DOCTORAL PROGRAM IN INTERIOR ARCHITECTURE AND DESIGN

The School of Architecture of the Politecnico di Milano, whose past lecturers include Giò Ponti, Franco Albini, Carlo De Carli and Vittoriano Viganò, has always stood out, at both national and international level, for its studies on living space, underpinned by a careful evaluation of interiors and by an awareness of the key role played by furniture within the complex system of relationships established with those who inhabit their spaces. The research focus is both on private and public space, with particular attention being paid, in recent times, to the organisation of space for social, cultural and communication purposes: museums, exhibitions, theatres etc. The Milan School of Architecture draws on the city’s highly productive and specialised background and on the strong commercial and entrepreneurial spirit that lies at the heart of several important events, first and foremost the Salone Internazionale del Mobile which, every year, brings Milan into the international spotlight, than La Triennale di Milano, one of the most important Italian institution devoted to promote design culture. The Doctorate in Interior Architecture and Design was established twenty years ago with the aim of providing students with a culturally qualified and critically based education. Throughout its activity, it has trained more than one hundred researchers and around half of them are currently teaching in national and international universities. On the basis of all the above considerations the doctoral curriculum has been devised as follows.

Aims of the course
- Improving the ability to plan, manage and coordinate research programs; collecting and elaborating historical documentary materials, as well as producing documents on interior design (architecture, furnishing, decoration, stage-designing, exhibit design fitting, museography, furniture production);
- Improving the knowledge of how to plan, develop, technically implement, troubleshoot and manage complex interior design projects.

Topics and research issues faced during the course
In addition to the development of a specific individual curriculum, doctoral candidates will deal with several subject-related issues concerning Interior Architecture and Design, splitting up their studies in analytic and planning suitable scales and in different areas:
- Theory and history: basic principles of architecture and interior design; evolution of content, methodologies and planning concepts in different ages and cultural realities, with a particularly thorough examination of actual architectural and industrial design issues;
- Housing models: history, new trends and future orders of housing (private and common dwellings; public, company and autonomous working precincts; cultural, social, health, sports and leisure services and facilities, open urban area services and structures) in relation to social, economic and cultural developments, technological and informational innovation and formal and aesthetic issues;
- Architectural space: structure, composition and quality of urban and building interior space, its connection with the context and its organization; nature and features of sheath and space fitting, and their connections;
- Environment: features, methods and tools for planning, simulation and monitoring of micro-climate and environmental comfort; study of aerodynamic, material, ergonomic, energy and lighting aspects;
- Furnishing elements: typology, morphology, technology;
- Spatial, material, chromatic, tactile and ergonomic value of furnishings and objects; analysis of their connections and relationships with space and surfaces.

Qualifying elements of the curriculum
- Customised teaching methods aimed at developing each student’s specific aptitudes in different areas of design, theoretical and critical historical research;
- Analysis of complex paradigms and development of split up methodologies of intervention with interdisciplinary integrations for proposing, design, theoretical and critical historical research purposes;
- Creation of virtual and actual models and application of computerized and classic simulation tools for the control of figurative, material, metric, chromatic, energy and light properties.

Study methods
- Lectures, training sessions, guided tours and seminar cycles given by teachers of the College and by visiting Professors;
- Workshop research in fields such as critical history and design, carried out through teaching, cooperation activities and horizontal and vertical exchange between students of different cycles;
- Seminar activities and individual stages/ internships particularly important for enhancing the students’ curriculum;
- Individual research aided by tutors with the contribution of the entire teaching staff.

Competencies related to professional profiles
- Interior designer, performing key duties within leading productive and professional facilities and committees, dealing with housing issues (also for special uses), offices, cultural institutions (museums, libraries, universities, schools, cultural centres), public and private services, commercial networks, as well as with hospitality, entertainment and leisure facilities;
- Interiors consultant in the above-mentioned fields and in high contents of innovation, with technological, ergonomic, energy saving, lighting, engineering and co-ordinate image skills Researcher and teacher in interior design in conformity with the new requirements of high schools and universities, and in particular with the new degree levels in architecture and industrial design;
- Designer and scientific responsible for interventions on historical building heritage;
- Project Manager in research and development centres and agencies, or in public institutions working in furnishing product area, specialised in setting up and managing international and local cooperation programs of social and economical relevance, involving the co-ordination of companies and committees in the implementation of research projects, experimentation and research applied to different levels, including the cultural aspects of increasing and spreading knowledge in production as well as in social planning.
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MINIMUM LIVING SPACE
The case of one room apartment for single occupant in 21st century

