DOCTORAL PROGRAM IN ARCHITECTURE, URBAN DESIGN, CONSERVATION OF HOUSING AND LANDSCAPE

The purpose of the course is to train aware professionals and researchers, committed to the production of conceptual and operative instruments for the design of contemporary housing in the respect of the historical values. Taking responsibility towards liveableness of places, sustainability, good practices, while considering historical values within the complex and unstable reality, requires a critical revision and an update of the disciplinary instrumentation and of the training and research methods: to this goal, the Doctoral Program will profit from the contribution of thoughts and knowledge necessary to built up effective conceptual apparatus and design instruments.

The faculty board, where the different scientific areas of the Doctoral Program are represented, coordinates and constantly follows the students’ activity, which consists of an integrated activity of studies, theoretical and project researches, managing of seminar and meetings, organised in collaboration with Italian and foreign university, and involving external experts from the cultural and professional environment.

The PhD programme is three year long and evolves around three different phases, closely related each other and coherent with the research plans:

1. in the first period, the training proceeds along three interacting levels: start up of the permanent (three years) workshop, based on discussion and cross-disciplinary comparison between students and teacher board, focused on the main topics of the Doctoral programme; a design research workshop, capable to handle the complexity of different scales and problems in the living project; a lecture tour aiming to develop the questions dealt with during the workshop. The triple activity, feeding the fundamental attitude to interconnect different knowledge, methods, codes and techniques, let each student to gain the critical and methodological awareness necessary to spot the specific areas of interest and to start up, coherently with the central themes of the PhD programme, the research work aimed to the thesis.

2. in the second period, the PhD student, besides being involved in launching and organising the permanent workshop activities, will develop his thesis research, taking advantage of the participation to congress, meetings, stage (it is mandatory to have at least one stage) in Italy or abroad, by institution or research laboratories in convention with the PhD programme, or by other institutions approved by the teacher board.

3. the third year will be devoted to the working out of the thesis: contents and methods, besides being constantly verified by the tutor, will be discussed with other PhD colleagues and with the teacher board during the permanent workshop activity.

At the end of the three years, the thesis will be the final dissertation subject and it will be judged by a commission of external teachers, allowing to the PhD student to obtain the title of Doctor.

Contents of the Doctoral Program

The Doctoral Program holds “the form of living space” as a mandatory and strategic issue for the contemporary age. The contemporary theoretical and practical researches are addressed through different disciplinary branches, capable to cope with questions as the relationship between the existing context and the new projects, the scales and the problems of the living space, in particular housing, public space and landscape. The Doctoral Program is articulated into three distinct but strongly interdependent “research itineraries” which together contribute to the training of the doctoral students, while retaining their specific approach.

1. The new living architecture through definition of settlement principles and construction types, rules of building processes, with particular attention to experimental sustainable models.
2. The conservation and functional adaptation of buildings belonging to historical and processing context, with particular attention to diagnostic, safeness material, historical, cultural and modeling aspects.
3. Traditional and innovating living spaces in relation to urban regeneration of suburbs and natural landscape.

Each year these guidelines will be articulated in specific research projects to be defined according to the scientific interests of teachers and to social and economic events. In this respect it is crucial the relationship with the reference committee, with public institutions and with regional, national and international partner organizations.

While keeping their own scientific autonomy, the three research itineraries have to be explored and deepened by the doctoral students with an interdisciplinary approach. The interdisciplinary character is an important peculiarity of the Doctoral Program, viewed as a working method which allows to form researchers with a better understanding of the close relationship between theoretical studies and their practical applications.

DOCTORAL PROGRAM BOARD

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LEARNING FROM “PLAYGROUNDS”
Collective Diffuse Places for the Contemporary City

Andrea Matteo Azzolini - Supervisor: Prof. Giulio Barazzetta

The purpose of the research is the investigation of the possibility to re-define a structure of collective places in the contemporary city, focusing on the local scale. Its legitimation arises from the neglected conditions of many public spaces: they are often unsuitable for contemporary needs, for the architectural quality, for the dimension of their location, for their location, for the space property, or rather its being public, enough to develop in the inhabitants the feeling of identification in it? Or, in other words, is it able to translate a public space into a collective place? Some occurrences, like the insurrection of the banlieues or, on the contrary, the community gardens, make one reflect on the deep distance between the quality of open spaces and their actual use, between those who design spaces according to abstract principles and those who live these places with their true needs. Due to the phenomenon of the sprawl of cities, with its erosion of the ground, according to many observers, it is necessary to reflect on the contemporary way to regenerate the city itself, which can be interpreted as a Common Good. By the year 2050, 70% of the world population will live in cities and in their surroundings, that have to be designed as comfortable places where people have the right to live. In opposition to the Plan Voisin of Le Corbusier, Richard Sennett suggests the regeneration of a more open and democratic city, with active boundaries, incomplete forms and an open narrative.

