discrasie linguistiche in una possibile loro intelligibilità critico-semantica.

Fondamenti iconici ne sono stati lo stretto rapporto fra i segni dell'acqua e quelli terrestri; segni che oggi trovano il loro apice nei varchi del Ponte Girevole ed in quello di Porta Napoli; in quelli del tessuto insediativo storico, e in quello della contigua città otto-novecentesca; nelle episodiche ma sensibili variazioni, determinate dall'Arsenale Militare e del residuo edilizio antecedente l'impianto pianificato.

Alle spalle di tale sistema è la città costruita dopo gli anni '60, di fatto un insieme di lottizzazioni prive di disegno unitario.

Agendo sul massimo diradamento che storicamente caratterizza la nostra area di intervento, il progetto si fonda su pochi ma essenziali "segni",

provando a convertire l'attuale costellazione insediativa, in una nuova condizione semantico-funzionale fondata sulla dislocazione [paratattica] delle componenti edilizie e sul valore unificante della campagna coltiva. Tale ridisegno si compone di una maglia di percorsi regolari ricavati dall'antistante città ottocentesca, che, includendo al suo interno le molteplici variazioni del sistema "tratturale" (percorsi rurali) va a collegare la costa al Quartiere Paolo VI. Lungo i bordi, quattro sistemi insediativi ne determinano la altrettante polarità: quella ad est, corrispondente agli attuali Cantieri Tosi, convertiti in Scuola Nautica; quella ad ovest -in asse al Ponte Girevole-, destinata a Museo della "sommersibilistica navale"; quella a nord, prospiciente le ciminiere dell'ILVA, destinata a centro Direzionale; a ridosso, lì dove è la sorgente del fiume Galeso un edificio di bordo, destinato a centro culturale, celebra il luogo frequentato e citato da Orazio nelle sue Odi.

L'esito è quello di un sistema fatto di luoghi puntuali, dati ad esprimere la generale scala del paesaggio così come i suoi principali valori tettonico-espressivi, quali quelli incentrati sull'architettura del ferro, pervasiva, sotto diverse modalità, dell'intero progetto.

Breve nota conclusiva

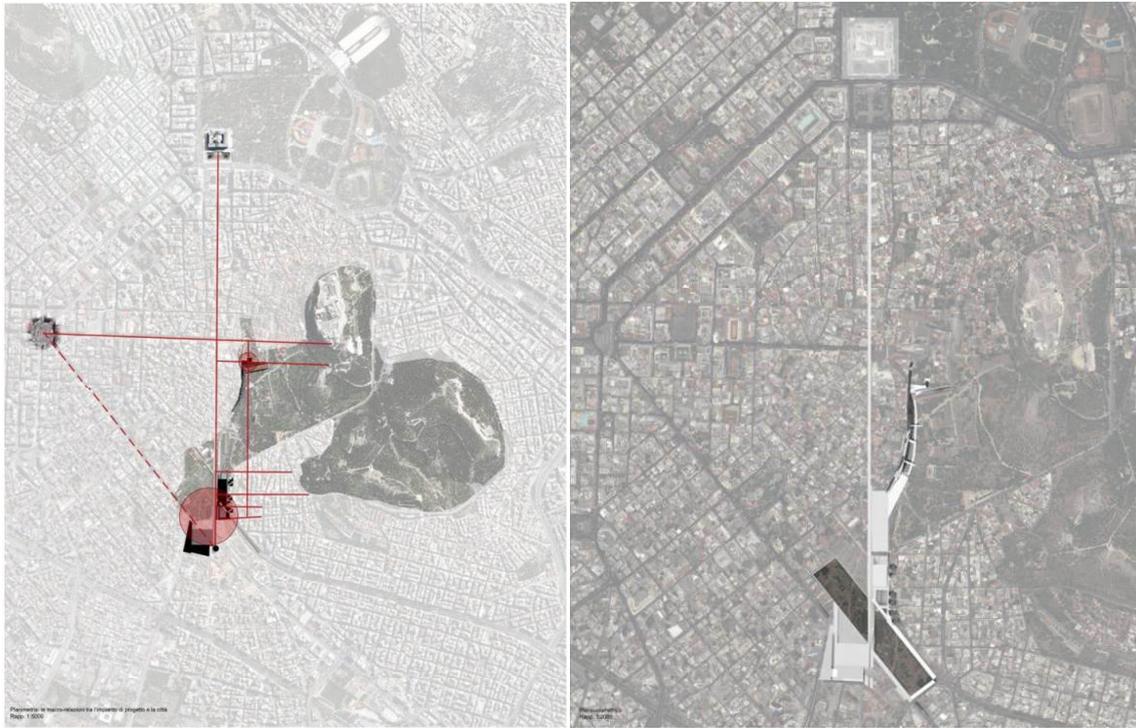
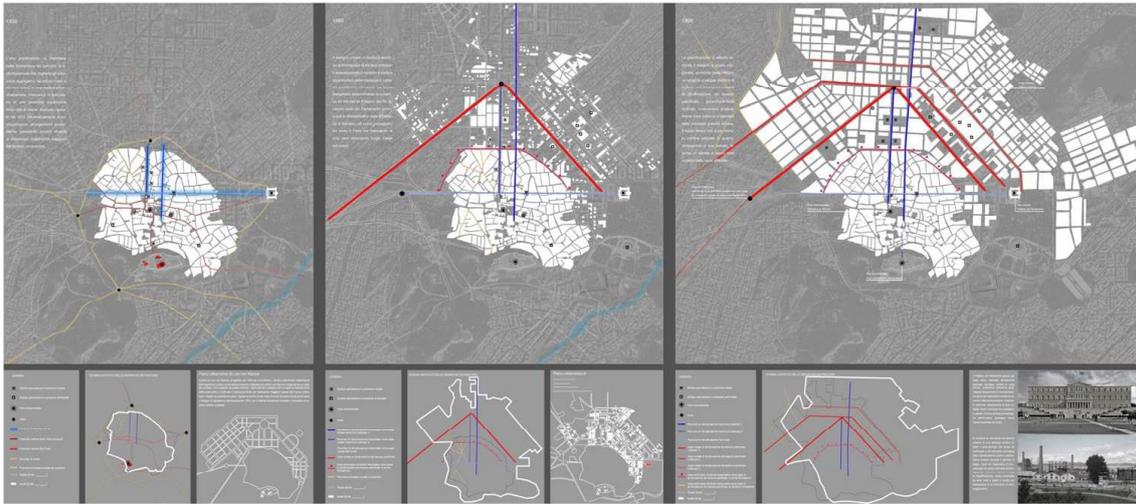
"Il nuovo disegno [urbano] deve misurare il contesto storico e geografico nei suoi aspetti strutturali.[...] Sarà proprio la scoperta di tali aspetti strutturali a rivelare l'ignoto, che sovente è il modo stesso di essere del permanente."²

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Con tali operazioni, il tentativo di mutuare i "segni della permanenza" in fieri all'identità strutturale e linguistica dei luoghi, così come al riconoscimento e all'utilità presunta delle contraddizioni prodotte dai fenomeni trasformativi, s'è fatto -nell'auspicio delle nostre ipotesi- esso stesso linguaggio. Il riferimento ai caratteri storicizzati nel loro valore "strutturante" e non solo come oggettualità documentale, trasversalmente confrontato coi fenomeni della crisi, ha significato infatti, oltre che perpetuarne l'essenza storica, indurre una loro proiezione verso territori che, inattesi, hanno -forse- contribuito a svelare nuove opportunità per la città del nostro tempo. Fondamento, ne è stato il diverso concetto di "conservazione", inteso non solo come tutela, ma, come luogo da reinterpretare e sviluppare in rapporto ai fenomeni ancora in attesa di chiaro riconoscimento; fenomeni, che praticando l'auspicio indicato da Vittorio Gregotti, sono andati a intendere il nuovo, innanzitutto come "architettura per la difesa e il riordino del presente".

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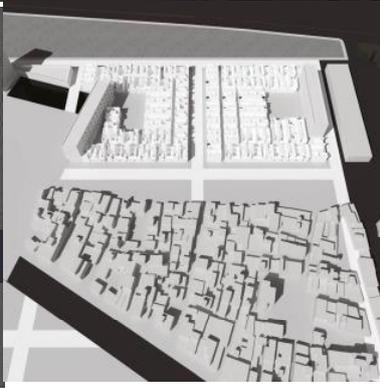
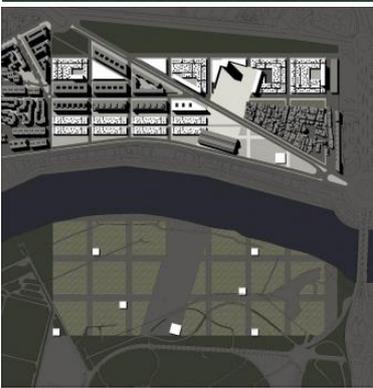
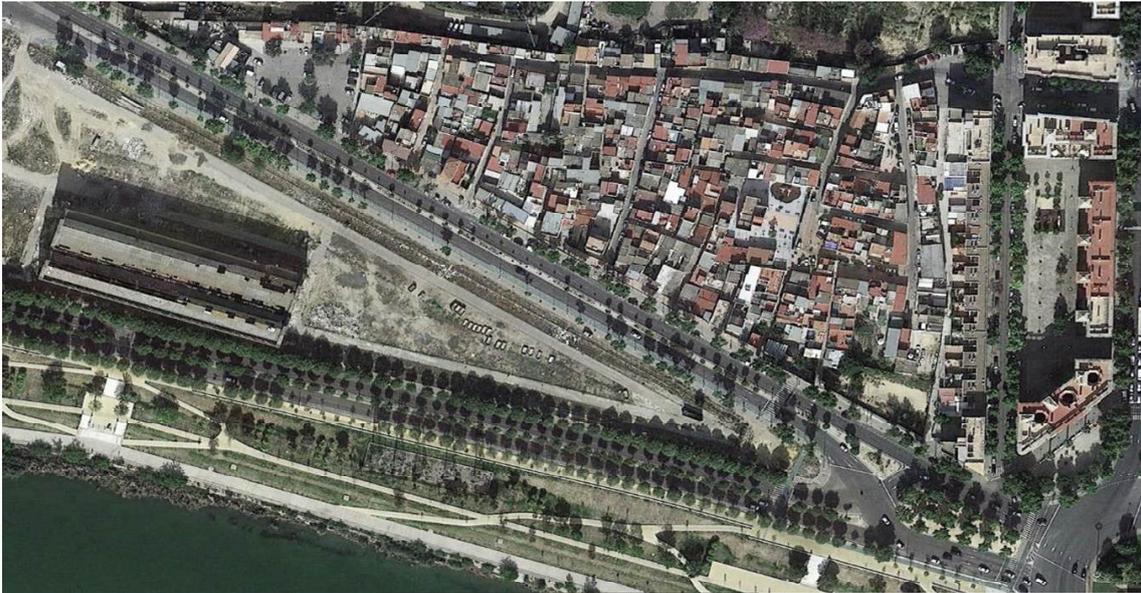


