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Urban Catalysis - A theoretical framework for the urban development of public space in Albania

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A theoretical framework for the urban development of public space in Albania

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ABSTRACT

The city and the concept of public space has been evolved during the last centuries. Most of the successful public spaces of today are made, envisioned, designed, and realized not as sole entities, but as integrative components of an organism. The notion of what makes a successful public space is a topic worth investigating in the urban framework. What can this describe the present, even about future urban space? As architects we need to go beyond movement to think about what growth, expansion, and contraction can influence the urban tissue.

Due to its complexity, the evolution of cities is something that is difficult to predict and planning new developments for cities is therefore a difficult task. This complexity can be identified on two levels: on a micro level, it emerges from the multiple relations between the many components and actors in cities, whereas on a macro level it stems from the geographical, social and economic relations between cities. However, many of these relations can be measured.
The design of plans for cities can only be improved if designers are able to address the catalytic role of each intervention in relation to the context on which they will be implemented.

According to Attoe and Logan, the notion of Urban Catalyst is an attempt to reopen the debate on strategies and tools to activate and rethink urban space and city development. This research would attempt to examine the significance of the urban catalyst as a means of urban revitalization. Bohannon, (Bohannon, 2004) states that the urban catalyst theory can be linked to place through the study of contextual factors in urban design.

These factors include morphological, social, functional, perceptual, visual, and temporal points of view. or the urban catalyst to respond to its setting, it also must possess a strong sense of place and authenticity. The intent of this research is to serve as a prototype for demonstrating and testing the position and design process in the case of catalytic interventions. The methodology that will be applied will undertake an analytical process in order to understand future strategies for development and regeneration of urban public spaces in cities.

As such, architects, urban designers and planners will find the main contributions of this thesis in the discussion of design methods and conceptual tools to support an efficient, flexible, interactive, and responsive urban design process.

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CHAPTER 1_

INTRODUCTION

This section provides an overview of the research topic addressed in this thesis. It starts with an introduction to the reasons for designing for the complexity of cities, presenting the idea of developing new tools and methods for urban design process as a response to the problems of the urban development in contemporary cities. It then explains the context of the research, namely its role as part of a larger research and provides an overview of the tools and methods proposed in the thesis to address the problem. The methodology of urban catalysis will be the topic of investigation in this research, understanding how it can become an added value in the existing process of urban design.

1.1. CITY, CRISIS, URBAN DESIGN AND PLANNING

The city and the concept of public spaces are considerably shifting during the last centuries.

The need for flexible and adaptable public spaces is more and more emergent due to the rising number of activities that occur in public spaces to make them engaging social life, sustainable economically and attractive aesthetically?

Which elements of urban design can increase their potential in the present and future architecture and design theories for urban public spaces?

Is it important to differentiate the notions of catalytic intervention and the redevelopment strategies because of the holistic approach to catalytic redevelopment? Since the 1970s, post-industrial change in Europe has generated very different social, economic and spatial conditions in urban centers – a polarized map where certain cities enjoyed unprecedented boom and regeneration while others failed to absorb vast. Today, we look back on almost four decades of radical urban transformation. Urban catalysis is an attempt to reopen the debate on strategies and tools for planning. The city has become an important new starting point in the quest for architecture. At a time of extreme urbanization, unharnessed urban growth has led many architects to rethink the way that buildings are designed for the global metropolis. It is no longer practical or desirable to impose the standardized, idealized planning of the 20th. Rather than viewing the city as a fixed entity, architects are now seeking direct inspiration from the existing urban environment and learning from its ever-changing state that resists predetermination. The city, in all its complexity, has become a realm of invention and space for possibilities where new designs can be tested. This is as apparent in the work that architects are undertaking in the informal settlements, or favelas, of Latin America, as in the most regulated spaces of Chicago, London or Tokyo. Favoring an inclusive way of viewing the city, no aspect of the urban world is any longer rejected outright, and architects and urban designers instead find potential and learn from the underlying dynamics of the contemporary city. This attitude highlights the generative capacities of the city and finds new ways of engaging it. At the very least, it advances an architectural thinking that engages the city on its ground abets its potential and seeks opportunities in the condition (Eisenschmidt, 2012).

Conceiving of urban design regarding architectural actions and reactions, Attoe and Logan propose a theory of “catalytic architecture” better suited to specifically American circumstances than the largely European models developed in the last thirty years for the remaking of cities. After exploring instances of failed attempts to impose European visions on American cities, the authors examine urban design successes that illustrate the principles and goals of catalytic architecture. (Eisenschmidt, 2012).

With a series of case studies, they characterize urban design as a controlled evolution, one that must also be strategic, responding to existing elements and guiding those that follow. The authors argue that the failure of American cities to control and guide the energies released in urban development can be prevented by “design guidance.” From their combined experience as urban architects and scholars, they provide taxonomy of methods to guide urban design toward higher standards and better results. “Urban Catalysis” raises a discussion about the role of architecture as a catalyst for urban development. Particular focus is placed on how architecture and urban design can contribute to the promotion of a tolerant and democratic city, a learning city and a city rich in experiences; in other words, a city in which it is worth living, depending and investing.

The study assembles and analyses a catalog of strategically chosen architectural projects, which intend to do something different and become more than just being beautiful. The projects are beautiful each in their way, and they have great, architectural qualities. At the same time, they are ambitious about creating a new agenda for the place, reinforcing a strong, historical identity or embedding a new narrative about the place. This happens via a conscious composition of architectural programs and aesthetic effects. The related projects strive towards creating publicly accessible, open-minded meeting places. A mixture of programs is worked with, and these are orchestrated in ways, which invite different user-groups inside for a variety of activities. The architecture frames the programs makes the human activities visible and influences the social development of the place.

Researchers, Architects, and urban planners have studied in the field or urban architecture, urban development and into the conversion of old areas in renewal projects and the upgrading and architectural opening of slum areas, particularly in South America, into architecture, urban space and culture in many other countries. There has been a particular focus on urban architecture and urban space about urban life and the citizens’ everyday routines, including the citizens’ experience of architecture and aesthetics. In this research, the architectural theory is brought into focus through several case studies of architectural projects from different cities around the United States and Europe.

Cities are dynamic systems. Their configuration, spatial and social characteristics are the result of a vast number of factors that are in some way involved in, or influence, the way a settlement is built, as well as its dynamics. Many of these factors are difficult to control, and some may be highlighted due to their relative importance in most urban contexts: topography; geographic location; climate; economic dynamics; social dynamics. The emergence of settlements and the growth of cities seem to be directly

related to the economy of places (Jacobs, 1970). If the economic dynamics of an area is growing, the settlements supporting this economy are likely to increase too. During the 20th century, such growth-achieved proportions never experienced before by humankind and the beginning of the 21st century shows an even faster growth dynamic.

A historical overview of examples showcases a common pattern of growth, expressed in localities that organize a self-contained growth, clarifying what often is known as an organic grid, can't accommodate the contemporary needs of development. At least respecting the minimum comfort and environmental standards. The less successful cases of organic growth lead us to communities living under difficult conditions. Wide areas of informal growth are evident, and in particular in countries under development, more common as favelas, slums, barrios or with other terminology dependent on the cultural context. Nevertheless active areas, in most cases these slums provide very low living standards that showcase the need for developing new planning strategies. The need to respond to very extreme growth demands is also still valid in some developed countries, as is evident in the recently implemented Vinex program in the case of the Netherlands (Boeijenga, Mensink, and Grootens, 2008). China is a very specific instance in which essentially top-down solutions are being applied. Whatever the context and the dichotomy between emerging (bottom-up) growth and planned top- down growth, it is desirable to control the urban spaces resulting from this growth, as a significant amount of research on the subject seems to suggest (Provoost, 2010). Moreover, something may be learned from both processes and used creatively in new designs. One thing is clear: the tradition of designing urban space by producing authoritarian layouts is no longer an efficient strategy. Several authors point towards the need for planning flexible solutions using flexible processes. Incrementally, flexibility, adaptability, individuality and freedom of choice have become the keywords used to express new approaches and strategies for urban planning and design (Correa, 2000). At the end of his study Ascher (2001) identified the following as the new principles for urbanism:

- Urban planning involving mechanisms for negotiating and elaborating solutions instead of designing layouts;
- Reflexive urban planning, involving constant analysis;
- Informed urbanism, prepared for the demands of sustainable development;
- Participatory and flexible urbanism based on consensus;

Heterogeneous urban planning composed of hybrid solutions and stylistic openness. Ascher suggests very general approaches to urban design or planning which are radically different from the common development of fixed layouts and certainly a departure from the typical aesthetically designed city of the modern era. Ascher also proposes negotiation as opposed to the traditional production of a fixed design. The traditional ways of planning and designing new urban areas do not respond efficiently to current needs. Contrary to the critical tendency directed towards planning methods, the majority of existing tools are still destined for the design of urban plans in the traditional layout. In all cases, the aim is to produce a fixed layout for top-down implementation in a particular area. The object of the design is considered an isolated object instead of a complex, open system, which is what cities are (Portugali, 2009).

1.1.1. Urban Fragmentation: The effects of de-urbanization

De-industrialization, suburbanization, and disinvestment have combined to threaten the economic, social and spatial health of many North American cities. Originally diverse urban environments including industrial, commercial and residential uses, the city center served as the heart of the city. In the early 20th century, downtowns were centers of highly concentrated activity, with streets and sidewalks that pulsated with human endeavor, the highest land values in the city, and the full spectrum of economic functions. (Kent, 1995). Early developments of the suburbs in North American cities served only a residential function as they were located in proximity to the city center. The residents, in this case, were still dependent on the city center for social, commercial and entertainment purposes. However, as populations grew and transportation technologies developed, the desire for detached residential homes and personal vehicles became increasingly popular. As a result, the suburbs spread further into the surrounding farmlands, distancing themselves from the city center. The success of suburbia was facilitated and embodied by some crucial phenomena: the enormous growth of the fleet cars, a multi-billion dollar endeavor to construct urban expressways and federal highways, and a spectacular increase in the number of houses. (Ghent Urban Studies Team [GUST], 1999.)

The switch from public transportation to private vehicles and the desire for detached homes facilitated the decentralization of functions that were once exclusive to the city center. As residential areas developed further from the downtown, the demand for available commercial functions grew. Commercial development, in the form of shopping centers and strip malls, quickly followed the new residential developments to provide convenient access to commercial amenities. (Ghent Urban Studies Team [GUST], 1999) Built with the efficiency of the car in mind, these commercial centers acquired large expanses of open land to accommodate their open-span, warehouse type structures and large expanses of on-grade parking. As a result, the scale of the urban environment is drastically different from traditional city centers, catering to the scale of the personal automobile over the individual as a pedestrian. Responding to this change in scale, the architecture has to attract the attention of the individual from a distance and at an increased rate of speed. The building components are scaled relatively, resulting in over- sized signs advertising store names visible from the street and neglecting the scale of the pedestrian at the sidewalk and building interface.

Accompanied by the dispersal of residential and commercial activity, was that of local industries. The growth of transportation by local roads and highways facilitated the development of industries on the perimeter of cities. Adding to this relocation was the change in manufacturing processes based on the assembly line. Where “earlier industrial architecture often consisted of multi-floor buildings, the increasing organization of labor along conveyor belts necessitated the construction of mono-volumes with a single stretched-out floor. The large plots of land required for such plants were only available in suburbia.” (Ibid. p22)

1.1.2. Urban Public Life

The effects of de-urbanizing processes and the general decline of urban areas extend beyond the physical realm of the city and permeate the social realm as well. As cities become more and more dispersed and increasingly privatized, the relationship between public space and everyday life begins to malfunction, portraying perceptions of

fear and insecurity, which threaten the urban identity and public life of the city. “The essence of the city is found in its public urban spaces and its public life. The public realm is essential for the enactment of vital social processes. As these processes atrophy incivility, group conflict, even violence are the result.” (Lennard, H. & Crowhurst Lennard, S., 2004) Founded on the concept of designing an internalized city, the mall has disrupted the heterogeneity offered by our city centers by reducing the experience of the individual to the single act of consumption. (Muller, V., Busmann, 2002) Intentionally sheltered from the possible dangers of the city, shopping is arguably becoming our only remaining public activity. This controlled consumer experience contributes to the city becoming progressively fragmented into homogeneous zones of public consumption that offer limited social experiences. As a result, our understanding of public space becomes increasingly distorted, seen as a “waiting room for urban addicts, where the active players have vanished.” (Ibid. p17) Aside from the physical public spaces of bars, cafйs, and squares, urban public life must be supported by “forms of interaction that are open to noncommittal chance encounters with the other people and by ready contact to the new.” (Durrschmidt, 2006). Discouraged residents are unable to identify with their city’s urban environment and tend to retreat into the comforts of their home. When they do emerge from their home, the tendency is to travel by personal automobile to minimize the distance traveled by foot and maximize the efficiency of time. The result is a reduced rate of encounter with other community members because the majority of the time is spent traveling inside their vehicle, instead of navigating the streets by foot where chance encounters are more probable to occur. “Our ability to improve the well-being of city dwellers has suffered from a failure to see cities as complex social organisms, with physical and social features in close interdependence.” (Lennard, H., Crowhurst Lennard, S.)

The threatened urban identity and public life created by de-urbanizing processes and our continual transformation into homogeneous consumers adds further urgency to the regeneration of a central urban core that promotes and sustains urban diversity: “even if a post-modern understanding of public life does not depend necessarily on a central town square, the symbolic value of the town center as a crystallization point of civic identity should not be underestimated.” (Durrschmidt, On the Crisis of Urban Public Life from Ed. Oswalt, Philipp. Shrinking Cities Interventions, 2006) In this sense, “both demolition and rebuilding projects give rise to questions about the compatibility of the (discontinuity of the built environment and the (dis)continuity of people’s biographies”(Ibid. p676).

1.1.3. Reconsideration: a call for new models of urban development

As cities expand to the periphery, city centers have struggled to attract public and private investment. Due to a lack of demand, vacant buildings and lots remain empty as their market value is less than desired by prospective property owners. In the same context, the risk of failure for external investors and developers is often too high, resulting in their migration to more affluent areas. This produces a ‘time gap’ – defined as a “moment of standstill between the collapse of a previous use and the beginning of new commercial development” (P. Misselwitz, P. Oswalt, K. Overmeyer., 2003) – in the development process. The economic and social fabric of the urban area, which has struggled to initiate the process, largely determines the duration of this time gap. If development projects do occur under these circumstances, they tend to follow traditional patterns of commercial development. Site owners commission a design to be

negotiated with local authorities, the goal being to create the desired end condition to be translated into a master plan. This describes the current ideal path of implementation for urban planning. As determined by Studio Urban Catalyst in their report Urban Catalysts: Strategies for Temporary Uses, the concerns with traditional urban planning include the following:

- Dependent on large-scale financial investment and economic climate
- As singular actors become less and less powerful, and more and more dependent on other stakeholders and outside forces, the realization of these ideal visions becomes more and more case difficult, if not impossible
- Traditional master planning is a very slow process, taking years to be legalized and complete, unable to adapt to short-term change
- Traditional formal planning addresses the question of what should be developed, while the question of how to develop is left unanswered
- Many times, current developments are primarily focused on investment potential and ignore or fail to recognize the impact of socio-spatial relationships. The inability of market-driven developments and urban planning models to generate and sustain change in declining urban areas necessitates the development of alternative models to create sustainable urban change.

1.1.4. Urban catalysis, time permanent and temporary design

The notion of flexibility, flexible design, and in particular in urban design, even is usually is common to architects and urban designers (Gausa, Hammond, and Hammond, 1998), lacks a formal definition. Flexibility is a term used in engineering systems design to refer to the ability of a production system to deal with uncertainty (Gupta and Goyal, 1989).

The term is used in many texts on architecture and urban design, especially those associated with the design of housing systems (Gausa and Salazar, 2002) (Bosma, Van Hoogstraten, and Vos, 2000). Nevertheless, the particular form and context where this terminology is used, the concept of flexibility and flexible design is part of the architectural vocabulary. A series of other concepts connected or not with the direct definition of the above term use this approach as one of their main methodologies in design. Some relevant publications clearly show this (e.g.: “A Pattern Language” (Alexander et al., 1977); “Supports” (Habraken, 1972); “Design for change” (Friedman 1997); shape grammar-based architectural research (Stiny and Mitchell, 1978) (Koning and Eizenberg, 1981); “Game Urbanism” (Venhuizen, 2010); urban grammars (Beirro and Duarte, 2005)). A crosscutting moment for the above approaches is the research on design systems that make possible to address uncertain factors in regards to problem search and definition. The majority of which deal with rules and methodologies to offer systems and solutions instead of original proposals. A small number of cases propose very detailed algorithmic formalisms to deal with the design questions. Alexander et al.’s Pattern language, for instance provides a generic algorithmic structure open to interpretation. Shape grammars (Stiny and Gips, 1972) provide rigorous algorithmic formalisms to generate variations on a design language (Koning and Eizenberg, 1981).

Considering the above, the term urban catalysis can be defined as a strategy which can provide solutions for a particular design question, which can be formulated through a particular set of design rules in contrary to the traditional strict and formal solution.

This definition for flexible urban design addresses in particular flexible design for urban planning and urban design. A flexible design, as a result, does not have a specific shape, but it is informed through its process of public interaction space, responding to the needs of public space. On an urban scale, however, flexibility can be addressed on two main levels: design flexibility and the flexibility of the design. The former refers to the capacity of the design method or process to adapt to changes in the problem formulation and the latter to the fact that a specific final design is still capable of accommodating change and evolving during and after implementation – that is, it refers to its adaptability over time. Flexible design, as defined above, represents the third level of flexibility.

This thesis addresses the production of design tools and methods for flexible urban design considering both design flexibility and the flexibility of the design. These tools and methods are to be used by designers, but the tool structure and methods are defined in ways that support easy visual interactivity in a collaborative environment involving stakeholder participation. Flexible design is a complex approach, as it should be used in many possible contexts involving many different strategies to propose a plan. A process of negotiation between problem formulation and solution develops any design task, making use of analysis, synthesis, and evaluation (Lawson, 2006). To produce a design (whether flexible or not), the designer needs to carry out several analytical tasks, generate several solutions and evaluate several possible solutions before reaching a definitive one. The process is not sequential. The designer is likely to reformulate the problem several times when confronted with an unwanted design evolution or unwanted solutions. This thesis concentrates on the process of urban catalysis, an attempt to understand the rules underlying the design moves (Schцn, 1987) that progressively compose urban designs, to reuse them to generate new designs.

1.2. RESEARCH BACKGROUND AND CRISIS OF PLANNING

During the post-industrial changes in the European and global context on urban design and planning there have been generated a series of different social, economic and spatial conditions in cities – a polarized map where certain cities enjoyed unprecedented boom and regeneration while others failed to improve using a strategic plan, often centrally located areas left discarded after the closure of industries decades ago (Oswault, P., Overmeyer, K., 2013). Taking an overview of three decades of extreme urban development and transformation. The process of urban catalysis is an opportunity to reinitiate the discussion on strategies and methodologies for urban planning and design, critically reflecting on these two disciplines, the struggles and breakthroughs of development of conventional urban planning and design models of action and strategic planning tools which integrate the potential of temporary use for a sustainable development process. This process can provide a valuable archive of applicative models, which can be available to architects, planners, urban designers, local and central government, property owners and developers but also citizens. The research case studies around Europe and the United States that are presented in this research paper represent a spectrum of diverse conditions in which architecture can act as an urban catalyst (Oswault, P., Overmeyer, K., 2013). These conditions could be considered pilot models for the European scene today. The success and failure of urban transformation processes cannot be measured by short-term growth alone. To develop an economic that is triggered positively by favorable urban planning and design conditions, we must consider several scenarios of intervention in the urban ecosystem. While tra-

ditional state initiated models of planning are no longer affordable, especially in post-communist societies in the region of Balkans where Tirana is located, nevertheless, in this case, the radical shift to neo-liberal planning policies has failed to offer inclusive models. In this case through the use of urban catalysis, implementing strategic design actions for urban development will make more possible to foresee, predict, initiate and direct sustainable urban development within cities such as Tirana.

1.2.1. Urban, Cultural, Economical Context

Urban development processes in Europe produced a series of time gaps, in which former uses of architectural and urban space came to an end during paradigm shifts, whereas the future use has not yet started. Thus, this spatial vacuum is a fundamental and necessary to urban context to allow for temporary uses in cities. The economic context is strongly linked to the urban situation mentioned above. Socio-economic factors, which impact the level, density and pace of economic turnovers in a city, are linked directly to the investment capacity, which local market ecosystems offer (Oswault, P., Overmeyer, K., 2013). Economies of cities, which are designed to act strategically adapting also cases where public and architectural space can be also organized permanently and temporary, provide similar organization in economy. While cases of successful urban catalysts begin operating as a model to attack a niche market, they are still linked closely with the local economy being able to grow faster in areas with high urban interest and low economic risk. It is important to notice also that in cases as such it is fundamental to understand how the catalyst can initiate alternative models of economy which can be oriented through barter, social capital and re-use of existing assets within the city, being translated into strategies which offer considerable economic value. Case studies with similar approach can be found in cities like Berlin, Oslo and Copenhagen where certain needs for development in the market were the initiator of catalytic strategies but cases also like New York, Rotterdam, Arnhem and Madrid where local and central government with the use of national development strategies in urban planning and design were able to support the new and growing economy.

The common ground of the cultural context of the cases studies of this paper – and also for most other European cities – is the new connection of established and new cultural economies. The new focus on the innovative strength of cities goes along with the rise of so-called “cultural catalysts”. Central for the transformation of the cultures of cities is the shift from cultural consumption to cultural production and support. (Oswault, P., Overmeyer, K., 2013). This transformation will to a large extent depend on the opportunities a city gives to through strategic planning in the development of projects that will provide a catalytic ecosystem for development. The differences among the cities of this research cannot necessarily be generalized as national differences since they provide common short or long-term strategies for interaction. Within a country, differences in the regional contexts as well as the size of the city can create a larger difference than between similar cities of different countries. However, certain conditions, which are favorable for catalytic interventions have been identified and its implementation would certainly be valuable for urban development across various regional contexts (Oswault, P., Overmeyer, K., 2013).

1.2.2. Urban Design Theories, Models and City metaphors

A series of models which influenced urban development and thinking in Europe is the theoretical foundation of this research, understanding existing approaches but also going beyond the tradition to go towards a new model of strategic and catalytic thinking. It

is important at this point to understand the various urban design theories that were the reference point of development in Europe, and if different models can be reorganized in order to introduce the concept of urban catalysis based on such re-organization, as a notion proposed by Attoe and Logan in their book “American Urban Architecture: Catalysts in the Design of Cities”. The categorization process is not so simple because many theories tend to fit in more than one model. A formal way of categorization requires some thought process. The best way of doing this is by jotting down all the theories in one blank page (to get the holistic sphere of influence) and to see how they fit or connect with each other.

- The formalist stance pioneered by Frederick Law Olmsted was the Park Movement, which focused on the introduction and integration of natural systems into the city and influenced the design of greenbelts towns and is still influential in designing eco-cities today. Another variant of formalist tradition was “City Beautiful Movement” which was rooted in Renaissance and Baroque urbanism and looked at the city as a network of formal streets and spaces, marked by the striking monument.
- Camillo Sitte believed in re creating medieval cities and treated urban spaces as aesthetic arrangements of building masses, facades, and street spaces.
- “The Garden City” model, by Ebenezer Howard, was developed and advocated by Raymond Unwin, Clarence Stein, Clarence Perry and many others still influence today’s neo-traditional community.
- Tony Garnier introduced a model which was later developed by Le Corbusier and applied by many like Edmund Bacon and Lucio Costa, looked at the city regarding efficiency and function and tried to create urban space using new techniques of construction and transportation.
- Urban design theories by the likes of Gordon Cullen, Kevin Lynch, William Whyte, Christopher Alexander and post-modernist Denise Scott Brown and Robert Venturi which cannot be plugged into any of the four models described above and can be called a fifth model.
- The New Urbanism Movement aims to reform all aspects of urban design and create walkable, dense, mixed-use neighborhoods.
- City form theories like “Edge City” and “Generic City” are also relevant while studying the evolution of any city. Probably these theories together make the seventh model. (Aryal, 2008)

To understand the structure on which a city operates it is important to use the notion of metaphor and parallelization providing practical architectural examples of thinking. We can analyze in depth and break down fundamental elements of organization in existing models through comparison and association with several metaphors. According to O.M. Ungers, in our everyday language, we are constantly using metaphorical expressions without paying any attention to them. For instance, we talk about the foot of the mountain, the leg of a chair, the heart of the city, the mouth of the river, the long arm of the law, the head of the family and a body of knowledge (Ungers, 2011). We use many words that are vivid metaphors although they exist as common ex-addition to the phrase, everyday language abounds in phrases and expressions of metaphorical character such as: straight from the horse’s mouth, the tooth of time, or the tide of events, a forest of the jungle of the city. It usually is an implicit comparison between two entities, which are not alike but can be compared in an imaginative way. The comparison is mostly made through a creative leap that ties different objects together, producing a new entity in which the characteristics of both take part. The use of metaphors in ur-

ban studies is nothing new; for long metaphors have been widely used in urban theory and urban planning (Gerber A P. B., 2014) notes that architecture and urbanism have elusive and hard to grasp objects. Metaphors help to understand what is at the core of these disciplines, which can only partially be captured by language. (Larsen, 1998). Writing on urban culture calls his contribution 'The city as a post-modern metaphor.' (Marcuse, 2005); Suggests that' city' is often used in a metaphorical sense, and he distinguished three usages with political overtones:

1. Cities as actors (cities competing, winning or losing in the global economy),
2. Cities as components of globalization, as unitary entities, and
3. Cities as a unified aggregate of groups.

Popular metaphors include the portrayal of a city as a concrete jungle, as a hybrid city, as a contested or divided city, as a person, or as a moving city. Metaphors vary in their degree of conventionality. Some are rather direct, like the' soft and hard city.' Others are more poetic, such as "Cities are an ever ending process, a constant fight between the oasis and the desert. They deployed geologic, a sort of' theater of rising and fall.' Rem Koolhaas said in Dubai "the ultimate tabular as an on which new identities can be inscribed." There is a wide and creative variety of metaphors to depict and understand city phenomena. (Solesbury, 2013) Suggests, "The way we think about cities is strongly shaped by metaphors. Five recur in many variations: the city as a community, as a marketplace, as a battleground, as machine and as an organism. These are extended metaphors, that is, they serve to structure the whole concept of the city with many dimensions and levels of meaning". Urban design for the city center, instead of imitating another format image of the city or inject large master plan, using various available tools is more suitably thought of as a process of arranging catalytic reactions that flexible to changes and urgency. Urban Catalyst offers modest vision, but the impact should be substantial and integrates existing urban fabric. According to Attoe and Logan urban catalysis as an original concept was defined by eight characteristics as following;

(1) How a new element modifies the elements around it.
(2) How existing elements are enhanced or transformed in positive ways?
(3) How the catalytic reaction does not damage its context.
(4) How a positive catalytic reaction requires an understanding of the context.
(5) Defines that not all catalytic reactions are the same.
(6) Presents that catalytic design is strategic.
(7) A product was better than the sum of the ingredients.
(8) The catalyst can remain identifiable.

The above characteristics were firstly introduced in the Book of "American Urban Architecture: Catalysts in the design of cities," after investigating downtown revitalization projects in many cities the USA, in particular, Grand Avenue shopping center in the city of Milwaukee.

Through a comparative study of ten (10) case examples for the need of this research, all above elements were found in the selected projects. In this case, the state of urban catalysis was not only confirmed but also shows how this strategy provides chain reaction results in urban development. Urban Catalysis can serve as a new model that can either evolve or redefine the below existing models, by perceiving the catalyst with the

common notion it serves in the field of chemistry, we can apply the same strategy to speed, improve, organize and develop the city similar to how a chemical reaction takes place. In this case, the use of this metaphor can clarify better how a certain action in urban development can impact the development of the economy in social, cultural, architectural and urban design level strategically.