The thesis tries to look at the contemporary city with an introspective practice which, starting from the generated phenomena, looks for their underlying principles. Some of the contemporary public spaces are designed according to the abstract and ideological principles of the Modern Movement, that degenerated into the urban extensions of the second half of the twentieth century. By recalling the themes developed by CIAM and Team X, it is possible to identify some milestones in the Charte d’Athènes and in CIAM’s view of the city and urbanism in order to understand the principles of the public space’s design in the contemporary city. The research tries to establish an alternative path for the progressive denial of the values of the place, reviewing some masterful projects. The criticism of the concept of space, as a homogeneous, isotropic and discontinuous background proposed by the Charte and by the Modern Movement, opens different perspectives and visions of the city, primarily as a place of memory to interact with, a plot open to modification and as a social structure.

The project of Amsterdam’s playgrounds designed by Aldo van Eyck is taken as a counter-milestone of a different way to interpret the city and the citizens. Some authors have deeply investigated his work (Liane Lefaivre, Francis Strausen, Vincent Ligtelijn just to mention a few), however van Eyck’s playground designs are often widely underestimated. The use of secondary sources is legitimated because they are used to suggest a project for the contemporary city and not as a new interpretation of the work of Aldo van Eyck. His designs of playgrounds show how it is possible to create a system of collective places with site-specific interventions, but with a clear belonging to an overall project (variation in repetition): changes in geometry according to the context and the fact of valuing constraints and boundary functions are considered as positive elements of the project. More than 700 playgrounds were built in Amsterdam in a lapse of time of around thirty years. This shows how the possibilities to generate a collective place could be found everywhere. Moreover, playgrounds have always been created following the request of the inhabitants who lived in the surrounding area. Children have used them as an extension of their doortown, as playgrounds represented the threshold between the private dwelling and the public sphere. Liane Lefaivre has recently tried to interpret van Eyck’s playground as a participative, interstitial and polycentric system. She tested her model in two different contexts in the city of Rotterdam, noting interesting observations.

The research assumes her interpretation of van Eyck’s playgrounds and her project on Rotterdam and tries to go beyond it, deducing some teachings for the contemporary city. Those teachings are multidisciplinary, and they reflect the research: it is possible to define some issues in the field of architecture from the point of view of spatial qualities (one tool), in the field of urbanism – as a diffuse incremental system in the dimension of time (one strategy) – and, last but not least, in the relationship between inhabitants and their local context (one tactic). Nowadays those issues are configured in few themes like, for example, the design of boundaries and the link between citizens and places. They are essential aspects to support the use of the space and to promote social integration. It is also important to define an urban strategy that allows those modifications due to the continuous change of the inhabitants’ needs. Moreover, looking at the contemporary city, it is possible to recognize new ways of using the city as, for example, the collective places created by the citizens in residual and abandoned areas. The writings of Gilles Clement are indicated as a turning point of a new consciousness towards the environment and the landscape. They had an influence in the field of architecture, urbanism and in the cultural behaviours to biodiversity and residual areas.

The research tries to apply those teachings to the city of Milan. It starts by looking at the topic of the “public interest”, which has changed during the last twenty years. It then highlights recent experiences of the community gardens, in particular for their potential for the city transformation. In addition to the N.I.L. (Nuclei di Identità Locale) and the D.U.C. (Distretti Urbani del Commercio), the community gardens created by the inhabitants are interpreted as new resources thanks to which it is possible to develop a new system of collective places on a local scale. Unlike the formers, that are planned by public administration, the latters are often bottom-up experiences that express the citizens’ behaviours as the real actors who take care of their own city. Those experiences support a re-generation of the city and the citizenship through a new structure of collective places that could spread all over the city. It is possible to stratify this polycentric constellation on the regional environmental system.