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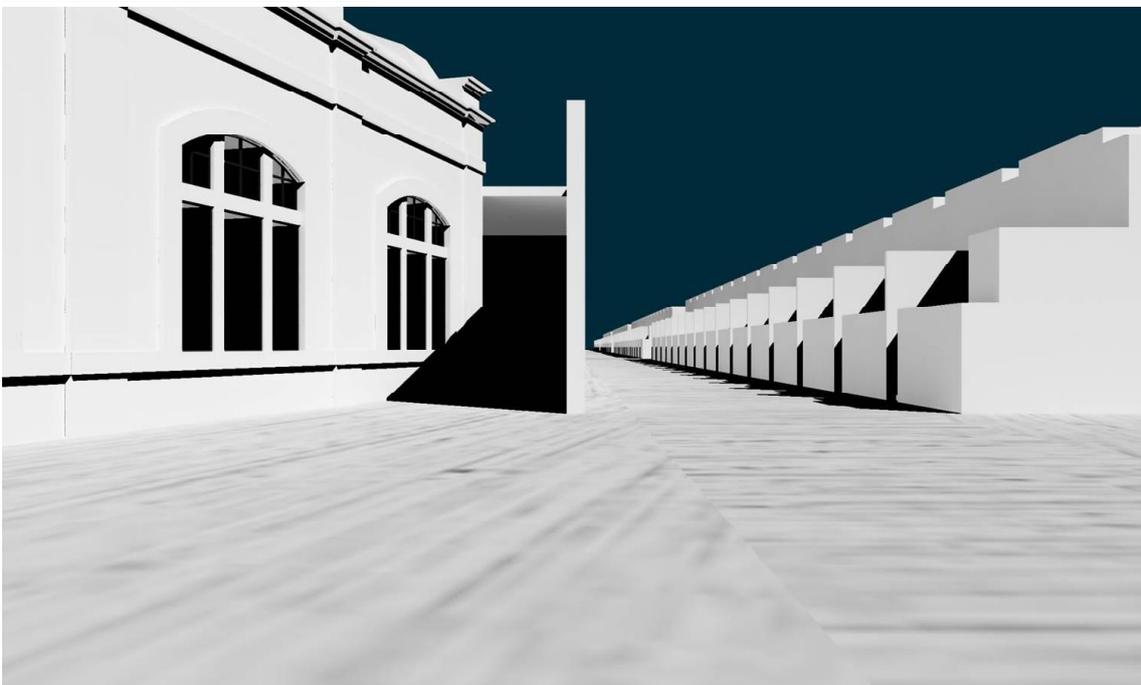


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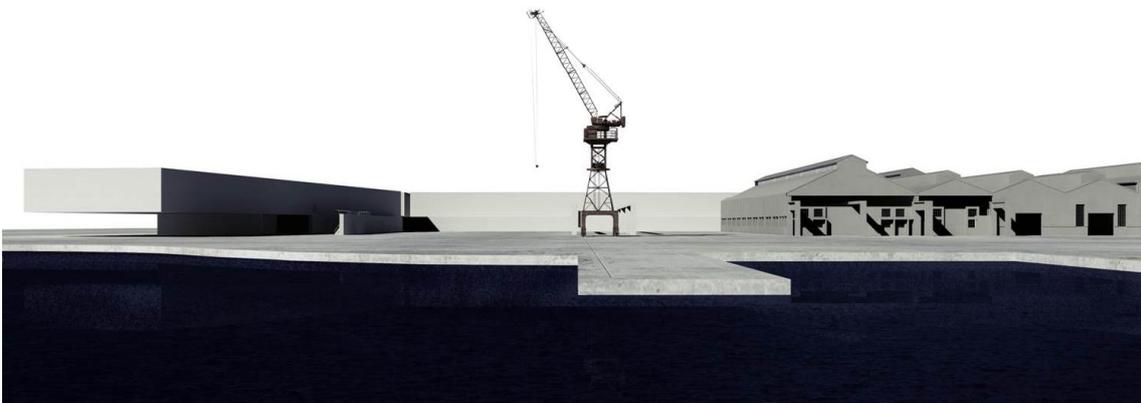


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Underground urbanism in Iran by focusing on underground housing

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Keywords: traditional Iranian cities, underground cities, underground housing, sustainable cities

Abstract

770 Concentration on the unique Iranian traditional urbanism offered us its numerous positive aspects; which provide us more thoughts about the process of appropriate designing methods, applicable construction, and optimal environmental and thermal condition inside the buildings. Cities created at the heart of the ground, within Iranian traditional urbanism, can be considered an efficient suitable solution for higher environmental sustainability due to their providing thermal comfort, optimal climate for inhabitants and passive design for suitable heating, cooling, ventilation and light. Those cities used maximum potential of the earth in order to provide optimal condition in terms of energy consumption and environmentally friendly.

The purpose of this research is introducing different buried components of the cities particularly housing in various regions of Iran. Furthermore analyzing and indicating how these cities create proper environmental condition and thermal comfort with the minimum energy consumption. A glance on the architecture in the past periods gives us some valuable principles which can be used in contemporary urbanism more over gives urban designer awareness and new approach to apply climatic strategies in appropriate way in contemporary urbanism.

Introduction

Global warming is one of the most important factors in deterioration of environment and the rate of climate change we're experiencing now is faster than at any time in the last millennium. Moreover the major energy consumption is used in building sectors in the world. The proportion of total energy use attributable to buildings generally ranges from 10 - 15% in undeveloped countries to more than 40% in the developed countries. Climate has a significant impact on the performance of the building and its energy consumption. Reducing energy consumption, using natural resources and providing comfortable, healthier and sustainable living spaces are the aims of a climatically responsive sustainable building design. Earth sheltering is the architectural practice of using earth against building walls for external thermal mass, to reduce heat loss, and to easily maintain a steady indoor air temperature.

Earth sheltering has become relatively more popular in modern times, especially among environmentalists and advocates of passive solar and sustainable architecture. However, the practice has been around for nearly as long as humans have been constructing their own shelters (Earth Sheltering wikipedia, 2016). The popularity of earth sheltering was advanced mostly by research in energy conservation in residential housing. Originally conceived as dwellings developed by the utilization of caves within the traditional context, its evolution through technologies led to the construction of customized earth dwellings all across the globe. These structures in the past were built by people not schooled in any kind of formal architectural design or with identifiable building techniques rather they depended on the cover the very structure of the earth could provide them for purposes of shelter, warmth and security. Investigations into the traditional earth sheltered dwellings also identified sunken earth houses with characteristics that suggested potentials in passive building insulation which utilizes ground thermal inertia (Anselm 2012).

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In the view of some researchers on earth supported housing, building underground provides energy savings by reducing the yearly heating and cooling loads in comparison with known conventional structures. Not only is the temperature difference between the exterior and interior reduced, but mostly because the building is also protected from the direct solar radiation. By studying on earth-sheltered architecture in Iran introduces various examples of this type, which could be considered as a model for today's innovative designs with respect to energy saving. This type of construction responded to human comfort requirements when modernism was absent to claim that it could do the same through mechanical technology (M.khodabakhshian, 2012).

Methodology

The method of the research is observational analytical study and descriptive research. The analytic description would describe the physical conditions of three Earth-Sheltered structures which would lead to deductive result that allow comparing three case studies in different part of Iran.

THE UNDERGROUND CITY OF OUYI (NOSH ABAD)

The underground city of Ouyi (Noushabad) is an ancient city which is located in the northern Kashan - Isfahan province. As Noushabad city is located in the region of central desert of Iran, its weather is quite harsh. During the day Noushabad has a very hot temperature and during the nights it gets pretty cold. The reason why this city is called Noushabad (meaning the city of cold tasty water) is because in the ancient times one of the Sassanian kings who were passing through this area stopped here to drink water from a well and he found this water extremely clear and cold. Therefore he ordered to build a city around this well and name it Anoushabad which eventually turned into Noushabad.

This city is one of the ancient underground cities, dating back 1500 years ago in Sassanian period. The completion of the city was continued during different periods and lasted about 500 years and also it is used in Saljoghi, Safavi and Ghajar era. Ouyi (Noushabad) underground city was registered in heritage culture in 2006. This underground city is established in three levels but some of them are accessible now. The depth of it varies from 4 to 18 meters. Since the urban fabric is very compact and complicated, studying about it has been continued. The area of this city is estimated to be about 15,000 square meters.

772 The main reason underground city of Ouyi (Noushabad) was carved stemmed from the fact that in the past this region was quite insecure and by forming an underground chain of passages beneath the entire city, the inhabitants would shelter there in the time of being attacked. And also through these passages they could reach any spot of the city without being seen. To reach the underground city there were several different entrances. Some of these openings were located inside the houses and some others were located in important gathering places such as the main fort just outside the city.

It is obvious to discover that the traditional underground building units are usually incorporated with various types of passive induced ventilation techniques. In this case study for ventilation solution, several vertical canals built which have a U-shape. These canals are not only for ventilation but also provide place for inhabitants to hide in case of emergency. Another interesting feature of their architecture was the curvy passages that made it possible for the inhabitants to ambush enemies. Furthermore there were several other tricks that were used to resist against the enemies, for instance digging deep holes in the middle of the rooms and covering it with rotating stones that would fall down if anyone stepped on them.

Kandovan

Kandovan is an ancient village tucked away in the northwest corner of Iran at the foothills of Mount Sahand and near the city of Tabriz. What makes the village so unique is that its homes have been carved inside cone-shaped rocks. The original substance for these unusual cone formations consisted of volcanic ash and debris from an eruption of Mount Sahand in the distant

past. It was subsequently compressed and shaped into cone towers by natural elements over thousands of years. This hardened material is strong enough to function as the walls and floors of a house, whilst also providing efficient insulation against the harsh cold of the long winter as well as the summer heat. Legend has it that Kandovan's first inhabitants moved there in the 13th century to escape from the invading Mongol army. They dug hideouts in the volcanic rocks but eventually decided to settle in these caves which they gradually developed and transformed into multi-stories, permanent houses. Since then, many generations of their descendants have continued living in the same houses.

In Kandovan, Sahand's volcanic ash and debris was fused and shaped by natural forces into cone-shaped pillars that became caves. The hardened material of the cones is strong enough to function as walls and floors of a house and yet soft enough to allow a further shaping of the caves. The material is also an efficient insulator and the troglodyte's homes have the reputation of being very energy efficient, remaining cool in summer and warm in winter. The cave homes require minimal supplemental heat during the long cold season, making for comfortable year round habitation.

Most of the cave houses are two to four stories in height. In a typical four story house, the ground or first floor is used as an animal shelter, the next two floors are used as living areas, and the top floor is used for storage. There are reports of tunnels connecting towers owned by a person or family.

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One of the important factors that can be seen in this village is the location of the village. Placed on a south facing slope, help to optimize solar access in to the building (Ghobadian.1994).

Meymand

Meymand is a village of troglodytes - cave dwellers - located in the south-eastern Iranian province of Kerman. Meymand (Maymand, Maimand) village has been continuously inhabited for 2,000 to 3,000 years making it one of Iran's four oldest surviving villages. By contrast the troglodytic village of Kandovan in northwest Iran is said to have been inhabited for 700 years. Some claim that Meymand / Maymand village has been inhabited for 12,000 years, that is, since the middle stone ages, making it a Mesolithic village. Reportedly, 10,000 year old stone engravings and 6,000 year-old potteries have been discovered at the site (Aziza 1382).

While many Iranian desert villages are fairly non-descript in appearance most of the time (their beauty is found within the courtyards and homes), Maymand is in comparison stark in appearance and perhaps even unattractive in the usual sense.

According to local tradition, Maymand was a Zoroastrian settlement before the advent of Islam and that prior to become Zoroastrian, the residents worshipped the sun.

Climate

Inserted between a desert and mountain, Meymand enjoys a mountain-

ous climate with cold winters and exceedingly hot summers and abundant with mulberry and blackberry trees. This village has a warm and dry climate and lies below the surface of the ground, so energy is absorbed and kept extremely well because it takes the heat and light of the sun from the south. This heat is well kept within the building because of earth's thick covering. Thus, it does not need so much mechanical systems such as central heating system and heater to supply heat in winter (Bonine, 1980). Only a fireplace or a small manual heater is enough for these kinds of buildings. Because of the location of this town (warm and dry area), the temperature raises considerably in day and night. The village has a compressed texture that has taken from under the ground.

City texture

As this town has located in a warm and dry area and temperature degrees vary much considerably in day and night the village texture is of a compressed type with an underground form. (It has an underground formation)

In this rocky town, as the buildings have thick bodies made of building materials and because the earth are spread around the perimeter of building, it acts like a source of thermal energy and radiates back gradual the heat that it has absorbed during the day (Azizi, 1382). It also causes to provide more moderate temperature within the building.