1.2.3. Classification Of Catalysts And Projects

According to Attoe and Logan the catalysis involves the introduction of one ingredient to modify others. In the process, the catalyst sometimes remains intact and sometimes is modified alone. Adapted to describe the urban design process, catalysts may be characterized as follows:

> ***1. The introduction of a new element*** (the catalyst) causes a reaction that modifies existing elements in an area. Although most often thought of as economic (investments beget investments), catalysts can also be social, legal, political, or—and this is our point—architectural. The potential of a building to influence other buildings, to lead urban design, is enormous.
> ***2. Existing urban elements*** of value are ***enhanced or transformed*** in positive ways. The new need not obliterate or devalue the old but can redeem it.
> ***3. The catalytic reaction*** is contained; it does not damage its context. To unleash a force is not enough. Its impact must be channelled.
> 4. To ensure a positive, desired, predictable catalytic reaction, the ingredients must be considered, understood, and accepted. (Note the paradox: a comprehensive understanding is needed to produce a good limited effect.) Cities differ; urban design cannot assume uniformity.
> ***5. The chemistry*** of all catalytic reactions is not predetermined; no single formula can be specified for all circumstances.
> ***6. A catalytic design is strategic.*** Change occurs not from simple intervention but through careful calculation to influence future urban form step by step. (Again, a paradox: no one recipe for successful urban catalysis exists; yet each catalytic reaction needs a strategic recipe.)
> 7. A product better than the sum of the ingredients is the goal of each catalytic reaction. Instead of a city of isolated pieces, imagine a city of wholes.
> 8. The catalyst need not be consumed in the process but can remain identifiable. ***Its identity need not be sacrificed*** when it becomes part of a larger whole. The persistence of individual identities—many owners, occupants, and architects—enriches the city (Attoe, W., Logan, D., 1989).

Cases are divided into two groups according to the persistency of project as permanent and temporary. Permanent element covers on building and construction. Temporary element means setting or usage in the moment of specified time.

(1)Permanent cases: Although, an impact of each project contributes an increasing of users and magnetize an investment; they also have another role in particular. For example, multipurpose building and sports facilities with a metaphor of catalyst distinctive architecture serve as a landmark that can improve the image of the area. However, all of the cases are not imply to be an urban catalyst.

(2)Temporary cases: Most of the cases are traditional and contemporary events, which

are held annually. Commercial, art and music events are held occasional. Temporary setting or installation can be divided into three cases including street vendors, Yantai (food stall) that appear at night; and container design project as the pilot project. Although temporary cases can attract people, improve local bene t and catalyze social integration, impact on urban fabric change or surrounding improvements still lack evidence. (Kongosombat, 2012)

To successfully use the above model that provides a series of catalytic reactions, it is necessary to understand all available tools of urban development and design. In this case, we must comprehend economic, social, cultural, and design capabilities that different territories can offer and come up with tailor made strategies to provide urban regeneration and development. For urban catalysis to happen, we must provide for catalytic strategies that don't offer only single case solutions but can serve as the initiator of an urban reaction in the city, generating economy, improving public space and responding to social life and culture of the city. The following architectural projects are investigating the case of permanent interventions chosen because each of them has a strategic role in the local area, in which they are located: and because they seem to meet the challenges facing the local are or the city. They, however, are also chosen because each one of them holds architectural qualities, which we find interesting to study and learn from.

1.2.4. Architecture as a tool for Urban Catalysis

In the case analyses, the emphasis is placed on a combination of the above considerations about architecture as a catalyst. This includes the projects' location in the built environment, architecture in the transition zone. It also includes very concrete descriptions of architecture as the structure that is architecture as the physical structure and typology. Secondly, it includes architecture as relations. That is architecture as programs and in use. A critical approach to architecture is the bodily presence in the architectural piece that is architecture as aesthetic and as experience. In the cases, the idea and the architectural narrative are presented. There will not be the systemic analysis of signage and symbol meanings, but the topic will be enlightened through the approaches to the analysis, and description of the architectural projects can be summarized in the following five themes (Kiib, H., Marling, G., 2014, pp.45):

- architecture in transition zones (near district, the district's edge or in a public area
- architecture that opens and changes the district's structure and creates transparency
- architecture as programmatic diversity
- architecture as aesthetic effects and structure
- architecture as narrative

The emphasis in the case studies is on the analysis of architectural projects where place forms the context with which architectural projects interact and which they in turn influence. The cases analyze how and to what extent architectural projects give rise changes in the built environments. The cases assess in which way architectural projects seem to change social practice. While not all the cases are analyzed in depth, but still social practice is examined in depth whenever possible. It is observed who uses the sites and how the site is used, and another critical analysis is which is the new condition of the location or the previous one regarding the social and cultural exchange or the spatial interactions that might have been drawn.

1.3. RESEARCH CONTEXT AND OBJECTIVES

This research aims to trigger the interest of two different types of readers: those interested in the catalytic interventions in the city and those interested in urban design methodology and approach. The former will find broad and detailed concepts that address the urban design synthesis using the catalyst as a tool for design exploration. The latter will find the conceptual basis for the development of a series of generative design tools for urban design. This paper investigates the integration of design support tools to formulate, generate and evaluate the urban design for public space. It defines theoretical models for urban design models and metaphors, and presents the catalyst as implementation proof of concept for future design models and specifically in Tirana. Due to its complexity, the evolution of urban development in Tirana is something difficult to predict and planning new developments for a city such as Tirana due to economic, social and territorial factors needs an approach beyond the classic European models of urban development. This series of relations throughout the urban fabric and be understood on two levels: on a micro level, as it is emerged from numerous factors between the diverse components and actors of the city, and on a macro level where it is informed from the territorial, social and economic relations which are formed in the extended urban landscape of Albania.

This research presents the urban catalyst as a method and a set of tool to generate alternative solutions for an urban context and design. This approach proposes the use of a combined set of design parameters encoding successful design strategies used by urban planners and architects. The combination of catalytic typologies generates different layouts that are part of an information system, which can be informed from the urban structure of the city. These catalytic interventions can be developed from observations on the urban design framework in a formal, functional, social, economic and cultural level. The urban catalyst as a method and tool allows the creation of design solutions from a set of programmatic premises and fine-tune adjustments by pulling parameters while checking the changes in urban indicators.

Architecture and urban design elaborate on a vast terrain upon client request. Best case scenario is to start with the urban analysis and study, conceptually turning information into formal and functional solutions and finally visualizing the idea and tension into an architectural/ urban medium to intervene in the specific context. However, should architecture and urban design be a request-based solution to intervene in non-occupied or occupied space through functional and formal regeneration? Since architecture and urban design, define space to be used by humans, on the other hand often treats its reason of existence as just an excuse for its presence. However, space is not something that rigid and strict. On the contrary, it represents the most fluid and self-adjustable element in our territories. It even creates a virtual territory that is much more cognitive than self-occupying. A cognitive territory that is meant to help in the way we perceive space.

Urban Catalysis as a methodology could provide solutions to urban design and approach needs. Field-tested processes, techniques, roles, and work products are guided by a set of principles and unique organizing concepts to help perform the planning, analysis, development, operational support, and management necessary to achieve desired outcomes. The main scientific objectives and purpose of the thesis are:

- The creation of a scientific theoretical model for an urban design tool involving generative design capabilities and a design method for its use. The theoretical model provides a structure for urban design generation compatible with a representational structure. The model provides a flexible design platform for the production of urban design conditions.
- Ontology was describing the concepts involved in the urban design process, contributing to the development of knowledge bases for urban design.
- A tool for supporting studies on the relationship between urban morphology and density, contributing towards improving designer awareness of such relations and eventually to devising more accurate links between these measures and the quality of urban space.

The contributions of this knowledge to design practice are likely to improve the quality of urban design, its management and its response to complexity. In other words, the contributions as mentioned above will allow for improvements in the adaptability of urban design methodologies. This quality should, according to current theories, improve the quality of new urban developments, especially regarding how they respond to the complexity of evolution. Without adding any other meaning to the term sustainability than the internationally accepted one, the new approaches proposed in this thesis will certainly represent a step forward towards the production of more sustainable cities, at least in the sense that they provide a greater capacity to design cities that are capable of adapting to evolving societies.

The improvement of the urban catalysis process will make more successful its application in urban development processes, in the sense that the proposed systems will allow for alternative scenarios to be considered and supporting data to be provided for each scenario. The different stakeholders will, therefore, be able to evaluate decisions better, based on the improved information on the alternative scenarios.

1.3.1. Tools and methods for urban design

To date, several new planning processes and tools have been developed and implemented with the aim of improving the quality of the areas planned. To achieve this, urban designers have come up with two basic lines of action:

1. Implementing changes to the traditional urban design process;
2. Developing urban catalysis methodology as a tool to support urban designers and improve the quality of designs.
3. The first line of action involves changes in design practice, such as:
4. Integrating all actors involved in the city development decision-making process by introducing participatory methods into standard procedures. (Arnstein, 1969) (Kunze and Schmitt, 2010) (Tan, 2009).
5. Promoting diversity by subdividing the process into partial areas to be developed by different design teams collaboratively. This process can be subdivided many times into various levels of scale e.g. (Venema, 2000) (de Maar, 1999) and is already common practice in the Netherlands.
6. Designing basic guidelines and generic rules, leaving local decisions to the stakeholders involved. (Habraken, 1980) (Friedman, 1997) (Beirro and Duarte, 2009).

This is not an extensive list, but these approaches cover the most common strategies for changing the design process. About the second line of action, many different kinds of tools have been developed to support urban design:

A matrix of urban catalysis that will be used for enhancing information about the way cities grow and the processes involved in their growth, which is not directly participating in the design process, and used directly to improve the design practice.

The tools in both categories can be said to be design support tools but only those in the second type are also design tools. The former are essentially analysis and simulation tools. Some approaches use analytical methods to improve the quality of information on the nature of cities and why certain phenomena occur in them. These are strictly analytical tools. Some common approaches focus on the behavior of urban space, taking its topological structure or the topological fabric of the street network into consideration, and these include space syntax (Hillier and Hanson, 1984), place syntax (Stahle, Marcus, and Karlstrцm, 2005), and route structure analysis (Marshall, 2005). The use of simulation processes can enhance awareness of phenomena that may influence the evolution of certain urban contexts and provide insights into how alternative solutions may evolve over time or according to specific changing conditions. For instance, cellular automata have been used to define simulation models to explain urban sprawl, understanding the way it spreads and eventually predicting future expected developments (Batty, 2005). Both Batty (2005) and Portugali (2000) have dedicated extensive studies to understanding the complex behavior of cities. However, Portugali cites the non-linear behavior of cities to explain why certain urban phenomena cannot be predicted.

Other approaches try to replicate the real conditions of unpredictability and multi-agent participation by setting gaming environments to simulate these conditions, allowing several people to participate in city games. City games are configured to replicate the main rules and conditions of a real-case scenario (Mayer et al., 2009) (Venhuizen, 2010). “Serious game” strategies represent an ambiguous approach that lies between design and simulation. In principle, the process is a simulation but, depending on the way the games are set and the context in which they are set, they may eventually end up with real propositions or simply supporting true propositions. “Serious games” focus on managing the growth process rather than design. They can also be used as negotiation platforms in which different stakeholders are the players. The gaming concept, or serious games as it is commonly called, may use computer game environments, but the concept can also be implemented with handmade game settings. The important thing is really how the game is defined regarding the required interaction between the participants and the goals of the game. Examples can be found in (Venhuizen, 2010), (Mayer et al., 2009) and (Tan, 2009) [WS1]. Some models presented in the book have been developed to enhance knowledge of urban behavior, and others to directly support or inform design decisions or the design process. The book still stands as a good survey of the available tools and methods for urban design models and approach.

However valuable tools and models may be in informing urban design, the urban simulation should be regarded as having different goals to urban design. The design aims at reshaping or transforming the world by proposing a new state of things, envisaged as solving a problem by improving the existing conditions of a context in the initial situation of the design (Cross, 2007). Analytical and simulation approaches may produce

information that will enhance the designer's awareness of the initial state of a design and its context, and also the consequences of design decisions, comparing them with known standards. In this sense, one principal aim would appear to be integrating analytical methods and tools with design methods and tools.

Density indicators are some of the most commonly used devices to inform, analyze or establish goals in urban design. It is fairly common practice to develop plans by designing a layout for specific density goals, and it is also common to establish the negotiation process with stakeholders based on a layout and the respective density indicators. Berghauser-Pont and Haupt addressed the important role of urban indicators in urban design and planning in detail in their book Spacematrix (2010). The first part of the book provides an extensive survey of the models and approaches to urban planning and design, the kind of indicators commonly used, their meanings and inconsistencies, and how designers have used and still use them. They can be seen as constraints or design goals by either designers or stakeholders, and they can also be seen as planning or controlling devices by municipal planners or planners in general. In all cases, testing designs against density indicators are common practice on the part of all the actors involved in the urban design process, and this is used, albeit for different purposes, at different levels of scale.

Whatever tools are used for designing urban plans, a proposed urban morphology always needs to be tested against density measures and other analytical data, since in most circumstances the design goals are somehow expressed in this way. Furthermore, the qualities of the urban fabric can be understood, as the second half of Berghauser-Pont and Haupt's book shows, the degree of complexity and unpredictability of the city implies the need for more design tools and methods. If we want to learn how to design successful urban spaces, we also need tools and theories that define and evaluate what successful urban spaces are.

1.3.2 Research context and goals

This thesis design project examines the significance of the urban catalysis as a means of urban revitalization. The urban catalyst theory says design can be linked to place through the study of contextual factors in urban design. These factors include: morphological, social, functional, perceptual, visual, and temporal. For the urban catalyst to respond to its setting it also must possess a strong sense of place and authenticity. Each component of my research supports my position that each city has unique attributes that can serve as basic models or seeds for urban redevelopment. These components will be used as a basis for developing a design framework that would be applied in two Albanian Cities. This position is tested through the contextual analysis and design of two case studies that are of major significance.

This thesis addresses a specific part of a larger urban development strategy called Urban Catalysis. As defined, Urban Catalysis aims to develop an urban design tool by integrating the above factors as part of a complex matrix. (Figure 1.1) The main focus of this research is to take advantage of the existing tools for urban analysis and use them directly in conjunction with generative design tools for design synthesis. The Urban Catalysis process aims to formulate urban design briefs from an analysis of contextual data, generating design alternatives by following the design brief, to this end, the project includes a matrix that support the whole concept:

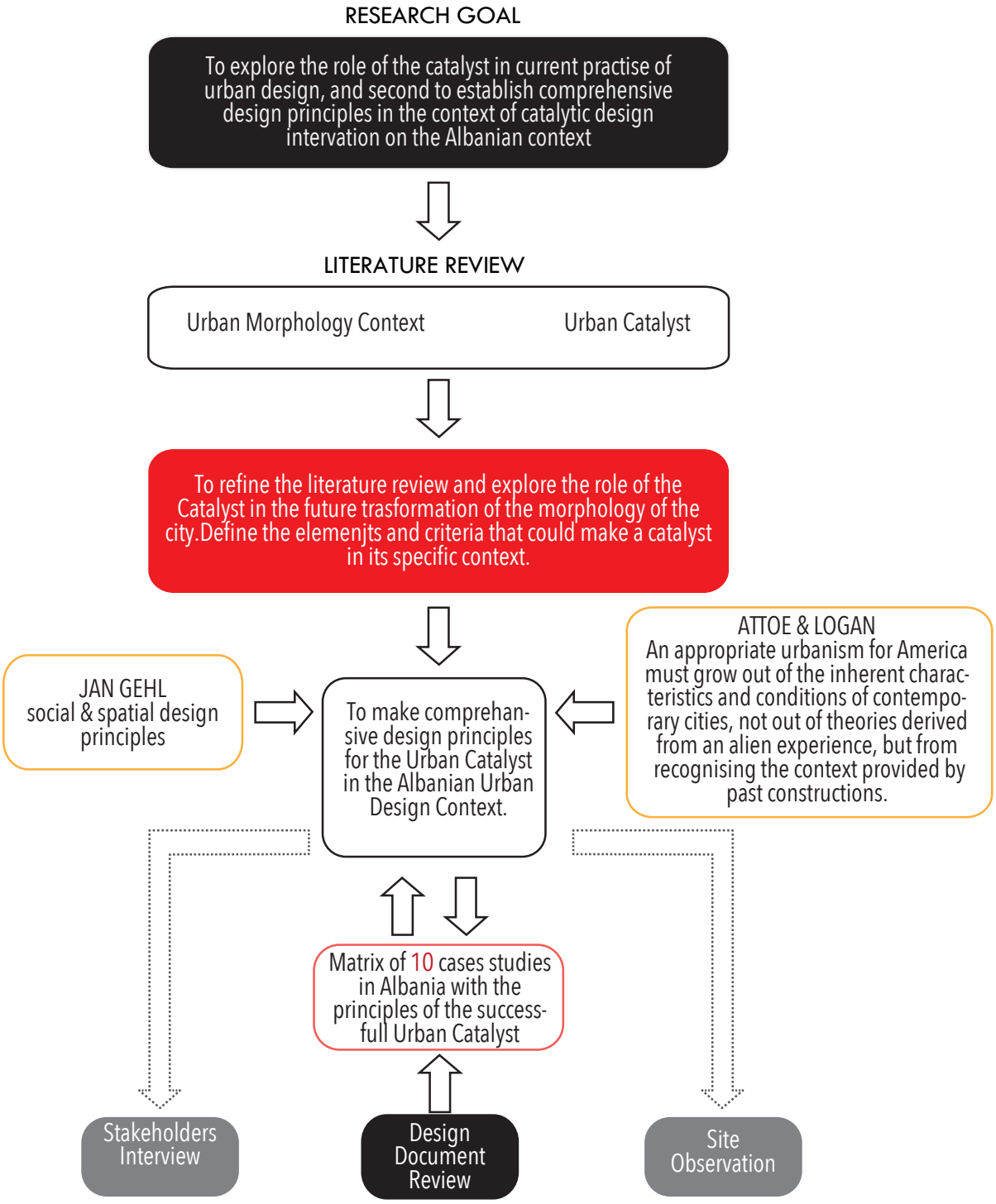


Figure 1.1: Thesis goals in relations to thesis flowchart methodology - Source: (Kristo, S., 2017).

(1) a model for formulating the specifications of the urban program and needs, taking the available data on the context into consideration;
(2) a model for generating alternative urban designs based on shape grammars (the generation model – Urban Catalysis); and
(3) a model for evaluating the designs in terms of sustainability and design performance.

1.4. SCOPE OF STUDY

With growing globalization, all large cities in the investigation are facing the challenge of tackling rising social and environmental problems. The big cities on the planet have growing pains and social cohesiveness is under pressure from an increased difference between rich and poor, social segregation, ghettoes, immigration of guest workers and refugees, commercial mass tourism etc. In this context, it is important to ask which role architecture and urban design can play to counteract the negative consequences of globalization and to contribute in making our cities socially sustainable. How can architecture participate in developing the city's social spaces, creating interaction zones for cultural exchange and contributing with architecture rich in experience? Which design qualities do the best examples of architecture as urban catalysts have, and how can we as citizens, politicians and professionals use knowledge about this in the development of our cities as good places to live?

We wish to throw light on these key questions through case studies of some strategically chosen projects from the four cities, which represent very different geographical, social, political and cultural challenges. The research focuses on presenting the role of architecture and the architectural projects about distinctive social challenges. The purpose is to create a better understanding and new knowledge of the projects' architectural effects and about how architecture can work as a catalyst in significant current social questions.

'Catalyst Architecture' deals with architecture's ability to be a catalyst for the physical, social and cultural change of place. We introduce neither the concept of 'catalyst architecture' knowing that this is neither an established nor a consistent concept. The term covers architecture's ability to connect with the place, setting out a new framework for the site's use and helping to transform place as both a physical and social construction.

This research seeks to define this special Relationship between architecture and place. In the following, we will touch on three concepts: 'Catalyst,' 'Architecture' and 'Place.' Introducing some of the theoretical positions that are part of our understanding of architecture and place understood as a relationship between architecture and awareness. It includes architecture's ability to affect the physical dynamic of change in the built environment; similarly, it includes both architecture in sue, as an experienced structure, as well as the impact it may have on changes in behavior and perception of place.

Holistic perspective. Urban Catalysis looks urban design problem from five perspectives—history, geography, urban morphology, context, and social geography. City needs are determined and addressed using these perspectives throughout the life of a service contract or engagement to help achieve integrated and acceptable solutions.

Solution-driven model. The Urban Catalysis approach to solution development uses integrated sets of work solutions that evolve in progressively more detail over the public life. These sets form a model of requirements, designs, and development results that can be used to define baselines for a case in Albania. Progress can be measured, not solely regarding the effort expended or the processes and techniques used to generate them, but also by looking at how well the state of the model demonstrates that the evolving solution meets requirements and expectations.

Full life cycle. The Urban Catalysis life cycle addresses a business problem or needs from vision through solution development and operation. Consistent, effective operational performance is an important goal reflected in the Catalyst approach. Management and architecture coordination are integrated with the life cycle so that the necessary parts of the solution will be constructed and come together when needed and so that the solution will continue to yield the expected outcomes of the program or project completes.

Solution-driven approach. Urban Catalysis requires that the developing solution is aligned with an overall architecture and urban design baseline, which defines the spatial vision, user needs, and technology direction. This architecture baseline helps guide the solution from design through completion.
Tailor-made models. Urban Catalysis methodology components can be selected and customized for different models of application related to contextual, economic, social and other factors.
Designing for operability. Urban Catalysis would provide a long-term perspective for the solution and its continuity in urban layout operation. Each phase of the life cycle of public space refines and advances the solution design with a focus on ultimate use and exploitation to optimize the impact of conception in public space.

1.5. CHAPTER OVERVIEW *(Figure 1.2)*

Chapter (One) 1 is an introductory chapter to this study. It explains the background of this research and research gaps, research questions, research aims, and objectives. It also introduces the basis of research structure where the overall representation of this thesis is simplified into a flow chart.

Chapter (Two) 2 introduces a chronological study of the evolution of urban design theories and proposals given by different urban designers (which would include architects, landscape architects, urban planners, urban designers, urban sociologists and even philosophers) throughout the last century. This chronological study gives us the theoretical and generic evolution of urban design drawn heavily from various academic theories and not only the practical evolution of urban design specific for any city. Some Case Studies introduce select catalyst cases studies interventions in an international framework of varying scales, temporality, and community engagement, which employ methods and theories, discussed in the previous chapter.

Chapter (Three) 3 is focused in the historical analysis of the urban design and planning cultures in Albanian. In the case study of Tirana is given e historical but also critical overview of the planning and design evolution of the city.

Chapter (Four) 4 is the problem identification chapter of this study. In this chapter, an overall analysis of the current situation in urban design theory and application models will be conducted and as well an identification of the problem that initiated this research. Also, an historical overview of similar problematic is examined to understand the base case examples that could be taken for further analytical study.

Chapter (Five) 5 is where detail explanation on the Research Methodology used to carry out the case study research, samplings. The purpose of this chapter is to provide a review of the different strategies for case study selection, suggesting a classifica-

tion framework to these strategies, which will provide a set of high-level guidelines for researchers to both understand the differences between these strategies and further help the selection of the strategy most suitable in answering the particular questions the study addresses.

Chapter (Six) 6 expresses state of the art focused on the introduction of the concept of metaphors as an approach to analyze our cities and living environments. Urban catalysis as a metaphor that can accelerate, stimulate and further guide urban development with the use of particular factors for each context. Accordingly, urban catalysis can provide a "catalyst reaction" in each applicative model. In this study, urban design will be the main methodology for action in the urban catalysis process. The literature review related to urban catalysis provides the overview and concept initiated by Attoe & Logan, but also its lineage of study and development on different researchers. Concluding with the examination of various examples where urban catalysis took place but also and understanding of the potential of this approach and future applications.

Chapter (Seven) 7 present the ten (10) case study projects to understand the process of urban catalysis. This chapter will analyze the background of the typologies of the different urban interventions and their contribution to the catalytic process as a tool to regenerate and revitalize the urban growth and development of the cities, which these case studies are located.

Chapter (Eight) 8 analyzes comments and findings from the case studies recognized in the Albanian context, introducing a Comparing Matrix of Methods according to each intervention, resulting effect, the cost for application and side effects in the urban public space. This matrix will make possible the illustration of the added value of current modes of development in public space interventions, which may emerge. This chapter also provides the extracted research findings from the ten case studies. The summary is undertaken across the case studies in five main themes, which have been central throughout the whole thesis, architecture in transition zones; architecture which opens the city; an architecture with diverse programs; architecture which is aesthetically involving, and architecture which renews the narrative of place. An operational and formal tactic, as well as the temporal quality of the intervention, is extracted from each case study to develop the design model applied in the following chapter.

Conclusion, addresses the benefits, challenges and limitations of the Urban Catalyst as a process, design models and application, as presented in this thesis, and the role of the architect in championing and administering this process. Considerations for testing and implementing the process are proposed as suggestions for further research and development of the process that is just initiated by this research.

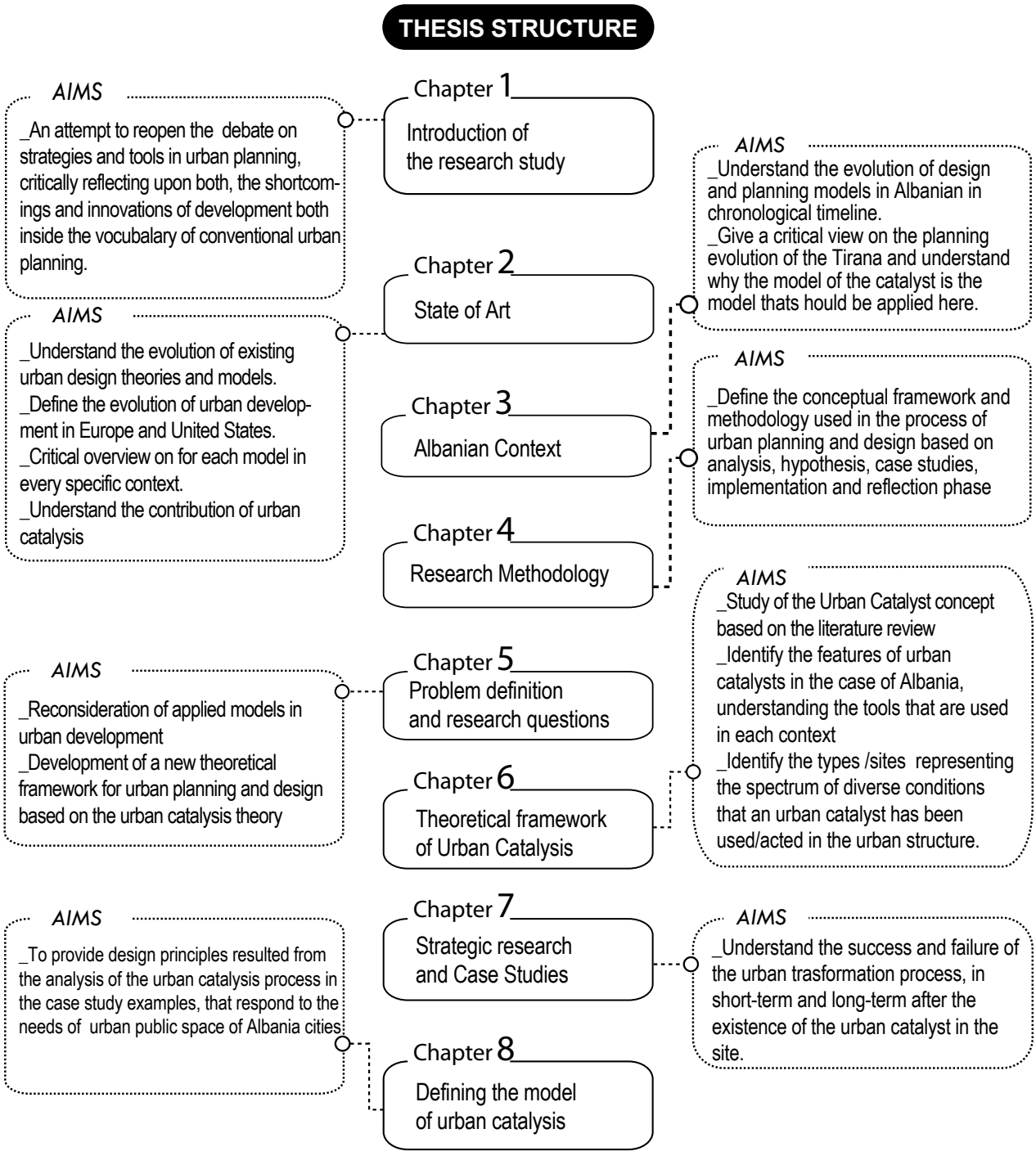


Figure 1.2: Thesis Chapters in Relation to the Research Aims - Source: (Kristo, S., 2017).