Learning from “Playgrounds” wants to express the value that could be discovered inside the experience of Amsterdam of over fifty years ago. Nowadays a reflection on that project is important because it was able to generate a system of collective places, actual experience of social aggregation, spread in time all over the city. The playgrounds by Aldo van Eyck recognised the necessity of space where children could play. It is fundamental to investigate everyday life from a new point of view that allows one to reach the actual needs of contemporary society. Nowadays it is possible to interpret the collective gardens as an answer to an inhibited willpower. In these places the citizens show a new responsibility and a new relationship with their own urban environment. At the same time, this experience of voluntary shared space fosters the social integration between people from different ages and backgrounds. Finally, the dissertation reflects on the role that the architect and the urban planner could have in this process where the inhabitants take care of their own city.
AFTER THE GROWTH. A PROJECT FOR THE SPACES OF MODIFICATION

A research on the physical dimensions of the collective welfare carried out through the design of the spaces of transformation, seen as the physical manifestation of the new demand for the city and the possible re-construction’s tools for the urban welfare.

Emanuela Bartolini - Supervisor: Prof.ssa Marialessandra Secchi

This research work is intended as a project. Both in the reflections with respect to the disciplinary narratives and in the explorations with respect to some experimental fields intended as case studies. The proposed thesis can be summarized in the recognition of the phisical outcomes produced by the incremental and long-term transformation processes that involve, after the growth, the contemporary urban territories.

Reference is made in particular to the conditions of the consolidated urban areas, where the need nowadays seems to be working in accordance with small adjustments and minimum operations able to establish new relationships between the existing materials. Moving the eyes from the large areas of transformation, the focus is mainly pointed on the specific micro-transformations that occur as unforeseen images, entering slowly to be part of our daily landscape. This is the built space and open space. It attributes an overall meaning to the specific micro operations made by many different authors involved in a - often uncoordinated - “business planning” of territory development. The project captures the critical necessary targets from the disciplinary frame by recomposing interactive, perceptual, and performance approaches to the topic and tests the hypothesis through the observation of a phenomenon of contemporary transformation.

The problematic nature, detected by the hypothesis, it manifests itself in two different orders of magnitude: the difficulty of the general urban plan to deal with the changing social, economic and productive conditions and, at a more specific level, the inadequacy of the operational tools of today.

The project compares pragmatically with the regulatory domain, with the operational tools and the appropriate scales, applying specifically to the consolidated Milanese territory, understood as a representative case of the urban condition of medium-sized cities in Europe. By doing so, with specific reference to the instruments operating today, the project investigates the need for a regulatory apparatus’ methodological and structural reconsideration, able to construct a plausible relationship between micro architectural transformations and urban strategy: between micro operations made by many different authors involved in - a often uncoordinated - “business planning” of territory development. The project captures the critical necessary targets from the disciplinary frame by recomposing interactive, perceptual, and performance approaches to the topic and tests the hypothesis through the observation of a phenomenon of contemporary transformation.

The argument put forward is that the pragmatic understanding of the processes of change is necessary to the definition of a “plan of organization” to redevelop the urban welfare system, where the construction of new space systems can not be left exclusively to the production of new objects, but must be able to tackle the complexity of what is already built by reinterpreting parts or processes already in place, imagining new relationships.

Finally are configured, for the project’s implementation, the possible strategies to be put in place on the basis of different appropriate tactics to regulate the transformation’s processes and some tips to renew the urban planning actions with an emphasis on methodological issues in the relationship between the demand for the city and development’s management tools.

With a closer look at the finer grain of the city, the project evaluates - with realism - to start from the recognition of existing conditions, in particular, by the physical outcomes produced by those operational tools that, making an exception to the provisions above, maintain a derogatory attitude. This is the representation of discomfort and inadequacy of the operating method in relation to the times. Also proposes a strategic picture based on creating a system of micro transformations according to the structuring morphology of urban open space and calibrated in their punctual development in relation to the specific parts of the city in which is compared. In addition to the discontinuous solutions - sometimes retroactively - proposed so far in the attempt to organize the transformation episodes it can be glimpsed the possibility of interpreting these changing spaces as an important material for the construction of the future city and a more balanced urban habitat in the distribution of its resources.