Mariam Alsaigh

At the turn of 21st century, events like globalization, increasing migration and the growing urban population are major factors that form recent urban societies. The family that is composed of married couples with children, does not seem to match current social attitudes, especially in developed countries where lifestyle has transformed to more individualistic and household space is allocated specifically to a person living alone. From the other side, large cities where a high ratio of single households is found (as shown in the table below) are undergoing an increase in cost of living, land and construction. So, it, negatively influenced the availability of housing lands. In accordance to this, an urban dwelling today has reconceived as a minimal amount of space that adapts and reconfigures itself to coexist within the mentioned realities.

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<tr>
<th>PLACE</th>
<th>ONE PERSON HOUSEHOLD RATIO</th>
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<tr>
<td>Berlin</td>
<td>50%</td>
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<tr>
<td>London</td>
<td>34%</td>
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<tr>
<td>New York</td>
<td>31.9%</td>
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<tr>
<td>Paris</td>
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<tr>
<td>Tokyo</td>
<td>27.9%</td>
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<tr>
<td>Barcelona</td>
<td>26%</td>
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<tr>
<td>Milan</td>
<td>17%</td>
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The growing trend of “living alone”, especially among working-age group is changing housing requirements and utilization pattern of space in term of size and type. It becoming one of the recent pressing urban problems that will continue in near future. Therefore, it requires a serious attention at the level of planning, architecture and interior design. From this fact emerges the importance of this research, which is: engaging the role of interior studies to address big questions that are posed by big cities and their changing society. The aim of this thesis, then, is not to study what is the minimum space a person need to perform his daily activities, which by the production of the term ‘existenceminimum’, new measurement and standards in the design of a home were established. But, this research aims to fulfil the aspiration of single household in limited space. In other word, it aims to investigating design solution to optimize the quality and performance of minimum space without the need to raise the total area and the size of a dwelling (providing maximum life in minimum area).

So, in order to provide an informative platform about the subject, the research starts (chapter one) with reviewing the background of the concept ‘living in minimum space’ tracing its origins and factors that urged the need for a new dwelling type known as minimum dwelling (urban, and socio-economic factors). While the second chapter analyzes the concept of minimization in architectural space dealing with CIAM’s radical contribution in standardizing the dwelling space. The analysis extends to cover the idea of minimum living space known as ‘one room apartment’ for one person household (young working-age group), their basic requirements and factors that influence the design of the unit. On the light of minimum standards that are established by relevant literatures, chapter three studies and analyzes the design of a one room apartment through two axes: The first axis is concerning space functionality which involves providing all possible alternatives in distributing basic activities (cooking, sleeping and hygiene), possible alternatives of components layout and the role of space/furniture in space saving. This analysis aims to point out positive advantages associated with each solution. The second axis is concerning the form of space. It deals with methods and techniques that play a role in providing sense of tranquility, openness and spaciousness in restricted space. The second analysis aims to come out with ideas that contribute to eliminate sensations of clutter and crowding. Chapter four initiates with a review of a selection of one room apartments designed at the early part of twentieth century. While the second part presents seventeenth one room apartment as case studies selected from high density regions and designed in the last two decades. The case studies will be analyzed in details according to the two axes presented in chapter three (space functionality and form of space). This chapter ends with a comparative analysis including all case studies to be evaluated according to optimization criteria established in chapter two. Chapter five briefly discusses conclusions that this research has come out with, aiming to open a scope for further interdisciplinary researches in this concern.