1.6. CONTRIBUTION OF THIS RESEARCH

The scientific contribution of this research is to provide a theoretical model for an urban design tool involving generative design capabilities and a design method for its use. The theoretical model provides a structure for urban design generation based on a matrix of the process of urban catalysis. This matrix is comprised of elements that define the urban catalysis as a process and it based on a series of case studies take globally but also locally in the context of Albania. This matrix provides a flexible design platform for the production of a series of flexible urban designs that could be used in the requalification of the urban layout. The temporality of public pedestrian space is defined by a specific urban grammar and syntax that is synthesized during the design process. This topic contributes to the field of urban catalysis that can be applied to urban design theory. Flexibility space is defined by a specific urban grammar that is synthesized during the design process.

The detailed structure of the urban catalysis matrix describes the concepts and elements involved in the urban catalysis process, contributing to the development of knowledge bases for urban design.

A set of recommendations for developing future applicative models for urban development and design, with information to how we could further structure each application, regarding social impact, economic growth, and urban regeneration.

A design method to enhance the quality of the information flow supporting design decisions in an urban design process, contributing to the field of urban design theory and urban catalysis providing methods applied to urban design theory and urban design practice. This methodology provides and activates design decisions to be informed comprehensively and result in long-term sustainable strategies.

A tool for supporting studies on the relationship between urban morphology and social interaction, contributing towards improving urban design quality and perception of such relations are consequently to provide more efficient and strong foundation for the coherent urban development of our cities.

CHAPTER 2_

STATE OF THE ART

This chapter will address state of the art knowledge with regard to several themes involved in the research, providing an overview of all the subjects relating to the research topics. In order to fully understand completely the potential of this theory it was necessary to study the approach of the most important design theories in an international level and furthermore to explain the structure of such models. In this case the design process recommended by each theory was taken in consideration in order to determine whether it is possible to integrate design metaphors into the creative design process; Different geographical contexts were taken in account relating the different design theories, firstly comparing the European and American contexts and finally taken in account the Albanian context and case examples on the application of such theories. As a result an articulated matrix will be comprised taking in account elements and urban design models, which will serve as the main tools to study the urban catalysis theory particularly with the requirements of each context. This study will guide us through a critical overview of successful and not case studies taking in account outcomes with successful results and outcomes, which require reflection upon them.

2.1. PREVIOUS WORK AND RESEARCH ON THE USE OF CATALYST AS A RESEARCH APPROACH

The use of urban catalysis as a concept in research and design has expanded in recent years, either as a master thesis and several thesis and researches on different geographical contexts or adapting them more or less freely to new types of design methods and problems. Case study projects where the concepts of urban catalysis and temporary use can already be found in teaching programs lead by Studio Urban Catalyst (Oswalt, Overmeyer and Misselwitz, 2013).

The courses of the project nearly all partners published numerous articles in academic and non-academic magazines and newspapers and generated a list of publications which includes the results of the courses. Despite the obvious fundamental contradiction between planned and unplanned the research project developed a catalogue of strategies how to learn from the unplanned and how to incorporate unplanned phenomena into planning. The research project of Urban Catalyst investigated the potential of temporary uses for long-term urban development. This agenda was based on two main hypotheses:

(A) Spontaneous temporary uses can develop positive long-term effects
(B) The unplanned phenomena of temporary uses can be successfully incorporated into this research approach
The results of the two-year research project confirmed the two main hypotheses:

1) The Urban Catalyst research team based its work on the assumption, that the informal and the formal are not contradictions. This approach is informed by most recent socio-economical research, such as Saskia Sassen's studies on global economies and world cities: informal and formal economies not only coexist, but depend on each other. While innovation comes more from informal contexts, formal contexts ensure

normally long lasting, sustainable effects. In the context of the research of Urban Catalyst it becomes crucial to integrate the informal and the formal more effectively. This means one the one hand to formalize the informal: to analyze and understand the unplanned patterns behind self-organized activities, deduct prototypes, models and tools from these investigation, formalize them and make them available to all stakeholders. One the other hand, formal procedures of planning, administration, management etc. have to be critically examined and ways and strategies to be found, how existing practices can be de-formalized, de-institutionalized, adapted and changed.

2) This study focus on how architecture and different kind of spaces were used together and the advantages of using the inherent the catalytic process in the design process. Similar study on the urban catalyst for sustainable urban development, done by Prin Kongsombat, is trying to understand the character of Catalyst Project in Japan. According to him, is accepted that station, shopping center and tourist attractions are mechanism for townscape vitality and magnetize investment. However in Fukuoka, there are unexpected outputs from smaller scale activities and hotel a function that can contribute bustle. Furthermore power of private sector can also acts as catalyst for social interaction, which bring into integrated best in area. (Kongosombat).

In the case of ''Catalyst Architecture'' comprises architectural projects, which, by virtue of their location, context and their combination of programs, have a role in mediating positive social and/or cultural development. (Kiib, H., Marling, G., & Hansen, P. M., 2014). This research attempt show how can architecture promote the enriching experiences of the tolerant, the democratic, and the learning city - a city worth living in, worth supporting and worth investing in? In this sense, we talk about architecture as a catalyst for:

- Sustainable adaptation of the city's infrastructure
- Appropriate renovation of dilapidated urban districts
- Strengthening of social cohesiveness in the city
- Development of a more inclusive urban life, and
- Development of environments of cultural diversity and learning

The exhibition takes us to some of the fastest growing metropolises on four continents: New York, Copenhagen Tokyo, and Rio de Janeiro. The projects in the exhibition all have a powerful, social narrative that invites and opens a dialogue about new welfare goals within urban politics. They take their point of departure in people's daily activities in the city, thereby providing possibilities for the average person to participate in the development of a more open society, while making the welfare concept meaningful for everyone. The master thesis done by Simone Fracasso, Urban Voids Unpacked aims to create a concept of how Urban Voids can be used as a catalyst for the development of their environment. In this thesis are combined analyses with a pragmatic design, this project uses a solid theoretical background as well as an important case study, to bring the concept to unpack the potentials of Urban Voids. Mixing practicality, economic feasibility, and creativity, the design of this project aims to create a realistic understanding of the site it examines and deliver an interesting and thought stimulating project, not only in an aesthetic aspect but also as an inspiration for the further implementation of Urban Voids within urban design. The result is the mental image of Urban Voids as a catalyst for urban development, combined with technical information to further the evident feasibility of such a project (Fracasso, S., Vakarelov, I., Y., 2015).

Urban Renewal of Yinxiang District in Nanjing, China by Su Qin Master thesis. This research will work with the Locus and the Urban Catalyst theory, proposed by the Italian theorist Aldo Rossi and by American architects Wayne Attoe and Don Logan in respectively 1969 and 1989 claim. As stated by Rossi in the book “The Architecture of the City”, the locus is a relationship between a certain specific location and the buildings that are in it (Rossi, 1966, p.103). It is at once singular and universal (Rossi, 1966, p.103). The urban catalyst is not a single product but an element that impels and guides subsequent development (Wayne Attoe & Don Logan, 1989, p.46). Similar to the chemical catalyst, an urban catalyst is able to arouse and stimulate urban construction and rejuvenation as well as promote urban regeneration and economic grow. The catalyst is conceived as a new design proposal to the Yinxiang traditional district in Nanjing, China, taking its overall context into consideration to recreate a lively area based on the principles of the Locus theory and the urban catalyst approach as well as some useful experiences from good examples.

Urban Actuation, Public Space as a Catalyst for Urban Revitalization by Ryan Michael Ollson is attempting to analyze the physical and social benefits of public space apparent to architects, landscape architects, and urban designers are endangered in many North American mid-size cities as residential, commercial and industrial development spreads further from the core of the city. Enduring a surplus of surface parking, vacant storefronts and abandoned lots, the physical ailments of distressed city centers have an equally negative impact on the social environment. As a result, the community’s perception of public space is in a fragile state as their experience of a fragmented urban environment creates feelings of insecurity and vulnerability. Engaging this vulnerable territory of the city, this thesis explores public space as a testing ground for new ideas to be hypothesized, tested and developed. The proposal, a product of an in-depth study of the theory and practice of Everyday Urbanism and Temporary Use, develops a method for design and analysis titled Urban Actuation. Applied to the site of Galt City Centre, Cambridge, Ontario, the Urban Actuation process provides an inclusive way to perceive, value and develop urban public space. Proposed interventions emerge from empirical observation of the existing physical and social conditions of the city and are tested as a means of engaging the community and receiving feedback into the process. Intended to accompany market- driven development, Urban Actuation champions the design professional and city leaders to educate the community on the importance of public space while fostering physical and social urban change.

Mega-events Olympic games temporary interventions according to Federica Busa were considered as catalysts for urban transformation. She explains how a mega-event can be a catalyst of urban transformation; we can use a simple analogy from the business world. In the market economy, companies wishing to accelerate their growth can pursue a variety of different strategies: they can merge with other companies, build new partnerships or acquire new technologies. These options help them gain quicker access to existing or new markets, achieve economies of scale or transform their processes and operations.

The publication of City Catalyst: Architecture in the Age of Extreme Urbanization, examines the city has become an important new starting point in the quest for architecture. At a time of extreme urbanization, unharnessed urban growth has led many architects to rethink the way that buildings are designed for the global metropolis. It is no longer practical or desirable to impose the standardized, idealized planning of the 20th century. Rather than viewing the city as a fixed entity, architects are now seeking direct inspiration from the existing urban environment and learning from its ever-changing state that resists predetermination. The city, in all its complexity, has become a realm of invention and a space for possibilities where new designs can be tested. This is as apparent in the work that architects are undertaking in the informal settlements, or favelas, of Latin America, as in the more regulated spaces of Chicago, London or Tokyo. Favoring an inclusive way of viewing the city, no aspect of the urban world is any longer rejected outright, and architects and urban designers instead find potential and learn from the underlying dynamics of the contemporary city. This attitude highlights the generative capacities of the city and finds new ways of engaging it. At the very least, it advances an architectural thinking that engages the city on its own ground, abets its potential and seeks opportunities in the existing condition. Alexander Eisenschmidt, through the catalyst, design as a process and metaphor were able to express the development vision for the area in very generic terms. Some interesting conclusions were drawn from this research, which can be summarized in 4 points:

1. A catalyst-based approach to urban design produces urban plans with implicit and explicit flexibility. Explicit flexibility is defined by the set of rules expressed to define the plan's solution space. Implicit flexibility is not expressed formally but underlies the rules followed by the design team in designing the plan.
2. Catalyst contains the qualities needed to develop formal generative systems for exploring urban design solutions.
3. Any urban design defined by an urban grammar in a design context is just one potential acceptable solution defined by the grammar for that context. The feasibility of a design is only dependent on the contextual data that constrains the design rules.
4. Designing with a catalytic process leads to intentionally ordered principles in a planned area, whilst allowing for contained but wide freedom of design throughout the design process. The degree of flexibility corresponds to the design space defined by the rules.

The results of these researches were very promising regarding the use of the catalytic process in urban design. The research clearly showed the advantages of using them in education to foster awareness in students of their own design rules, enhancing the understanding of a design language and how to use such knowledge in the development of flexible design proposals. However, their use in practice with real support tools involves additional difficulties, namely in relation to the use of shape grammars and the characteristics of urban design practice.

2.2. THE COMPLEXITY OF THE URBAN ENVIRONMENT
The role of urban catalysis as an interdisciplinary process to guide development in urban planning and design

Uncertainty and complexity seem to be dominant paradigms in the growth of cities. The main problem is that, even when planned, the development of cities is difficult to predict. Designing cities involves the ability to deal with many simultaneous and complex development behaviors and the components involved in such developments, and predict desirable and reasonably controllable city developments. Predictability in terms of city development has been shown to be virtually impossible to achieve (see page 35), because in complex nonlinear systems like cities, prediction and design are players in the system, changing its internal dynamics (Portugali, 2000). In a way, the assumptions that allow for any kind of prediction of a city's behavior are affected by the prediction itself affecting the real outcome, thereby potentially deviating from the prediction. In addition, the constantly changing city dynamics in contemporary society has led to the growing inefficiency of the traditional layout planning approach, which is incapable of dealing with the necessarily fast response demanded by such dynamics. Flexibility and adaptability have become imperative as ways of addressing urban design (Ascher, 2001). Correa (2000) speaks of malleability and instrumentality, referring to ways of addressing city growth in developing countries. According to Friedman, (1997) plans should prescribe a clear development vision on a very general and broad scale, whilst remaining flexible in terms of the design of specific urban spaces. Ascher mentions that the new urbanism should be a flexible urbanism that is aesthetically open, reflexive, involves urban catalysis as an interdisciplinary process in urban planning and design and, formally speaking, an urbanism of devices able to elaborate and negotiate solutions rather than producing specific plans. Traditionally, urban plans are developed using methods that aim to produce a single layout representing a rigid, definite solution. The plans are centered on the definition of tight and interdependent urban parameters that tend to reduce design to a direct formalization of such parameters. However, legislation does not constrain design flexibility or the way in which it represents flexibility.

The Master's thesis (Beirro, 2005) contains an entire chapter on the analysis of the Portuguese urban legislation. The conclusion of the analysis is consistent with this statement. However, the municipalities which are the main institutions responsible for planning and managing territory usually follow strict procedures and a common practice and do not explore the potential for designing more flexible approaches to urban design at all, creating optimal conditions for initiating urban catalytic processes. Additionally, certain strictly administrative procedures such as statistics for taxation purposes impose specific ways of representing certain planned data; for instance, a precise number of dwellings needs to be declared. Therefore, although the legislation embeds potential flexibility and design freedom, some administrative procedures impose ways of presenting information that clash with certain expressions of flexibility. Some research was carried out into Dutch legislation and procedures regarding urban planning and urban design approval. However, it was decided not to include research on legislation. There were two reasons for this decision. The first concerns the fact that the research goals do not address specific contexts, but generic use for wide applicability. As such, legislation is considered a system of constraints, which should work with an autonomous interface allowing a tool user to customize it according to the local regulations. The second reason concerns the fact that in many countries either the legislation

or common practice might not be suitable for flexible approaches to urban design. The conclusion of such a study could be that the legislation is not adequate for the desired practice and needs to be corrected or rewritten.

The first reason simply points out that a correctly developed design tool should be able to adapt to local conditions and the second that an extensive analysis of legislation concerns another line of research which, although interesting and useful, can be carried out independently of the present research. Specific representational devices, nor does it imply any specific way of designing. The usual rigidity derives from an unconscious repetition of procedures, probably because this makes it easier to design and to communicate design intentions. It may be added that this practice is also still tied to the old modernist design practice in which a plan layout was the artistic expression of an imposed formal approach based on the modern principles of functionalism. It can be argued that the current practice of urban design still lacks methods and tools to support flexible urban design.

However, it should be stressed here that the Dutch experiences has a long tradition of trying to approach urban design in new ways and specifically applying innovative design strategies to foster diversity as a means of enriching the qualities of the urban space. Either in strategies of urban catalysis process and pop-up urbanism with early examples rooted from theoretical paradigms presented by Aldo van Eyck. Additionally, their work on housing customization, public space regeneration and diversity seems to propose strategies that link all levels of detail in neighborhood development and involve the participation of all kinds of potential stakeholders. For quite some time these kinds of approaches have been the subject of research, starting with the work of Habraken (1972), (1976) and have definitely had an influence on Dutch architecture and urban planning since then, especially through the work of the SAR – Stichting Architecten Research (Bosma, Van Hoogstraten, and Vos, 2000). Practices involving or deriving from this knowledge in Dutch urban planning have been well documented in several recent publications such as (de Maar, 1999), (Boeijenga, Mensink, and Grootens, 2008), and (Theunissen, 2009). Nevertheless, although successful in terms of achieving diversity, Habraken's ambition to incorporate high levels of participation was never quite successful and is still a subject of research. The influence of the Dutch approach can still be seen in the work of many architects and urban designers (Gausa, Hammond, and Hammond, 1998).

In a traditional top-down approach, municipalities control the planning process through their hierarchical power as representatives of the citizen interests. However, this representative system seems to have failed in terms of the development of the modern city, producing highly criticized results and leaving the citizen outside the decision-making process. Participation is considered by many authors to be the best and most democratic approach to planning urban environments, involving anyone interested in the development of their city or neighborhood. According to Arnstein (1969), true democratic citizen participation should be based on citizen power. However, the decision should be based on qualitative information, meaning that all possible means should be used to make information available to citizens in an impartial but technically accurate way. This is where the main role of the designer lies – the designer is a technical interpreter and new advanced tools may be used to improve the quality of such interpretations. There are basically four kinds of agents involved in an urban design process: the design team, which will simply be called the designer; the local authorities, responsible for

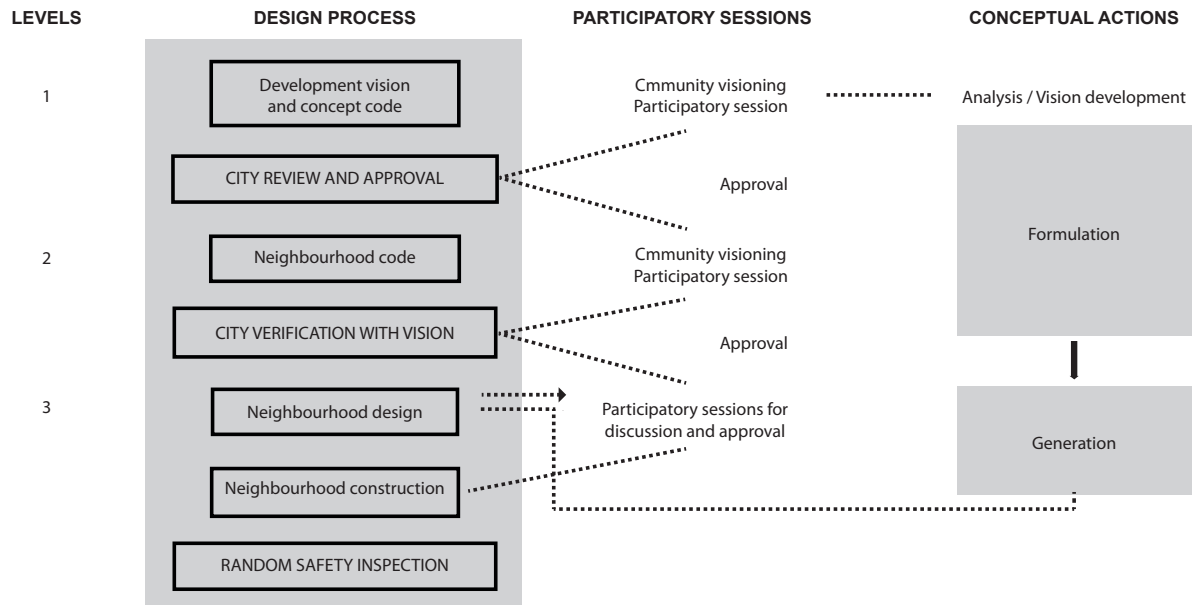


Figure 2.1: The role of municipalities in the approval process, as envisaged by Avi Friedman - Source: (Friedman, 1997).

urban planning and management; the developers and stakeholders, who have legitimate interests in certain parts of the territory and represent the investment power and, finally, the citizens who are the users of the planned city. The citizens are the ones living the city, using it, benefiting from its improvements and complaining about its failures and problems. They should be the most interested parties and therefore the most involved agents. Aware of this fact, most Western countries have been incorporating participatory procedures into their urban plan approval systems, but the real feedback from the population involved is usually very limited and viewed as a disturbance by the designers and urban management authorities.
Construction is not considered a decision-making level but simply a process of execution. The building work essentially concerns the architectural decision-making level but the building design level is the transition point, as it establishes the relationship between the proximity of private spaces and the city (public space) and therefore should at least be considered in the urban design process (Figure 2.1). Ideally, citizens should be involved in all levels of decision-making with increasing intensity. Level Five should ideally be almost totally in the hands of the final user if all the common points have been taken care of in the previous stages. This thesis will focus on Level 2, with particular reference to neighborhood design. Urban design has certain specific features that differentiate it from other kinds of design:

- The process involves a number of decision-makers and is subdivided into several decision-making steps which are not entirely dependent on the designer's decisions. This subdivision may occur for two different reasons: the scale of the design problem, and the particular requirements of participatory decision-making.

The context has a considerable influence on the output format of the design, and is again dependent on the scale of the problem. Several output formats can be identified: the development vision (Friedman, 1997), a master plan, regulations or regulatory

protocols, and detailed layouts, and all of which have particular variations depending on the context, local procedural regulations, the country's laws or local regulations. Communicating or restricting measures regarding the parameters of the urban space and urban indicators, which, again, may involve particular contextual interpretations, expresses most of these formats. As such, urban plans are expressed not just through layouts but also by urban indicators and measurements used as restrictions or as design goals. In using these features, urban plans tend to express qualitative goals more than formal (morphological) goals. In architectural or industrial design clients may take the form of collective bodies or associations but they always involve a finite, well-defined number of actors, whereas in urban design they might be impossible to identify or predict in advance and might even change during the design process. As such, architectural design faces a well-defined interlocutor whilst urban design has to deal with multiple and unpredictable interlocutors.

Participation provides opportunities for the democratic involvement of citizens as well as other stakeholders in decision-making during the urban design process. Amongst other advantages, participation allows for the integration of stakeholder concerns, a diversity of viewpoints, and greater acceptability of projects, mutual learning and mutual respect (Lach and Hixson, 1996). If well managed, participation can improve results and save time and money. Community visioning is a common technique for community participation. Using proper supporting interfaces it must be implemented with the aim of achieving genuine levels of citizen participation – via partnership, delegated power or citizen control (Arnstein, 1969). Community visioning is achieved through open participation, which involves four steps called the visioning process (Steiner and Butler, 2007).

These steps can be synthesized into four main questions:

(1) where are we now? – defining the community profile from existing information and community values;
(2) where are we going? – Analyzing probable trends and scenarios;
(3) where do we want to be? – selecting the preferred scenarios for a community development vision; and
(4) how do we get there? – Plans, goals and strategies.

The fourth question is the one that concerns the definition of the final design. However, the process of defining scenarios for questions (2) and (3) should be supported by at least a simulation procedure to help visualize the consequences of the decisions and should closely reflect real design procedures, focusing on exploring possibilities and therefore allowing for speculative, although grounded, approaches.

As mentioned by Mayer (2009) he propose the use of serious games in urban planning and simulation, stressing that this kind of tool should be integrative, dynamic, interactive, transparent, flexible, reusable and adaptable, fast and easy to use, communicative, educational and authoritative. However, it should be noted that there are substantial differences between simulating and designing. A design tool does not need all these qualities but will probably need a few others. Nevertheless, the advantage of combining the two processes as much as possible is that it approximates the final proposed design to the approved simulated scenarios. This has been the main reason behind serious research into gaming (Habraken and Gross, 1987), (Brandt, 2006),

(Brandt and Messeter, 2004). The main difference between simulating and designing concerns the use of regulations supporting the urban plan. Regulations are simply a way of filtering out unwanted scenarios whilst designing. Simulation should, however, provide the possibility of assessing even absurd scenarios and as such, a simulation tool should be able to spot and check the limit conditions that determine the shift between the acceptable and the unwanted. However, some authors say that working with physical objects engages participants more successfully in participatory activities (Moughtin, 2000), due to the size of the computer monitor or, if a projector is used, the distance created between the participants and the subject under discussion. To overcome this problem some researchers have developed games involving physical models as an approach to developing city simulation games for participatory meetings (Venhuizen, 2010) (Tan, 2009). Others have developed more immersive environments, which allow for greater human-computer interaction (Kunze and Schmitt, 2010). Kunze and Schmitt present an unusual method for developing participatory vision. With the help of an interactive computer environment composed of large touch screens and tables, the participatory process involves two sequential procedures: context analysis to identify fact patterns (occurrences) and vision development to define concept patterns. The participatory process uses the interactive computer environment to enhance the analysis but most of the process is undertaken using pens and a card on which the participants record their patterns by writing and drawing simple schemas. The process is easy to run and can easily be understood by every participant. Procedures for participatory methods are extensively tested and documented. Several methods already exist, have clearly defined procedures and are adequate for specific types of participatory events.

2.3. URBAN DESIGN THEORIES

Although urban design is a new term coined in 1950s (Lang 2005, xxi), it has been an integral part of the process of city (or town) planning since antiquity. This is clearly evident from the different geometrical form based ideal town proposals throughout history in both eastern (Bandyopadhyay 2000, 25-28) and western (Spreiregen 1965, 12-13) civilizations. This research requires to firstly understand the various urban design theories and their evolution through time, but an important question to be raise is how we must study this evolution. One could start all over from ancient Greeks and Romans, covering 2500 years of city designing process. This would be quite overwhelming for the scope of this thesis. Since the twentieth century marks the epitome of human achievement in most of the fields including city design due to scientific and technological advancements, it tends to be a natural start for the timeline study of the evolution of urban design.

The eastern and western ideologies and theories regarding ideal cities and urban design are divergent. The eastern cities are mainly kinetic cities revolving around a market place (bazaar) such as is Tirana and a considerable number of other cities in Albania, and in comparison to western cities have more population density, have informal and organic sectorial design and are more sustainable (not because they are designed that way, but due to economical restraints and limitations) in nature (Bhatt & Rybczynski 2001, 1.3; 2-11). The big design gap between eastern and western cities is another

factor for consideration while studying the evolution of urban design. The eastern and western urban design evolution cannot be studied together. This study should be done separately. In this dissertation, the research will be based on western urban design ideologies and theories.