The structure of the work consists of three distinct parts that can be intended as autonomous, and that together return the research work. The sequence in which they appear shows the precise designing direction of the work, research through the project, which builds progressively through three speeches: retrospective, descriptive and purposeful.

Every part, for clarity of argumentation, is itself organized into two chapters, one more theoretical, the other more experimental, in an attempt to restore the close relationship between research and design in the continuous exchange between disciplinary narratives and interpretational explorations.

The more experimental nature of the work is organized into three segments that follow the more theoretical chapters by going to complete the three parts of the thesis: implicit, visible as possible.
The content of this work mainly addresses architecture of the present time and aims to provide a synthesis of some attitudes followed by practice and the relative theoretical horizons, which seem to characterize part of the architecture of the present time. The fundamental presupposition on which this study is based lies in recognizing the constructed and comparative (theoretical and architecture – as the direct product of thought, an artefact of which a given historical time or a given socio-cultural context has a certain conception. If, until the recent past, architecture – unlike other disciplines – was mostly inclined towards associating a theoretical principle with fully-fledged operating rules (rules of a general scope, a prescriptive characteristic of theory) which influenced (and to some extent standardized) its results, the age in which we are living – that of multi-form pluralization of thought, that of the still post-modern condition (Lyyolar), that of information (Castells), that of the second industrial revolution (Anderson) – decrees, on the other hand, the impossibility of using an ex-ante operating theory, a general doctrine capable of translating a given epoch into form. It seems that the process of exchange between practice and theory is, for certain aspects, inverted. Today, it appears that works – of course those substantiated by a reasoning substantiated in their dual meaning of object and operative strategy – are the heralds of that plurality of specific thoughts (no longer general) of our time. The pretext offered to us by Goodman, who in 1968 said that “it is easier to recognize architecture in a building than in a drawing, than what happens in music between the performance and the score” has encouraged me to shift attention immediately to the object and the circumstance where the complex tangible and intangible, diachronic and synchronic relations are fixed and lend themselves to a slower and more reflective interpretation of a given portion of reality, to attempt to recognize whether there were, in the plurality, recurrent orientations. Reflecting on architecture through works – which at the present time follow highly differentiated paths and reach very different results – required, in the first place, an investigation into the possibility of finding recursive elements that could have made the heterogeneous singularities of the contemporary architectural scenario comparable (since cognition is made by comparison, and speaking about architecture does not entail any derogations from this principle) and could have allowed, at the same time, a verification of the reasoning associated with concrete cases. Referring to architecture, the thought of Alexander (1969) according to whom “the result of the project is the form”, opened, in this sense, a possibility, but at the same time, made an attentive (and cautious) recognition within this “slippery” concept necessary. Having understood the distinction that exists between apparent form (the form perceived by the senses or image) and authentic interpretation of the form (the one instrumental to our discourse), we have attempted – bringing the Vitruvian triad up to date – to give a plausible definition of it, indicating it as the unit that appears to sensory perception, indissoluble from three components: functional, figurative and constructive: in this sense, form has thus been placed at a higher hierarchical level with respect to function (and no longer at the same level as it was considered for a long time), the configurative processes (which allow its prior investigation) and the techniques of realization (which take on the responsibility of fixing it materially in a material unicum). Besides, no architecture can “protect itself from form” (Arnheim) nor will it be absolved from it, as each one is obtained – from a matter – precisely by means of the intervention of form. Form, therefore, as a common denominator with which to compare the current multiformal architectonic production; the (specific) forms that appear to be differentiated according to the relations which, each time, link the three components (functional, figurative and constructive) and the importance that is attributed to one rather than another. Accepting that “the Information Age, like Industrial Age before it, is characterized not only by philosophy (metaphors) but also by how we design buildings but also how we manufacture and construct them” (Kolarev8), led me to acquire greater awareness on the strategies of conception of the form – both of the central instruments of the phase of conception provided by information technology, and by the (different) ways of using them – and, at the same time, to become an interpreter of the techniques of realization – deriving from knowledge of the materials and the possibility of transforming them – which today allow the construction of the form.