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Orientation

The buildings located in the south and south east, these directions are the best for controlling and minimizing the influence of sun light in the afternoon into the building. This orientation protects building against annoying wind from west to east. The southern side of this rocky house is the best because this side minimizing the influence of heat from the sun in the afternoon into the building and in the cold days of winter is the best direction for keeping the heat in house (Ebrahimi, 1376).

Accesses

Numerous walking paths on the western and eastern hills sloped body could be observed, but these routes cannot be so permanent because of the rocks moved by people movement. This town has not compressed texture. Access to one unit and moving away from it to reach the other are performed separately (Ezad panah, 1381). A very tiny entrance has been designed to avoid the penetration of cold weather and winter undesirable winds into the domestic spaces.

Architecture

The special rustic architecture of stone houses has made the village one amazing tourist attraction in Kerman province. The houses have been dug aimed the rocks some of them have been inhabited for about 3000 years. Since the houses placed inside the mountain, provide suitable condition for inhabitants in harsh cold weather in winter and hot weather of summer.

The individuals cave dwelling units are about 2 meters high and have an area of around 16-20 square meters. The construction of a cave dwelling called a kicheh. The dwellings usually consist of a single square or round room. Some houses have windows and some not in which without windows natural light and ventilation are the main problem. Currently, there are about 400 kichehs /dwellings in Meymand. Most houses in this region have more than one room with animal shelter. Besides residential building, there are public bathroom, mosque and also school in Memand which have been dug up underground.

Conclusion

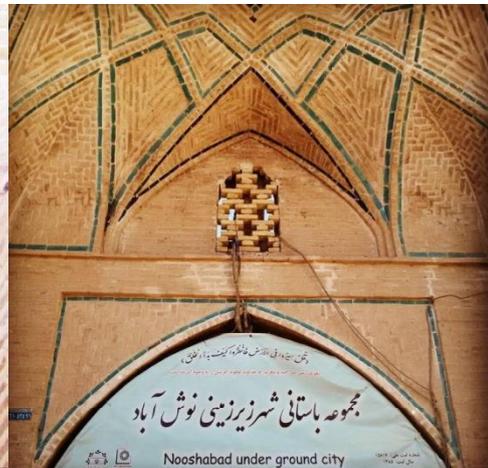
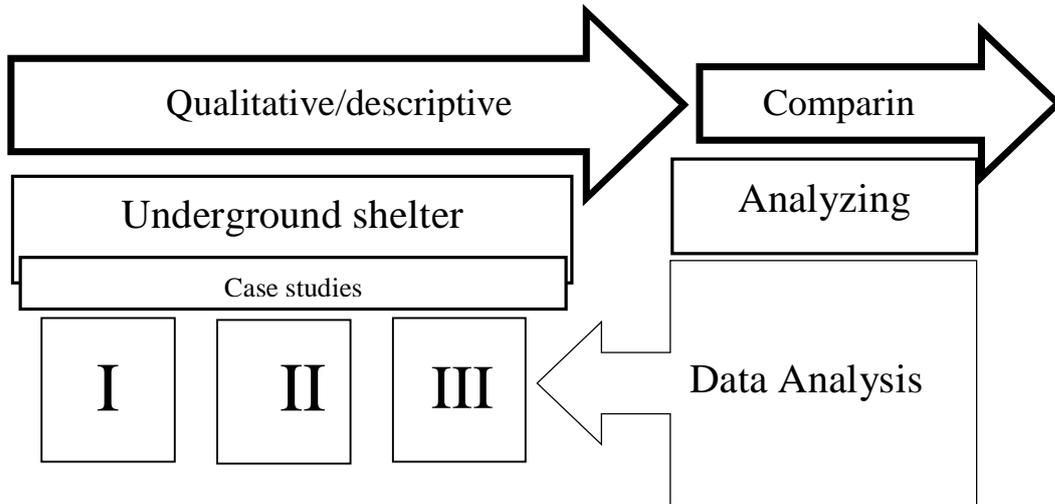
In general, the various types of earth- sheltered structures in these three case studies in analyzed they could be continued and discontinued rocky and closed underground types. One significant value of earth-sheltered housing and the reason for its evaluation is its potential energy savings when compared to conventional aboveground housing. This potential is based on several unique physical characteristics. The first of these characteristics is in the reduction of heat loss due to conduction through the building envelope because of the high density of the earth. In an earth sheltered building even at very shallow depths and given normal environmental conditions, the ground temperatures seldom reaches the outdoor air temperatures in the heat of a normal summer day. This condition allows the conducting of less heat into the house due to the reduced temperature differential (Anselm,2012).

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In the case of colder climates, it was noticed that during winters the rate of heat loss in buried (earth supported) structure was less in comparison to that in on-grade structures. This is due to lower heat transfer from the building components to the ground, thus suggesting the presence of passive heat supply from the ground even at the extreme cold temperatures of winter .This evidently contributes as a factor for energy saving in earth shelter buildings in cold climates. Other characteristics include the reduction of air infiltration within the dwelling which is mainly surrounded by earth walls with very little surface area exposed to the outside air. These characteristics have been investigated and analyzed on each samples and provides results and findings in terms of climatic effects, design styles and residential activities of the dwellers that bring about the unique energy saving value of these buildings. With the challenges of global warming and fossil energy reduction, energy saving ideas has become an essential element in building designs and occupation. From reviews of the basic background of traditional earth sheltered housing, it is obvious that such concept could be suitable for contemporary residential building in innovative way.

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Fig. 1 This staircase leads you to one of the entrances of Ouee ancient underground city near Kashan, Iran

Fig. 2 Nosh Abad underground city



Fig. 3 canals made it possible for the refugees to breathe even at a depth of 20 meters below the ground

Fig. 4 Passageways to get to the Chambers in Noosh Abad Ancient Underground City



Fig. 5: The inside of the underground city (corridors, rooms) in Nosh Abad

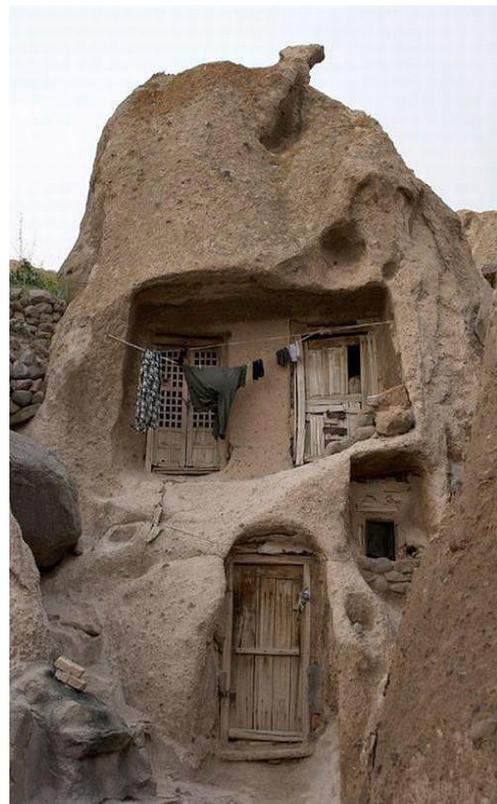
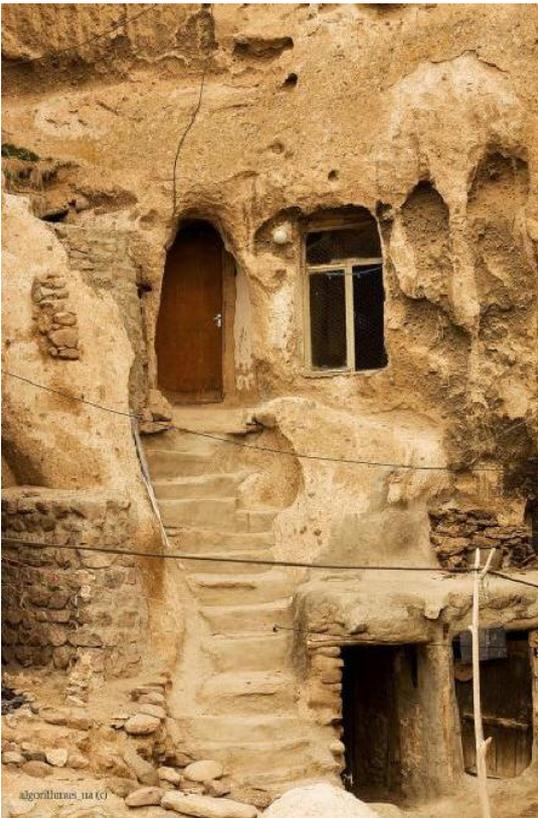
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Fig. 6 A perspective on Kandovan Village.



Fig. 7 Kandovan Village from across the valley - a close up, the natural rock formation containing caves turned into homes looks like a giant termite colony
Fig. 8 A view along the side of Kandovan Village.



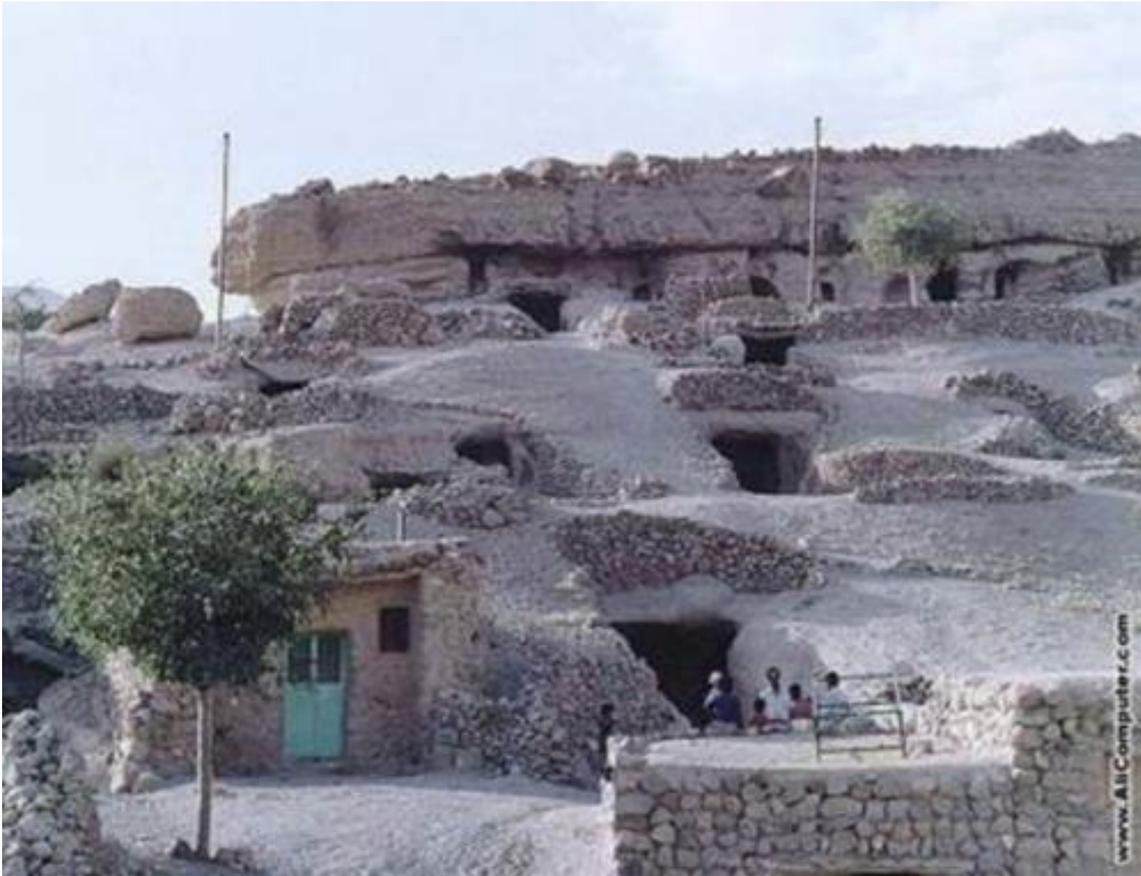
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Fig. 9 Alley stairway and storm drain in Kandovan
Fig. 10 A view of a Kandovan house