This thesis concludes that the research aims to find possible space, which was explored during first half of twentieth century by CIAM “to what extent a dwelling space can be made small?”, has not been observed nowadays. It delineates that the minimum efficient area for the so called ‘one room apartment’ of one person household is 29.3m², in accordance to a number legislative authorities selected. But, this is not the absolute minimum such as the one established by Le Corbusier, ‘biological unit’. It is a self-contained unit which is not only consider spatial dimensions but also ensure a sufficient levels of amenity. The study delineates two main issues considered as optimization of a one room apartment for such target group: the possibility to offer an extra free area for multuse and the possibility to offer additional space ‘volume’ for storing (closet, kitchen and general goods storage). The study, then, concludes that the real problem of particularly one room apartment is a problem of cubic space rather than merely metric area, since the challenge part is how to provide a sufficient amount of storing volume without enlarging or affecting total floor area. Moreover, the possibility to increase the perceived size of a space is also considered as optimization in this research.

The research concludes that there is no absolute solution that may considered optimization in its individual sense. While it is a complementary relation, that between the form of space, components layout and performance of furniture. In general, the research also concludes that for a repetitive one room apartment of 29 m², functional distribution of basic activities (cooking, sleeping and hygiene) is significantly affected by two main factors: frontage width in relation to its depth and the allocation of services (bathroom and kitchen unit). The analysis proved by evidence that long rectangular shape has several advantages and more convenient that the squash shape in term of zoning organization, furniture arrangements, lighting and ventilation. While in term of visual aspects of limited space perception, it the same evidence that the perceived size of space is also driven by complexity in space performance. So, to achieve a sense of more open space ‘spaciousness’. There are different ways, ideas and methods to achieve such as by providing: a sense of continuity letting eyes (even body if possible) to travel freely beyond the immediate space, a sense of horizontality that might be achieved by concentrating the attention towards low horizontal surfaces in contrast to vertical ones.

Although how an individual adopts his own space is differ from one culture to another, this research concludes that today, the design of dwelling space, especially for young adult single occupant, cultural values have less influence than social ones. Moreover, architects today are adopting solutions to resolving the question of minimum space that are originally rooted from the past but without the intention to reviving a certain style or certain tradition. So, it could be said that today’s ideas of space saving haven’t brought a lot in term of innovation. Moreover, new domestic spaces under slogan (smart home, intelligent home, etc) are not genuine innovation regarding optimization of interior design, since they don’t resolve the real problem of cubic space.

The research concludes that new technologies has contributed in an indirect way in space saving. All in one products and USB memory devices with an extra ordinary capacity to include documents and boos, has allowed getting rid of bulky libraries that may occupy a massive size of space. It become clear that by using creative design methods, it is possible to get a variety of spatial optimization for the so called ‘one room apartment’. The carried case studies have also emphasize the hypothesis of this research, which declares that it is possible to apply criteria of a dwelling that exceeds 29m² on 29m² dwelling or even smaller. This fact opens the scope to investigate another question that considered a continual to the mentioned one, which is: since it is possible to live bigger in minimum space, how it is possible to go less than the minimum standards established by recent design codes that are considered in this research?
MUSEUMS & EXHIBITIONS