In the light of this awareness on the practices, and without any claim for completeness, three distinct polarities have been recognized – idem sentire or common-ground (Chipperfield) – the result of as many concepts of artefact (theories) which seem to characterize and outline at least a part of the present of our discipline; not because there was a desire to attribute them greater importance than to others, but because they are clearer to interpret and have a greater impact on the sensitivity (and the curiosity) of the writer. Specifically:

_metaphors. The tendency for the informal which, by exploiting the figurative, composite and control (pre-)figurative possibilities which can be carried out by means of the instruments provided by information technology, gives us hybrid technologies and objects with complex geometries; forms in direct analogy with the evolutionary sciences (morphogenetic metaphors) – bringing the Vitruvian triad up to date – deriving from knowledge of the materials and the possibility of transforming them – which to generate a rapid echo in the media as well – other studies respond with the defence of disciplinary humanism; a humanism that conceives architecture for what makes it stand out: the return in prose of the poetry and sense of the material, of supporting and being supported, of the earth and of the sky, of the spaces of reception and resonance, of their cavity, of their void, of light, of air, of ‘flavour’. This architecture is one in which we can perceive the centrality of research which, through the relationship, which is first of all corporeal, established with the planned space, intends to highlight the value of the fundamental relations and articulations which – still – represent the architectonic fact.
The research focuses on the analysis of a process of reconstruction of a territory after an earthquake: referring in particular to the case of L’Aquila after the seismic crisis of the 6th April 2009, the research faces specific themes finalized to the rebuilding of the entire complex physical reality damaged by the event. The cooperation to the design of the Plans for the reconstruction of four villages close to the city of L’Aquila and included in the area damaged by the earthquake has been a very precious occasion of study and research. This experience has permitted a direct confrontation with the structure and the target of a form of plan which has the specific purpose of the reconstruction of this territory: this kind of plan has had, for a first long time, the entire responsibility of managing the complex relationship between continuity and transformation that is the object of this work of research. The importance of this concrete experience consists in the obliged contact with specific themes of project that in this thesis are intended as themes of research, to study using the principal themes of project as themes of project that in this research are intended as themes of project and themes of research. The described structure of the research shows a direct confrontation with themes linked to different scales and research scopes. This characteristic is due to a precise choice: since the destructive power of a seismic event produces effects on the entire physical reality, to manage the reconstruction process it’s necessary the confrontation with a complex situation that cannot be faced by singular discipline or scale of work. A multiscalar and interdisciplinary approach constitutes the main characteristic of the entire work of research. Synthetically, it’s possible to say that the entire research is based on a fundamental assumption: every process of reconstruction, even if unique in relation to the historical period and the geographical context in which it happens, is strictly linked to the activities of project and research, the case of the post-seismic reconstruction of the territory of L’Aquila has been intended as a “point in the historical process” whose analysis is useful to recognize, for each theme faced, the definitive acquisitions (in a theoretical, technical and methodological meaning) and the still unsolved arguments, to intend as new targets of the scientific research: new goals to reach with new energies and new intuitions to spend reminding that, because of the same nature of our national territory, we’ll have surely to face new seismic events in the future, in spite of us!

**ARCHITECTURE, CITY AND TERRITORY BETWEEN CONTINUITY AND TRANSFORMATION: THE RECONSTRUCTION PROCESS AFTER THE EARTHQUAKE IN L’AQUILA**

Paola Annalidia Ianni - Supervisor: Prof. Cesare Macchi Cassia
FORMS OF CONTINUITY BETWEEN ARCHITECTURE AND LANDSCAPE. ERIK GUNNAR ASPLUND’S WOODLAND CREMATORIUM.