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Fig. 11 entrances of the underground houses in Meymand

Fig. 12 Access of each unit

Fig. 13 View of the city

Fig. 14 inside of the Meymand house



La città continua: scavi romani per l'elevazione della città contemporanea

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Abstract

782 In 1910 Loos wrote: *Modern civilization is based on ancient greatness [...], one thought unify great architects. They think: as I build, so ancient Romans would have built. But he warns: We know that they are wrong. Time, place, purpose, climate, environment prohibit this estimate. But what is the meaning of this message, that shows us the way and - at the same time- forbids embarking it? After Loos, antiquity will be no more a repositorium where our identity resides; but the Classic is Das Andere, the place of otherness. The modern-desperate artist, as Füssli (1778), facing the greatness of roman ruins- now knows that the Classic is a silent presence: that must be interrogated, knowing that every question will come back like an echo, measuring an absence. But for us, it is essential to look at this absence, to fill it with the presence of our projects, with the aid of the myth. Myth precedes sciences in time and space: myth is inscribed in places; while science is a mapping that ends up covering real spaces - land grabbing (Serres): for this, a scientific discussion on archaeological sites cannot be divided from myth. Myth inscribed in places gives voice to them: giving voice to the places through the project is the leitmotif of the Atelier UNIRC Thesis: those thesis aimed to deepen dialogue strategies between the Old and New in architecture, applying them to the urban context of Vibo Valentia and its archaeological park of the Roman city.*

Contemporary periphery of S. Aloe in Vibo Valentia coexists and collides with the Roman municipium, during excavation works: the protection and the conservation of this stratified urban heritage until now has represented only a problem for the expansion of the city, but it should become a resource for the configuration of the contemporary city; that is one: it is the city of the present that contains the city of the past and that we must pass it to our children.

This change of perspective will be possible only by promoting both development factors and conservation of the urban texture. Eg.: Any new architectural intervention will surely take advantage of the presence of a nearby archaeological park, that preserves natural scenery for the enjoyment of everyone and increases property value; but only if protected area constraint become an occasion to plan new services for the community, and not just a ban on building in the areas in question. So S. Aloe, the Roman city park, configures two new squares: the one between the existing schools, organized as an educational unit (hostel/ summer school) integrated to the fruition of archaeological site; and the square called Antiquarium, exhibition space for roman statues (by now storage) and archaeological and natural park entrance.

The presence of the past represents the "Lares and the Penates" of urban renewal: we must bring them with us to find the city that lies ahead - as Aeneas did. Like Aeneas in the Underworld, we discover that the seeds of the future are lineages that march along with the shadows of the past, because the past and the future "interpenetrate and determine each other" (Pogue Harrison). The legacies of the past are not behind us, but in the future; so that, by projecting our future living space the meaning of all our past come into play.

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The spreading city is not the expanding one, it is the one that is made of layered memory.

Alle radici del Moderno, Loos si fa scudo delle sue orecchie malate -sordo alle continue mode dell'Avanguardia (perché l'ultima moda è sempre la penultima)- e scrive nel 1910: «La nostra civiltà moderna si fonda sul riconoscimento della inarrivabile grandezza dell'antichità classica. Dai Romani abbiamo derivato la tecnica del nostro pensiero e del nostro modo di sentire. Ai Romani dobbiamo la nostra coscienza sociale e la disciplina della nostra anima. Non è un caso che i Romani non fossero in grado di inventare un nuovo ordine [...], chi può risolvere grandi problemi di progettazione non pensa a nuove modanature. Da quando l'umanità ha compreso la grandezza dell'antichità classica, un solo pensiero unisce fra loro i grandi architetti. Essi pensano: così come io costruisco avrebbero costruito anche gli antichi Romani».

Ma ammonisce profetico: «Noi sappiamo che hanno torto. Tempo, luogo, scopo, clima, ambiente vietano questo calcolo»¹. Cosa ci vuol dire Loos con questo messaggio contraddittorio, che ci indica la strada ma sanziona il divieto di percorrerla? E' che, dopo Loos, l'antichità non sarà più quel pacificato *repositorium*, quel magazzino delle Muse in cui -secondo

Winckelmann- risiede la nostra identità; ma il Classico è *Das Andere*, l'altro che ci riflette e ci inquieta, il luogo della nostra alterità. L'artista moderno -*disperato*, come lo disegnava Füssli già nel 1778, *di fronte alla grandezza delle rovine antiche*- ormai sa che il Classico è una presenza muta e iniconoscibile.

Il Classico è un astante che richiede d'essere interrogato; sapendo tuttavia che le nostre sono *parole nel vuoto*, che ogni domanda ci tornerà indietro come un'eco: misurando un'assenza, restituendoci solo la nostra distanza da quel vuoto. Ma per noi è essenziale affacciarci su questa assenza: per riempirla con la presenza dei nostri progetti, dei nostri tradimenti, delle nostre invenzioni: sono questi gli elementi che fanno parlare l'assenza, che fanno parlare i luoghi, seguendo la metafora -la guida essenziale- del mito.

784 *Mythos* significa letteralmente "il fatto che viene pronunciato": è dunque un accadimento che rinasce ogni volta attraverso il linguaggio-logos, con versioni differenti. Con le sue differenti narrazioni di un medesimo accadere, il mito frammenta l'ordine del quotidiano, scancella il luogo comune e lascia affiorare il senso profondo di un luogo: il *genius loci*. Il Logos-Mythos tratteggia dunque la nostra capacità di abitare la terra secondo una strategia discorsiva; nella quale gli umani col loro operare sono presenti insieme alle piante, agli animali, alle pietre, alle montagne, ai fiumi, al mare, e porgono o diventano essi stessi i *segni* che costruiscono l'identità dei luoghi. Così il mito precede le scienze: «il mito» -scrive il filosofo Michel Serres- «è in anticipo così bene sulle scienze umane che può essere più scientifico delle nostre stesse scienze». Il mito è in anticipo perché precede le scienze nel tempo, ma soprattutto nello spazio: perché il mito è inscritto nei luoghi, è una topologia; mentre «la scienza è una cartografia che finisce per ricoprire gli spazi reali appropriandosene»². Per questo, qualsiasi discorso scientifico sulle aree archeologiche non può prescindere dal mito: il mito, che inscritto nei luoghi, dà voce ai luoghi. Far "parlare" i luoghi attraverso il progetto costituisce il motivo conduttore dell'Atelier di Tesi UniRC che ho diretto e che indaga il dialogo tra Antico e Nuovo; dove i progetti, in analogia con le tecniche "narrative" del mito, costituiscono differenti scritture di un medesimo luogo: che ne scardinano le banalità urbanistiche travestite da facili standard e da razionalismi "di garanzia" per ricercare un ordine "differente"; applicato al contesto urbano calabrese di Vibo Valentia e al suo costruendo parco archeologico della città romana.

Partiremo col ribadire una evidente particolarità -tuttavia, mai abbastanza sottolineata- della città di Vibo Valentia in seno alla regione Calabria: che è la *continuità* storica della crescita dei suoi tessuti urbani in uno stesso luogo. Vibo Valentia infatti, rispetto alla maggioranza delle città calabresi, presenta eccezionali caratteri di *stratificazione urbana*: perché non c'è discontinuità tra le aree archeologiche e la città attuale, dal momento che la città classica non è stata abbandonata a favore di altri insediamenti (come è -invece- il caso di Locri Epizefiri, Sibari, Scolacium,

che sono città-morte, e perciò si propongono come “naturali” parchi archeologici separati dagli attuali contesti urbani); e perché il terremoto del 1783, che ha distrutto una gran parte dei centri storici calabresi e ne ha determinato una rifondazione ex novo secondo le piante libresche dei trattati illuministi (come è il caso di Palmi, Mileto, Seminara), a Vibo Valentia ha prodotto un razionale e moderno riassetto “a scacchiera” dell'impianto urbano, che ha inglobato ed ha saputo convivere con i tracciati della città antica. Da questa condizione particolare derivano opportunità e problemi.

Attualmente a Vibo Valentia, la città contemporanea con la sua inscindibile periferia di S. Aloe convive e si scontra con il *municipium* romano, in fase di scavo: la tutela e la conservazione di questo patrimonio urbano stratificato ha costituito fino ad oggi solo un *problema* per la espansione della città, ma deve trasformarsi in una *risorsa* per la configurazione della città contemporanea; che è una sola, è la città del presente che contiene la città del passato e deve trasmetterla alla città dei nostri figli. Ma questo mutamento del punto di vista potrà avvenire solo se agirà tanto sugli agenti che invocano sviluppo ed espansione, quanto sugli agenti che perseguono la conservazione dei tessuti urbani. Ad esempio: ogni nuovo intervento d'architettura a S. Aloe non potrà che giovare della presenza del vicino parco archeologico che preserva il godimento di aree verdi/panoramiche ed aumenta il valore degli immobili; ma a condizione che il vincolo che tutela l'area non si riduca solo a una negazione del costruito, e diventi occasione per sollecitare interventi che accolgano nuovi servizi per la collettività, in un dialogo tra memoria storica e progresso civile.

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Attualmente non è così. Nella cartografia relativa al Piano Strutturale Comunale del 2007, tuttora vigente, il limite del “centro storico”, all'interno del quale sono censite le emergenze del Sistema Culturale del Paesaggio, esclude la città romana di S. Aloe, classificata come “periferia” benché sia oggi un'area centralissima: così, da un lato, la pianificazione di settore continua a presentarci una situazione ereditata dal vecchio PRG, dove il centro storico, seguendo le consuetudini di un'urbanistica antiquata, è contornato dall'espansione edilizia della città contemporanea; salvo scoprire che la tavola sul regime di tutela dei suoli sottopone a vincolo archeologico una gran parte di questa corona di espansione edilizia, realizzando di fatto un congelamento della crescita urbana.

E' necessario, a nostro avviso, innescare strategie d'intervento utili a superare questa impasse: il progetto -come strumento di conoscenza che esprime un giudizio sulla realtà, ma che interviene contemporaneamente con autonomia di giudizio nei processi di trasformazione- deve diventare occasione di recupero del centro storico e di ripensamento dell'espansione edilizia contemporanea, governando questi fenomeni con soluzioni formali che sappiano temperare le ragioni della conservazione del paesaggio culturale con quelle dello sviluppo urbano. In sintesi, il progetto di architettura deve costituire uno strumento appropriato per la conservazione dei siti archeologici e storici di Vibo: evitando ogni processo di mummificazione, e quelli, altrettanto pericolosi, dello “sradicamento”

culturale, per porsi all'ascolto dei luoghi dando un adeguato contributo di soluzioni formali.

Dal settecentesco Duomo di Vibo Valentia parte la scoperta della città romana: attraverso un percorso che raggiunge la Domus della Nereide che apre il nuovo Parco delle Terme; e continua articolando il parco archeologico tra due edifici scolastici esistenti, nei pressi dei quali sono stati rinvenuti numerosi ambienti termali e un grande Mosaico delle Stagioni. Di questo itinerario ci interessa sottolineare due potenzialità: collegare la visita della città romana al centro storico (per non fare di S. Aloe un parco archeologico isolato nella periferia urbana); e rendere le scuole esistenti un presidio educativo a tempo pieno (ad es. farne una summer school) integrato alla fruizione dell'area archeologica.

«Come architetto» -scriveva Aldo Rossi- «non ho mai avuto maggiore comprensione dell'architettura romana che di fronte al teatro e all'acquedotto romano di Budapest; dove questi elementi antichi sono immersi in una convulsa zona industriale, dove il teatro romano è un campo di pallone per i ragazzi del quartiere, e un'affollata linea tramviaria segue i resti dell'acquedotto. Evidentemente queste immagini, questo uso del monumento, non è proponibile; ma sollecita una visione compositiva dell'elemento antico nella città che non è certamente quello della città museo. Un campo quindi di non sterile conservazione ma dove l'architettura può aprire nuove ricerche e dare nuove risposte alla questione della città progressiva»³.