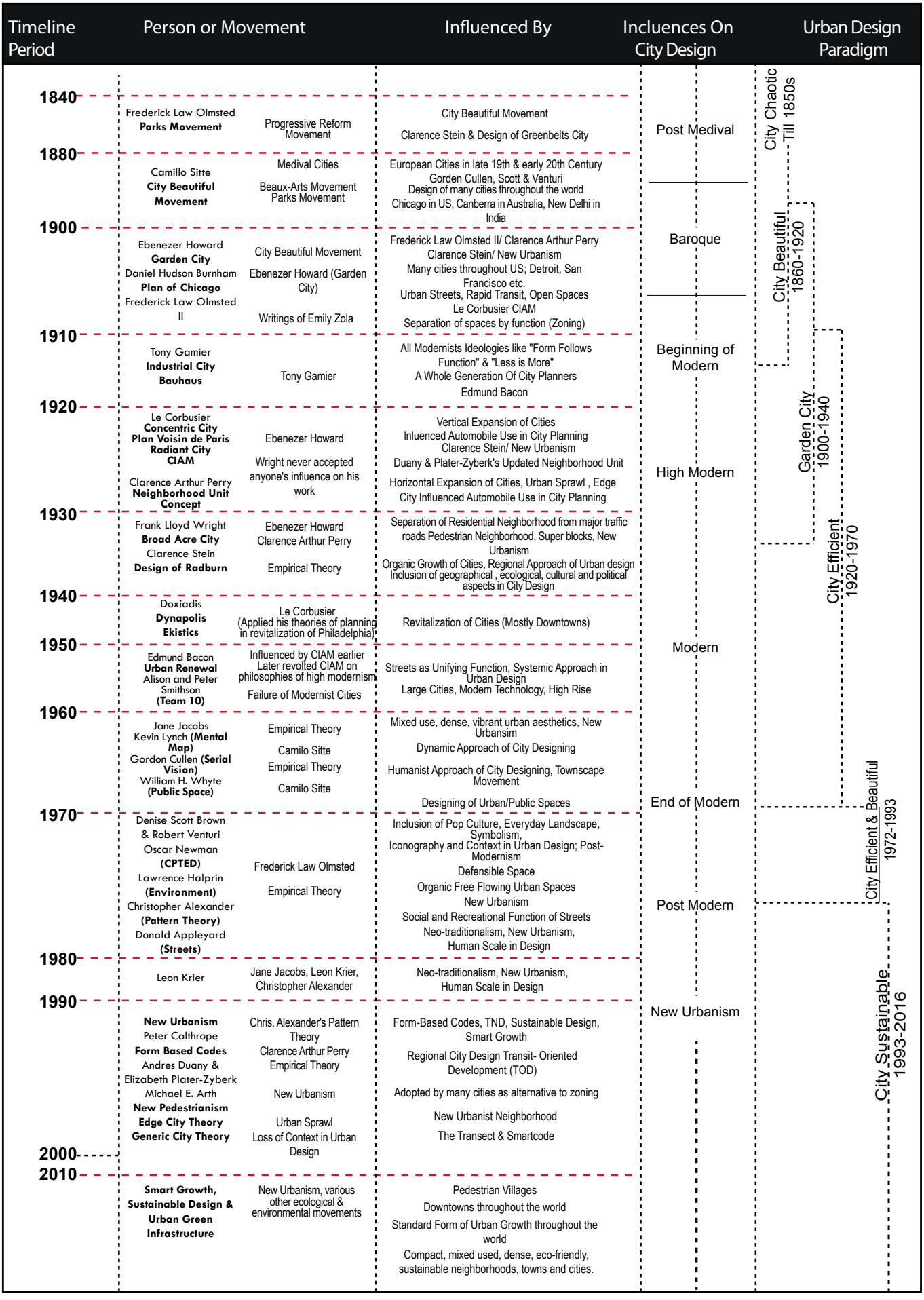
Any design, including urban design by definition involves and invokes a designer(s). The chronological (Table 2.1) study of the evolution of urban design can be best done by studying the design or theory proposals given by different urban designers (which would include architects, landscape architects, planners, urban sociologists and even philosophers) throughout the twentieth century. This chronological study gives us the theoretical and generic evolution of urban design drawn heavily from various academic theories and not the practical evolution of urban design specific for any city. For example, two cities even though initially designed using the same urban design theory over time can adopt different or contrasting theories for redesigning the city or for new developments.

In this chapter of this thesis we are examining critically the evolution of the main urban design theories in Europe and North America. Analyzing the impact of each theory and main principles to understand different contexts of application and influencing effects. A thorough analysis on the impact that the city of Tirana has had is necessary to elaborate how the urban catalysis theory can be an appropriate tool of investigation for the city.

The various theories can broadly be categorized into different models. One model, of the formalist tradition pioneered by Frederick Law Olmsted was the Park Movement, which focused on the introduction and integration of natural systems into the city and influenced design of greenbelts cities and is still influential in designing eco-cities today. Another variant of formalist tradition was “City Beautiful Movement” which was rooted in Renaissance and Baroque urbanism and looked at the city as a network of formal streets and spaces, marked by striking monument. A second model was that of Camillo Sitte who believed in recreating medieval cities and treated urban spaces as aesthetic arrangements of building masses, facades, and street spaces. A third model “The Garden City”, by Ebenezer Howard was developed and advocated by Raymond Unwin, Clarence Stein, Clarence Perry and many others still influence today’s neo traditional community. A fourth model which was introduced by Tony Garnier and developed by Le Corbusier and applied by many like Edmund Bacon and Lucio Costa, looked at the city in terms of efficiency and function and tried to create urban space using new techniques of construction and transportation.

Then there were other urban design theories by the likes of Gordon Cullen, Kevin Lynch, William Whyte, Christopher Alexander and post modernist Denise Scott Brown and Robert Venturi which cannot be really plugged into any of the four models described above and can be called a fifth model. A sixth and the latest model is the New Urbanism Movement, which aims to reform all aspects of urban design and create walk able, dense, mixed-use neighborhoods. We also have some city form theories like “Edge City” and “Generic City” which are also important while studying the evolution of any city. Probably these theories together make the seventh model.

TIMELINE OF EVOLUTION OF URBAN DESIGN THEORIES



2.4.DIFFERENT GROUP THEORIES AND MODELS

The various urban design theories proposed throughout history can be broadly categorized and organized into different models in more than one way. The diagram presented earlier is the author's way of categorizing the main urban theories which are considered throughout this research.Based on the above diagram we have six different models and one group called "others' which basically includes the theories which do not fit in any model. Presented next is the synopsis of the different models and snapshots of the important theories which make the model. Several of the below theories will be developed and explained further according to each context where they have been originated and applied in particular. The below short description introduces the model in general in order to layout the main principles and concept.

1. The Formalist Model

The formalist model is the oldest model in the above diagram. Developed first in the nineteenth century, the main aim of the formalist model is "aesthetics of order". The Park Movements and the City Beautiful Movement, which followed one another, sought to improve the moral structure of the society through a fundamental formal restructuring of spatial structure. The parks were integrated into the city formally by the means of four avenues laid out with an elaborate system of independent traffic lanes, bridges and underpass that were designed not to interrupt the continuity of the landscape. Similarly, City Beautiful movement" which had its roots in Renaissance and Baroque urbanism entailed axial organizations and static spaces drawing upon elementary geometrics. These reflected a notion of universal order and harmony. Christopher Alexander's Pattern theory is the idea of capturing architectural design ideas as a "pattern". A pattern records the design decisions taken by many builders in many places over many years in order to resolve a particular problem. These patterns, formal in nature serve, as an aid to design cities and buildings. Although, Pattern Theory could also fit in the Humanist Model, it is more of a formalist theory, and hence under the formalist model. Pattern theory also had a great influence in shaping the New Urbanism Model. The neo-rationalist and post-modernist (Venturi & Scott, Whyte, Aldo Rossi) designers can be also called formalist in some sense with their collective form and populist ideologies (Attoe & Logan 1989, 14) but the author thinks they are more into the human scale as opposed to the colossal grandeur of city beautiful formalism and hence are a part of the Humanist Model.

2. The Garden City Model

The Garden City theory called the breakthrough theory of the twentieth century was initiated by Ebenezer Howard and later advocated by Raymond Unwin, Clarence Stein and Lewis Mumford This theory is about creating suburban towns of limited size surrounded by a permanent agricultural land (green belt) independent and self contained and economically managed by the town dwellers. The Garden City Model according to some scholars can fit into the Functional Model as it also has functional concerns of making city efficient. But the way this author looks, social and economical concerns are the primary concerns of the model and function secondary whereas in the Functional Model, functioning of the city by applied technology is the primary concern. Keeping the Garden City Model outside the Functional Model is appropriate. Clarence Perry was influenced by Howard and developed the "Neighborhood Unit Concept" but unlike Howard's Garden City which was a self contained town, Perry's concept was more of a residential section of the city which would include elementary school, small parks and playgrounds, local shops and churches. Clarence Stein who designed Radburn based on the neigh-

Table 2.1: Timeline of Evolution of Urban Design Theories

borhood unit concept modified Perry's neighborhood unit and expanded the definition of neighborhood center by connecting neighborhoods together to create town. Perry's and Stein's theories are derivative of the Garden City concept in American context. Perry's Neighborhood Unit was later updated by Andres Duany and Elizabeth Plater Zyberk which is the part of The Lexicon of New Urbanism. Wright's concept of Broadacre City is of a decentralized city. Although Wright is associated with high functionalism his idea is opposed to the idea of density, which Le Corbusier and other functionalist speak of, having horizontal expansion of the city, rather than vertical, though it is similar in the functional approach due to extensive use of technology and automobiles. Broadacre City is a less dense version of Garden City except for the extensive use of automobiles. So instead of putting Broadacre City into functional Model, the author thinks it fits better under The Garden City Model.

3. The Functionalist Model

This Functionalist Model looks at the city in terms of efficiency and function and tries to create urban space using new techniques of construction and transportation. Tony Garnier's Industrial City pioneered this model which was later developed by Le Corbusier and CIAM and applied throughout the world. Influential application in city design of the Functionalist Model includes De Costa's Brasilia, Tange's Tokyo, Louis Kahn's Dhaka and Edmond Bacon's revitalization of Philadelphia. In "Une Cite Industrielle" (Industrial City) Garnier basically speaks of separation of spaces by function (zoning concept), decentralized layouts, traffic-free pedestrian zones and residential districts with gardens, which would emphasis in continuous pedestrian circulation. Le Corbusier was influenced by Garnier and in the Athens Charter, the result of CIAM's fourth meeting he gives us 95 clauses, which are in fact his solutions for the unintended ills of the city. Like Garnier, Corbusier speaks of function-based spaces and using of topography to advantage and taking climate into account. Major points in the Charter include locating residential district to the best sites within the urban spaces, the non alignment of houses along transportation routes, use of modern techniques of construction, use of high rise structures (vertical expansion of cities), inclusion of green spaces, full use of natural elements (rivers, lakes, forests, hills etc) for recreation, reduction of distance between workplaces and residential areas. Alison and Peter Smithson of Team 10 emphasize on large-scale elements and seek an overall order for the urban place. They were influenced earlier by CIAM but later revolted it on issues of overall comprehensibility of city design. Some authors like Wayne Attoe categorize them differently as the Systemic or Structuralist Model rather than being a part of the Functionalist Model. Even though they differ from the traditional functionalist in overall comprehensibility, they still are functionalist as they speak of a "unifying function" the "Urban Motorway" to uplift the lack of comprehensibility and identity in big cities. Like Corbusier they also speak of urban mobility as the key element of urban design. The author thinks the Systemic Model is a subset of the Functional Model and Alison and Peter Smithson are a part of the Functional Model. Doxiadis' Ekistics theory can be seen as a correction and elaboration of the Functionalist Model. Ekistics principles include being realistic, thinking at long range with broad scope, identifying problems, and evaluating constantly. Like other functionalist Doxiadis also advocated functional separations of spaces but with much more priority to the central function or the CBD.

4. Humanist/ Experience Model

Camillo Sitte in the late nineteenth century talked about treatment of urban spaces as aesthetic arrangements of building masses, facades and street spaces to incorporate

the human scale. He criticized the emphasis on broad, straight boulevards and monumental architecture but rather gave attention to small-scale elements and informal ordering system avoiding large scale geometry. His theory of urban design was very humanist in nature. Gordon Cullen, Jane Jacobs, Denise Scott Brown & Robert Venturi, William Whyte were and others in 60s-70s were all influenced by Sitte and approached urban design based upon the experience, perception and particular of specific places giving attention to the human scale. They all opposed the rationalism of Functionalist Model, which was seen as abstract and disengaged in this era. Sitte combined with all these postmodernist theories (or approaches) of urban design can be broadly categorized into Humanist/ Experience Model. Cullen's Townscape concept is the art of giving visual coherence and organization to the jumble of buildings, streets and space that make up the urban environment. Jacobs advocated a dense and mixed-use urban aesthetic that would preserve the uniqueness inherent in individual neighborhoods. Her aesthetic can be considered opposite to that of the modernists, upholding redundancy and vibrancy, against order and efficiency. Scott Brown and Venturi's theory lies in the mutual relationships between the various material and social ingredients of the design process. They have broadened urban design by including very human ideas like pop art, popular culture, and everyday landscape like symbolism, iconography and context. Whyte's human observation in public spaces and study of pedestrian behavior has helped to find the actual use of urban plazas, appropriate sidewalk width, and overall design considerations of human scale urban spaces.

5. City Form Model

Edge City theory and Generic City theory give us the outlook of the form of cities and suburbs in the new millennium. They are not urban design theories formulated by anyone but self-sprung city form, which became urban design theories. These two theories can be categorized into one model and can be called City Form Model. This model has been particularly added to the section so that while doing the city study in Chapter 4, it could be one of the key ingredients in evaluating the evolution of cities.

6. New Urbanism Model

New Urbanism is the latest model of urban design and is the hybrid of the Formalist Model and the Humanist Model. It looks at urban design in three different scales, region, neighborhood and streets. This regional perspective helps to define a meaningful edge for the metropolitan area, eliminating the danger of random growth in distant sites served only by highways. The Transit Oriented Development (TOD) concept developed by Calthorpe is simple: moderate and high-density housing, along with complementary public uses, jobs, retail and services are concentrated in mixed-use developments at strategic points along the regional transit system. Its neighborhood-scale principles developed by Duany & Plater-Zyberk go to an urban design philosophy that reasserts mixed-use, walkable environments. Its principles of design at the scale of the street and building seek to recreate places in which continuity and public space are re-established for the pedestrian. New Pedestrianism, a variant of New Urbanism developed by Michael Arth further focuses on less automobile usage and extensive usage of Segway's, skates and bikes.

7. Others

Some of the other urban design theories; Kevin Lynch's empirical research on perception of urban spaces and Oscar Newman's CPTED do not fit in any of the model described above and are not taken into consideration while doing the evolution study of cities.

Table 2.2: Extraction of Important Elements form Different Urban Design Theories_Garden City and Derivatives

URBAN DESIGN THEORY	PERSON / MOVEMENT	LAND USES/ DENSITY	STRUCTURE/ STREET - LAYOUT	DESIGN/ AESTHETICS/ ARCHITECTURE BUILDING MATERIALS
GARDEN CITY & DERIVATIVES	EBENEZER HOWARD (GARDEN CITY)	Hierarchical Commercial (including public buildings and recreation space). Residential and Industrial sectors, followed by agricultural land. Gross population density of 30 persons per acre.	Concentric pattern with open spaces, public parks and six radial boulevards, 37m wide ,extending from the centre. Surrounded by a permanent agricultural land (green belt).	Vernacular architecture.Use of local environmental friendly building materials.Open country landscape. Beauty of amenity in proximity.
	CLARENCE PERRY (NEIGHBORHOOD UNIT)	Mainly residential with elementary school, small parks and playgrounds, and local shps. Housing for the population for which elementary school is required. Gross population density of 7.75 families per acre. Single family dwellings with small proportion of apartments. Area and density could be variables.	Bounded on all sides by arterial streets, sufficiently wide to facilitate its by passing by all through traffic. Internal street proportional to its probable traffic load and the street net as a while designed to facilitate circulation within the unit. Shopping districts in circumstances of the unit, all traffic junctions.	Same sas above applied in American context.
	CLARENCE STEIN (RADBURN)	Mainly residential with elementary school and local shops in one unit, commercial areas in junction of two units and high school in junction of all the three units and surrounded by greenbelts. Specialized automotive throughfares called superblocks and a complete separation of auto and pedestrian traffic. Gross density of 19 persons per acre.	Specialized roads planned and built for a one use instad of all use. Service lanes for direct access to buildings, secondary collector roads around superblocks, main through roads linking the traffic of various sections, neighborhoods and districts, express highways or parkways for connections with outside communities. Thus it differentiates between movement, collection, service, parking and visiting.	Architecture sytel is not specified. Orientation of houses main concern. Living and sleeping rooms facing toward garden and parks and service rooms, facing towards access roads. Large open spaces in the center of superblocks, joined together as a continuous park.
	FRANK LLOYD (BROAD ACRE CITY)	Decentralized City. More of a landscape than a city. Mostly single family low density residential with each house owning its own farm but has offices, small factories and shops nested among the farms. Some more apartment building residential also exist. Minimum density of one family per acre.	Scattered layout, with all elements joined by a network of superhighways. No railways, the transportation is purely by automobiles. Sidewalks provided for the pedestrians along the streets in within the dweller's broad acre plot.	High-tech science-fiction paper architecture and futuristic transportation system.

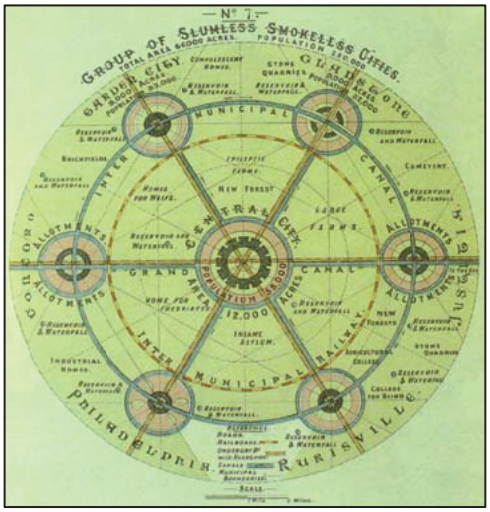
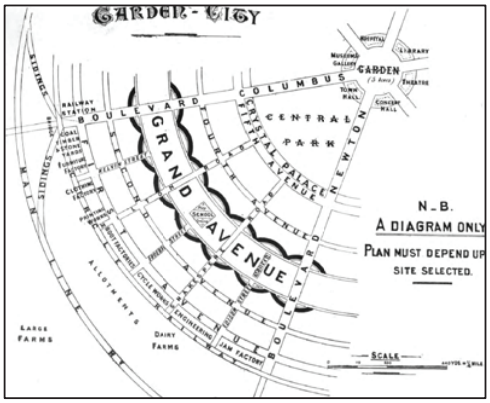
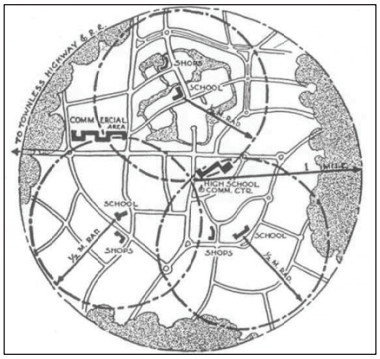
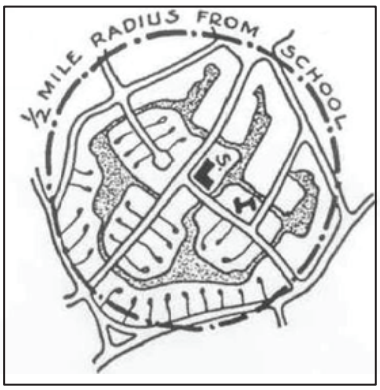
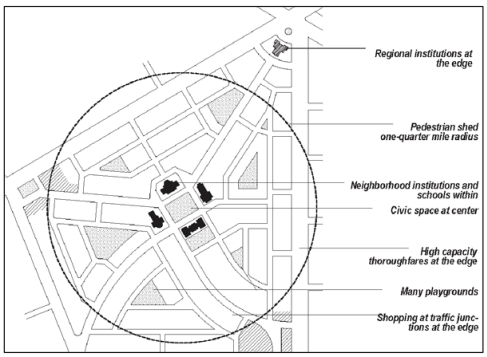
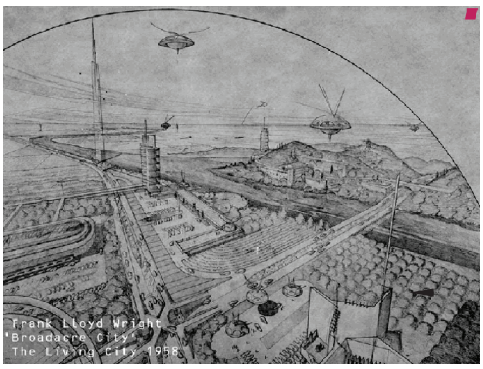
BASIC UNIT/ FORM	ASSOCIATED GRAPHICS
Town/ Suburb. Every combination of six garden cities to conglomerate around a larger central city.	 Original illustrations from Howards's 1902 book showing the detail street layout of a garden city and a regional plan where 6 garden cities conglomerate around a central city.
Neighborhood. Catchment area of an elementary school at the centre with one-quarter mile ruadius. Basically circular in paper, irregular loop in practice.	  
Three Neighborhoods/ Town. Catchment are of an elementary school at the centre with one-half mile radius. High school and town center at the junction where three units overlap. Catchment area of one mile from high school. In total two square miles of irrgular land	 Perry's Neighborhood Unit concet illusrated. Stein's illustration of 3 neighborhood units which combine to form a town and the detail layout of one neighborhood.
Town, Suburb, Scattered Form, Open Landscape.	 Wright's Conceptual Sketch of Broad Acre City, showing flying taxis.

Table 2.3: Extraction of Important Elements form Different Urban Design Theories_Functionalist model

URBAN DESIGN THEORY	PERSON/ MOVEMENT	LAND USES DENSITY	STRUCTURE/ STREET - LAYOUT	DESIGN/ AESTHETICS/ ARCHITECTURE BUILDING MATERIALS
FUNCTIONALIST	TONY GARNIER (INDUSTRIAL CITY)	Separation of spaces by function through zoning into four categories including: leisure-recreation, industry, work and transport.	The three main functions of the town; production, housing and health facilities are clearly distinguished. Main street originates from railway station and run east-west. Residential quarters are arranged on an urban grid and divided into lots of 15 by 15 meters. Each building is linked to a pedestrian route so that people could cross the city in all directions independently of the roads. Residential and public areas are places on a plateau and the industrial complex is situated on the periphery by the river.	Extensive use of reinforced concrete. Simple forms for the simplicity of structural expression. No ornamentation. Use of large horizontal and vertical surfaces in buildings which creates balance and harmony with natural contours of the landscape. All homes are detached. Courtyards are eliminated and every room is lit and ventilated directly from outside. Follows climatic design variables.
	LE CORBUSIER (CIAM)	Zoning key element. Treats residence, work and leisure as discrete elements. Activities not to mix except in the heart or core of the city where they commingle. Residential location within best urban spaces, not to align along transportation routes. Reduction of distance between work places and residential areas. Density of population to be increased by changing the height of the building. Density to be decided by authority once the population figures and dimensions of the land are fixed. Good range would be 200, 320 or 400 people per acre.	The whole city and regional traffic circulation to be analyzed from statistical data. Traffic channels to be classified according to type. Roads to be differentiated according to their purposes: residential, promenades, throughways and principal throroughfares. Pedestrian to follow different path than the automobiles.	Use of modern construction techniques. Use of high rise structures. use of topography to advantage and taking of climate into account when designing spaces. Inclusion of green spaces and full use of natural elements (rivers, bikes, forests, hills, etc) for recreation.
	TEAM 10	Mainly residential with elementary school and local shops in one unit, commercial areas in junction of two units and high school in junction of all the three units and surrounded by greenbelts. Specialized automotive throughfares called superblocks and a complete separation of auto and pedestrian traffic. Gross density of 19 persons per acre.	Specialized roads planned and built for a one use instad of all use. Service lanes for direct access to buildings, secondary collector roads around superblocks, main through roads linking the traffic of various sections, neighborhoods and districts, express highways or parkways for connections with outside communities. Thus it differentiates between movement, collection, service, parking and visiting.	Architecture sytel is not specified. Orientation of houses main concern. Living and sleeping rooms facing toward garden and parks and service rooms, facing towards access roads. Large open spaces in the center of superblocks, joined together as a continuous park.
	DOXIADIS (EKISTICS)	Traditional functionalist residential, commerical, and industrial separation of uses but relatively more importance to the central function or the CBD. Population of 1,500 for a neighborhood, 10,000 for a town and 75,000 for a city.	Noded and hierarchical hexagonal infrastracture instead of the regular rectilinear or concentric pattern which not only provides for free-flowing circulation, but enables the expansion and promotion of hexagonal sectors to higher weights of arrangement as the settlements increases in population.	Modernist - no ornamentation architecture. Climatic and contextual design.

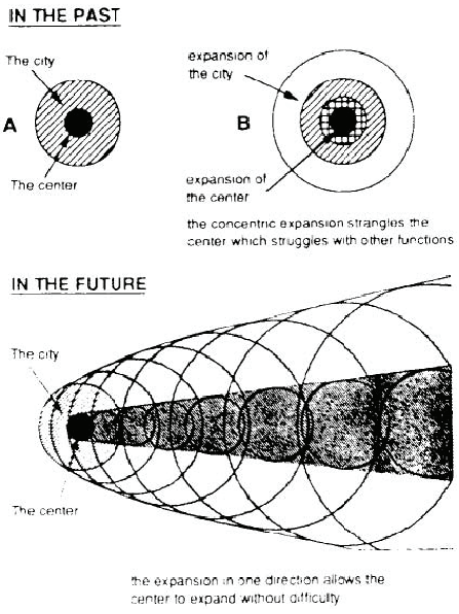
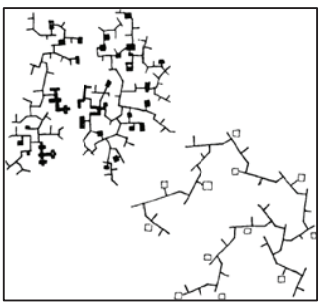
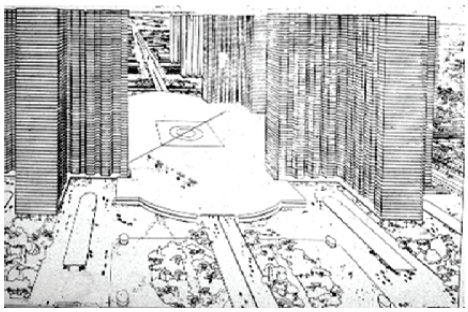
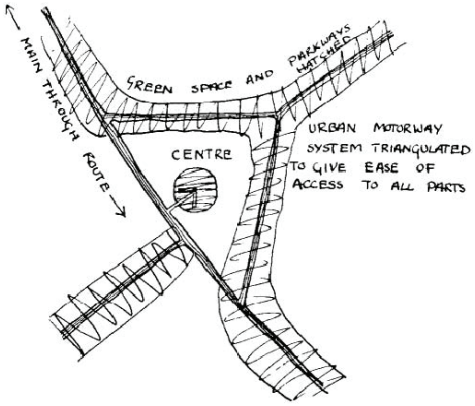
BASIC UNIT/ FORM	ASSOCIATED GRAPHICS
Town. Composed of a grid of parallel and perpendicular streets	
Mega City Focuses in vertical expansion of the city.	 The Dynapolis Diagram by Doxiadis shows how concentric cities in the past fail as peripheral growth chokes the core. The future city is both centric and linear and growing over time can maintain the relationship of core and the hinterland.
Three Neighborhoods/ Town. Catchment are of an elementary school at the centre with one-half mile radius. High school and town center at the junction where three units overlap. Catchment area of one mile from high school. In total two square miles of irrgular land	
15 different variable units ranging from Anthropos (individual dwelling) to Ecumenopolis (global city).	Corbusier's conceptual sketch for the radiant city. Mega size city with high rise buildings and extensive use of reinforced concrete. Below detail of the civic center.   Peter Smithson's Illustration of the urban moterways (up) which is to be the unifying function for any city. appreciated Units (rights) instead of neighborhoods to be the building block of any city.