Marco Maggioni - Supervisor: Prof.ssa Orsina Simona Pierini

Poured into tracks of territory and landscape, the indistinct repetition of design models highlights the need to find alternatives to those outcomes derived from the undifferentiated and unsolved relations that the extensions of urban sprawl establish with territorial textures. Architecture is understood as a domain on the landscape scale, the portions of territory are reduced to amorphous and fragmented spatialities to cross or to be invaded: the landscape is not recognized as a complex entity governed by form and meaning, but it is reduced to a simple scenario to which overlap dynamics of transformation. The research focuses on the possible forms of continuity between architecture and landscape, with which overcoming the scenic view of the landscape and transforming it into an active element in the architectural design processes, and on the ways of an architectural design able to characterize its own spatiality through the dialogue with landscape structures. The fragmentary character of urban extensions in the territory is superseded by a structural reading of the landscape system, characterized by forms of continuity with which architecture cooperates to define unitary interventions intended to give shape and meaning to places. In this direction, a specific example of the Swedish architectural experience becomes the subject of investigation about design processes addressed by the close and indissoluble continuity that the relation between architecture and landscape forms. Outcome of a process which extends from 1915 to 1940, the Woodland Cemetery by Erik Gunnar Asplund and Sigurd Lewerentz represents a design episode in which architecture and landscape participate in the definition of a unitary intervention, which is characterised by a structured and organised form. Asplund and Lewerentz address their formal research along the interaction between the architectural and naturalistic dimensions, in a gradual process of transformation of the existing forest from which emerges a landscape defined by relational forms that architecture establishes with the landscape system. The landscape becomes built form: structures and puntual elements specify its structure, into an overall vocation of the unitary system that is recognizable in the natural landscape and in the ways in which the individual architectures interpret the essence of the whole system. A composite path in which elements belonging to the naturalistic vocabulary are modelled through the definition of urban-oriented spatialities. The tree-lined facades observe the development of the axes that cross the cemetery, reminiscent of the relation between urban fronts and city textures; the sequences of open spaces, related to the Swedish territorial synthesis represented by forest and clearing, are organized into an articulation of voids and masses that resembles the construction of urban spaces. The focal elements complete the landscape system as is the case of the primary elements in the architecture of the city. Landscape and architecture clarify each other, in a diversification of the hierarchies that address the relational possibilities between architectural artefact and naturalistic elements. The landscape is structured on the basis of architectural punctualities and in relation to the landscape emergencies, which, with their scale, become the main reference system within the cemetery. In these terms, the architecture of the landscape has the same structuring matrix of the architecture of city, in which the design of a comprehensive plan is followed by the definition of individual episodes that specify the forms of continuity between the focal elements of the composition. In this composite scenario, the architectures are not the only punctual references: the landscape, with its forms, claims its capacity of characterisation of the whole system and of the individual parts. No longer mere representation or perception, the landscape claims its morphological ontology, as a physical and aesthetic entity in which form and representation, structure and image can coexist. The landscape system addresses the architectural spatialities towards multiple directions, transformed into a conscious expression of the character of the landscape structure. The unified project of the landscape structure sets the contextual scenario for architecture and defines a first form of relation between the individual architectural episodes and the parts of the surrounding landscape.

With the completion of the Woodland Crematorium, designed by Asplund between 1935 and 1940, the image of the landscape is completed (E. G. Asplund, 1940). Constituted by the extensive clearing at the centre of which emerges the memory of the ancient practices of pagan burial, here represented by the Meditation Hill, the main episode of the cemetery becomes the symbolic and contextual reference to the crematorium: the possibilities of interaction between architecture and landscape become the main topic of investigation. The crematorium resumes and traces the relation that nature and artifice have been staging over the centuries beyond the city boundaries, characterising and supporting a specificity that still animates the Nordic art of building: delimitation and openness identify issues that constitute the design process of the Woodland Crematorium. The enclosure acquires a special significance in the depiction of a place in which seeking shelter and through which marking the boundary between the architectural dimension and landscape: the declination of the delimitation device and the different forms of permeability of the enclosure open the spaces of the crematorium to the continuity between clearing and architecture. Then, the border becomes permeable, with different degrees of crossing which determine its consistency. Already characteristic of the interior of Northern rural architecture, the compositional structure in sequences is investigated in the crematorium in two different directions, that is the organisation of the parts composing the architectural unity, and from the inside out, directing the crematorium spaces to the specific focalities of the landscape. The restitution in image of the Nordic art of buildings is expressed through the filter of the modern conception of space, representative synthesis of the forms of continuity between architecture and space. Through the relation between architecture and landscape, the parts that compose the crematorium exceed the original condition of hermetically enclosed spatialities, hosting environments at the same time confined and permeable: the compositional advancement, that opens the Swedish architecture to a new conception of space, elevates the experience of the Woodland Crematorium to a representative synthesis of new expressive possibilities with which to diversify the forms of continuity between architecture and landscape.