Spaces and structures for temporary exhibition in museum architecture

Cristina Bergo

For some years architectural projects for museums have been experimental. This is due to changes in contemporary museums’ role and the way they are used. Museum is an increasingly elaborate machine: alongside creations that are manifestos of new ways of saying things, there are still buildings that continue the tradition of the classical exhibit. Since the second half of the 1950s developments in international art have undergone a radical shift towards a final breach of the traditional frontiers of painting and sculpture. Contemporary art produce works that cannot always be happily accommodated in traditional galleries. The way works are experienced also diverges markedly from the past. Museums must develop in order to accommodate new and different collections. The size of their spaces has to be changed in order to expand beyond the set areas created in the past to suit ‘predictable’ exhibits. At the same time the appetites of “globalised” culture, together with the museums’ need to rotate their holdings and to attract the paying public, are factors that stimulate them to consider new ways of showing their collections. Recent trends require galleries to reserve spaces for an increasing number of temporary exhibitions alongside their permanent collections. Museums have become a typical element of contemporary culture in line with the growth of “cultural tourism”, which generates notable economic benefits and deserves the attention of the public sector and private foundations. Museums will have to adopt strategies that accordingly take into account that their public is globalised and interested as much in their collections as in the events and exhibitions that the museum can offer, if not in the building itself. In the last hundred years museums have constantly renewed both their structure and their organisation. The idea of a permanent and unchanging display has been replaced by the concept of temporariness. Exhibitions are vehicles of culture and learning, but also money-makers. They bring values, knowledge and ideologies to the public at large. They take part in the process of the democratisation of culture which is characteristic of our times. Museums set up in the last hundred years have built their identity on the concept of temporariness when organising and displaying their holdings. Observing the various kinds of museum shows that the policy is to pursue renewal by means of the temporary exhibition, as a way of organising content, in the form of themed shows. The most familiar examples are the Museum of Modern Art and the Guggenheim in New York, the Neue Nationalgalerie in Berlin and the Schaulager in Basle. The history of these museums is inter alia the history of the exhibitions that they have held, facilitated by the mobility of contemporary works of art and by organisational strategy. There are more and more museums dedicated to subjects other than art in which the object on display is only partly or not at all related to a physical collection. A display design project must necessarily lead to new forms and techniques of communication. Museum design is moving into an area that may be defined as interpretative design. Museums are today leaving behind the exclusive role of being a ‘place of conservation’ and becoming a complex machine in which communication takes on fundamental importance. For this reason, design now includes instrumentation and technologies that are radically different from those traditionally used in the past. Narrative spaces avoid the linearity of encyclopaedic museum displays in favour of a structure in which the priorities and the contextualisation of the materials create changing rhythms and levels of intensity. This means developing an episodic rather than chronological or sequential structure. Once again the museum’s shape has to yield and adapt its spaces to new display needs. Creating a narrative space means interpreting relations between objects or designing supporting expository elements to create a background narrative setting for the objects. Newly built galleries exhibit two opposing tendencies: on the one hand are buildings featuring an innovative use of space, often accommodating work specifically for the space they are placed in; on the other hand there are galleries that reclaim the classical form and organisation by distributing objects around a central space. These two polarities correspond to two internal exhibition spaces: the white cube and the black box; the former is characterised as flexible, undifferentiated, neutral and adaptable; the black box, by contrast, is a dark place, rigid, delimited and introvert. As well as new buildings, current trends have had success in reclaiming museums within disused industrial structures. The structure of a gallery celebrates the work of art: the display may be of a school, an artist or just a single work. There is no need for a narrative space; on the contrary, experience is the central fact of contemporary art galleries. This research starts from the observation of today’s critical issue in gallery design: the increasing number of temporary exhibitions. The Museum & Exhibitions theme also prompts a number of reflections on the relationships that emerge on each occasion between the many roles involved. The first section of this study is a consideration of the main problems entailed by the definition of the theme. Taking as our starting-point the distance between contemporary galleries and traditional ones, it is noted that traditional galleries were characterised by the fixity and immutability of the collection on display and therefore did not plan to organise special events in the gallery or spaces for temporary exhibitions. This is no longer true today. Temporary exhibition is now almost for reasons reflecting the full complexity of non-architectural dynamics – have taken a leading role in our museums. In this regard, this study aims to see how this change has come about and what new directions seem possible. Today exhibiting in a museum requires an awareness of how it has changed over time, both in its spaces and in the way it is managed. The visitor’s role, the object on display, the communication models used and the exhibition space are all connected with the concept of temporariness. The second section of this study deals with the question of different and evolving types of gallery, architectural design and display space. One hundred museums were examined, ranging from traditional museums built at the end of the 19th century to contemporary buildings. Each museum was considered from the point of view both of the form of the spaces it uses for temporary exhibitions and the scale of its interior. This repertory was noted in descriptive records containing the observations made. The aim is to identify whether and when there are or have been temporary exhibition spaces, and where they are or have been located within the building’s overall allocation of exhibition and non-exhibition space. In terms of scale, the aim is to capture the intrinsic elements of the discipline: capacity (spaciousness), lighting and display options available. Then the frame of reference for this issue is clarified. The function and architecture of a museum is determined by closer examination of recent art gallery buildings and the study of narrative displays in exhibitions and museums. The choices made in different countries vary, since their approach and final result are so different; this makes it possible to present an exhaustive overall picture. Finally, the study is completed with an examination of the initiatives that major galleries such as the Guggenheim and the Museum of Modern Art in New York, the Neue Nationalgalerie in Berlin and the Schaulager in Basle undertake to re-launch their role worldwide. The frequent temporary exhibitions put on by these galleries and the manner in which the museum ‘reacts’ to the various events, sum up all the variables that the study has brought out.
THE NOCTURNAL APPEARANCE OF URBAN PUBLIC SPACES