Table 2.4: Extraction of Important Elements form Different Urban Design Theories_Functionalist model

URBAN DESIGN THEORY	PERSON / MOVEMENT	LAND USES/ DENSITY	STRUCTURE/ STREET - LAYOUT	DESIGN/ AESTHETICS/ ARCHITECTURE BUILDING MATERIALS
FORMALIST	CITY BEAUTIFUL	Residential outside the central area. Civec center, public buildings and commercial area conveniently placed in central areas of the city. Relatively moderate density.	Use of grid. Parallel streets with unvaried width in most areas with buildings facing the streets. Boulevards radiating from a central landmark to create vistas. Overall classic civic order laid down on the street grids.	Beaux-Arts, Architecture, Monumental, Grandeur, Order, Harmony, Extensive use of urban design organizational elements like view, vista and axis.
	FREDERICK LAW OLMSTED (PARKS)	Open and recreation spaces added to the city to change and improve the physical structure of the city. Brought back nature into the heart of the city. Basically a place of leisure and recreation but had a multiplicity of functions.	The parks were integrated into the city by the means of four avenues laid out with an elaborate sysem of independent traffic lanes, bridges and underpass that were designed not to interrupt the continuity of the landscape. Separation of traffic systems with four traffic networks (pedestrians, riders, fast and slow traffics) were planned to function simultaneously but independently.	Organic design. The texture of the city and the rural texture of the parks intermingled with gradual intercepts. Naturalistic environmental through adequate use of technology.
	CHRISTOPHER ALEXANDER (PATTERN)	Scattered workplace throughout the city and to intermingle large residential workplace and large residential area. Overall mixed use in large scale. preferred density of 7000 people in a neighborhood of a 650 meter diameter.	Breakdown of urban areas into local transportation area. Local roads and paths for internal movements on foot and major roads for the automobiles to get to and from ring roads surrounding the community.	Notion that the most beautiful structures in the world has been designed not by architects but by common people. Hence urban context and the users to shape their own flavor of aesthetics and architecture.

BASIC UNIT/ FORM	ASSOCIATED GRAPHICS
City focusing on city center.	 City Beautiful in its full extent, Vision for Chicago Civic Center. Formal, symmetrically ordered but lacking social objective or content Never got realized.
Variable size and form. A system of urban parks was systematically laid out and interconnected by stretches of greenery.	 A typical City Beautiful, central city layut, marked by monuments and buildings, in a proper axis which creates great views and vistas.
	 Plan of Central Park New York and a panoramic view with New York's skyscrapers. Designed by Olmsted in 19th century, the rules of the design were to include 2 reservoirs and 4 transverse roads (as can be seen in the plan). Harmonious co-existence of green jungle and the concrete jungle.
Size varies from small blocks, neighborhoods, towns, city and region. Form to incorporate rural and urban design and infrastructure like keeping the "fingers" of farmland and urban land interlocked.	  Alexander's illustration of City-County fingers which he thinks should be interlocked throughout.

Table 2.5: Extraction of Important Elements form Different Urban Design Theories_Humanist model and City Form

URBAN DESIGN THEORY	PERSON OR MOVEMENT	LAND USES/ DENSITY	STRUCTURE/ STREET - LAYOUT	DESIGN/ AESTHETICS/ ARCHITECTURE BUILDING MATERIALS
HUMANIST EXPERIENCE	Camillo Sitte	Land Use & Zoning concept not yet derived at his time. Influenced by medieval cities which had compact development. No segregation of space by function. Everything to comingle.	Does not speak of an overal street structure. Use of curving and varying with streets throughout to provide ever changing vista.	Design based on sensitivity aesthetics, not concerned with the historical circumstances that generated forms. Architecture style and form to express contemporary conditions and not some alien style. Importance not to architectural shape or form of each building but the inherent creative quality of urban space.
	Gordon Cullen, Jane Jacobs, Denise Scott Brown and Wiliam Whyte	Advocate mixed use of the urban environment. Oppose functional zoning. In facor of medium to high population density in order to have a vibrant community. Population density of 200 to 300 people per acre according to Jacobs.	Attention to small-scale elements and informal ordering system avoiding large scale geometry. No mention of major thoroughfares but focus on domestic pedestrian friendly streets which become livable places for people.	Vernacular architecture, everyday landscape, contextural design.
CITY FORM	Edge City	Main comercial use with business, shopping, and entertainment. Mid-rise office towers (with some skyscrapers) surrounded by massive surface parking lots. Some residential (mainly apartments). Relatively medium to high density of population.	Develop at or near existing or planned freeway intersections or major airports. Street networks are hierarchical, consisting of winding parkways (offer lacking sidewalks_ that feed into arterial roads or freeway ramp.	Mid-to high rise buildings. Match box architecture. Mainly concerned with function rather than aesthetics.
	Generic City	Mainly commercial and office use with small amount of other uses, like civic centers, government buildings and high rise apartment housing. High density of population.	High rise buildings surrounded with narrow pedestrian friendly streets with decks, bridges, tunnels, motorways and metro rail.	Inorganic in nature. Free style of aesthetics. No contextual design. Hi-tech and modern construction using all sorts of materials ranging from concrete, steel, glass, etc.

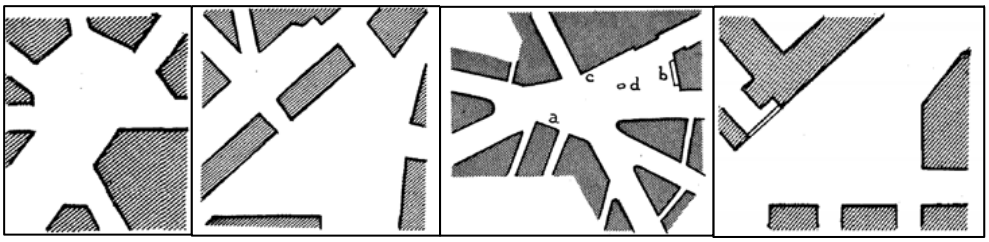
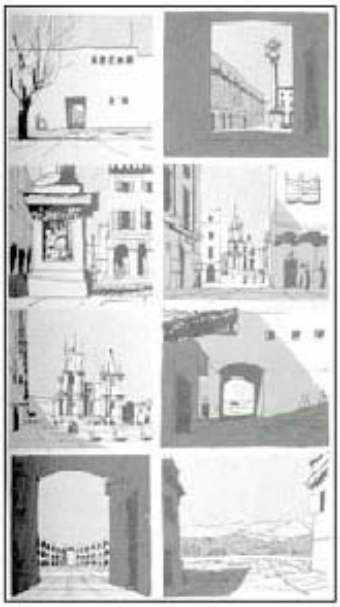
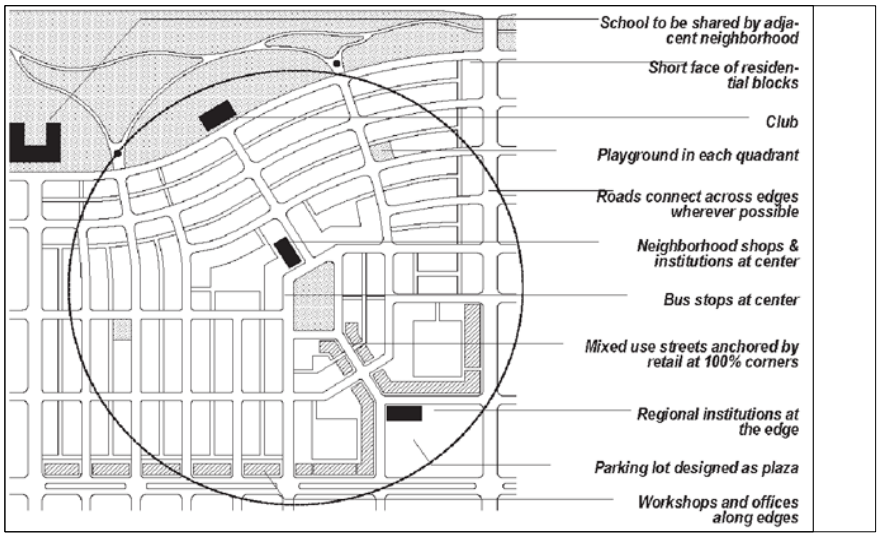
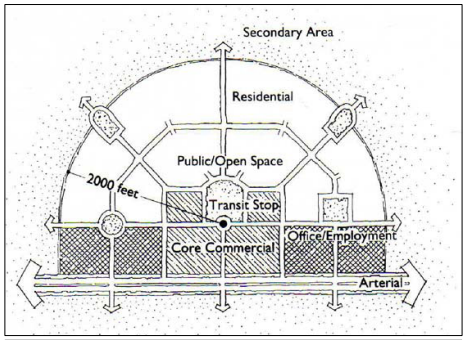
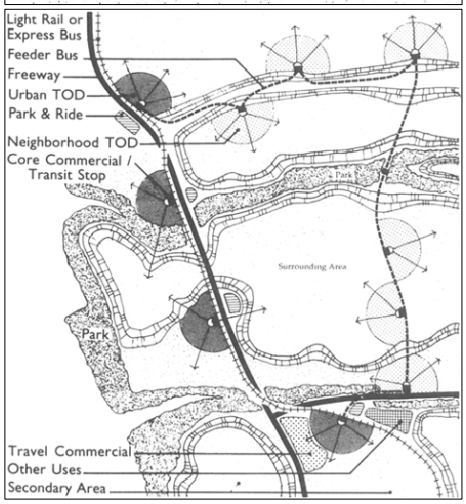
BASIC UNIT/ FORM	ASSOCIATED GRAPHICS
City but main focus on city centers, public squares, plazas, ec. Irregularity of form as opposed to geometric recti-linear forms.	 The four sketches above are from Sitte's "City Planning according to its artistic principles". Giving examples from Medieval European plazas and streets, Sitte gives the importance of irregularity in street and the enclosed human scale space they create.
Community, Neighborhood, Place	   Downtowns across the glove have become generic in their design (Anti clockwise from top) Shanghai, Sao Paulo and Chicago through located in differ-ent continents look identical at night. Gordon Cullen's Serial Vision represents quintessential humanist approach of giving attention to details and designing for human scale
Previously Suburb or Rural area changed to town/city.	
Downtowns or City Centers of medium to big cities.	Tysons Corner in Nothern Virginia is a typical example of Edge City. More than 120,000 people work in Tysons, but ony 17,000 people live there, so most workers must drive in and out at the same time every day making a notorious traffic conrestion, dangerous conditions for pedestrians and bicyclists, and vast spaces of parking lots that trap heat and produce poputed rumoff.

Table 2.6: Extraction of Important Elements form Different Urban Design Theories_New Urbanism Model

URBAN DESIGN THEORY	PERSON OR MOVEMENT	LAND USES/ DENSITY	STRUCTURE/ STREET - LAYOUT	DESIGN/ AESTHETICS/ ARCHITECTURE BUILDING MATERIALS
NEW URBANISM	Peter Calthrope (TOD)	A mixed-use community within an average one half-mile pedstrian shef of a transit stop and core commercial area. A mix of residential, retail, office, and open space, in walkable environment, making it convenient for residents and employers to travel by transit, bicycle, foot or car. A minimum required density of 4 dwelling units per acre.	The TOD site to be located on an existing or planned trunk transit (light rail, heavy rail or express bus) line or on a feeder bus route within 10 minutes transit travel time from a stop on the trunk line. The auto usage for a TOD is to be 60% of all trips. Hence, internal system to be planned for on-going auto-use. Adequate auto excess from arterials and freeways needed interconnected local streets converging to transit stops, core commercial areas, schools and parks. Local trips not to be connected with arterial streets. Pedestrian friendly streets with proper sidewalks, trees, building entries and parallel parking.	Human-scale buildings with design elements that enhances the streetscape. Porches and bays facing the street. Varying facade from one building to the next to avoid monotony. Blank trick facade discouraged. Roads to form vistas.
	Edge City	Mainly residential with houses, row houses and apartments as dwelling types. A few sites reserved for local institutions at the center and regional institution at the edge. Schools, shops and offices are also located in the edge of the neighborhood. Overll focuses on the mixed use of residential, commercial and institutional uses. Relatively medium population density.	The neighborhood has a discuemible center with a square or a green space and a transit stop. Sstreets within the neighborhood form a connected network, which disperses traffic by providing a variety of pedestrian and vehicular routes to any destination. The streets are relatively narrow and shaded by rows of trees. This slows traffic and creates an environment suitable for pedestrians and bicycles. Walkability is the key.	Mixed-use streetscapes with corner shops, front porches, and a diversity of well-crafted housing. Architectural style based upon local building traditions and techniques and codified within the regulations.
	Michael Arth (Pedestrian Village)	Compact, mixed-use neighborhood or village center, built near a downtown area or newly-created village. Population density relatively medium to high medium.	Tree-shaded, pedestrian and bike lans in front of all residences and businesses, with tree-lined automobile streets at the rear. With eliminating the front street and replacing it with a tree-lined pedestrian lane, emphasis is placed on low-impact alternative travel such as walking and cycling. Pedestrian lanes are 12 to 15 feet (m) wide, with one smooth side for rolling conveyances such as bicycles, segways, and skates and the other, narrower, textured side for pedestrians and wheelchairs.	Low cost, low maintenance, environmental friendly, sustainable architecture applicable for mass housing for the solution to the homeless problems in downtowns.

BASIC UNIT/ FORM	ASSOCIATED GRAPHICS
Each TOD is equivalent to a neighborhood but each TOD is not self sufficient, a network of TODs throughout the region required. Hence a Region its pedestrian shed is centered on a rail transit station which coincides with a major thoroughfare. The centre is often at the edge of the centroid of the neighborhood area. The pedestrian shed of the TOD model is traditionally drawn as a semicircle, although there is not intrinsic reason why this should be.	
Neighborhood. Most of the dwelings are within a five minute walk of the center (14 mile or 1,320 feet).	
Neighborhood near a downtown or a small village.	

Andres Ducany & Elizabeth Plater-Zyberk's updated Neighborhood Unit. Illustration from the Lexicon of New Urbanism.

Front (up) and rear (down) views of a typical house in a pedestrian village. The entry to the house is from the pedestrian lane. The rear of the house has "carriage house" and formal garden gate. Illustrations from Michael Arth's personal web page.

Regional TOD structure showing urban and neighborhood TODs, Transit stops and feeder bus lines (up). Individual urban TOD structure with a 2000 feet radius from the central commercial area with other amenities like office space, residential and open spaces (up left). Illustration from Calthrope's "The Next American Metropolis".

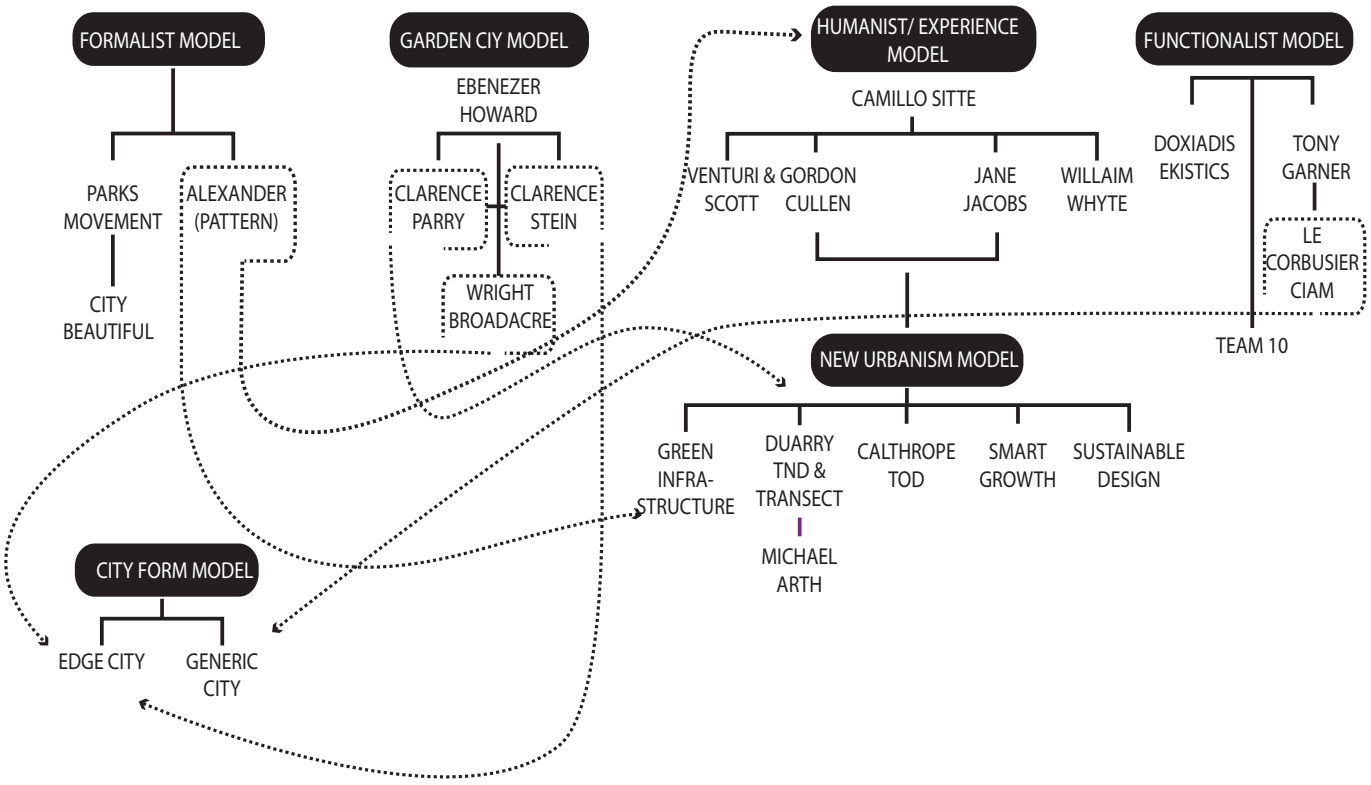


Figure 2.2: The major urban design theories, the different urban design models under which they fit and their interconnections illustrated graphically - Source: (Aryal (2008)

The section presented the glimpses of major models of different urban design theories and gives us the direction for categorizing various urban design theories. The categorization process is not so simple because many theories tend to fit in more than one model. A formal way of categorization requires some thought process. The best way of doing this is by jotting down all the theories in one blank page (Figure 2.2) (to get the holistic sphere of influence) and to see how they fit or connect with each other.

CRITICAL ISSUES THAT SHAPED DIFFERENT URBAN DESIGN MODELS

Garden City Model

#Industrial city of the late 18th century was monstrous in size, complex in organisation, chaotic in form and
had not acqueired the spatial order demanded by industrialization.
#This model was an attempt of synthesis of the nineteenth century utopian though and need for a new spatial
form and order for the modern industrial city.
#Desire to overcome the physical isolation
of individuals and families by grouping the communities into one large family structure.
#Envisioning of ideal communities not ideal cities.

Human/ Experience Model

#Initially emerged ground in the end of the ninetienth century due to Camillo Sitte's idea concerning commmunity scale and his rejection to the idea of monumentarily and geometric symmetry.
#Re-emerged in the 1950s and 1960s not as a new theory but as a reaction to the unsatisfactory results of functionalist thinking and design.
#Rejection of the grand utopian visions of
total planning and total design believed by the functionalist. Instead call for a diverse city of many faces and neighborhoods that can accommodate a whole range of utopian in miniature.
#The need of examining the impact of small-scale elements on day-to-day experiences and enhancing prexisting and underlying social structures which was totally ignored by the functionalist.
#The need of an open spatial configuration of the cities within the confines of its organized chaos and fragmentation as opposed to be closed spaces of the formalist cities and the enclosed functional division of the functionalist cities.

New Urbanism Model

#Failure of modern urbanism that gave a landscape that many consier to be soulless.
#To create a sense of place since everything looked the same.
#To develop the identity and personal relationships of the community with their inhabitants.
#To minimize the traffic and pollution created by automobile usage by creating pedestrian friendly community.
#To create sustainable, eco-friendly, nature-integrated environment.
#To create vibrant and dense communities by using mixed land use where residents can live, work, play and dine.

Formalist Model

#To battle against urban ugliness, moral decay, and social disorder.
#The belief that nature could offer an exemplary path and the zealous environmental determinism that sought the improvement of the moral state of society in the beautification of urban physical structure and appearance.
#Civic pride and identity required a rooting of the urban design in the dominant culture, which was fulfilled
by creating the representational spaces of classic Western architecture.
#The reconfiguration of the spatial practices was based on the practical needs of an emerging industrial, cooperate economic system.

Functionalist Model

#The change the image of the majority of the cities in the era which presented the very image of chaos and did not at all fulfill their purpose.
#To provide efficient circulation through a new, modern transportation system.
#To build differentation into urban spaces by the functional zoning of industrial, commerial and residential areas because only in a zoned environment, activities can proceed with little or no interference
from other activities.
#To provide open space - not vast spaces but controlled, demarcated spaces adjacent to functional areas.
Thiis is a reaction to crowded conditions in medieval towens and nineteenth-century industrial cities.
#To allow proper suburbanization wherein the residential districts to occupy the best locations within the urban space.

City Form Model

Edge City-Unavailability of land for office complex in downtowns, or too expensive if available resulted in concentration of office and commercial areas in the fringes which developed as edge cities.
Generic City-Limited land in downtowns removed the scope of horizontal expansion of the city. To fulfill the
need of more and more office and commercial spaces vertical expansion of the city was the key. Tried and
tested method which got copied everywhere making downtowns throughout the world look the same.

Table 2.7: Critical issues that shaped different urban design models - Source: (References: Tehranian 1995, 66-127, Attoe & Logan 1989, 1-18, Hall 2002, 87-218)

2.5 PLANNING CULTURE AND THEORIES ON DIFFERENT CONTEXT

Following the first sections of this chapter and an overview of the main urban theories we will attempt to understand the origins of each theory in connection with their elements and as a result the effects an application of them in particular contexts. Since the majority of these theories have been articulate in the beginning in Europe, that context is a strong reference point of application for them. As these theories became more well known there have been cases and authors that have attempted to apply them in Northern, Central and Southern America but also other territories. The American context was an initiator of several other urban theories due to the clear differences which the territory, landscape and urban growth and needs with the European context. In this case it is important to analyze these theories with each particular element they present and examine possibilities of application in the Albanian context, which faced a turbulent state of urban development during the last three decades. This need is necessary due to the differences that are presented from the Albanian context in comparison with reference elements from Europe and United States. This chapter will attempt to define possible models that could provide a new strategy to be developed in Albania.

2.5.1 Europe

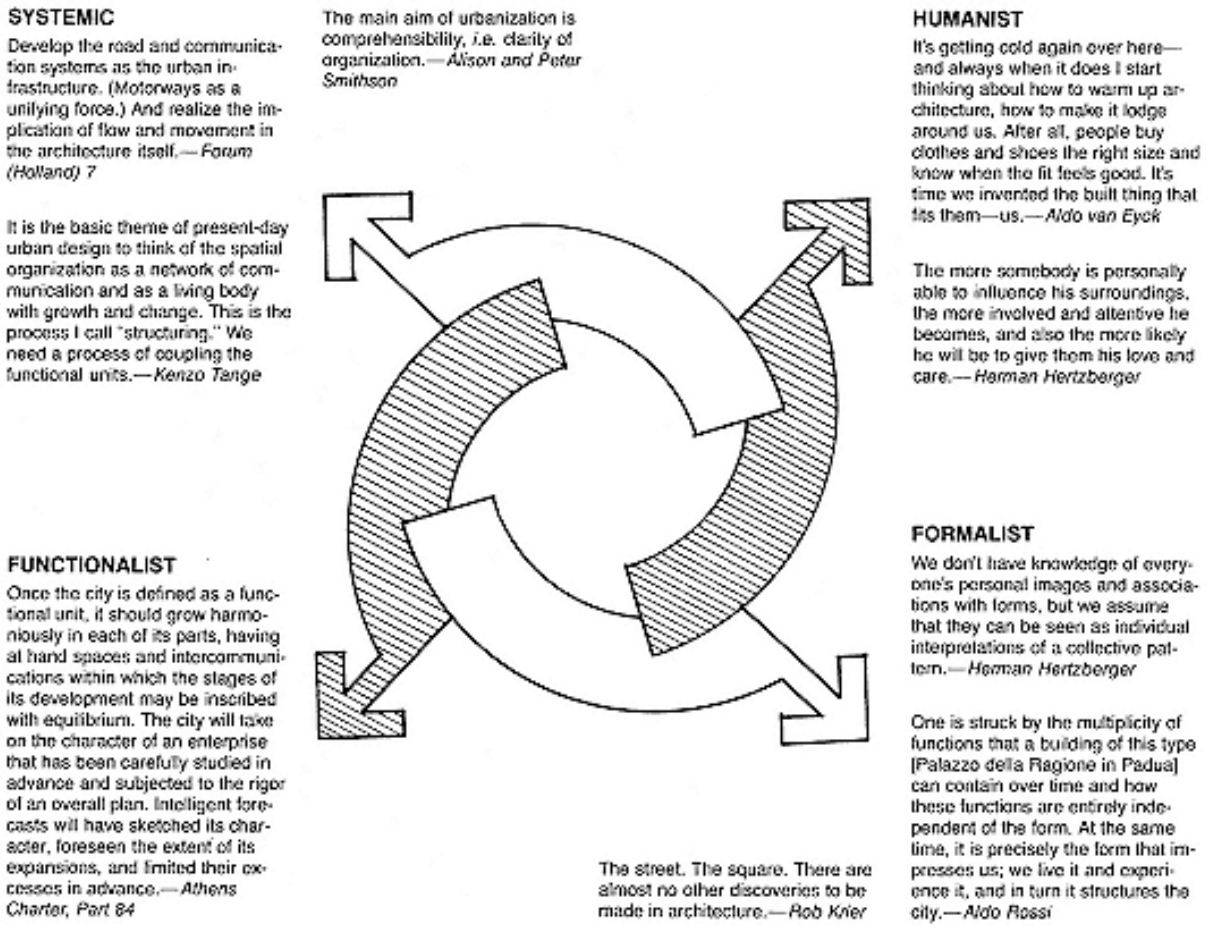


Figure 2.3: Countervailing directions of European theory, with associated testimonies.

Since the urban catalysis theory initiated in the United States, in particularly North America distant geographically from the theoretical discussions of Europe and faced with needs and circumstances different from those of European theorists and urban designers. Nevertheless in Europe we can distinguish four stances in the theories of urban design in the twentieth century: functionalist, humanist, systemic, and formalist. Instead of attempting to articulate each one and to sort out the disagreements among its various proponents, we find it more useful here to discuss each generically. These four stances in European urban design are not in themselves precise and internally consistent theories but inclinations, predispositions, or directions. By conceiving of them in this way, we can accommodate the ideas and hopes of a range of individuals in several countries over a number of decades—their values, visions, and means for tackling urban problems. In trying to understand these stances in urban design theory, we asked the following questions:

1. How do the proponents of each stance envision cities
2. What is the evidence that a particular stance influenced design and planning decisions?
3. What factors are instrumental in achieving environmental design quality?
4. Which decision-making methods are associated with this stance?
5. What is its attitude toward the past?
6. What assumptions do proponents make about the nature and purpose of the urban center?
7. What are typical criticisms of this orientation in urban design?

This particular concern is the implications for urban regeneration and rejuvenation associated with each stance.

The Functionalist Stance

Of the four orientations we examine here, functionalism, with the longest history, has been the most comprehensively outlined. Its origins are in the Bauhaus and the work of Le Corbusier; its credo is the Athens Charter of the Congrиs Internationaux d'Architecture Moderne (CIAM), issued in 1933. Workability and competence are its goals. It is the equivalent in urban planning of the modern movement in architecture. This is not to say that the functionalist view is consistent. It originated in the 1920s and dominated design theory into the 1950s, evolving in response to criticism and changing conditions. In part because of such periodic corrections, we prefer the terms stance or orientation to the more specific term theory . A theory of urban design needs to describe the nature of urban settings, the goals for urban form and use, and a method for realizing the goals that is consistent with the nature of the settings. A stance is similar but less precise. It points to a constellation of individuals with similar values, among whom there can nonetheless be considerable differences of opinion and emphasis.