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Con questo spirito progressivo, dunque, si dovranno considerare i differenti temi che il l'Atelier di Tesi propone per la riqualificazione di S. Aloe e per l'integrazione delle aree archeologiche nel tessuto della città contemporanea.

Nel quartiere di S.Aloe di Vibo Valentia, il Parco delle Terme romane riconnette due aree separate da un viale carrabile, e configura due nuove piazze, che definiscono il tema di un Forum moderno che integra, in nuove centralità urbane, spazi culturali e verde pubblico per riqualificare l'attuale periferia. La presenza frammentaria e la sovrapposizione di resti murari e mosaici adiacenti le scuole e le case popolari della nuova periferia non permette di ricostruire il complesso rapporto architettonico tra le terme e le domus che le circondavano, e pone al progetto la necessità di uno scatto della fantasia per riannodare il colloquio tra Antico e Contemporaneo.

-I. Il primo tema affrontato nell'ambito dell'Atelier per riannodare questo colloquio è stato quello di accostare Antico e Contemporaneo come due testi differenti: in cui l'uno non traduce l'altro, ma lo commenta e in un certo senso lo reinventa attraverso materiali differenti; il progetto usa il connubio ferro-vetro e il cemento armato brutalista del linguaggio industriale della Modernità per accostarsi senza soluzione di continuità ai frammenti antichi di muri in pietra e laterizi ed ai ritagli musivi che punteggiano il nuovo Parco con la loro presenza enigmatica di *objets à réaction poétique*.

In questa ipotesi, nella prima piazza, tra le scuole esistenti, trovano

posto atelier di restauro e spazi di ristoro; la seconda piazza è definita dall'antiquarium, che costituisce l'ingresso al parco archeologico e lo spazio espositivo per le statue romane - trovate in situ e attualmente alloggiare in un deposito-. Le due aree del parco sono connesse da una trave ponte pedonale che ripara i mosaici e permette di osservarli dall'alto (fig.I, tesi Valenti).

-II. Un'altra strategia d'intervento è quella di alludere a un nuovo Campo Marzio, che ospiti "l'antichità futura" dei progetti contemporanei: nel Parco delle Terme accanto ai frammenti antichi trovano posto quelli moderni che disegnano i servizi connessi alla piazza delle scuole, sul modello dei porticati schinkeliani della Hofgärtnerhaus, o della Casa italica di Figini e Pollini; la relazione tra le due piazze è in questo caso assicurata da un percorso pedonale che si avvale di piccole botteghe artigiane dislocate a tamponare-occupare i moderni ruderi; per raggiungere infine l'antiquarium, che apre sulla corte il suo gran bar e un ristorante panoramico verso il parco, mentre chiude come in uno scrigno i reperti archeologici (fig.II, tesi Barberio-Catalano).

-III. Il terzo tema affrontato nell'Atelier è quello dell'ossimoro razionale-monumentale che ha costituito il grimaldello col quale l'architettura italiana ha coniugato la Modernità con la Tradizione: ci si potrà inserire, allora, in una collana di sperimentazioni che annovera architetti come Terragni, Libera, Piacentini, per riannodare la trama della memoria.

L'ascesa a un bianco Campidoglio è la prima tappa di un percorso che si riflette su un piano d'acqua battesimale o d'Acheronte, per compiere un viaggio nella memoria del sottosuolo: attraverso la porta tempio si scenderà alla quota degli scavi, per attraversare prima l'oscurità delle presenze statuarie, fiocamente illuminate dalla luce d'acquario della soprastante piscina, per poi raggiungere la chiarezza metafisica delle stanze museali, e infine, in una sorta di rinnovato Danteum, uscire a rivedere il cielo sugli scavi (fig.III, tesi Pata).

-IV. Ma l'antiquarium può essere interpretato anche come moderna basilica, luogo d'incontro sociale e di incontro con le presenze del passato, che filtra le relazioni tra la città e il parco archeologico. La monumentalità del progetto non è mai un fatto di dimensioni, ma concettuale: è un fatto di stile, che può tranquillamente avvalersi del fuori-scala; allo stesso modo, i mosaici sparsi nella campagna possono essere scoperti attraverso un progetto di suolo che si solleva a coprire i ruderi: svelandoli dall'alto con un nuovo colpo d'occhio; o portando il visitatore dentro lo scavo artificiale, che tuttavia ricomponne proprio la dimensione naturalistica nella quale sono stati ritrovati (fig.IV, tesi Migliore).

Come ci hanno insegnato i maestri del M.M., il Classico non può essere una collezione devota di copie del passato, ma può solo trovare sviluppo e vita nuova attraverso una collana di originali: in altre parole, oggi dobbiamo ribaltare la consueta prospettiva che ha guardato al Classico come guida verso il futuro; ma intendere il Classico come un progetto della nostra contemporaneità per un avvenire che può e deve dare senso a tutto il nostro passato. Se le presenze del passato sono i Lari e i Penati

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del rinnovamento urbano e come Enea ce li dobbiamo portare appresso per fondare la città che ci aspetta; come Enea negli Inferi scopriamo che le germinazioni del futuro sono discendenze che sfilano insieme alle ombre del passato, perché -come ha scritto Pogue Harrison⁴- «il passato e il futuro si compenetrano e si determinano l'un l'altro». I retaggi del passato non sono dietro di noi, ma ci precedono nel futuro; e allora, in questa capacità di progettare oggi il nostro abitare per un destino futuro ci giochiamo anche il senso di tutto il nostro passato. La città continua non è quella che si espande, ma che si stratifica sulla memoria.

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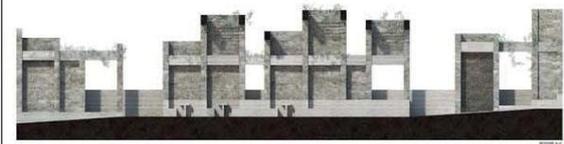
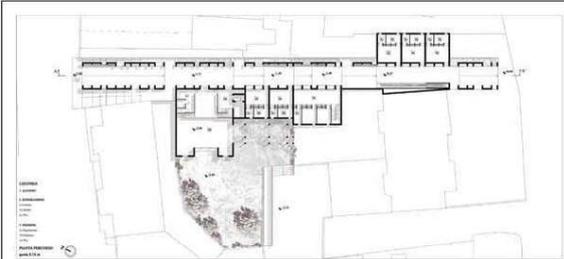
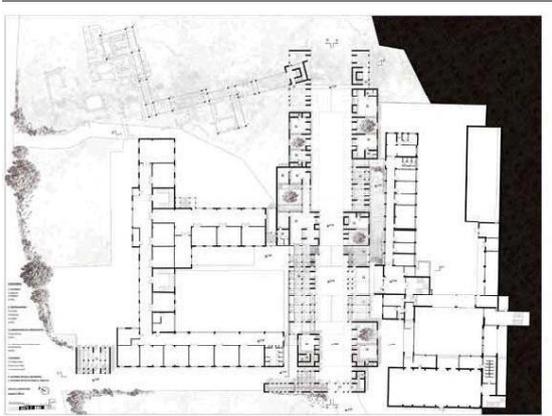
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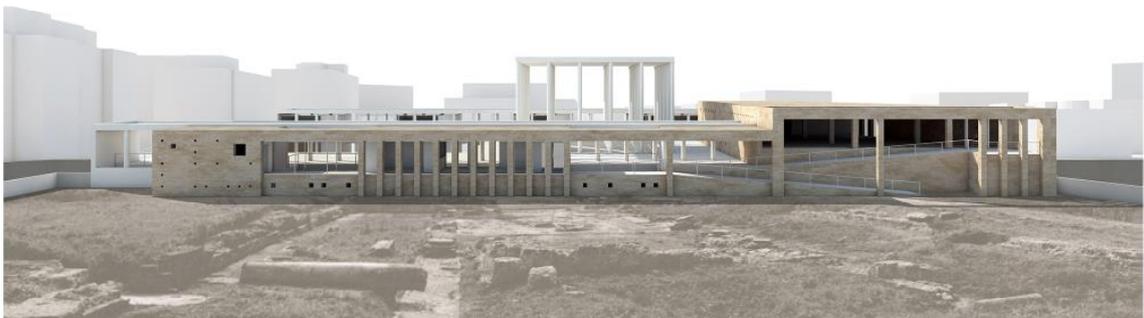
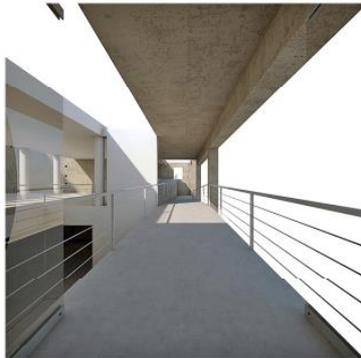
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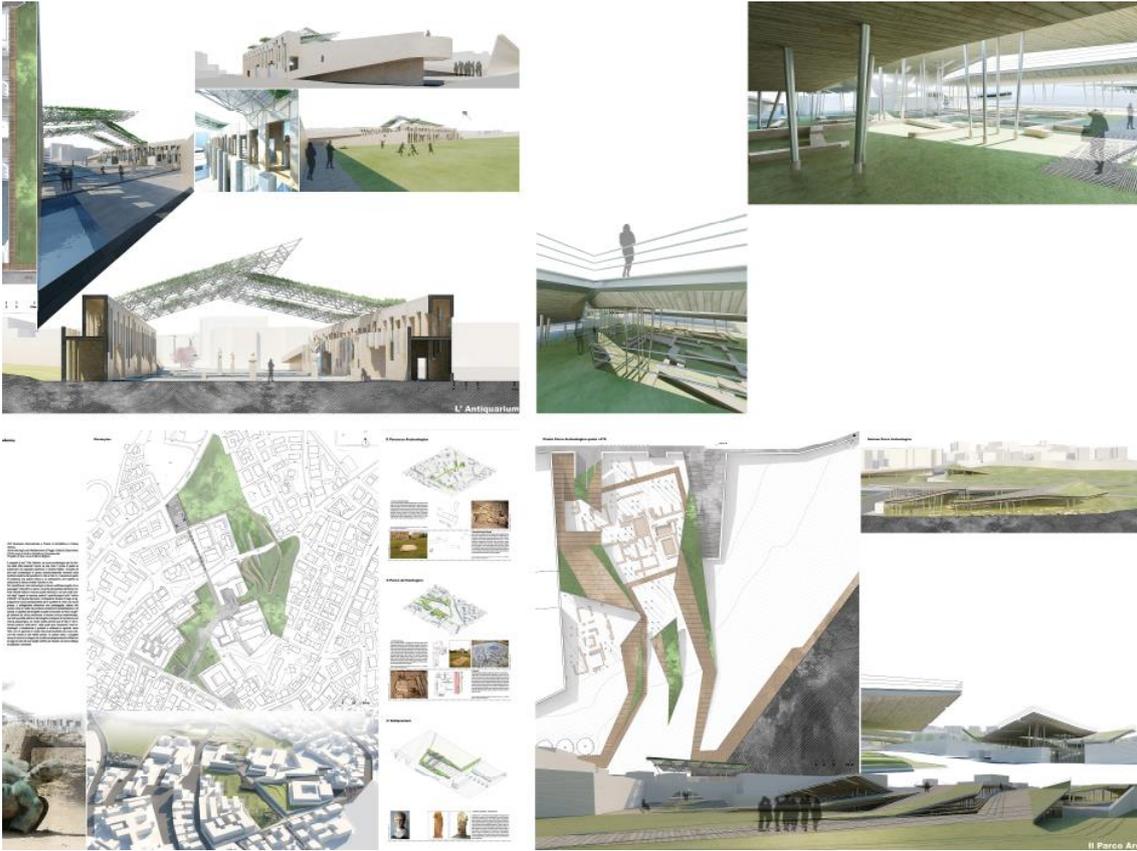
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Different Architectural Features of Persian Bazaars in Four Macro Climates of Iran

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Keywords: Persian Bazaar Architecture, Climate Compatible Framework, Structure and Framework

Abstract

Climate is one of the most important factors that effects on the framework of the Iranian historical bazaars. Iran has four macro climates, that in every climate their framework differ from each other. In this paper we consider Bazaars environmental variables, such as height, materials, width and height ratios, and etc. Then we compare these factors, and find that they differ from each other and findings show; the climate of bazaars situation is effective factor in their space and geometry formation.