New paradigms for the project of light in the open-interiors of contemporary city

Sara Calvetti

The nocturnal dimension of cities is an important developing field that could determine the quality of contemporary urban open spaces, and, in this context, the project of light plays a key role. Urban lighting is nowadays object of a general increasing interest as it is connected to very topical research and development themes as energy saving, lighting pollution and the technological development of new light sources; governments, urban planners, designers, architects, engineers, sources and devices producers are all involved. This research analyzes this subject from the point of view of the Interior Architecture culture that promotes an approach based on observing man, his actions and needs, to create comfortable space for the users. In the context of a requalification of urban spaces as outdoor interiors of our everyday life, which are the contemporary lighting design paradigms for psychophysical comfort of people by night? The project of light in a single urban space has to create a liveable environment. Vision studies, psychology and physiology are the most influent research fields, but they go into more depth on building interiors, finding projecting solutions for comfortable working, residential and health spaces. Urban open spaces don’t encounter enough interest about human comfort from researchers, in spite of the increasing request of a better quality of public space. On the other hand, there are notable contemporary lighting projects on urban spaces, in which we could find experimentation on new technologies and new lighting strategies for people that, after about a century, finally go over functional lighting or traffic and commercial signages: these projects are new frontiers of architectural language in the contemporary cities. This thesis offers an overview on several urban projects, witnessing the state-of-the-art of the use of artificial light in contemporary cities, and proposing new possible approaches on the research and project development. A number of suggestions on urban lighting design paradigms was supported by project and literature references, and presented inside an analysis path which starts from the development of nocturnal spaces environment, proceeds with the analysis of different conception aspects and material elements merging into a lighting layout, and is completed by elaborations on a number of case studies. This work confirms the presence of a number of evident tendencies in the conceiving of contemporary urban spaces. Among them, the great influence of exhibition and ephemeral design on urban projects, the increasing contribution of media and digital realities on the conformation of everyday life space, and a stronger interest about new human factors and responsive environments: actually the interior design “vocabulary” seems to be the one that leads a new quality of urban spaces. The first part of the thesis focuses on the contemporary state-of-the art of the nocturnal project of space, describing both sociological and architectural development of the image of the city by night, with an overview on law references.

The second part is about human perception of a nocturnal space and human behaviour influenced by urban design and dynamics. Therefore, in the third part is possible to focus on lighting project, underlining the links between different technical aspects of the project and the environmental atmosphere perceived by people. In order to understand the connection between all aspects merging in to a nocturnal environment, the last part elaborates on case studies with an overview on the complete lighting layout definition to arrive to attention on details. This work shows how lighting layout and architectural project could merge in a unique coherent language, where shadows, light sources, enlighten objects and urban design create a meaningful environment. The case-studies are characterized by a particular use of light to create a comfortable and/or emotional atmosphere for people, beyond functional purpose and not only dedicated to emphasize monuments. The analysis on cases-studies represents an example of a research path that needs to be continued to a wider comprehension of the potentialities of the use of artificial light in the project of urban spaces. Thus, this thesis gives a new direction to the research on connections between urban design, lighting project and human factors in the public open spaces, to find a greater life quality in our city at night.
HAUTE CUISINE
Interior design in the space of haute cuisine

Barbara Di Prete

Scientific classification and methodology
My thesis analyzes a new emerging design scenario which involves the world of haute cuisine and the framework of interior design. New connections between the two project areas are now being determined. New roles and new matches are being set and new spatial setbacks and professional roles are in order. Considering in the first place the definition of certain representative key characters of contemporary gourmet dining - through the analysis of historical, cultural, social, economic and technical aspects - this thesis mainly focuses on the theoretical framework and design reference on which the most recent architectural researches are based upon.