Functionalism envisions the city as a collection of uses to be accommodated: residence, work, leisure, and the traffic systems that serve them. In early functionalist thought the city was characterized as a machine, in later thought, as a complex organism and as a network or constellation of community centers linked to and directed by a central core (Sert, 1952). A functionalist city is equitable; it does not favor or neglect social groups. Everyone benefits from adequate sunlight, fresh air, and access to open space.

Functionalist theory treats residence, work, and leisure as discrete elements. Activities should not mix; hence zoning is a key element of the functionalist city, for in a zoned environment, activities can proceed with little or no interference from other activities. In functionalist urban planning, organizing functional relations in a two-dimensional plan usually takes precedence over organizing other relations. The graphics associated with each of the four orientations are telling: functionalist schemes rely heavily on plan drawings, whereas humanist, systemic, and formalist schemes are typified, respectively, by intimate views, diagrams, and bird's-eye perspectives.

Though functionalist theory calls for the separation of activities, in one locale, the heart or core of the city, these must be commingled. The idealized purpose of the urban center is "to enable people to meet one another to exchange ideas." Therefore that center "must be attractive to all types of people in the region it serves"—a place of rendezvous, spontaneity, organized activity, refuge. In sum, the urban center should engender "civic consciousness." («A Short Outline of the Core, Extracts from Statements Prepared during the Eighth Congress of CIAM,» in Jacqueline Tyrwhitt et al., CIAM 8)It is more than a machine for making money and more than a crossroads for traffic and goods: "The Core includes other elements, often of an imponderable nature." (Ibid.)Necessary to the success of the urban center is the absence of vehicular traffic, for the urban center is the domain of pedestrians. Though not a feature of its dogma, orthogonal planning characterizes most functionalist urban design. Schemes tend to mix formal and asymmetrical elements in a visual treatment that seems all of a piece because of the underlying rectilinear format. This admixture seems to satisfy a further functionalist goal—that contemporary towns exhibit contemporary (constructivist, cubist) means of expression (Ibid., 164.)

The quality of functionalist design depends on how competently it accommodates needs and activities and on how well it uses light, space, and greenery, the ingredients of an urban plan that enhance daily experience. Open space is highly valued—not vast spaces but controlled, demarcated spaces adjacent to functional areas. This value may be seen as a reaction to crowded conditions in medieval towns and nineteenth-century industrial cities. Functionalist theory calls for research, a thorough analysis of needs and circumstances, and a deliberative decision-making process by trained professionals. They must coordinate natural, sociological, economic, and other factors specific to the cultural context and stage of development. Planning anticipates rather than responds: "Intelligent forecasts will have sketched its future, described its character, foreseen the extent of its expansions, and limited their excesses in advance." (Edouard, C., Gris, J., 1973)

Whereas functionalist thinking is associated with Le Corbusier and CIAM, Constantine Dioxides' later ekistics theory may be seen as a "correction" and elaboration of that tradition. Ekistics principles include:

(1) being realistic;
(2) thinking at long range and with broad scope;
(3) identifying, evaluating, and classifying problems to be addressed;
(4) establishing policies to guide decisions;
(5) devising plans that follow from those policies;
(6) evaluating constantly; and
(7) reappraising periodically. (Doxiadis, 1966)

According to the functionalist view, historically significant buildings should be preserved for their educational value, but the layout of historic districts should not be the basis for planning contemporary towns. Urban developments that occurred by chance or grew from particular historical imperatives are notorious for their inhumane living conditions. Medieval precincts of cities and industrial slums are (Hansen, 1968). Critics of functionalism argue that it deals with urban design only impersonally, at a large scale: “A land-use master plan for a big city is largely a matter of proposed placement, often in relation to transportation, of many series of decontaminated sorting.’’ (Jacobs, 1961) The human scale is often neglected. Then, too, the general categories that functionalism considers, like residence and traffic, fail to acknowledge subtleties. In fact these variables may well be the wrong ones to begin with in urban design, for they do not take into account “the personality of the inhabitants” and are “too often inhuman.’’ The functionalist vision is “negative” because “it conceives of buildings merely as scaffolding for functional variations, abstract containers that embody whatever functions successively fill them’’(Rossi, 1982). Separation and zoning may ameliorate nuisance and the interference of functional parts, but such a division of activities also works against richness. The hustle and bustle of downtown, or of a neighborhood center, are impossible when uses are sorted out and treated in standardized ways: “A hierarchy of human associations should replace the functional hierarchy of d’ Athиnes.’’ (CIAM9, 1953)

Functionalist designers are accused of responding to superficial and ephemeral wants, fashions, and pressures rather than to long-standing cultural traditions. For some critics this concern with the transitory is a manifestation of bourgeois, capitalist culture: “The vulgarity of late capitalist architecture is as much caused by the random profusion of building types as by the endless invention of building materials and construction systems; [it is] not an outcome of rationalization but of maximization of profits.’’ (Krier, 1978)

Finally, the single mindedness of the functionalist stance threatens to overwhelm regional and cultural differences. Functional analysis describes rather than explains the city: “It does not posit any element of continuity between the genre de vie and the urban structure.’’ (Rossi, The Architecture of the City, 1982). “We are willing to accept functional classification as a practical and contingent criterion, the equivalent of a number of other criteria—for example, social make-up, constructional system, development of the area, and so on—since such classifications have a certain utility; nonetheless it is clear that they are more useful for telling us about the point of view adopted for classification than about an element itself.’’ (Ibid., 48)

The Humanist Stance

The humanist position is not as clearly and comprehensively formulated as the functionalist. Rather, it is a collection of intentions, techniques, and design ideas offered by a diverse group of proponents. It emerged in the 1950s and 1960s not as a new theory but as a reaction to the unsatisfactory results of functionalist thinking and design. Among those representing humanist attitudes were the British townscape school, disaffected CIAM members who took the name Team 10, and certain Dutch architects. (Aldo van Eyck, 1962)Although both functionalist and humanist approaches are responsive to needs, the former begins at the macro scale, with zoning for industry, housing, and so forth and necessary transport connections, whereas the latter begins by examining the impact of small-scale elements on day-to-day experiences:

Functionalist planning imposes a structure upon the city, whereas humanist planning seeks to realize and enhance preexisting and underlying social structures. Land-use diagrams are typical illustrative techniques for functionalist schemes; a humanist design is more likely to be described with a set of sequential drawings depicting a user's perception of the place and conveying a variegated visual character or with a diagram of behavioral patterns.

For those whose first concern is the human experience of the city and its social life, the good city is best understood as a collection of enclaves not unlike villages. These are shaped by and reflect the individuals and groups who inhabit them. Humanist designers expect the inhabitants of a city to "appropriate" the environment and make it their own; they believe that the city should not be a fait accompli but that people should specify and help to create what they want. Self-help and reliance on neighbors are better than dependency on a centralized government: "The more somebody is personally able to influence his surroundings, the more involved and attentive he becomes, and also the more likely he will be to give them his love and care. What we offer cannot be neutral; it must be the raw material, as it were, containing the 'intentions' out of which everyone can make his own choice in a particular situation, extracting from it precisely the intention which 'resonates' with his intentions.'' (Hertzberger, 1976). In other cases where the design task is more complicated, an advocate intervenes on behalf of users to improve what producer's offer.

Decisions are based on users' needs and circumstances rather than on concepts: "The best way to plan for downtown is to see how people use it today; to look for its strengths and to exploit and reinforce them. There is no logic that can be superimposed on the city; people make it, and it is to them, not buildings, that we must fit our plans.'' (Jacobs, in The Exploding Metropolis, Garden City, 1958) Decision-making tends to be incremental rather than set by a master plan. Insofar as centralized planning is needed, its goal should be to "catalyze" and "nourish" rather than to direct: "The science of city planning and the art of city design, in real life for real cities, must become the science and art of catalyzing and nourishing . . . close-grained working relationships.'' (Jacobs, Death and Life).

Whereas on the small scale inhabitants mold the city in a multitude of ways as they pursue myriad personal visions, at the larger scale there are meaningful "monuments" that represent an enduring shared heritage, neither transient nor personal. Acknowledging this difference, Dutch humanist architects distinguish between special buildings of enduring character and everyday architecture that serves the immediate needs and desires of the populace. For them the city thus both reflects the evolving requirements of its inhabitants and testifies to timeless cultural values and patterns. Present and past intertwine. For Aldo van Eyck, "the time has come to bring together the old into the new; to rediscover the archaic principles of human nature." (Aldo van Eyck, quoted in Oscar Newman, CIAM '59 in Otterloo, 1961)

The humanist urban designer pays attention to small-scale elements and informal ordering systems, avoiding large-scale, superimposed geometries. Design in human scale achieves familiarity and the sense that things have been made by and for people. Van Eyck affirms the importance of fitting architecture to the people who inhabit it; the mission of architecture, in other words, is to assist in man's homecoming. (quoted in Smithson, Team 10 Primer).

Humanist designers, moreover, advocate a mixed use of the urban environment. Functional zoning and functional distinctions are not the norm; instead, activities and elements overlap and are interwoven so the “drama is released.’’ For example, whereas functionalist streets are principally for automobiles, humanist streets are domesticated and become “livable” places “for people.’’ (D. Appleyard, M. Sue Gerson and M. Lintell, 1969). “In the suburbs and slums the vital relationship between the house and the street survives, children run about, . . . people stop and talk, dismantled vehicles are parked, . . . you know the milkman, you are outside your house in your street. . . . Streets [should] be places and not corridors or balconies. Thoroughfares where there are shops, post boxes, telephone kiosks.’’ (A. Smithson, P. Smithson) When traffic hazards, noise, and pollution are controlled on these streets, the pavements become a stage for the theater of neighborhood life. (D. Appleyard, 1970)Urban character comes from a rich mix, what Jane Jacobs calls “organized complexity.”

Humanists believe that the future city need not differ much from the present one insofar as the present one is satisfactory. Any changes that are needed will be patterned more often on elements of existing neighborhoods and districts than on new concepts. In effect, tradition is a sourcebook of these elements that were thrown out or ignored by functionalist design, which sought to invent a new and different future. Humanist urban design finds lessons in the past, among them specific borrowable features that make places visually more appealing and more congenial: kiosks, bollards, granite pavers, benches, and so forth. Humanist designers also borrow from vernacular traditions such qualities and patterns as market squares, passages, and clustered housing. Because they suspect direct imitation and worry about pastiche and phoniness, humanist urban designers translate borrowed ideas from the past into modern terms whenever possible. Humanists like Aldo van Eyck complain that “modern architects have been harping continually on what is different in our time to such an extent that even they have lost touch with what is not different, with what is always essentially the same.’’ (Smithson A.) Whereas a functionalist urban designer might conceive of the urban center as a place for the impersonal exchange of goods and information and thus design it to be efficient for this process, the humanist designer sees the center as enhancing the human experience of these activities. Intimacy and richness of experience must go hand in hand with efficiency. The urban center is not so much a tool of commerce as a richly variegated composite of experiences. Designers must consider “what makes a city center magnetic, what can inject the gaiety, the wonder, the cheerful hurly-burly that make people want to come into the city and to linger there. For magnetism is the crux of the problem. All downtown’s values are its by-products. To create in it an atmosphere of urbanity and exuberance is not a frivolous aim.’’ (Jacobs J. , The Exploding Metropolis)

Critics say that humanists do not consider the large-scale issues and overall needs of the city. Although houses may be designed at the grassroots, housing is a system that needs a comprehensive perspective and approach. The incremental planning that characterizes the humanist method can create problems in the workings of the larger urban system. And the design-by-committee approach inherent in humanist theory slows down improvement and makes conflict inevitable. The future of cities is too complex a task for the naive and the untrained. The efforts of the humanist designer to achieve small-scale familiarity often result in pastiche. In appealing to the senses, such a design often fails the mind. It focuses on perceived surfaces and neglects and devalues deeper concepts. (Rowe C., Koetter, F., 1978). In short, it can be little more than stenographic.

The Systemic Stance

The systemic approach emphasizes large-scale elements of urban design and seeks an overall order for the urban place. Its Team 10 proponents asserted “comprehensibility” as an overriding value. (Smithson, Team 10 Primer). Systemic theory accepts urbanization and increasing societal complexity as inevitable. The key to successful urban design in a complex world is organizing the underlying systems, not individual buildings.

Although systemic theory gives priority to large-scale urban ordering, exactly what is ordered can vary. For some urban design theorists, achieving diagrammatic clarity in transportation systems is the principal task: “Today our most obvious failure is the lack of comprehensibility and identity in big cities, and the answer is surely in a clear, large scale road system—the ‘Urban Motorway’ lifted from an ameliorative function to a unifying function.’’ (Smithson,A. Smithson, P.) Flow and movement are the source of architecture; expressways order the city. For other designers, particularly certain Dutch architects, urban structure results from a physical armature (“support”) to which “detachable units” are added: “An area can be differentiated over which the individual has control and another over which the community collectively decides. (N. J. Habraken, J. Th. Boekholt, P.J.M. Dinjens, and A. P. Thijssen , 1976) Recognizing that both transportation and shelter must be accommodated, some systemic urban design solutions integrate the two systems. The city, for them, is an interlocked system of movement corridors and structural armatures supporting housing and other uses.

From a practical point of view, overall urban ordering is necessary because of the demands of vehicular traffic, the dependency of modern life on communications, and the need for the rapid, continuous production of building elements. Efficiency in communications is achieved, in part, by separating modes of transportation; the possibility of conflict is reduced when, for example, high-speed and low-speed movement are separated and when pedestrians are removed from vehicular systems. But the rapid growth of cities and the deterioration of aging buildings also necessitate efficiency. The assembly-line production of building elements seems necessary to satisfy burgeoning demands for both new and replacement shelter. As a consequence, elements of such urban systems favor an industrial aesthetic. Systems designers advice developing “an aesthetic appropriate to mechanized building techniques and scales of operation” because such a correlation of form and manufacture is rational. Further, they find much mass housing to be culturally obsolescent and prefer “a genuinely twentieth-century technological image of the dwelling—comfortable, safe and not feudal.’’ (Forum, 1959).

One innovation of systemic thinking is the notion that areas do not have to be cleared for rejuvenation to take place. Functionalist theory presupposes a clean slate, but systemic theory proposes that linear systems (of movement, of new construction) be woven into and around existing structures. Instead of conceiving of the urban fabric as a collection of building masses, systemic design treats it as a dynamic web of connections. Systems are conceived as able to grow and change incidentally without compromising the underlying order. Change of this sort is assumed to be a feature of modern life. The contrast between simple, abstract, orderly patterns and complex existing patterns is marked, as schemes by Yona Friedman and Kenzo Tange demonstrate—one hovering above a traditional city, the other harbored adjacent to it. Whereas we use the term systemic to refer to this stance in urban design theory, others sometimes use the term structuralist . This difference in terminology is a potential source of confusion when, for example, Kenzo Tange uses the term structuring in discussing the systems

concept. He calls for “networks of communication” imitating a living body and the ability of the structure to grow and change (Kultermann, 1970). Identifying this stance in urban design theory as structuralist may cause confusion because Claude Lйvi-Strauss and others use the term to refer to anthropological concepts. Although Tange’s structure and the anthropologists’ and others’ structuralism have some common concerns, they are fundamentally different ideas. Systemic structure imposes an order upon the world; structuralist structure finds inherent order, finds similarities between social patterns in African villages and industrial slums, for example.

Anthropological structuralism, although it can inform systemic design and planning, falters as a guide. Lйvi-Strauss himself pointed out that to search for underlying order is not the same as imposing order on phenomena. (Lьchinger, 1981). In effect, structuralist anthropologists have the luxury of analyzing what exists and stopping, whereas systems-oriented urban designers must analyze and then build. For example, Alison and Peter Smithson’s studies of association and identity in neighborhoods led to the development of “systems of linked building complexes, which were intended to correspond more closely to the network of social relationships, as they now exist [in cities], than the existing patterns of finite spaces and self-contained buildings.’’ (Ibid.)The anthropological concept of structure is relevant to our discussion. But instead of associating it with one theoretical orientation, like systemic theory, we find aspects of it in several of the approaches to urban design. Systemic, humanist, and even formalist theories in one way or another each reflect certain structuralist premises and concerns.

In architecture, structuralism in the anthropological sense is most often associated with Dutch architects like Herman Hertzberger and Aldo van Eyck and with a particular concern to make places that are meaningful. In that context more often than not it refers to building design rather than urban design. When Dutch structuralists design at the larger urban scale, their structuralism resembles Tange’s structuring (what we call systemic thinking) and is related less to human behavior, than to the goal of having structures that can be modified to suit changing circumstances. Team 10 architects whom we identify with the humanist stance sometimes evidence structuralist values.

Because town building must respond to the scale of movement systems, (Smithson) and systemic design tends to be abstract, designs for specific details are often absent. It is not that the human scale is of no concern but that design at the small scale apparently is left to others or to another stage of the design process. The unit of order, instead of being buildings as it has been traditionally, is now the connective system. The extensive character of systemic urban design means that decision-making must be centralized and guided by trained planners and architects. Typically they begin by seeking (or imposing) an underlying structure of movement. Other decisions follow. The design of smaller parts may be undertaken by others, even by groups of citizens and by individuals, for some advocates of the systemic approach assume that such participation at the smaller scale of design “humanizes” the system. Others, however, assume that because the design of the parts linked by the system must be technologically sophisticated, it requires trained designers.

Most proponents of systemic urban design accept obsolescence as a fact of modern industrial civilization. Although they believe that the underlying urban system remains intact, they assume that its elements are added to or replaced in a continuing program of improvement: “To understand and use the possibilities offered by a ‘throwaway’ tech-

nology, [we must] create a new sort of environment with different cycles of change for different functions'' (Forum7, 1959). Improvements include both the substitution of workable for worn-out parts and the incorporation of new elements to meet the changing needs of inhabitants. Modern transportation and modern industrial production, in particular, have made large parts of the city of the past obsolete. Because future needs and circumstances will also differ from those of both the past and the present, the very parts that constitute the city must be disposable. Nonetheless, even with the changes necessary to counter obsolescence, the urban framework will remain as the structure, the system within which changes occur.

Because it conceives of the city as a web or network that does not depend upon a center, systemic theory has little to say about the urban core. In the case of multi-nucleated urban settings, the historical center might have a specialized role as a repository and center of culture and the arts. Or it might be the focus of finance. But conceptually it would be only one of several foci of activity. According to its critics, systemic design ignores the validity and workability of established physical and social fabrics: systemic solutions do not necessarily improve on the past; they uproot existing patterns and introduce alien ones.

Moreover, even though the clarity of systemic approaches improves the legibility of the urban fabric and the efficiency of its operation, smaller-scale, "messy," life-enhancing considerations are left to chance. Many designers favoring systemic approaches acknowledge the importance of small-scale "grain" but do not always specify how the development of an appropriate life-enhancing grain can be assured. Finally, critics point out that although the vast systems with changeable components must of necessity be produced with modern industrial technologies, the concomitant industrial aesthetic is alien to many people.

The Formalist Stance

What we call formalist approaches are those that value particular archetypal or universal configurations of urban space and form. For Beaux-Arts planners, these configurations most often entailed axial organizations and static spaces drawing upon elementary geometries. These reflected a notion of universal order and harmony. More recently, for neo-rationalist designers, for example, who are interested in a less regular "public realm," these configurations have been the streets, squares, and public monuments that structure urban fabrics.

Given the dramatically different socioeconomic associations of Beaux-Arts and neo-rationalist practice (the first with hierarchical and upper-middle class values, the second with collective form and populist ideology), it may seem curious to find them linked here as "formalist." Granted, their motives and methods are not similar, but the focus of both is physical form and its associational meanings. And each assumes the existence of timeless design figures from which urban design should be drawn. These are discovered in part through the study of typologies and precedents: "A few building materials and the elaboration of an urban building typology will create a new architectural discipline of simple nobility and monumentality (Krier L.).

In finding sufficiency in earlier forms, the formalist stance lacks the forward-looking idealism of other theories that assume a better way of doing things can be found if we abandon inadequate old methods and seek workable new ones. Instead, formalism ar-

gues that satisfactory patterns for accommodating human need and nurturing the spirit exist in our cultural and urban heritage. For example, for neo-rationalists, a particular feature of older cities that has been lost through functionalist land-use zoning is the richness of cities-within-the-city, quartiers or districts that integrate all the functions of urban life.

Although it would be easy to characterize the formalist stance as backward-looking idealism, most formalist discourse does not in fact characterize the past as a better time to which we should return but maintains only that traditional solutions contain ideas that work and that these ideas carry with them the ingredient of memory that new architectural forms and new urban spaces inevitably lack. Neo-rationalism does not propose the replication of historical urban fabrics but the use of the past as a filter through which the future is conceived. For Beaux-Arts designers the past was a collection of examples from which to learn, examples that are themselves variations on valued precedents. Thus buildings from the past, forms with cultural significance, lead design insofar as they are good and workable.

Though neo-rationalist and Beaux-Arts formalism originated in formal ordering systems, their products have differed in scale and texture. The neo-rationalist city is a collage of patterned solids and voids. Its parts are imbued with what might be called poetic tension growing from the inherent opposition of solid and void, of figure and ground. Some parts are unabashedly grand and intended as “public realm,” whereas other parts are pointedly unassuming private realms. Leon Krier describes the countervailing elements as public “monuments” and “anonymous fabric.” The Parts of which the urban collage is composed refer to historical spaces and forms but are reinterpretations rather than replicas. The city and its buildings do not necessarily seek to satisfy specific needs (as functionalist buildings do) but accommodate changing patterns of use in timeless forms. Whereas neo-rationalist formalism tends towards a heterogeneous collage, Beaux-Arts urban design favors hierarchy and extensive axial ordering systems; its urban fabric includes many figural buildings, buildings striving not for anonymity but for identity.

According to Anthony Vidler, a rational architecture “is clearly based on reason, classification and a sense of the public in architecture’’ (Vidler). From our point of view, “reason” means open-minded observation and straightforward methods of production. “Classification” takes the form of seeing and valuing traditional patterns of urban space and building form (typological and morphological studies). “A sense of the public in architecture” means poetry. The approach is conservative, yet there is also room for imagination and change within the tradition. In Beaux-Arts design, too, appropriate precedent is chosen and modified to suit particular necessities. Always there is a dialogue between the universal and the particular.

For neo-rationalists, incremental action is preferable to large-scale, comprehensive action: “With respect to urban intervention today one should operate on a limited part of the city . . . . Such a self-imposed limitation is a more realistic approach from the standpoint of both knowledge and program ’’(Rossi). In the Beaux-Arts mode, the intervention was more often an extensive restructuring, a correction of earlier circumstantial and limited visions. The urban center is the means and the symbol of public life. It makes possible and dignifies collective activities. It is a reflection of long-standing urban traditions, evocative and deeply memorable. Paradoxically, although neo-rationalist theory does not define the urban center, it nonetheless considers that center the essence of urban-

ism, the place where strands of life are brought together. An urban center in Beaux-Arts terms would be hierarchically the grandest, the noblest, and the best embodiment of order, proportion, and harmony. Its value is formal, not experiential or functional. It would symbolize more than it would weave urban life.

Formalist urban design is criticized for being concerned largely with aesthetic matters and only incidentally with real needs: “Successful urban forms often are the product of less than admirable social conditions.’’ (Berke D., 1982) The CIAM criticism of City Beautiful design was similar: “Urbanism can no longer submit exclusively to the rules of gratuitous aestheticism. It is functional by its very nature.’’ (CIAM, 1928). Jane Jacobs’s criticism of formalism reiterates the theme: “There is a quality even meaner than outright ugliness or disorder, and this meaner quality is the dishonest mask of pretended order, achieved by ignoring or suppressing the real order that is struggling to exist and be served. . . . It is futile to plan a city’s appearance, or speculate on how to endow it with a pleasing appearance of order, without knowing what sort of innate, functioning order it has.’’ (Jacobs). Critics of formalist thinking argue that neither nostalgia for a timeless past nor utopian visions of the future guarantee good architecture. (Berke, See the discussion of formalist design in Berke, Rob Krier: Urban Projects). Nor do they accept with resignation the view that mankind is unchanging. (Achleitner, 1982) Further, they ask if it is realistic for neo-rationalist architects to advocate a return to a crafts tradition in light of real building economics. (Ibid.)

Although much is constant in human life and culture, changes are neither insignificant nor necessarily inconsequential. Vehicular traffic is a fact of modern urban life that cannot be ignored, and traditional urban patterns are incapable of accommodating it. What should be done when the existing urban fabric is inappropriate to new needs or is otherwise unsatisfactory? (It is worth noting that neo-rationalists tend to ignore the automobile and act as if it will disappear, whereas systemic theory comes close to making a fetish of vehicular movement, letting it structure urban form.)

Finally, are medieval and Renaissance urban fabrics in Europe really generic and universally appropriate, even in the vast regions of the world that have developed in the last one hundred to two hundred years? Critics of formalism point out, for example, that “the square is at present an anachronism, having succumbed to the popularity of the supermarket, the telephone, and the television.’’ (Berke) And although still other distinctive urban patterns might have grown from local conditions in other regions and be available as models, what if there are no such historical elements to constitute a tradition, or what if historical patterns are inadequate to serve contemporary needs? In short, is the structure of European cities or any historical urbanism as universally appropriate as neo-rationalist theory suggests?

2.5.2.United States

A new approach to appropriate urban public space

Since the 1930s, the modernistic urban development has transformed New York’s and particularly Manhattan’s old urban districts. With the financial and building boom in the 1960s, this development gained momentum in a serious way. Older and used parts of the city have been fully redeveloped, which meant that the existing building mass was demolished and replaced by more financially viable and functional structures con-

sisting huge blocks of flats. New York's development moves from neoliberal urban development to an adjusted strategy with adaptations to the market driven conversion, which was some of the demands raised, by ordinary citizens, researchers, and influential intellectuals after the turn of the millennium. Some urban political initiatives, which have been completed since the start of the financial crisis during the 00s and it descried the background of the first described case.

Importance of qualitative urban development

In the early 1970s, it was evident that the claim of modernism of wanting to solve the challenges of urban growth and the social problems via buildings a technological, planning and form-giving revolution based on rational, functionalist thinking had failed. The criticism of the uniform blocks of flats in the suburbs and the demand for buildings on a human scale with the respect for tradition was massive. In Europe, the criticism of modernism was accompanied by the attempts at low rise-high density buildings style from architects and urban planners: demands for conserving urban renewal in the city centers as well as demands for urban public space.

In the USA the criticism of the social consequences of modernism came particularly from urban sociologist and designers. As early as 1961, sociologist Jane Jacobs published the book ''the death and life of great American cities. The book caused a stir in urban design and town planning circles all over the world, and indirectly it had considerable political influence. It was a frontal attack on the entire modernist planning in American cities. Provocatively, Jacobs argued that the open suburban environments were dangerous and socially degenerating and that the sidewalks in the narrow streets in the big cities with shops and institutions were socially stimulating. In the opinion, this was the safest place for children to play. She argued against the replacement of the dense urban environments by urban renewal-often old working class districts-with super blocks and high rise blocks, as she argued for a human scale and street environments where people see each other. The chapter ''the uses of sidewalks: safety'', she describes her fundamental ideas about what creates an urban communality, what creates a good urban life, and she introduces the concepts: ''Eyes on the Street'' and ''street ballet'' (Jacobs 1961).