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In mild and humid climate that include Caspian sea wayside cities such as Rasht, Lahijan, , Tonekabon, Sari and Gorgan we find that bazaars often dont have any arches and they are almost covered by sloping roofs of the shops. If the passage is covered with an arch, the airflow won't be able to circulate the humid weather of the bazaar.

The north littoral of Persian Gulf and Gulf of Oman has a hot and humid climate and the bazaars of this area are located in the cities of Bushehr, Ahvaz, Bandar Abbas, Khorramshahr and Bandar Lengeh. The first priority in this type of bazaar is to prevent the direct sun shine and facilitate the circulation. Accordingly, the passages are covered with high sunshades. Because of the cold and dry climate in highlands like Hamadan, Zanjan, Sanandaj, Tabriz and Ardabil, bazaars are roofed and have a concentrated and compressed texture. The height of the passages is low (6m Max.) and the width is between 4 to 5 meters. In comparison with the central area of Iran, the roof of the passages are low and the small apertures on the roofs are responsible for both illumination and circulation. The roofed and twisted passages not only make a spectacular space, but also they bring in thermal equilibrium for the bazaars in summers and winters. Hot and arid climate in the central areas of Iran is situated in Kashan, Isfahan, Yazd, Shiraz and Kerman. The form of the bazaars in these cities are like those in highlands and they mostly have arches. As the sunshine and the heat are more important to confront in these areas, bazaars have higher arches and wider passages and apertures. Arches are acting as sunshades in summers. In winters, they are operating as a thermal capacitor and equilibrate the temperature and living conditions. In addition, they prevent dusts and desert winds to find a way in the bazaars. Eventually, the results have shown that some formal characteristics and inspired models of ancient bazaars architecture have the capacity to being upgraded and then implement in the construction of the modern marketplaces. w hotels and residential spaces, that are attractive for passengers and tourists

Introduction

Bazaars, which mostly consist of many main or secondary rows, whether covered or not, with arches and apertures, have been not only the epicenter of the economic activities, but also one of the most important legacies of Persian culture and architecture. Regardless of being different in shape and visual representations, they make a united meaning and space to bring environment compatibility with the needs of people. Main parts of the Persian bazaars are:

- " Shops
- " Tims (Refers to open-space markets with courtyards where many firms in a common field of trade sell their products)
- " Timches (Small forms of Tims where usually hold single commercial activity, in contrast with Tim that may hold several different commercial activities)
- " Saras (Large two-floor-markets where firms have both their storages and wholesale trades with enclosed courts)
- " Caravansaries
- " Warehouses
- " Qeisariehs (arched markets or rows for luxury stuffs)
- " Charsouqs (intersections of the main rows)

These parts, alongside the mosques, coffeehouses, and Ab-anbars (water reservoirs) show a united framework between the social and economic relations and their perfect and peaceful geometry. Unifying is one of the characteristics of the Persian architecture, and its variety prevents boredom and lead the observers into their egos.

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Behind the simple face of this economic center, there are companion orders, meaningful combinations of materials and landscapes, and advantageous and various decorations, which are the mutual elements of Persian bazaars. Through the history, these features have become the sources of inspiration for other economic and trade centers in all around the world.

Considering different climates, architectures, for instance, set the width and the length of the rows and height of the roofs, in order to bring the most contented condition.

Persian Bazaars

Bazaars have always been not only one of the most important urban spaces but also the main base of the economy in Iranian cities, and they found a great value by formation of the Islamic civilization in Middle East. Bazaars are the symbol of traditional architecture and Islamic art (Iran & Ahour, 2012, p. 146). Their high values in Islamic cities made bazaars the sign of the originality and a benchmark in eastern Islamic countries. In the past, bazaars were both the value and the main attribute of an eastern Islamic city. Hence, they were taken as a priority in theorizing about Islamic cities (Eckart, 1994, pp. 30,31). According to Islamic Great Encyclopedia (Islamic Environment - Bazaars, 1993, pp. 320-333) different types of the Persian bazaars are:

- " Longitudinal or linear (corridor-like bazaars on a one-axis row)
- " Pluriaxial (like a large network with parallel or intersecting axis)
- " Cross-like or perpendicular (like a cross with two perpendicular axis)
- " Systematic (a combination or web of different bazaars with various shapes)
- " Bazaarche (or market which has a limited extent on a linear axis or around a square)

Bazaars Classification Based on Climatic Factors

Climate compatible architecture in Iran resulted in diversity of framework and structure of bazaars, such as differences in height of the roofs (low roofs in cold and dry climate and high roofs in hot and dry climate) or their shapes (domed in cold and dry and hot and dry climate, flat in hot and humid climate, sloping in the Caspian temperate climate, and sometimes roofless) (Ghobadian, 1994, pp. 172-196). There are other examples like the slope of the earth shaping twists and turns in or toward the bazaars, and aqueducts and flumes affecting on the growth of bazaars, and main streets (e.g. Isfahan bazaar) which influenced on the frameworks and structures of bazaars and towns simultaneously.

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Among other climatic factors, airflow is one the most important factors in architecture of bazaars. Airflow patterns play an important role in the cities and areas facing with wind-borne dust. In these areas rows of the bazaars are built in contrast with the wind path and with twists on different directions, to reduce the wind speed on the ground. So in many cities near the deserts, the entrances were closed in order to prevent the airflow. The structures of traditional bazaars were formed based on the climatic factors and the local materials. Regarding framework, there are differences among bazaars in every climates (The Persian Bazaar, 2009, p. 22) and we are going to see its effects in four macro climates of Iran.

Study the Features of Bazaars in Hot and Dry Climate

The form of the bazaars in this climate is like those in high lands and they mostly have arches. Since the sunshine and the heat are important to confront in these areas, bazaars have higher arches and wider rows and apertures. Some bazaars in southern cities, like Vakil Bazaar in Shiraz and Ibrahim Khan Qeisarieh in Kerman, have also some hatches under the arches to help air circulation and illumination.

Arches are acting as sunshades in summers. In winters, they are operating as a thermal capacitor and equilibrate the temperature and living conditions. In addition, they prevent dusts and desert winds to find a way in the bazaars. Recently, they also avoid noise disturbance (e.g. traffic and industrial manufactories). Rows usually have more width and height when they lead to particular places like Tims, Timches, Charsouqs, mosques, schools, bathhouses, etc.

Arches are usually covered with high domes and the domes are covered with harmonic muqarnases. The width of the shop entrances are equal with the distance of the arch columns which are 3 or 4 meters at most.

Like those in cold climates, some shops have basements here to store merchandises.

The height of the arches depends on the commercial and economic role of the rows. Consequently the height of the arches in significant rows like Qeisariehs and those where luxury stuffs are sold, is higher than other parts of the bazaar. Shahi Bazaarche (Boland Bazaarche), the trade center of gold in Safavid dynasty, and other Qeisariehs which were established by kings or important people in cities like Isfahan, Yazd, and Kerman are other examples of this phenomena (Ghobadian, 1994, pp. 191-193). (Figure 5, 6, 7)

Sample Study: Framework Attributes of Isfahan Bazaar

Isfahan Bazaar consists of rows, Saras, Timches, mosques, Charsouqs and schools that have been built during centuries. The most important row of Isfahan Bazaar is Zarabkhane with the width around 6.5 meters. There is a beautiful Charsouq after the entrance of Zarabkhane, called Qeisarieh, which is one of the greatest Charsouqs of Persian bazaars with 20 meters height. This space extension, which brings a rest space either, is in his perfect form by placing adjacent to Zarabkhane and Shah's Sara. The role of the Charsouqs in the space of Isfahan Bazaar can be seen in Chintzmaking, Canvas-seller, Goldsmith and Darvaze Ashraf Charsouqs, and also in the precious framework space of main row and its rest space (e.g. Qeisarieh, Sarootghi and Mokhles Charsouqs). Other rows of the bazaar have the width and height around 5 and 10 respectively (1:2 scale of width-height) (The Persian Bazaar, 2009, p. 97).

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Unlike bazaars in cold and dry climate and those close to Persian Gulf and Caspian Sea, there are pools, trees of olive, fig, and pomegranate in most vast areas of Isfahan Bazaar (like those between Timches and central courts) to increase the humidity by shadowing, water

Figure 8 - Isfahan Bazaar plan in its evaporation and sweating of the leaves. It is one of the most common surrounding (The Persian Bazaar, 2009, p. 119) way of controlling the humidity in architecture of deserts cities. (Figure 9, 10)

Study the Features of Bazaars in Cold and Dry Climate

Cold and sleet are two important factors in the shape of the buildings in these areas, especially in the west and northwest of the country. Hence, the rows of the bazaars were usually made of bricks. In comparison to bazaars in hot and dry climate, the widths are narrower and the heights are lower, which brings the optimum temperature for passengers. Furthermore, arches are controlling the heat exchange between inside and outside of the rows. The heat produced by activities of people and heating devices of shops are enough for the bazaar in cold seasons, and people feel no cold with their casual warm clothes.

As the matter of illumination for rows, there are some apertures on the top of the arches. Because of the quite high thermal mass of the rows, brought by masonry materials, and also the thickness of bearing walls, the apertures

don't have a major impact on the changing of the temperature. Although, the natural light from the apertures brings a harmonic atmosphere in all through the row (Ghobadian, 1994, pp. 181-183). Hamadan, Zanjan and Tabriz are cities where this type of bazaars were built. (Figure 11, 12)

Sample Study: Framework Attributes of Tabriz Bazaar

Placing in cold climate and having different trade markets, Tabriz Bazaar is covered and has a concentrated and dense texture. Most of the framework spaces have two or three floors, the height of the rows is low (6m Max.) and the width is between 4 to 5 meters. In comparison to the central area of Iran, the roof of the rows are low, and the small apertures on the roofs are responsible for both illumination and air circulation. The covered and twisted rows not only make a spectacular space, but also bring in thermal equilibrium for the bazaars in summers and winters. The commercial and economic function of Tabriz Bazaar are more than its sociocultural function. Unlike Isfahan Bazaar, cultural places (e.g. schools) are less in numbers and mosques are spread around the bazaar, mostly centralized near Jameh Mosque in the southwest. Consequently, cultural and religious events are seldom held in marketplaces (The Persian Bazaar, 2009, p. 187).