On the basis of these observations, we have identified the most representative case studies, used from time to time, to confirm and illustrate some trends: for example the spread of the so called “show cooking” or the emergence of both scenic and staging components in the dining room project; from the rationalization of space to the declination of a unique concept in order to characterize each scale of the project.

This thesis concludes with a double image, given the deep involvement of the designer in their job. The lack of literature, due to an extremely original and current topic, brings up the need to conduct on field research, by interviewing professionals, visiting restaurants and attending haute cuisine conventions.

A broad search is associated to a more aimed search that is carried on among blogs, websites and on-line reviews; all is done in consideration of restaurants mentioned by Italian and international gourmet guides.

Abstract
Our research is characterized by a double laying: it offers social reading as well as lifestyle reading. Moreover it provides a textbook-like approach.

The first part of this thesis deals with topics related to food (and its pervasiveness in contemporary times) as well as cultural value and proofs of a change in social and behavioural fields, which have characterized historical periods. Before analyzing the world of haute cuisine, a chapter must be dedicated to the historical background of the theme; it unfolds in the tale of many gourmet philosophies which simultaneously define the life of a gourmet restaurant and to which different allusive, lighting, materials and furniture choices correspond. In particular the case studies show how nowadays the restaurants focus on two pairs of opposing terms that identify complementary non antithetical design approaches: reception and staging, communication and comfort seem to be the guidelines establishing the features of the dining room. Vice versa in the kitchen the chefs express the need of having an efficient setting and a rational organization as well as the dramatization of their gestures. This thesis is presented as a critical reading of gourmet restaurants, but it also takes on technical guidelines concerning the sector growth, spatial organization (and hybridization) between the dining room and the kitchen, the reference standard and established agreements to which also designers must stick with in order to deal with gourmet restaurants.

Our analysis is completed by the observations related to the tools used in the kitchen, the kitchen layout (broken down by functional areas) and the coexistence of different experiential dimensions that simultaneously define the life of a gourmet restaurant and to which different allusive, lighting, materials and furniture choices correspond. This thesis certainly focuses on haute cuisine but the essence of the research, the element that allowed us to outline relevant conclusions (which are useful for the progress of our discipline) is the role assumed by the interior design in the definition “gourmet restaurant”.

The design component, as a matter of fact, expresses to at least 3 different interacting levels:
- exhibition space achieved through special values to be revealed to the diners;
- the laying of the table (la mise en place) which highlights the research of the gourmet chef;
- the product design for kitchen tools and appliances as well as dishes and cutlery, created by designers and chefs together;
- last but not least interior design, concerning both distribution and expressive aspects, that must welcome and impress the customer.

Each one of these project levels (separately analysed) hybridize and, especially in some case studies, join to form one concept.

This thesis has a double target: on one hand I tried to restore with completeness a world that so far has never been explained if not exclusively from a gastronomic and culinary point of view. For the first time I’ve shown the special role of interior design inside a broader commercial segment; through an international overview the research has shown where our discipline is situated in relation to an evolving scenario, such as the high-end restaurant that is redefining its codes and borders. On the other hand I’m trying to provide a useful tool for designers, who wish to embrace this fascinating but complex world, by giving them information regarding rules, traditions, expectations and perceptions, expressed and unexpressed needs, generally shared by many.

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The open space of the city is a complex and fascinating system whose research necessarily requires taking a position. Today it is, in fact, extremely difficult to formulate general statements regarding the urban space without falling into the trap of the widely spread declarations of a “state of crisis” and “lack of sense” which are too often used as the only element of qualitative analysis of open air places.

The choice of tackling the subject of the open space is, in this dissertation, aimed at suggesting a new way of looking at our cities while proposing a positive approach in order to be able to perceive changes and interpret their “symptoms” to create new urban internalness. If in fact the Interior Architecture, by its definition, seems to focus only on the enclosed space within the buildings, in this dissertation we want to clarify the importance and urgency of applying our discipline at all spaces we live, including the open urban places, as a unique and necessary instrument to bring the city back and restore a link to the open space without falling into the trap of the widely spread declarations of a “state of crisis” and “lack of sense” which are too often used as the only element of qualitative analysis of open air places.