According to Jacobs observations, ''eyes on the street'' provide safety for the population on the city-particularly for women and children. It is about involving the inhabitants of the neighborhood in keeping an eye on the street as a public space, as the participate in activities in this field every day. Jacobs thought that the feelings of personal belonging arose from social cohesiveness in the dense city and from mutuality and respect activities, which took place in the narrow streets with many different functions. She argued that the fundamental urban vitality springs from the participation of the inhabitants in the mutual street ballet- a refined pattern of observable and comparable human activities. She pointed out that nothing is more interesting than these human activities, which create a reciprocated exchange of experiences (Jacobs, 1961).

''great cities are not like towns, only bigger. They are not like suburbs, only denser. They differ from towns and suburbs in basic ways, and one of these is that cities are by definition, full of strangers'' (Jacobs, J., 1961 p.41). With a point of departure in her street in Greenwich village, she thus claimed that the dense street with many different eyes contains a genuine urban quality. Here the locals could meet strangers- at eye level so to

speak- and the stranger could observe and learn from the activities in the area in a safe way. As she wrote: ‘’sidewalks, their bordering uses and their users, are active participants in the drama of civilization versus barbarism in cities ‘’ (Jacobs, J., 1961, pp.41).

As mentioned the criticism drew huge attention among intellectuals and artists who in big numbers began to settle in the attractive, dense neighborhoods in Greenwich Village, Chelsea, and West Village; but of course the criticism did not stop the roaring new York modernism, which continued in Manhattan with even more high-rise buildings uptowns and downtowns.

Social concern and criticism

In the 90s, where the social crisis became more acute-with increasing violence and crime- a new generation of urban sociologists and town planners aimed their guns at the market dominated urban renewal. People like William Julius Wilson raised the question whether the so-called race riots was not rather due to the inadequate employment opportunities for the uneducated poor than actual race issues. The criticism attacked the neo-liberal complacency police in areas related to finance, employment that riots were conditioned by race (Wilson, w.j. 1996, p.112F)

At the same time, Sharon Zukin raised the question concerning the rational behind the urban politics in New York in the 90s, with her research as background. She pointed out that a gradual privatization of the running of parks and squares in the city had taken place. This had implied increasing restriction of admission and exclusion of homeless and young people. Even though the result was a lower crime rate in this urban space, zukin raised the question whether the city was losing its right to urban public spaces. She raised the issue concerning the role of an open, diverse city life, the value of freedom of assembly and freedom of speech. She asked whether democracy could survive in a city, where the public spaces had been changed into commercial controlled spaces (Zukin, s., 1995). Finally, sociologist Richard Sennett picked up this thread. Through a large number of analyses, he demonstrated the unfortunate social and cultural mechanisms caused by this policy. Among another thing, he argued that the population had to ‘’reclaim the street’’, as part of a general liberation from the market controlled development. The population was to use the street as free space, where new lifestyles and collective activities could unfold (Sennett, R., 2005).

Because of the neoliberal politics of the 0s and 90s, a large number of workplaces moved to Asia. Consequently, more American cities including new york-suffered from high unemployment, a high crime rate and massive reductions in the social budgets. Several big industrial cities, including New York, were simply getting close to bankruptcy.

However, it was only with the financial crisis in 2007 that the focus of domestic politics was directed towards the increasing poverty in big American cities, in earnest. With the media and the Occupy Wall Street movement in the lead, the focus was pointed at the finance Capitals’ gamble with the welfare of the population. The wealthy capital owners greed was highlighted with numbers for the marked problems with poverty, unemployment, demonstrations and use of social media, the issue was placed on the political agenda.

The criticism from Occupy Wall Street also included the liberal city politics. I the new York, the wish of the finance capital for redevelopment and construction of expensive

high-rise blocks towards the Hudson River, in the poor areas in the northern part of Manhattan and along the water in Brooklyn and Williamsburg was not against demands for access to fair housing conditions open spaces and recreational areas for the population. The extreme increase in property prices, combined with costly office and residential buildings, were about to create social gentrification in these areas. The meant removal of poor people from Manhattan to the eastern parts of the city or new jersey, west of the Hudson River. The financial crisis gave more space to the criticism of this development and in New York, demonstrations and occupations of parks were linked to contemporary urban politics.

2.6. ELEMENTS FROM IMPORTANT THEORIES AND PROBLEM SOLVING

Elements of Different Urban Design Models

An in depth analysis of the major models of different urban design theories is conducted in order to understand the development of the urban catalysis theory as a theoretical model and strategy which is able to create chain reaction effects in order to impact sustainable urban development.The different urban design theories have distinct elements which impact urban development and morphology also in terms of basic land use, overall transportation and infrastructural system and architectural and urban design aesthetics.

The different urban design theories even if it fits in the same urban design model vary a lot. For example Le Corbusier (CIAM) and Team 10 (who revolted CIAM) both fit inside the Functionalist Urban Design Model but have varying thoughts in the overall comprehensibility of city design. Sometimes the scale of urban design is the whole city whereas sometimes it's just a street or place. Some theories speak of every element mentioned above whereas some focus on one or two. The Elements table presented next tries to fill all these gaps. In cases where the theories do not particularly specify some of the elements, the author has used his own knowledge of the subject matter and deduced the elements, which he thinks, could have been for that particular theory. For example, the garden city theory and derivatives don't speak about the architecture / aesthetics element. Similarly, the humanist theories of Sitte and others do give any details about the basic form of the city or the overall transportation system. These theories just focus on neighborhood or place design.

The problem of European-based theories

We submit that European theory tends to be narrow and argumentative. Each new approach seems to have developed to oppose and replace others, but because all the approaches shift laterally, no single one can encompass the others. We see the alternative approaches in European urban design that we have outlined as complementary and overlapping, but not as sufficient. In the accompanying diagram we characterize European urban design theories as sharing some concerns and values but, more significant, as moving in different directions. Countervailing directions of European theory, with associated testimonies.

Our view, which will emerge in the chapters that follow, is that we need not argue with the values and methods represented by the European heritage of urban design theory. We should not have to abandon the precepts of functionalism to seek the poetry of formalism, or those of humanism to seek urban order, and so forth. The question we ask is not,

GROUP ELEMENTS OF DIFFERENT URBAN DESIGN MODELS

CITY DESIGN PARADIGM		CITY BEAUTIFUL	CITY WITH GARDENS	CITY EFFICIENT	CITY EFFICIENT & BEAUTIFUL	CITY SUSTAINABLE
ELEMENTS	Way of ity- Nature Integration	Formal Integration of public parks in the city.	Green belt(agricultural land) to suround the city, new towns to be constructed in greenbelts.	An adequate amount of green space provided in each group dweling. Iso massive public parks in high dense areas.	Providing human scale green spaces in the city.	Preserving green spaces outside the urban borders. Green Infrastructure.
	Regional Perspective	Basic focus on existing city, some regional perspective	Strong Focus, Central city to be surrounded by small garden cities	Basic focus on existing cities. Major focus on regionalism in Doxiadi's Ekistics Theory.	Basic focus on re-urbanization and rebuilding of existing cities	Major focus on regional perspective through the use of public transit.
	Relative Density	Moderate	Low to moderate	High to very high	Moderate	High to very high
	Urban Form	Relatively Compact	Moderately to extremely dispersed	Relatively Compact	Relatively Compact	Relatively Compact
	Chief Concern	Aesthetical, some Social	Functional, technicl, some social and economic	Social, functional, economical and aesthetics		Ecological, aesthetical, some social
Urban Design Model		Formalist	Garden City	Functionalist	Humanist	New Urbanism

Table 2.8: Group Elements of Different Urban Design Models - Source: (Hirt 2007, 138-165)

Which of these European theories should the American designer choose or disregard? but, Which of these intentions should be considered first when the urban designer faces a particular design problem? And then which should be considered next? And we ask, What theory of urban design can translate the European heritage into American terms?

Before we begin to reformulate this diagram according to American contexts, we want to review briefly the impact of European theory on an American city. If our first point is that European theories are unnecessarily argumentative and narrow, our second is that European theory has not fared well in America. Although the cultural link between Europe and America is strong, there are significant differences too. For example, European theory seems often to derive from social objectives, whereas American practice often grows from assumed economic opportunities or imperatives. Because of these differences, an American approach to urban design theory is needed if we are to do good things in American cities.

The Problem of Urban Place Making

The problem of urban place making can be seen manifested in three ongoing challenges relating to the lack of integration between urban morphology and urban design. We can refer to these here for convenience as 'lack of socio-spatial perspective', 'big architecture' and 'two-dimensional planning'. The first concern relates to the perceived dislocation of urban design from socio-spatial concerns such as the public good, social and environmental justice, ecological sustainability, socio-economic diversity and fairness (Gunder, 2010). Cuthbert (2007, p. 177) criticized urban design for lacking a 'concerted attempt to link the material creation or "designing" of urban space and form to fundamental societal processes' beyond the enduring market rationale. In today's context, urban form can often seem a simple aggregate of private interests – or 'form follows finance' (Lang, 1994). Such a context based on piecemeal and collage-like urban (transformation patterns comprises both positive and negative consequences with regards to morphology and design. While the process leads to deep fragmentation in the morphology of cities (Busquets, 2006, p. 9), it also indicates new opportunities for a better production of city parts with increased awareness on the intermediate scale of urban form. The second concern, that of urban design as 'big architecture', applies to contemporary redevelopment models involving massive compositions of large floorplate and visually monumental high-rise office and residential developments. While this format may be acceptable from an economic perspective, the result may be criticized from a morphological point of view (Scheer, 2008, p. 140; Allies, 2010, p. 20). The creation of these huge 'package programs' involving uniform architectural treatment and the consolidation of fine grained collective forms is identified as one of the major factors behind the loss of positive morphological qualities of our districts. The more urbanism loses its ability to operate with the complex patterns of property structure on urban space – 'the lost art of subdivision' – the less open, diverse and coherent are the urban fabrics turned out (Campbell and Cowan, 2002; Campbell, 2010, p. 5).

A related problem with the point of 'big architecture' results from another misconception in contemporary urban design, which considers the design of urban fabric from the perspective of product or graphic design. Considering urban form simplistically as a composite object or geometrized pattern, this interpretation in urban design overemphasizes the surface reality of form (and therefore disregards the collective quality of urban form), the potential creativity within urban types and typologies – 'novelty for its own sake' – and the content-wise possibilities of the context.

The third concern derives from the planning side of the urbanism. Le Corbusier (1933, p. 198) classically asserted that city planning is a three-dimensional – rather than a two-dimensional – science. The lack of form and space quality in local development plans and the enduring 'two-dimensional land use paradigm' in planning (Hall, 2008, pp. 77–78) is still one of the major problems for many contemporary planning systems.

As asserted by Walters (2007, pp. 31–41) the root of the problem goes back to the early transformation of spatial planning emerging as an autonomous field by ending its reliance on physical design. Such a transformation basically signifies the disrupted relationship between policy design and physical (or 'physicalist') planning from the emergence of systems planning from the late 1950s planning (see also Taylor, 1998), to contemporary approaches such as advocacy, incrementalist, strategic, and environmental planning (Klosterman, 1985) and social policy perspectives (Davidoff, 1965). Although such a transformation may be considered as a natural evolution of urban planning in the context of increased socio-spatial and political complexity, at least from the point of view of planning theory, it has resulted in a kind of disconnection between planning and the normative theories of urban form in design which mainly considers the substantial physical nature of human settlements (Talen and Ellis 2002).

The paradigmatic shift in planning has also found its reflection in the changing mode of representation of space; the more procedural and conceptual nature of spatial planning has lost the emphasis on the perceived quality of the intermediate scale-urban form. This gap has filled by the emergence of urban design. The Agency of Urban Morphology and Design Finding its historical roots in the continental approach of 'urban architecture' and functionalist 'urbanism' since the late 1920s (Mumford, 2009), urban design was recognized as a disciplinary solution for the real gap between architecture and planning through the 1960s (Gosling, 2002, p. 7). Currently, urban design has become recognized as an interdisciplinary field of study, practiced by those from architectural and planning backgrounds (Lang, 1994, Moudon, 1992). Urban design is sometimes seen as a specialized side discipline or sub discipline of planning, or an extension of architecture; or up to a point could be considered a discipline (if not quite a profession) in its own right, with a range of journals and periodicals dedicated to it.
While urban design was progressing on its own track, another interdisciplinary research field on urban space and form has been developed simultaneously in different European schools. Although their conventions have been based on a small number of leading authors, those approaches have represented different urban morphology schools in time (Moudon, 1997). With an increasing amount of interest gathering around the issue, internationally, urban morphology has been highly institutionalized around the organization of ISUF (International Seminar on Urban Form) with its own academic journal, Urban Morphology since 1997. The main asset of the new research field was that it had provided a systemic conceptual framework and various techniques of spatial representation to understand urban form and formation in relation to the constitutional elements of urban form: the building, the plot and the street (after Conzen, 1969; Caniggia and Maffei, 1979; Kropf, 1996). This could be said to be particularly useful in those approaches emerging in reaction to conventional Modernism, for three reasons: first, the interest in pre-existing context; second, the attention to traditional units of design such as the street and even the plot (which open-plan Modernist layouts often did without); and thirdly, to do with understanding what it was that worked in traditional urban fabrics, that was lost in Modern ones. Although arising in a sense independently, as separate responses to modern urban planning, the links between urban morphology and urban

design have often been present, at least implicitly, and in some cases, explicitly. Such connections can be observed in different schools through urban design history in which many designers analyzed and drew normative conclusions out of the existing forms and patterns. Among them, the most obvious relation can be viewed in the neo-traditionalist and neo-rationalist design schemes like those of the Krier brothers (Krier, 2009; Krier, 2006), Katz (1994), Duany & Plater-Zyberk (1991) and Calthorpe (1993). From a morphological point of view, the originality of their design thinking derives from the design models, which are the products of a 'systemic' typological understanding of traditional urban forms (Krier, 1979). In this sense, the endeavor to comprehend the nature of urban form can be considered as an intrinsic phase of any urban design process as looking at the already established conditions to define, accordingly, design problems and relevant design responses (Erickson and Lloyd-Jones, 2001, pp. 3–4). Despite the fact that there has been always a built-in relation between urban morphology and design in urbanism, it has not always been easy to see an explicit concern to systemize such a link between these two domains from a theoretical (conceptual and methodological) perspective. To gain an insight into the scope of the field of urban morphology and design, we provide a brief overview of their respective literatures.

Design process

A design machine (Stiny and March, 1981) defines an algorithmic structure for design and it is composed of four parts: a receptor, an effect or, a design language and a theory. The receptor establishes the relationship between the outside world or context and the system and is supposed to provide descriptions given by a finite sequence of symbols encoding information on the outside world. These descriptions are called design specifications or programs. The effector produces an object or design according to a set of design specification descriptions. The design is generated using a design language, which provides a set of candidate designs and a set of descriptions of the candidate designs. The theory establishes the relations through which our understanding of the context can be compared with the candidate designs and thus provides the link for fitting designs to specifications. It represents the value system in the design environment.

A design machine implies a clear understanding of context, or, more precisely, that we know in detail which data the receptor should extract from the outside world and how to interpret that information. Although valid for problem solving, this is not always the case with design. In a design process the understanding of the design context (the outside world) and even the specification of a design problem evolves throughout the design process as a continuous upgrade fostered by continuous reflective actions of the designer, his own analysis and moves. Every move implies an appreciation of the state of the design before and after the move, and a quality judgment on this (Schцn, 1987). Furthermore, design synthesis emerges from a progressive awareness of its rules, which means that a design language cannot be known at the beginning of the design process, at least if we accept that some creative decisions need to be made. On the contrary, the design language is built up during the design process. Donald Schцn discusses the practice of architectural design as an arrangement of micro design decisions – moves, in his terms - following reflective see-move-see cycles (Schцn and Wiggins, 1992). See-move-see cycles have certain implications: firstly, that a design is a sequence of reflective cycles, secondly, that each move is the consequence of some local evaluation and, thirdly, that each move is followed by a reflective action on the instantiation of that move, i.e. that there is some local evaluation of the instantiated design. Seeing implies an appreciation of the circumstances in a design for which the

designer is able to recognize a mismatch with some design goal or contextual feature that enables him/her to react by applying a 'move experiment' to upgrade the quality of the evolving design. Therefore, an effective design system can only be created if it contains a reflective structure.
As such, a design machine would appear to contradict the fundamental concept of the reflective design process unless we focus on the concepts that are able to clearly reproduce defined design actions in which premises (descriptions of the problem) and goals (descriptions of solutions) can be correctly formulated. Similarly, isolated see- move-see cycles may have a structure compatible with that of a design machine if what we see in the beginning and what we see at the end can be predefined. This is equivalent to a design pattern in which a 'move' corresponds to a generative algorithm. The important thing to stress here is that these concepts are complementary. Whatever use may be made of the concepts of design machines and design patterns in computer science, their use in creative design may only be perceived as useful for this purpose if a reflective structure is maintained in their application. However, in order to do so there is a need for a detailed understanding of how creative design works and how it is distinctive from problem solving.

Lawson (2006) proposes a very ingenious model for explaining the design process, stating that design is negotiation between problem and solution through analysis, synthesis and evaluation (Figure 2.4). One particularly interesting idea in this concept is that analysis, synthesis and evaluation are not seen in any particular order, since feedback loops are likely to occur in any direction. Another interesting aspect is the presence of a solution at any moment in the design process, incorporating the somewhat controversial concept of Jane Darke (1979) that a hypothetical solution, a primary generator, is put forward early in the design process as a beginning for a problem-solution negotiation process or simply as a way of restricting the design space to a manageable framework. It should be noted that this is consistent with Knight's (1983a), (1983b) idea of transformations in design languages. The hypothetical solution can be expressed in terms of an initial incomplete hypothetical language of designs, which needs to evolve, by developing rule transformations as the awareness of the design problem is progressively enhanced by confronting the changes occurring in the language. Lawson's definition seems to be very consistent with most situations involved in design practice but nevertheless focuses on architectural design, whereas the concern of this thesis is urban design, which involves other aspects that impose particular workflows, methods and participants.
In terms of the complete design process, a design system can be defined if the following principles are respected:

- designs are obtained by applying a series of see-move-see design cycles that cover the full range of local design problems in which a whole design problem can be decomposed;
- the application of a design move implies recognition of a particular set of features found in the design context;

agreements on generic goal concepts are available and the relationships between the generic goal concepts and the design moves are known. These principles follow a structure such as that of Alexander's pattern language (1977), in which, although the patterns are arranged from general and large-scale down to detail and small-scale, their order of application is still not based on this top- down structure but on the interpretation

of context, allowing different scale patterns to be applied. It may be said that Alexander's patterns are capable of capturing generic goal concepts by establishing the rela-

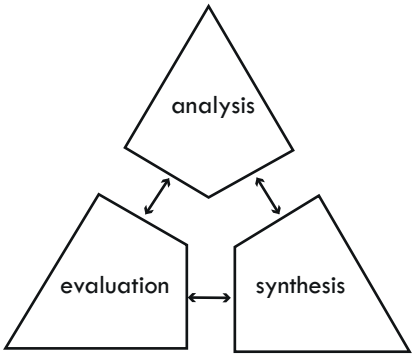


Figure 2.4: Design as negotiation between problem and solution through analysis, synthesis and evaluation Source: (Lawson 2006).

tionships between generic descriptions of design problems and generic descriptions of design solutions for the design problems. We can also understand design moves as patterns if we regard the concept as a see-move-see cycle. The best and most interesting aspect of patterns relies on the relationships expressed between the various patterns stated at the end section of each. They basically state that a certain pattern works much better in combination with certain others and the related patterns shown in the book are from both lower and higher levels. This is responsible both for an algorithmic structure and for building up a system of relations. To summaries, the main goal of this section is to present the set of interrelated but still disconnected forms of knowledge required to automate the generation of designs: design machines, which postulate an algorithmic structure for the computational production of designs (Stiny and March, 1981), a model for the design process embedding a negotiation process involving subjective assumptions (Lawson, 2006) and designs seen as arrangements of design decisions on two different levels of scale, conceptual decisions created by using patterns (Alexander et al., 1977), and locally evolving decisions made by using design moves (Schцn, 1983). Finally, a structure similar to the design machine concept but occurring at micro level can be recognized in the design move cycle concept. In addition, shape grammars can be recognized as an available algorithmic formalism suitable for executing the transformations (synthesis) that constitute the design move.

CONCLUSIONS

Based on the elaboration of European urban values, these two architects continue to analyze the problems existing in American urban design and then summarize the European urban design theories that have an international influence during the 20th century. They generalize these methods into four primary stances, and they are functionalist, humanist, systemic and formalist, respectively. (1)The Functionalist Stance Functionalism, with the longest history of the four orientations, has been the most comprehensively outlined (Atton & Logan, 1989, p.2). According to Atton & Logan (1989), its origins are in the Bauhaus and the work of Le Corbusier; its credo is the Athens Charter if the Congrиs Internationaux d'Architecture Moderne (CIAM), issued in 1933.

Existing theories specify desirable but narrow ends: *a meaningful public realm; or efficient and coherent organization; or personal, experiential, gratification.* They do not indicate either how these ends can be achieved or that all of them have merit. At best, implementation is described in generalities: citizen participation, collective (rather than

individual) investment, dramatic transformation, administrative flat, and so forth. A catalytic theory of urban design is not an alternative to existing methods but subsumes them, accepting what they have to offer. What it does that existing theories fail to do satisfactorily is describe how to get from goals to implementation. *Action and reaction, cause and effect are essential to the catalytic concept.* A catalytic theory does not prescribe a single mechanism of implementation, a final form, or a preferred visual character for all urban areas. Rather, it specifies an essential feature for urban developments: the power to kindle other action. The focus is the interaction of new and existing elements and their impact on future urban form, not the approximation of a preordained physical ideal.

To explain the concept of urban catalysis in more concrete terms, we look at events in Milwaukee's downtown, in particular, the impact of a new setting for retail activity called the Grand Avenue. Milwaukee is an appropriate case study because its downtown had been declining for more than a decade. The urban center was not just dead but entropic, having dropped to fourteenth among the fourteen shopping centers in the region. The Grand Avenue quickly became the area's prime retail center and both downtown itself and attitudes about downtown changed dramatically. The changes are not the by-product of new stimuli; there are no new factories, no mammoth construction projects, no growth industries pumping money into the local economy. Instead, the changes are the product of thoughtful strategic planning and a commitment to design quality.

Until 1973, the revitalization of downtown Milwaukee was little more than sputtering, false starts, isolated and improbable visions, and a deep conviction that "it can't happen here." The land was cleared for a functionalist urban enclave (Juneau Village), only one-third of which was built. A downtown freeway loop, begun but never finished, did not satisfy the desirable (systemic) objective of linking a series of parking structures to freeways. A civic axis, inaugurated with the design for the County Courthouse, dissipated almost immediately. Incidental historical reclamations were undertaken, but they did not exert a potent influence on other developments; as a result, there was little sense of historical downtown Milwaukee. New high-rise office structures rose, conceived, however, not as integral parts of a revived downtown but as objects on private plazas/podiums.

Warnings that downtown were dying had gone out as early as 1957 when Milwaukee's Board of Public Land Commissioners declared that "the vitality of the central district is threatened," and everyone believed them. What was wrong in Milwaukee was, first, attitude, a lack of will to make things happen; second, isolated rather than integrated redevelopment—revitalization efforts lacked coordinated direction; third, the absence of effective centralized power. City Hall could not revitalize the city, nor could individual corporations.

To turn Milwaukee around required a combination of corporate commitment to the city (above and beyond immediate corporate profits). And political structure willing to support this private initiative in a variety of ways. This is not to say that corporate Milwaukee took control; rather, it provided the focused economic and political means that could become a driving force for redevelopment. Years of miscellaneous federal, municipal, and private investment had failed to reverse the decline of the centre city. Such a reversal required “a more comprehensive and continuous approach to new development—a leveraging of public and private investment in collaborative efforts.” The use of corporate funds at such a scale in the traditionally public realm of development planning was new and, as is so often argued, brought a needed sense of business mindedness. “Corporate funding of plan replaces some municipal funds, but it does not usurp public responsibility or involvement.”[1]. A partnership of public and private interests is built.

In the book American Urban Architecture: Catalyst for the Design of Cities, Atton and Logan (1989) is defined that in the late 1980s, there were four primary stances in European theories of urban design prevalent among American architects. And these four positions that include functionalist, humanist, systemic and formalist will be discussed later in this section. At that time, European ideas about guiding urban building have been adopted and employed in America largely without scrutiny (Atton & logan, 1989, p.1). Accordingly, city construction usually copied the model of European ideal cities directly instead of basing on America’s identifiability. Under the circumstance stated above, in the year of 1989, American architects Wayne Atton and Donn Logan put forward the concept of ‘Urban Catalysts’ for the first time in their book American Urban Architecture Catalysts in the Design of Cities.

Understanding the urban space and the development of cities is in many ways related to understanding its needs in particular, It is important to understand the context in ways of triggering social interaction in the public realm in order to stimulate and attract different demographics to a given urban area. Once the inhabitants become engaged with the multiple temporalities of the urban area through a series of public space interventions, they slowly begin to identify themselves with it. Working alongside the physical regeneration of the area, the Urban Catalysis process experiments with and develops new urban programs, promotes new development and encourages public participation and interaction throughout the process. Creating an approach which values social change as much as physical change, it allows for the creation of a more dynamic public realm rather than a place with a limited and vulnerable identity. By identifying fertile urban conditions and developing a series of public anchor-points, the proposal integrates new and existing building development into a larger cultural and social context. As the area continues to develop, it will attract both temporary visitors and permanent residents alike from around the city and abroad. This innovative approach to urban development is an interesting paradigm that could be used as a new tool that could respond to the dynamic needs of the city of Tirana.

CHAPTER 3_

ALBANIAN CONTEXT

3.1 HISTORICAL OVERVIEW OF THE PLANNING CULTURES IN ALBANIA

The Albanian territory was primary developed in an organic manner during a period of over 500 years under the Ottoman occupation, developing the typology of the Ottoman city in its first urban center. After the country declared its independence in 1912, another decade was necessary to initiate the first examples of spatial and urban planning from 1922 and afterwards. This section (Aliaj et al, 2009) presents a lineage of the planning culture in Albania, analyzed in order to apprehend the strategies which affected the country's development. Further research and analysis will present us a detailed and focused analysis in the urban morphology of the country's capital, Tirana. This section will attempt to organize the different historical moments in urban planning, which are closely linked and impacted by the changes in the political situation of the country. The categorization that will be presented below is the following:

1. *Shift from the Ottoman city towards the Italian influence 1922-1945*
2. *Planning under the Hoxha authoritarian regime 1945-1990*
3. *Early years of urban transition and chaotic development 1990-2009*
4. *Towards a new planning paradigm in Albania 2009-2017*

3.1.1 Shift from the Ottoman city towards the Italian influence 1922-1945

Historical references and documentation evidencing urban plans or projects in Albania are dating since 1922. From 1922 till 1990 we can evidence two major sections historically but also politically. In the beginning, monarchy with the era of King Zog I and after the era on which the totalitarian regime of Enver Hoxha. During the years of monarchy, Albania had a strong connection with Italy, presenting clear examples in planning but also with concrete architectural interventions in particularly along the main boulevard of Tirana. This period is the start of urban planning for Albania, expressing the first roots (Aliaj et al 2009). A clear importance to introduce an urban plan, which will create the necessary structure developing a new country, was presented. Strong influences from Italy directed an approach to "urban design" which could give the answer for many issues that the yet young country had to face. As in the majority of European capitals, the profession and figure of the architect came into focus, as the profession that will envision a future where public interest would be served through an important local development plan (Aliaj, et al 2009). As the first urban centers were created, starting from Tirana, the concept of the border of the city, allowing development in its limits, more commonly referenced as the yellow "line" of the city (Co-Plan 2011). Urban plans proposed in that period were very important in order to jump start and direct the first stems of urban development. The main focus of those plans was allocated in infrastructure complemented with housing structures adjacent to them. Even Though in first sight they may seem simplistic, they offer in depth ideas and executive projects which were not applied completely. One of the main reasons for them not being realised apart from the change of the political system, was the vastly rural territory of the country rising the cost and necessity of these interventions in a short amount

of time. Important realized examples apart from infrastructural works referring to the boulevard, is also the application of in time relevant urban theories, which were quite popular in Europe. The model of “Garden City” was experimented and implemented partially in Tirana and in particular in a series of low rise private housing units on the eastern part of the new boulevard towards Elbasan street.