796 Tabriz Bazaar framework, with its beautiful and various usage of bricks and materials, has been almost intact. In addition to capital flow and trading, it is the attractive and complex framework of the bazaar

Study the Features of Bazaars in the Caspian Temperate Climate

Owing to high rate of humidity and rainfall, rows of the bazaars often don't have any arches and they are almost covered by sloping roofs or awnings of the shops, which are also save people from the rain. Moreover, floors have a gentle slope toward the center of the rows which lead rainwater through runnels that take it to a river or a stream. Being uncovered is because let the airflow to circulate the humid weather of the bazaar. In the past, the sloping roofs, were made of plant fibers (e.g. rice stem) and then with the appearance of roof tiles, bazaars were covered with sustainable and modern materials. Nowadays roofs are mostly covered with either gables or roof tiles. Walls were made by traditional ways, and to prevent entering of the water in shops, gabions and timber pilings were used below the surface of the shops. Like other buildings in the area, the bazaars and shops don't have any basement (Ghobadian, 1994, pp. 179-181). Rasht, Lahijan, Langarud, Tonekabon, Babol, Sari and Gorgan are examples of cities with this type of bazaars. (Figure 15, 16)

Sample Study: Framework Attributes of Rasht Bazaar

The formation and expansion of Rasht Bazaar are different with other samples of bazaars in Iran. The bazaar have been formed from many periodic and local markets along the main rows and passages through the years, and it became a permanent marketplace, regarding to its appropriate location for local, regional and international trading. Its

expansion also has taken place as a result of constructing mosques, caravansaries and bathhouses around the bazaar

(The Persian Bazaar, 2009, p. 206). Rabino, UK counsellor in Rasht from 1945 to 1951, in "*Iran Border Province*" wrote about Rasht Bazaar: "The bazaar consists of two or three parallel and narrow rows which have connections with other intersecting rows. It has many caravansaries with side-by-side shops and their storehouses, and the floor is covered with cobblestones. But it is not like other parts of Iran. In other cities, bazaars are covered with domed or curved roofs. In Rasht, roofs are replaced with awnings that protects people from rainwater and sun. There are almost 3300 shops in the city. Merchandise is settled in one part of the shop, behind a curtain, or it is deposited on a plank and merchants sit on a rug or a mat in the middle and talk about politics or business solemnly, waiting for customers." (Rabino, 1978)

Saras are the greatest parts of the bazaar. Most of them were built in a single form and with one kind of materials, and shops are placed around a central court. The Saras have three or four gates through which they

Study the Features of Bazaars in Hot and Humid Climate

Because of the hot and humidity in the north littoral of Persian Gulf and Gulf of Oman, the first priority in the bazaars of this area is to prevent the direct sun shine and to facilitate the air circulation. Accordingly, the rows are covered with high awnings or with other supplies to bring the highest rate of circulation of the humid weather, with a special design to circulate the air inside. Also, they are usually perpendicular to the seashore.

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The awnings are mostly made of cloth or mat. In the bazaars of Bushehr, Khorramshahr and Bandar Lengeh, they usually were made of wood or masonry materials. Mat-made awnings are another type of sunshades that despite of preventing sun shine, they are not appropriate for air circulation. There is an entire hatch between the arches and the roofs that brings the natural and vertical movement of the air. Like those in the littoral of Caspian Sea, the rows are narrow and don't have any basements (Ghobadian, 1994, pp. 181-183). Bushehr, Ahvaz, Bandar Abbas, Bastak, Khorramshahr and Bandar Lengeh are cities where this type of bazaars can be seen. (Figure 18, 19)

Sample Study: Framework Attributes of Bushehr Bazaar

In Bushehr, orientation of buildings and the rows of the bazaars is up or downwind, in order to ease the air circulation. Like the bazaars in Bastak and Lar, Bushehr Bazaar has stone walls and columns, and some of the covered rows are a few stairs higher than the floors, because of preventing the entrance of floodwater into the rows. The organizational space of Bushehr Bazaar is different from other bazaars. Contrasting the bazaars in which rows, caravansaries, timches, Jameh Mosques, etc. are in an integrated connection, in Bushehr Bazaar rows are in a different function with the whole bazaar. Also, there is no Timche and caravansary in this bazaar (The Persian Bazaar, 2009, p. 61).

Firms are one of the special characteristics of Bushehr Bazaar. These places have a major role in international trade and wholesale, and the shops in the bazaar are responsible for retails. The main rows of the bazaar are blacksmiths, greengrocers, goldsmiths, and butchers guilds. Lack of caravansaries and Timches shows the retailing role of the bazaar and its minor importance of the products. In fact, the bazaar is only the provider of citizens' needs and the wholesaling is the duty of the firms (Ahmadi Reishahri, 2001).

Using local materials (e.g. coral reefs and sands), regarding the distinct climate of the city, formed a special framework for the bazaar. Big coral reefs are used in the walls, and pillars of the rows and shops are the final coverage. Most of the shop entrances on both sides of the rows have 3m width, the thickness of the side pillars of the wall shops are between

Rows Covering

The coverings of Bushehr Bazaar's ceilings are mostly made of truss and wood columns, which are different from other traditional Persian bazaars. Here are the different types of the coverings:

1. **Flat Roofs:** Made of logs, thatches and straws. Like those in the rows of fishmongers and chicken sellers (The Persian Bazaar, 2009, p. 187).

2. **Sloping Roofs:** Made of single or correlated triangle-wooden-trusses and covered with mats and galvanized plates. Like those in the rows of butchers (The Persian Bazaar, 2009, p. 187).

3. **Arched Roofs:** Made of a hemisphere of wooden trusses with iron belts and connectors, covered with galvanized plates. Like those in the rows of blacksmiths and greengrocers.

In this type, side pillars of the shops erect up to 1m higher than the roof, and form two opposite-square-stands for a wooden truss. Two parallel wooden trusses, connected by logs and iron connectors, are placed on these stands and then timber-framed columns of the truss are connected and finally covered with galvanized plates.

Conclusion:

Every region has its special climate; therefore, manipulations in every climate should be compatible with the climate of that region. For instance, every tree works out in its compatible climate in order to reach to its goal. Hence, Persian architecture, by inspiring from nature, has special framework and structure for different climates of Iran. Tabriz Bazaar couldn't be a successful market if it were in Isfahan. However, it is the heart of economy in Tabriz. It is true about all other bazaars either. Some points are important to mention as the result of the study:

1. The height of the rows is very significant for controlling the temperature of the bazaars in summer and winter. So the reduction in height of the arches can be observed in hot and dry climate, hot and humid climate, and cold and dry climate respectively. And bazaars in the Caspian temperate climate don't have any arches or roofs at all.

2. The thickness of the pillars is another important factor in controlling

the temperature of the bazaars. The weight of the pillars becomes less respectively in cold and dry climate, hot and dry climate, the Caspian temperate climate, and hot and humid climate.

3. One of the main principles of Persian architecture is the use of ecological materials, as it is also important in the climate compatible architecture.

4. The direction of the entrance of the bazaars is very vital and depends on the climate, helping the air circulation in the rows.

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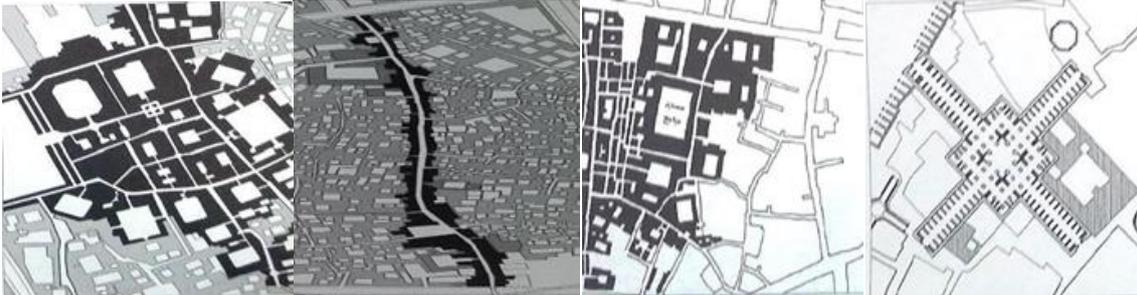
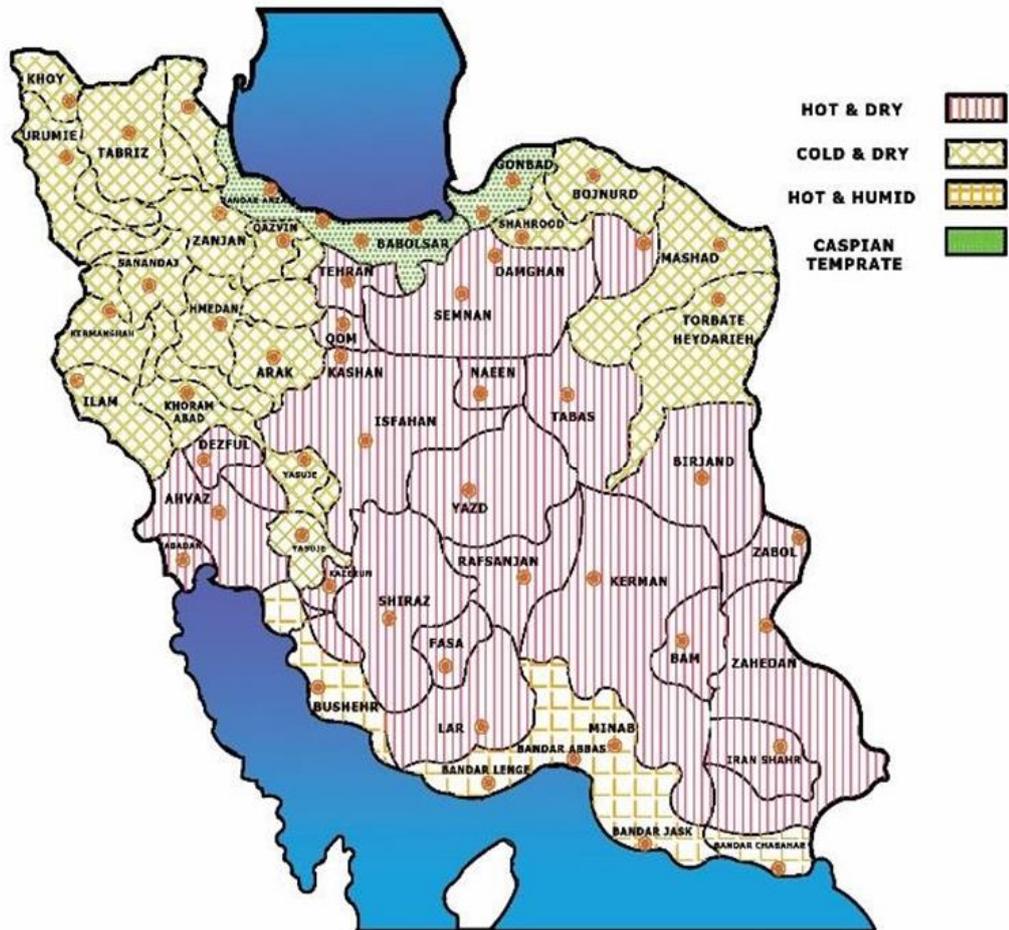


Fig. 1 Isfahan Bazaar
Fig. 2 Semnan Bazaar
Fig. 3 Qazvin Bazaar
Fig. 4 Lar Bazaar
 (Linear) (Pluriaxial) (Systematic) (Cross-like)

Source: (The Persian Bazaar, 2009, p. 24)