The threshold space is a suggestion which, first only as an idea, but then also noted concretely on the field, enabled us to circumscribe an aspect of the open urban space which is very limited and well recognizable, in which Interior Design assumes, or should assume, a fundamental role. Half way between public and private, between open and closed, cold and warm, light and dark, the space moulds itself to host the passage from one place to another, to mediate different conditions, to connect measures and dimensions whose gap increases every day: here more than anywhere else it becomes necessary to focus our attention on trying to comprehend the most significant meaning and shape in order to guarantee the identity of the threshold space. It is not a “marginal” space, but on the contrary it represents the very centre and strategic hub of our living.

It is the principle of the open space, it represents the start to the city for who, exiting a building, ventures among the urban streets. By positioning itself at the centre of the building/urban space, it materializes the series of events that lead to the meeting. Spaces, areas, functions, materials, geometries, weather conditions, but most of all people of different origins collide in this space which, for this reason, proves to be extremely important. If, in fact, it is true that being contemporary is taking us towards horizons with dissolving boundaries which leave room for never ending space, it is also true that the meeting between people becomes more difficult and unusual. And it is not so strange to think that confrontation and collision manifest themselves right along the boundaries of space, where the differences emerge in all of their extraordinary essence and identity. The disappearance of boundaries becomes the main cause of a lack of meeting between people, the immediate consequence of which is the abandonment and deterioration of the urban space, where lack of control and the impossibility of identifying the space – due to a lack of boundaries – become the reason for discomfort and confusion.

However, the boundaries which seem to have disappeared, thanks to the incredible possibilities given to us by the new communication tools which break all the space limits and make us move through what seems to be endless space, still exist in the physical places in which we live and in which we carry out daily gestures. The boundary between building/ city exists in its concreteness of solid wall which separates the inside from the outside and cannot disappear (at least not in our age), but can change. And this is just the point: boundaries are being transformed into much more complex spatial entities; they dematerialize in the continuous search for copenetration between the different areas that separate; they widen to include an interval able to give way to new events. This phenomenon is developing and involves all boundary areas: the boundaries between states, regions, countries, territories; those between disciplines, knowledge, science; the boundaries between functions which look more and more alike and finally the boundaries between spaces.

The research looks at the precise moment of transition between inside and outside, in which the space of boundary originates near an entrance, creating the threshold and giving rise to a multitude of events. The structure of the dissertation includes a part of historic-disciplinary analysis aimed at researching some open spaces of the past and generating matrices of the threshold space (portico, entrance-hall and loggia). Some extra-disciplinary contributions, such as sociological and symbolic elements, have been fundamental in completing the image and identity of this subject. The threshold space has been thoroughly observed through its spatial configuration and all the possible ways of configuration, is materialized in the drafting of the dissertation and reaches its complete identity in the final part of the research. Here the threshold space will be an intersection of ambiguity and intentionality elements and it appears as a place of possibilities for the contemporary city.
IN-BETWEEN SPACES

Interior Architecture in the Requalification of Uncertain Urban Spaces

Elena Montanari

The complex system of the open spaces of the city is composed not only by programmed and defined environments, but also by indeterminate and unsolved sites, intermediate in their position, form and meaning. The research investigates urban places that still are not qualified with a stable internality, because they lie in a state of uncertainty among nature and architecture, time and space, legality and illegality, sense and nonsense, referring to them as in-between spaces, in order to emphasize the state of suspension that characterizes them.

These “awaiting” places are vacant lots, derelict fragments of land, transition zones set within defined areas, uncertain sites generated as accidental consequences of urban plans or that lost their original identity after the disappearance of productive or infrastructural activities; they are diffused both in the dense city and in the suburbs, mostly abandoned and uninhabited, eventually occupied for abusive practices (informal parking or dumps), destined to host illicit acts.

In-between spaces are a recurrent and significant presence in the contemporary urban landscape, to which they participate as a problem (because they constitute a fracture and a pause in the social and physical town fabric) as well as a potentiality (since they are a fundamental reserve of space, endowed with a great transformation potential, representing the rare possibility of expansion of public realm; moreover, being located among separate fragments or on the threshold position between city and country, they can play a key role in the regeneration of urban form).