1. The Woodland Cemetery. The crematorium, on the left, and the clearing specify the structure of the focal point of the landscape.
GREEN HIDDEN LINES: Patterns recognition of greenways via 15 properties of Christopher Alexander (Case study: Tehran, Iran)

Maryam Moayery Nia - Supervisor: Prof. Marialessandra Secchi

By considering the fact that people are elements of this physical space and therefore their presence must not be disregarded, each person has a great role in city construction as not only a user of its spaces but also as a maker of it, so city space must be constructed regarding to his needs. This can be considered in two ways, first by trying to create a safe environment for urban everyday activities besides each other’s components. City context is a character and identity which must be kept alive all the time in order to create viability in them. Urban spaces for living continuously, because of a wide range of using these kinds of spaces, must answer different kinds of human needs. So they must have a capability of aggregating various compatible activities besides each other’s but the amount of variety must not create chaos and decrease legibility.

In city, different layers are working together to make it alive and active which define our city such as natural layer, cultural layer, social layer, economical layer, transportation layer. Today making balance between human and nature is one of the most important goals of sustainable urban development. Due to that, the idea of the integrated green lines in city which is called urban greenery is the most important application to achieve the balance between natural and artificial environment. Also another important factor is to integrate and connect these green networks which we will call them in this project as greenways, to other networks of the city. This will cause integration in city in higher scale and between other elements and parts in smaller scale.

This research will study and analyze the effects of greenways in cities, define them as linear centers and find patterns of desirability of these greenways. The base which I have considered is 15 properties of Christopher Alexander. Christopher Alexander in his latest work has proposed a four-volume book: “The Nature of Order”. He at the first volume of this work, The Phenomenon of Life, has brought up fifteen properties for lively and dynamic spaces. These structural features are also shown to form a basis for the wholeness-extending transactions that create life and coherence as unfold configurations.

After we have defined the patterns of desirability of greenways via 15 properties of Christopher Alexander, we want to represent these patterns and use them in Tehran, Iran which is the capital of Iran with great and special networks of rivers. The method that will be followed in this research would be analytical structuralism, which is to be supported by a combined strategy. A combined strategy is a comprehensive approach which uses different methods from different points of view in a research. The reason is that each research has its own strengths and weaknesses, but a combined method can use the positive points of different methods although can increase controlling the negative points of the other ones. In this research I will test the theory of Alexander in a pragmatic approach to greenways theory on the real case of Tehran. The study will evolve through four consecutive steps that follow each other by forming proceeding connections. The first three of these steps will be realized through theoretical interpretive approach, while the last one, which connects the theoretical evidence with the case study and experimental method, will be executed as an interpretive approach.

In first step we must define and consider our keywords such as urban space, urban open space and also greenery spaces in order to define the factors which we assume will effect on social and environmental qualities of the open spaces through greenery lines in cities. In second step we must try to imply Alexander Theory on Greenways and derive the patterns. In third step we choose the successful case studies around the world such as Tokyo, Seoul or other European countries which use greenery spaces (greenways) to connect urban open spaces in cities and test the existence and strength of predefined factors in these cases. In the last step, the second theoretical proposition will be reflexively combined, compared, examined and exemplified through the case study and experimental approach. This last step will employ interpretive approach, which will test the implications of the theoretical sections through an in-depth case study based on contextual and inferential evidences.

I have followed the study in 2 higher phases which are theory and practice. In first phase I analyzed the theoretical parts of the study which covered different networks of the city, choosing green network due to its high potentials, defining them as the linear centers of the city, considering the amount of desirability of the greenways via alexander’s 15 properties, defining the patterns, and at the end I have compared my findings through the existing successful greenways around the world. At the second phase I examined them for Tehran (Iran) by recognizing the context of city from different aspects such as cultural, natural, historical, and economical, besides studying the problems of rivers (green networks), defining the goals and scopes for strategies of design and finally I represented pragmatic solutions in high, intermediate and small scales.
In the last decade, sustainability has emerged as a keyword in policy and urban design, but despite the widespread adoption, there are still a few understandings about what the term means in practice. How does this feeling, so little defined in terms of space, so variably declinable according to the context, could become a key concept for the new projects in the city and in the landscape? It’s a real tool that allows to change the consciousness with which reading the dynamics of the consolidated city? Or is it a fallacy, an ideological tool made to obtain the collective consensus, used to give the idea to operating beyond any doubt, but in fact does not change practices and habits of urban policies? The consent and the spread that the word sustainable has gained in recent years have made the term more generic, applicable to any subject area, especially the built environment, beyond the rhetoric. The research would like to investigate whether, and in what terms, the issues on urban sustainability have gained a renewed urban planning practice.