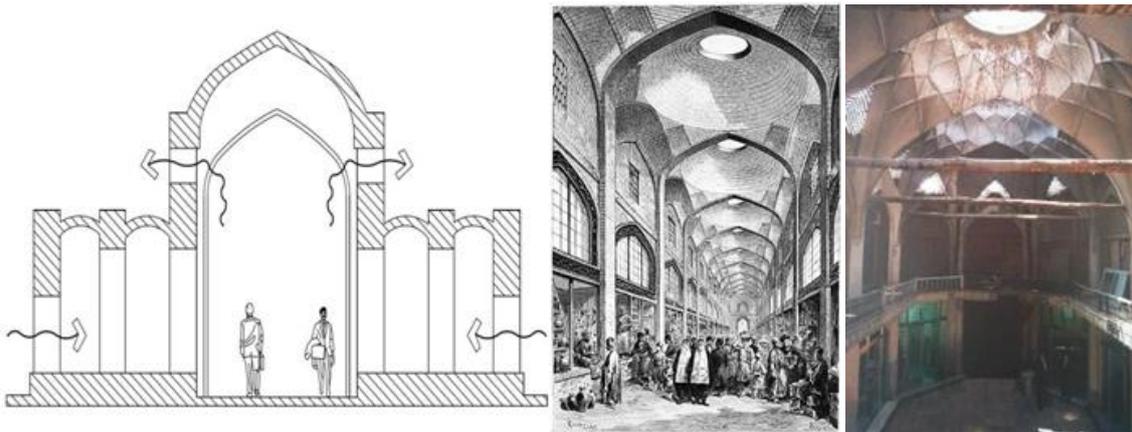
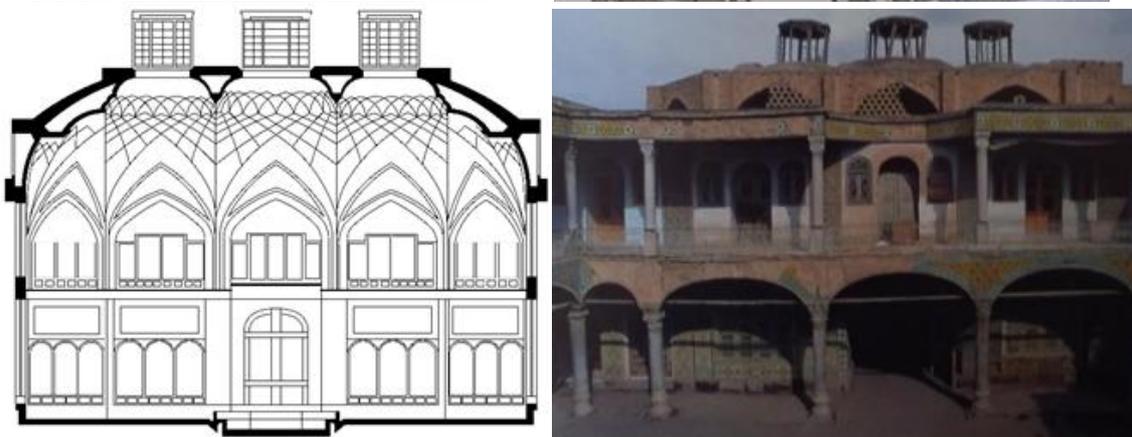


Fig. 5, 6, 7 Segment and photos of rows of bazaars in cities near deserts (Photos from: Hajghasemi, 2004, p. 78)

Fig. 8 Isfahan Bazaar plan in its evaporation and sweating of the leaves. It is one of the most common surrounding (The Persian Bazaar, 2009, p. 119)

Fig. 9, 10 Segment and photo of Malek Sara in Isfahan (Photo from: Hajghasemi, 2004, p. 108)

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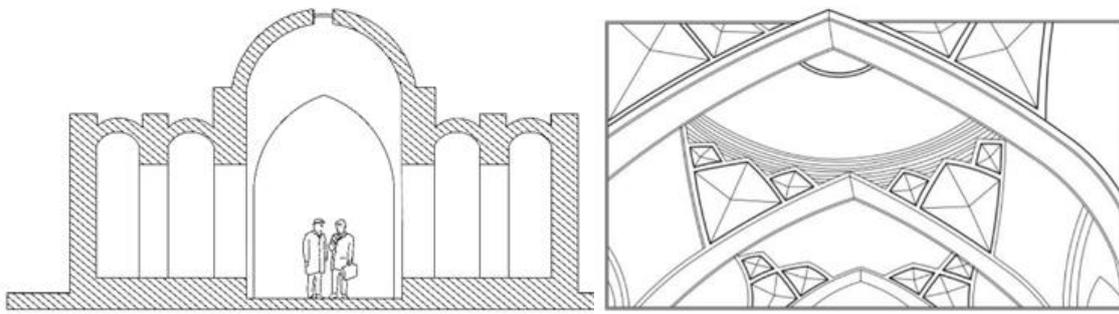


Fig. 11, 12 Segment and schematic perspective of rows in cold and dry climate
Fig. 13 Tabriz Bazaar plan in its surrounding (The Persian Bazaar, 2009, p. 61)

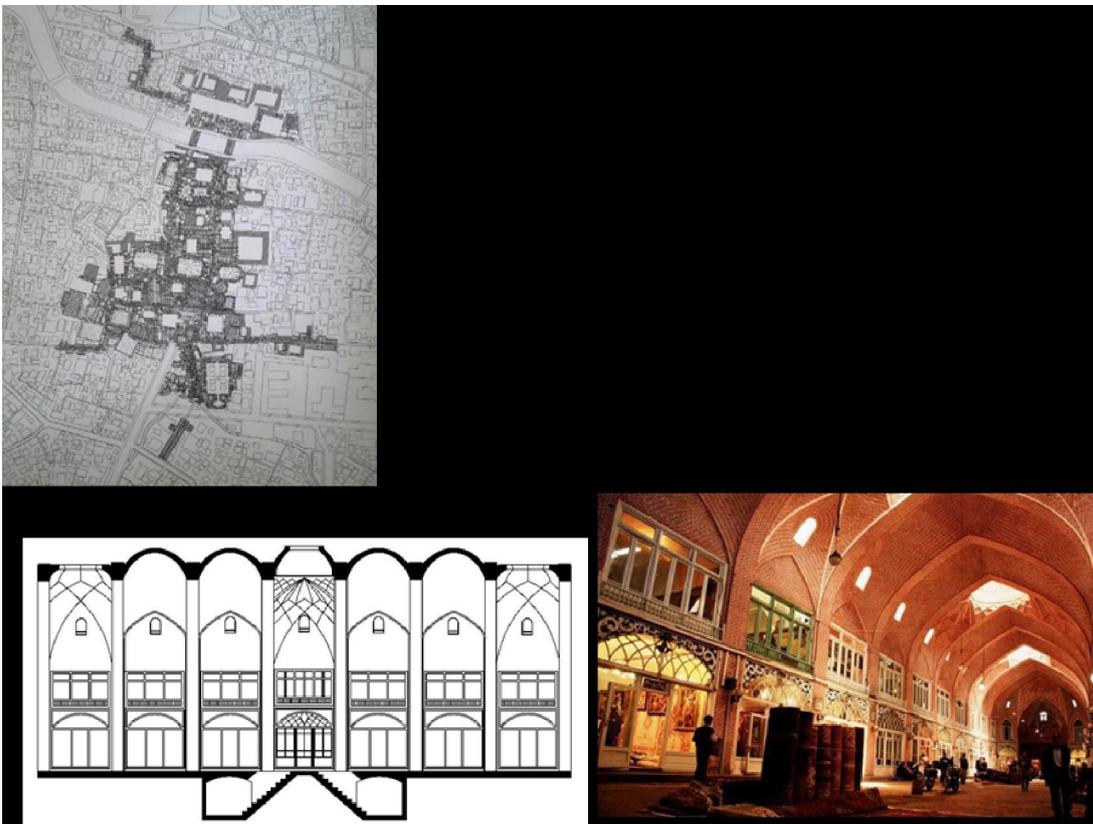
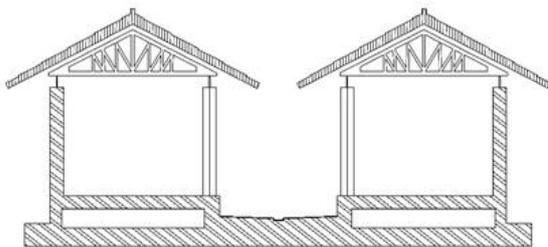


Fig. 15, 16 - Schematic segment and photo of the bazaars in south littoral of Caspian Sea



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Fig. 17 Rasht Bazaar plan in its connect with other Saras or rows. They are enclosed buildings and they surroundings (The Persian Bazaar, 2009, usually have two floors. The lower floors have a direct access to the court, p. 215) and the higher floors are connected with the courts with intermediate spaces (e.g. Iwans) (The Persian Bazaar, 2009, p. 208)
Figure 18, 19 - Schematic segment and photo of the bazaars in the north littoral of Persian Gulf and Gulf of Oman

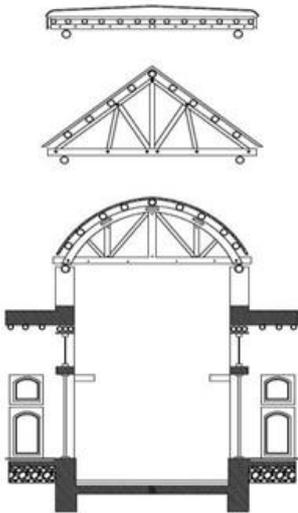
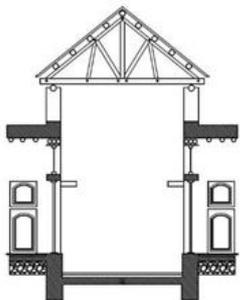
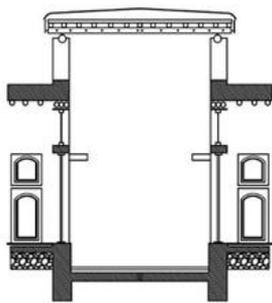




Fig. 20 Bushehr Bazaar plan in its surroundings (The Persian Bazaar, 2009, 60cm to 80cm, and the width of the rows are between 4m to 5m. The p. 61) height of some shops are about 5m and their floors are 1m higher than the bazaar's floor, which mostly is a place for a counter.

Fig. 21, 22, 23 Segment and photos of the flat roofs in Bushehr Bazaar (Photos from: The Persian Bazaar, 2009, p. 187) Figure 24, 25, 26 – Segment and photos of the sloping roofs in Bushehr Bazaar (Photos from: The Persian Bazaar, 2009, p. 187)



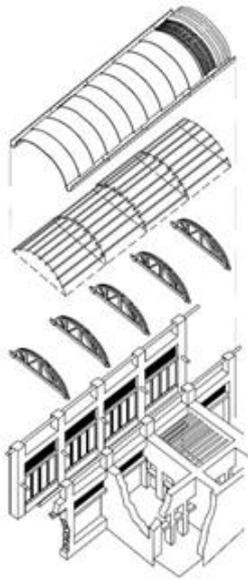


Fig. 27, 28, 29, 30, 31 Segment and photos of the arched roofs in Bushehr Bazaar (Photos from: The Persian Bazaar, 2009, p. 187)

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Climate	Sample	Arches & Roofs	Width/Height Scale	Shops	Storehouses	Materials	Schematic Segment
The Caspian temperate climate	Rasht Bazaar	No roofs and arches	1:1.2 – 1:1.3	One or two floor, Sashes doors	Above the shops	Masonry materials – Roof tiles	
Hot and humid climate	Bushehr Bazaar	Flat shades – Sloping Roofs – Arch with wooden truss	1:1.7 – 1:2	5m height – 1m higher than the floor of the bazaar	Behind the shops	Coral reefs in pillars – Thatches and galvanized plates on the roofs	
Cold and dry climate	Tabriz Bazaar	Arches	1:1.2 – 1:1.3	The area of the shop depends to its function	Basement or above the shops	Red bricks and white mortar	
Hot and dry climate	Isfahan Bazaar	Arches	1:2 – 1:3	The area of the shop depends to its function	Basement or above the shops	Masonry materials (e.g. bricks, mortar, etc.)	

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Arcidiacono Giuseppe	782	
Ascolese Marianna,	720	
Ashour Lamis Abu,	532	
Barizza Elisabetta	682	
Beigli Fereshteh,	484, 770	
Beltran-Borràs Júlia	572	
Benincampi Iacopo	308	
Buongiorno Vincenzo	400	
Calderoni Alberto,	720	
Camiz Alessandro	204	
Camporeale Antonio	86	
Capozzi Renato	412	
Carlotti Paolo	15, 23	
Casarin Vanessa	550	
Cestarello Vanna	720	
Chui Iana	376	
Ciotoli Pina	498	
Clemente Susanna	654	
Dalla Caneva Alessandro	60	809
Del Monaco Anna Irene	15, 448	
Emmi Gianluca	400	
Fernandes Sérgio Padrão	226, 746	
Fiorelli Angela	178	
Grbic Milena,	472	
Hosseini Seyed Jamalaldin	484, 770	
Ieva Matteo	124, 274, 350, 460	
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Larochelle Pierre	37	
Lazovic Zoran	472	
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