The requalification of uncertain spaces thus proves to be a crucial issue in the sustainable development of the city, on one hand because it can contribute to reinforce the coherence and the continuity of urban system, on the other because it can strengthen the diffused quality of the environment deputed to collective living, by providing the community with the places where to express the needs and the desires that cannot be developed elsewhere.

The transformation process of in-between spaces, operating on the general state of formal and physical suspension, often constellates an act of re-foundation of a site, since it works on the totality of aspects dealing with the configuration and equipment of a place: borders, furniture, thresholds, material connotations, lighting conditions, environmental quality. In this sense, the role of Interior Architecture reveals as fundamental. Thus, being a crucial theme in the cultural debate about contemporary city, the research investigates the way in which the disciplinary tools participate to the conversion of an inhospitable, uncertain, abandoned site into an inhabitable place.

The definition of the work started with the plotting of the presence of in-between spaces within urban fabric, that pointed out their diffused quantity and their articulation in a complex system of places, differentiated for location and relationship with the context, origin and evolutive dynamics, form and dimension, physical and functional connotations, specific characters of suspension. The heterogeneity of various types of uncertain environments contained in the city induced to distinguish them into seven different categories, leading to the definition of an in-between spaces atlas that guided the reading of the diverse spatial phenomena forming this system. Urban leftover spaces are interstices and vacant lots left unplanned in the dense town fabric, accidental outcomes of unsolved interventions or of the collapse and abandonment of unstable structures. Suburban leftover spaces are the residual areas generated from the disordered expansion of the suburbs, often leaving pieces of land in wait of a future qualification. Shattered spaces are previously built lots that were destroyed by natural (earthquakes and floods) or artificial (wars and terrorist attack) destructive events, thus turned into empty places. Dismissed spaces are the vacant lots derived from the abandonment of productive or infrastructural activities.

Edge spaces are the marginal sites that accompany the linear development of water (rivers, lakes and sea) or land (ancient walls or aqueducts) borders. Dual use spaces are normally defined places, that in certain periods of the day, the week or the year temporarily turn into unstable and uncertain sites, as the wide parking areas serving administrative centres or malls. Infra-mobility spaces are those neglected places of lands generated in the middle, on the edge or under the elements that compose the infrastructural system.

The structure of the in-between spaces atlas guides the individual analysis of each of the seven categories, determining their specific problems, characters and relative causes that illustrate and explain the state of uncertainty connoting them, subsequently defying the ways in which the requalification and the integration in the urban fabric are developed. The investigation of the strategies, the actions and the instruments through which Interior Architecture design can turn a derelict area into an inhabitable place derived from the analysis of about 100 case studies, paradigmatic in the practices of transformation. These projects, each of which is examined in a thematic approach to the design of public space, that in certain periods of the day, the week or the year temporarily turn into unstable and uncertain sites, as the wide parking areas serving administrative centres or malls. Infra-mobility spaces are those neglected places of lands generated in the middle, on the edge or under the elements that compose the infrastructural system.

The assimilation of heterogeneity through the integration of ambiguity, hybridization and contamination in the design of urban sites can generate a new type of in-between spaces, in which the state of suspension doesn’t descent from an absence (since they are autonomous and complete, defined in their form, function and meaning) but from the increment of the capacity of the built form and the place it produces as an open and renewed opportunities of individual interpretation and appropriation.

The critical contribution of the research consists in the definition of an analytic apparatus that, for the first time, inserts all the different spaces of uncertainty generated from the town fabric evolution into an analytic comparative system, developing a general reading of the phenomenon; thus on the exploration of the problem and of its planned solution, through an inductive process based on the disciplinary investigation of a significant quantity of case studies, documented with the bibliographical work and, where possible, the direct survey; in the editing of programmatic cultural and operative instructions, in order to guide the requalification of uncertain environments according to the guidelines and realization methods; in the emphasis of the disciplinary contribution to the project on urban environments and in the interpretation of new component approaches that, in the spatial, physical, figurative, communicative and anthropological complexity of the places deputed to collective living, cooperates to the search of the strategies through which Interior Architecture can interact with contemporary city.