The research field is focus in particular on the consolidated city of medium and small size. I think research has not yet investigated the question of the sustainability at this scale, when over 50% of the European population lives in medium-small cities (between 50,000 and 500,000 inhabitants). Assuming the existing city as a field of analysis and action means not deviate towards a policy easier, strictly limited to the production of new housing environmentally advanced, whereas, in a European context, the new buildings represent only 1% of the stakes for improving the built. It means do not shift responsibility for sustainable design to mere technological solutions, it means developing projects that go beyond the improvement of the energy balance and the environment. It means starting from the basic problems of improving the quality of construction and environmental impact of cities in terms of static, safety, health and energy saving. All this implies an huge job of restructuring the built and the space between it. But it is the only way that can give correct answers to the problems that this historical period presents, with its emerging anxieties about environmental, the decline of fragile social constructions, the changing economic geography, the general perception of insecurity.

On the background of the thesis is the design experience spent in L’Aquila, between 2011 and the spring of 2012, for the design of a plan of post-earthquake reconstruction. The usefulness of having participated in the drafting of a plan of reconstruction has allowed me to directly compare the studies on the theme of urban sustainability that I was leading in the PhD with the real project for an area and its urban centers. It was a valuable opportunity to investigate and understand the importance of an urban project for the small existing towns, that need to be made more consistent with the current requirements of energy saving, safety to natural disasters, environmental protection and historical heritage, technology services...

The first part of the study describes the theoretical background within which fits the job. I try to define the references to the term sustainability through the genesis and development of its meaning. I outline the relationship that this concept intertwined with the history and development of the city through the common system of urban planning, and how the stakes have been decided on this subject.

The second part describes the city imaginaries that are generated from different ways of understanding sustainability: green city, ecological city, smart city, resilient city... Each of these visions receives, develops, explores a different aspect of sustainability. It is interesting to find out how, starting from the same design requirement, it can develop different expressions of city, each one paradigm of ideologies and policies, as well as diversified architectural experiments. It is a synthetic way to provide different views on the same subject of research. After describing meaning, origin and evolution of the term (and its world), I try to highlight the aspects, the tools and the design examples that, in my opinion, can be useful materials for actually renew the planning practice.

The final part of the thesis describes the design example that has allowed me to investigate more closely the issues analyzed by the research and in a real experience of urban design: the post-earthquake Reconstruction Plan for four municipalities in the district of L’Aquila.

The relationship with the environment that surrounds us, since at least the seventies, has been subjected to a critical judgment which has profoundly influenced the practice of urban design. The common horizon of a fragile planet has necessitated a relationship with a broader discipline spectrum, it has led to renew the vocabulary of the survey and the project. New questions related to the maintenance of the city, its fuel supply, its energy, its transport, its pollution... have emerged. The material that comes from these issues is not yet maybe transformed into a new eloquence of built and city space. But they are already collecting elements available to respond to questions of meaning and therefore able to offer significant new forms of urban architecture. For this reason, in conclusion,
THE DESIGN OF THE CITY, BETWEEN NORM AND PROJECT

Anita Sachero - Supervisor: Laura Montedoro

The research grew according to a strategy of a compositional process, determining the division into phases of preparatory work articulated for points. The interweaving of cultural-historical survey and personal exploration on the theme of urban quality led me first to question me about the meaning of the term “City”, now very weak, with the intent to focus on the shape of the building/urban artefact in its natural texture and as an answer to the question and needs (quality spaces) by citizens. Urban discipline – in turn crossed by restlessness, revisions, and profound questions – if interpreted as a field of knowledge in which decodes and checks the complexity of the city, takes on characters of science, technology and art. Science, as he studied natural and human phenomena to principles that serve as a guide in accomplishments. Technique, as will satisfy the wide variety of life of citizens, making use of the achievements reached in the fields of applied science. Art, as in his design practice is also the intuition that must be always on the beauty and hospitality of places, so to offer those qualities of the built environment that give harmony to the scene of everyday life. The construction of a State-of-the-art knowledge, through the contribution of science, technology and art, is then served to organize the data acquired and stabilized in the various areas of research. The title of the thesis is, in a sense, referring, programmatic in the citation, the dialectic relationship, and sometimes confrontational, between norm and project, and the city plan, which – in the system of supply and demand of new settlement areas – can profitably compete in virtuoso manner in urban contexts.