3.1.2 Planning under the Hoxha authoritarian regime 1945-1990

The period from 1945-1990 can be considered the second period of urban planning in Albania, during the totalitarian regime of Enver Hoxha. During this time everything was centrally planned and hence the same can be said for ‘urban planning’ (Shutina 2009). One central governmental institute was taking all planning actions coming directly from the government, since there was a complete lack of established local institutions. The state was responsible for everything, and it figured out where advancement would happen, how it would happen and who might live there hence it was not important to create expert bodies in a local level. There was a lack of urban planning actions since there were not experts educated in that field, and the level or urban interventions was limited to “urban design”.

This occurred due to one of the main features of the communist period that there was no free movement of people. Therefore, when a planner had to take in consideration population increase for the expansion of a city, it was only the natural increase as a concern, as the mechanic one was controlled and predefined by the state. This idea can be linked with the argument by Danermark (1993) during this period is the fact that the state had established an urban-rural equilibrium at around 35% urban and as mentioned earlier this was easily controlled through the granting of work permits. In addition to this, at the time a land use allocation was the main focus of the plans as argued by Shutina (2009) and the architect or the ‘urban planner’ was purely seen as technician or engineers of the urban environment. This argument is supported by the fact that ‘traditionally, planning has been considered as a duty of the architect’ (Baar K, Pojani D 2004). The concept of the ‘yellow line’ which was established in a previous period, continued to be part of the local general plans. Hence as it can be seen, planning did not change much between the periods of the monarchy and the totalitarian regime at least in principle. Planning was further developed as urban design. In addition, another characteristic of the totalitarian regime at the time was the strong ‘nationalistic’ paradigm and the obsession of the leader for not being occupied again by another foreign country (Shutina 2009). Hence many resources and efforts were spent in military and planning the defense of the country which saw bunkers being developed through the whole territory of Albania (Rug 1994). Also the isolation of the country from the other parts of the world, had some strong effects on the Albanian professionals due to the fact that they were outside of any international discourses on the matter.

3.1.3 Early years of urban transition and chaotic development 1990-2009

In 1990 the regime changed in Albania similarly to most eastern and central European countries, from the totalitarian regime to a democratic one. With regard to planning, the democratic era can be divided into three main sub-periods which are determined by the respective laws in urban planning, Law 7693 in 1993 on ‘Urban Planning’, Law 8405 in 1998 on ‘Urban Planning’, and Law 31 10119 in 2009 on ‘Territorial Planning’. Although

the first two periods are quite similar to each other, and with only a few changes, it is worth to mention them as two separate ones. There is also a grey period between 1990 and 1993, where due to the fast changes in the economy and the development of the country, the planning institutions could not cope with the change, hence from 1990 up to 1993 planning worked with the old legislation from the communist period.

3.1.4 An attempt to introduce a new planning paradigm in Albania 2009-2017

As it can be seen from the Historic overview of the Albanian Planning System and the legal basis for it, the Albanian Planning Culture can be defined as being part of the 'urbanism' family. It is similar to most southern European countries such as Italy, Greece in the fact that there is a strong land use paradigm. Planning has traditionally been seen as engineering and a technical discipline, thus more focused on 'urban design' rather than planning as it would be known in North West Europe.

The Albanian case study in urban planning is common to examples presented in Italy but also in other Mediterranean countries where the overall process was translated physically than a conceptual idea. Often understanding this notion in a strict "model" to follow than a series of actions and interventions should be undertaken in the city. Examples of such actions during the communist period was either extending the road infrastructure or demolishing historical areas to introduce either new housing units responding to the rise of population in urban centers.

In addition to this, Italy for example has a tradition of 'urbanism', but they have managed to evolve their concepts in order to include other aspects of planning in their 'urban designs' and improved their practices to a better understanding of the plans and collaboration between authorities (Rivolin, 2003). Meanwhile in Albania, these concepts have not evolved, and although the plans might include some of the above aspects, they are mostly done due to the fact that the law requires it, but they are not understood.

However, during the transitory period from 1990 up to date the Albanian Planning Culture although in principle has not moved much away from the old concepts, the practices have become corrupt, and there has been a vacuum of planning for almost 20 years (Shutina D 2009). After the end of the totalitarian system, as mentioned earlier there was a flood of people from the remote north-eastern regions towards the western ones. This in association with the problems encountered by the privatization of land, which used to be public till that time led to an uncontrolled urban sprawl (Shutina 2009). The state with its low institutional capacities was to some extent unprepared and could not do much to control the move, hence its withdrawal.

Hence the role of the planner became to work in retrospective by trying to fit and plan for new infrastructure after development had already taken place, a type of 'back to front planning' (Aliaj et al 2009). Something which made the system even worse, was a combination of the fast population movements, the professional isolation which had left the planners with a confined knowledge of territorial development trends and experiences, with the low wages of the employees of local administrative units, who took a 'pragmatic' approach of their position and used it to gain other income (Niented 1998).

3.2 TIRANA AS A CASE STUDY

After 30 years of transition, Albania still aspires to a new culture of spatial planning. Its main planning strategies thus far have resulted in notions like the ‘vaporized city’, ‘informal city’, and ‘archipelago city’, offering a rather clear insight into how Albania’s main cities have developed up until now. While politicians repeatedly invite international architects to participate in prestige projects that are hardly ever realized, Albanian architects have meanwhile developed a rich palette of answers to deal with pop-up peripheries and leftover plots in the city center. In this installment, we focus on the projects and ambitions that have recast Albania into a fascinating laboratory of urban concepts.

After centuries of isolation and suppression under one of the harshest communist dictatorships, Albania has made great efforts in opening up towards modernization and freedom. Although the nation faces many difficulties similar to its neighbors, the way it deals with them is different. In order to respond to its problems and create a new identity, the Albanian capital of Tirana is searching for original solutions, and has become a place where rational and bizarre elements coexist, generating an identity that is not permanent, but rather always on the verge of change. This leads to a mosaic-like portrait of a city that provokes architects to dare more often, while at the same time setting them before its monumental ruins. Once known for strict, government-controlled spatial planning, many former communist cities in the Western Balkans have been transformed by feverish, uncontrolled urban growth. After 30 years of transition, the region is still looking for a way to create a new spatial planning culture in an environment where not only residents, but even architects and urban planners may feel excluded from such developments. Tirana is situated in the middle of a major European transit corridor connecting Southern Europe with the Near East, and closely connected geographically and economically to the nearby harbor city of Durres. This situation is the main driver of the country’s economic and cultural development, and the area is continuously expanding into a super-regional metropolis. In this edition of Eurovision, we examine Albania’s evolutionary process, focusing on the capital’s ambitions in as it aspires to become a competitive Balkan metropolis. It is an attempt to understand the generative points that lead to this innovative and experimental ‘island’ in a territorial ‘sea’ of ex-communist nations that are denying change and thus remaining hidden in the shadow of the past.

Tirana began as an organic city in the 17th century, and has since been shaped by the continuous interaction between spontaneous developments and planning decisions. It remained a small town, until it was declared the capital of Albania in 1920. Starting from the beginning of the ’20s, under the monarchy, the first attempts to move from spontaneous to organized urban planning were initiated. Typical of this period is the ceremonial complex of the government buildings, the opening or stretching of several main avenues, such as Rruga e Durresit, and the central axis of the boulevard, first designed by Armando Brasini. These kinds of interventions were significantly intensified during the period of Italian occupation (1939–1943). The new center, located at the extreme south of the extended boulevard – a monumentality separated from the social reality – is still clearly visible in today’s urban fabric.

Florentine architect Gherardo Bossio and engineer Ferdinando Poggi formulated the first regulatory plan for Tirana in 1942 (Aliaj, 2003). For the first time, this plan established a zoning structure and the shape of Tirana based on the combination of rings and radials. The 1942 plan served as an important reference for all plans that followed. The boulevard was included in this plan as a central element, mediating a dialogue between the geographic and human scales. From 1944 to 1991, under the centralized economy, significant changes occurred in the city's structure. Architecture and urban planning were called upon to influence the creation of a new social reality. A massive erasure of traditional neighborhoods, old bazaars, and religious centers was executed to free space for the construction of low-cost, four- to five-store standardized buildings, which would supposedly be the incubators for a new social model. By the end of the 1980s, Tirana's population was around 250,000 inhabitants, although only 35 per cent of the entire nation's population was living in urban areas, while the agricultural sector still comprised 55 per cent of the Albanian economy (Aliaj, 2003).

The decay of the socialist project at the beginning of the 1990s was the catalyst for the rapid and uncontrolled urbanization of Tirana. Public space was gradually reduced through progressive infill, and the city expanded five-fold. This 'informal city' was like a return to the organic city but bigger, more shapeless, and more unstable. While state institutions were lagging behind, NGOs such as Co-PLAN started the first interventions in Tirana North Periphery (1995), adopting schemes to upgrade neighborhoods based on participatory planning and an incremental approach. It was only a few years later that the central government began to formulate the creation of 'visions'. The Strategic Plan for Greater Tirana (SPGT) in 2001 projected the coordination for developments in the Greater Tirana Region, a metropolitan area comprising eleven local government units. This strategy proposed the compacting of the city combined with a polycentric vision based around newly created poles; the stabilization of physical limits of urbanization through green belts and land preservation; two light rail connections to the center and the airport; and most importantly, administrative measures such as the establishment of Metropolitan Authorities. Due to disagreements between local and central institutions, this plan was never fully approved.

Tirana Metropolis (Berlage Institute, 2005) is another strategic vision offered by the Berlage Institute in 2005. The city is seen as an archipelago, with complementary centralities outside the city center. A parallel ring aims to give identity to the existing sprawl, tying together various urban patterns, along with monumental axes and natural features. Following a similar logic, 'Durana' is used as a tool to think about the metropolitan region on a larger scale: Tirana and Durrɲs as an eventual fusion of two cities into a new, single metropolis with a green heart in between.

During the last two years, attention has mainly focused on those projects that can give a new dimension to the city, like the extension of the main Tirana Boulevard. Important international studios participated; among others, KCAP, Grimshaw Architects, West8, Cino Zucchi Architetti, Albert Speer and Partners, and DAR Group. The competition was won by Grimshaw Architects. The project area, impacted by the extension of the three-kilometre boulevard and the organization of a seven-kilometre riverside park,

covers a fifth of the city's overall area. Grimshaw proposed the creation of sequences of 'living rooms' along the boulevard and the park that would reflect Tirana's Mediterranean outdoor culture. It remains to be seen whether the city has the professional experience, political stability, and craftsmanship to actually realize the design as envisioned.

What Tirana seeks in the present is concrete actions needed to implement projects and guarantee continuity based on a mid- to long-term vision. Tirana, however, is a city moving between dreams and reality – from the small organic town to the urban 'cosmic axis' of the boulevard; from concentric rings to the 'archipelago city'; from a solely spontaneous entity to a designed city; from 'Tirana' to 'Durana'; and from small to big.

Several political projects have impacted trends in Tirana during the last three decades years, and will continue to impact its future, since the issue of urban planning is considered as a strong political manifestation rather than a structural need for the capital to grow based on sustainable development and with a clear layout.

3.2.1 Boulevard extension

Despite affirming a highly divided city in terms of political positioning, the competition to extend Tirana's main boulevard served as a good public/professional 'educational' event, and a democratic exercise in terms of decision-making. The final winning project by Grimshaw Architects mediates between maximizing real estate and infrastructure while restoring public space. The implementation of the project has already started, and the core financing is already available. But realization remains burdened by the extreme politicizations of Albanian public life, especially following the political change in the cen Yet, the urban regeneration of public space along the Lanл river, the tram and multimodal station project, and the competition for the new northern boulevard of Tirana and implementation thereof are indeed events that happen once in a lifetime. They have a magnitude and impact similar to the forceful operations undertaken by Zog I, the former king, in a heroic phase of urban and national development, by establishing a modern Tirana, the real European capital of Albanians. This is already a mental jump for the rational and good governance of our cities in Albania. It is a change in thinking and practice, despite the low interest, nitty-gritty fights.

3.2.2 Fusing two cities

'Strategic Planning for Greater Tirana', a study conducted in 2001 by the Municipality of Tirana, showed a massive population expansion in the metropolitan region encompassing Tirana and Durres, a harbor city just 30 kilometers away, creating a chaotic situation. Today the area accommodates one third of the Albanian population. It is one of the nation's main circulation axes, connecting its two largest cities and linking them both to the airport. The region has become an economic corridor that brings large revenues to the country. Presently, the need to improve urban conditions along this corridor has been identified. The concept of 'Durana' is used as a tool to think about the metropolitan region on a larger scale: Tirana and Durres as one city; an eventual fusion of the two into a new metropolis with a green heart in between.

3.3.CRITICAL OVERVIEW ON THE DEVELOPMENT OF THE CITY

3.3.1 Between spontaneity and stringent control

Initiated as an organic city in the 17th century, Tirana oscillated several times between spontaneity and organized planning. It is a city not easily shaped through plans: a blurred and fragmented situation created by the continuous interaction between organic development and planning decisions. However it has all undergone unbelievable changes offering a unique perspective for urban planning and development with an enormous energy within.

During the authoritarian regime of Enver Hoxha [1944 to 1985], significant shifts occurred in the structure of the city. Architecture and urban planning were called to influence the creation of a new social reality. A massive erasure of historical areas and religious centers was executed to free the space for the construction of low-cost housing areas as a new social model becoming an 'excellent' example of a city designed by demolition. An example imposed by its authoritarian communist leader, experiencing one of the most severe communist systems in the entire Eastern European block, suffering for more than 40 years negation of the freedom of speech, leaving out social participation and, abusing with the 'collective' approach.

In 1990 Albania started on the difficult and new road of transition, but rather in a very chaotic manner and even with severe setbacks such as the 1997 social unrest caused by the collapse of the fraudulent pyramid schemes. After a massive rural exodus occurred in the same years the city of Tirana was confronted with the phenomenon of massive informal building activity resulting in huge areas of uncontrolled urban sprawl, which placed at great risk the quality of urban life for the whole city.

3.3.2 Regaining control

With its actual population of nearly one million inhabitants, Tirana is four times the size it used to be 20 years ago and amounts to more than one quarter of the country's entire population. Almost 60 % of Albania's population is living in an urban surrounding. The transition from socialism to capitalism had a direct impact on the social, economic and spatial structures of the city. Tirana's urban space has transformed rapidly, towards two different directions: On one side lies the transformation of the city center and the main road axes where commerce, offices and entertainment have been introduced. New housing complexes have been constructed in these central areas, too. On the other side, since the early 1990s, an informal extension of the city's borders, firstly by small-scale housing and later by large-scale housing, was gradually developed without planning, social and technical infrastructure or provision for public spaces, leading to the creation of a poor urban environment, with no apparent intention to be integrated with their existing surrounding context. At the same time, informal development processes have also taken place within the existing urban fabric, occupying former public land and blocking passages by erecting small, medium or even large-scale constructions. These large-scale housing and commercial complexes were implemented in the periphery of the city by the private sector and had undergone a recent series of actions in order to legalize them and understand that they are part of the urban reality and have to be integrated in the future urban development plans.

The municipality tried to regain public control with several beautification campaigns in the 2000s and serious of international competitions inviting several star architects to create a new image for the city. Streets, parks and riverfronts were cleared of illegal kiosks and thousands of trees were planted, ready to welcome visionary ideas from West.

A lot of attention on an international level was drawn to Tirana by the attempt of its former Mayor, Edi Rama, in 2001 to reinvent the city's identity. As an artist he cleaned up the very scruffy avenues with a radical facelift that through interventions on the major public spaces and by upgrading the public infrastructure attempted to construct a new image and a new identity for the city center, regenerating the city by attracting new activities and investments, as part of the vision of Greater Tirana and 'Durana'. Representing nowadays one of the most vibrant cities in Albania, Tirana can be considered as a planning laboratory of architectural and spatial experimentation.

CHAPTER 4_

PROBLEM DEFINITION AND RESEARCH QUESTIONS

The research problem addressed in this thesis can be the necessity to address new models that can respond to the complex behavior of our cities, and as a result to investigate new methodologies and tools to propose sustainable urban applicative models. Taking into consideration the field of urban planning and design as key points in the process of urban catalysis.

The development of such design methodologies, the urban catalysis concept is presented through a generative matrix which is based in existing case study models applied in several projects. This process is referred to the work of Attoe and Logan in the concept of the catalyst firstly applied in American Cities but also further studies by Philipp Oswalt, Klaus Overmeyer, Philipp Misselwitz on their work Urban Catalyst: The power of temporary use, 2014 and by Hans Kiib & Gitte Marling on Catalyst Architecture, 2014 elaborating the different forms of catalytic interventions and strategies in the urban context. The idea is to develop systems of solutions rather than one single solution, thus allowing the system to adapt to changes in the environment. However, specific technical problems emerge from the use of these applicative models generated by this particular matrix in terms of adaptation in different contextual, social, economic and cultural environments. Therefore, this thesis will present research on the use of urban catalysis as a design process to converge the above questions.

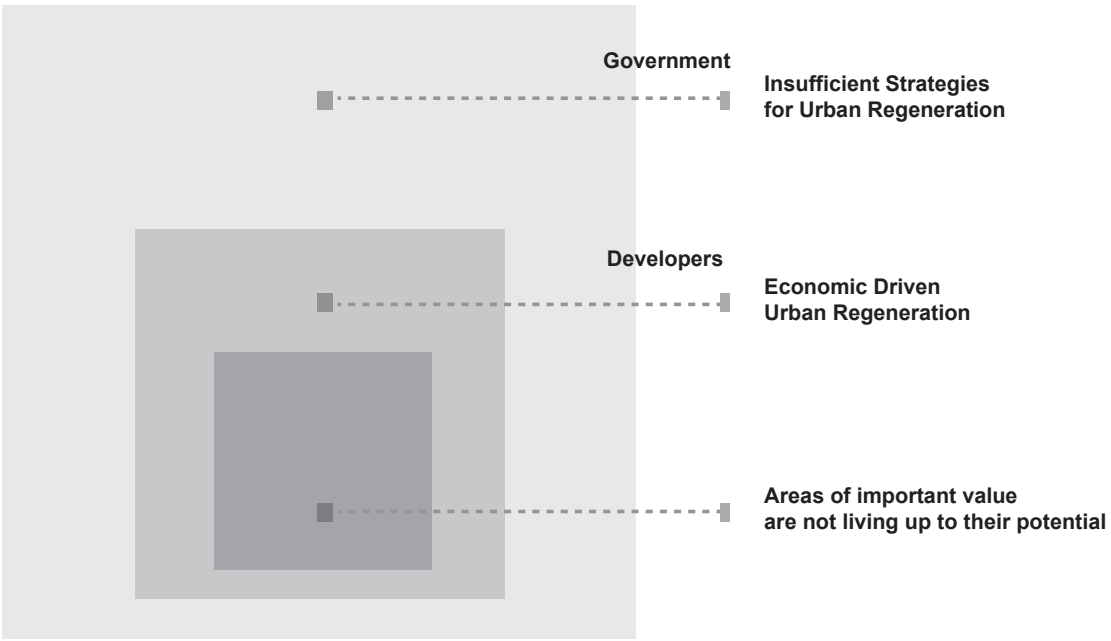


Figure 4.1: Diagram of Problem Statement - Source: (Kristo, S., 2017).

Reconsideration: A Call for New Model of Urban Development

As cities expand to the periphery, city centers have struggled to attract public and private investment. Due to a lack of demand, vacant buildings and lots remain empty, as their market value is less than desired by prospective property owners. In the same context, the risk of failure for external investors and developers is often too high, resulting in their migration to more affluent areas. This produces a 'time gap' – defined as a "moment of standstill between the collapse of a previous use and the beginning of new commercial development" (Misselwitz, P. Oswalt, K. Overmeyer.) – In the development process. The economic and social fabric of the urban area, which has struggled to initiate the process, largely determines the duration of this time gap. If development projects do occur under these circumstances, they tend to follow traditional patterns of commercial development. Site owners commission a design to be negotiated with local authorities, the goal being to create a desired end condition to be translated into a master plan (Ibid). This describes the current ideal path of implementation for urban planning. As determined by Studio Urban Catalyst in their report *Urban Catalysts: Strategies for Temporary Uses* (Studio Urban Catalyst, 2003) the concerns with traditional urban planning include the following:

- *Dependent on large scale financial investment and economic climate*
- *As singular actors become less and less powerful, and more and more dependent on other stakeholders and outside forces, the realization of these ideal visions becomes more and more case difficult, if not impossible*
- *Traditional master planning is a very slow process, taking years to be legalized and complete, unable to adapt to short term change*
- *Traditional formal planning addresses the question of what should be developed, while the question of how to develop is left unanswered*

Many times, current developments are primarily focused on investment potential and ignore or fail to recognize the impact of socio-spatial relationships. The inability of market-driven developments and urban planning models to generate and sustain change in declining urban areas necessitates the development of alternative models to create sustainable urban change. Portugali (2000) explains this behavioral state expressing that cities are nonlinear open systems subject to the behavior of several other open systems. In particular, human social behavior can be considered as a complex system directly interfering on the methodology on which cities evolve. Interactions through different systems are possible at local and global levels. Portugali gives one example (2009), related to a housing policy in Israel several years ago, initiating the prediction of growth need in housing as a result of a large influx of emigrants from Russia, triggering a local reaction in the population that started renting rooms and houses, often in better locations. As a result, lower need for new housing was present compared with what was expected initially, generating a financial deficit from what initially was considered a certain investment. Portugali explains that the issue is that prediction is itself part of the compound system and influences the way the system behaves. In a similar way, designers for an urban system become part of the system affecting the outcome. Finally, the city is the outcome of global interactions throughout top-down decisions, and local interactions through bottom-up individual decisions. This situation creates a question:

4.1. Main research question: How the Urban Catalyst Theory can be used in the development of future urban design strategies for Tirana and Albania? *This question will be answered also by theoretical study on the Urban Catalyst Theory in Chapter 6 (Literature Review).*

The case of Tirana, Albania differs in particular with the above stated structure. Albania as a country where during the last three decades an important booming of development occurred, the most significant part of the Albanian population migrated from the rural areas and small cities towards the largest urban centers. In this case Tirana became the most important urban center growing in population and size, with a main focus in development in the city center. (referring to Chapter 4) After almost three decades and a recent territorial reform in Albania (January, 2015) organized by the Ministry of Urban Development and confirmed by the Albanian Parliament, a clear need to centralize the larger now municipalities and develop new urban centers and satellite areas which have been newly developed, improving urban quality.

In this case the existing chaotic development in regards to urban complexity theories relates to the unpredictable evolution of urban forms in the city

4.2. Is it possible to provide flexible strategies for reactivating urban structures while the behavior of the cities themselves is complex and unpredictable?

This question clearly identifies the generic problem addressed in this thesis. Several authors have indicated various answers, presenting different strategies and viewpoints to address the problem. The strategies can be summarized as follows:

a) Simulation techniques – some authors have proposed several different simulation techniques as a way of predicting future scenarios, but as we have seen in Portugali's example this can be a misleading strategy. Typical examples include cellular automata techniques for simulating urban sprawl (Batty, 2005) or city games applied to specific contexts (Mayer et al., 2009). Despite Portugali's remarks, these techniques allow us to foresee eventual future scenarios which may help the designer to reach better informed decisions. It is the role of the expert to judge the reliability of the predictions, their meanings and the extent to which such information will influence the outcome.

b) The use of catalyst – some authors stress the value of traditionally inherited information, history or empirical knowledge that in relation to architecture and urban structure are elements expressed in systems, patterns and types. Types are recurrent solutions bearing evidence of practical success from repeated use through time. Types offer an underlying social agreement on ways of living, building and behaving in society. Patterns have common qualities, but they relate a problem occurrence in the environment to a typical solution supported by empirical, tacit, or scientific evidence. They are recipes for solving recurrent problems occurring in the environment. A system is generic; it embeds a set of constructive solutions that allow for a significant amount of freedom in composition. A system defines constructive solutions and does not imply specific spatial organization. Examples of an architectural system are the classical or the international style. (Alexander, 1964), (Habraken, 1988), (Alexander et al., 1977), (Habraken, 2000).

c) The use of evaluation techniques – evaluation techniques propose theories and tools for analyzing design propositions in particular contexts and comparing them with acceptable standards for validation. Evaluation techniques, however, have two main problems. First they can only be performed after the design is finished and therefore do not help with the design decision-making process since they only either validate it or not. Secondly, the standards used for comparing the results also need to be validated. In this sense they are dependent on selection criteria, i.e. the definition of a system of values which can, in itself, be a research problem. However, resorting to considerate types and patterns to reflect such properties could be a clear methodology to define valid standards for comparative research. As several criteria could be essentially objective, and in this case determine if an element will consume resources or not. In similar cases, values of this case can be quantified. Nevertheless, the tangible meaning of these values, especially about the context, is always a matter of interpretation (Gil and Duarte, 2008).

d) Participatory decision-making – the main driving force behind participatory decision-making is democratic principles (Arnstein, 1969) but it is also a response to the complexity problem in the sense that it brings the agents of complexity into the decision-making process. The agents of complexity are those (individuals or collectives) who can locally or globally influence urban environment developments. Different methods and support tools used to inform or improve the quality of such decisions can also support participatory decision-making. Nowadays several different alternative approaches and strategies can be found for implementing city games (Tan, 2009) (Venhuizen, 2010). City games have to be adapted to the specific design problems being studied and should be defined in ways that simulate real conditions. They should also be goal oriented in the sense that if the output of the game can be considered close to a real design proposition, then the game becomes more than a simulation and turns into a design product. The game itself can also be set as an implementation process and, as such, can become a managing tool. Tools and methods are usually adapted to the subject in question, following specific procedures (Slocum, 2003). Furthermore, participatory decisions can be further improved if analytical support tools are used to inform the stakeholders participating in the design process.

e) Flexibility and flexible design – flexibility is cited by several authors as a design strategy for dealing with complexity. Ascher (2001) talks about developing an urbanism of devices instead of designing plans and Friedman (1997) talks about designing for change, defining a development vision or code for particular contexts. Flexibility in engineering systems is generically defined as the capacity of a system to produce different kinds of solutions. More specifically, there are two distinct but complementary definitions:
    i) the capability of a system to overcome known changes in the environment and
    ii) the ability of a system to cope with unpredictable changes (Gupta and Goyal, 1989).

These definitions are both interesting and extendible to design. The second definition, however, involves the difficulty of dealing with the unexpected. Three main typologies of interpretation of the terminology “flexibility” in the context of design can be evidenced.

(1) The first considers the capacity of the design method or process to adapt to changes in the program of requirements (design flexibility).
(2) The second considers the design of systems of solutions rather than one single solution (multiplicity – the design of systems; flexible design).
(3) The third considers the design of solutions which are capable of adapting even after the implementation is finished (the flexibility of the design). The ideal approaches should embrace all three typologies of flexibility at the same time.

4.3. How Urban Catalysis Theory can be used in urban regeneration and development processes? What tools and methodologies can be activated in order to develop applicative models for Urban Catalysis, in a five-point strategy that could attack the issue of public space renewal and development? Which are the properties of such tools?

This question will be discussed and tested in Chapter 6 and Chapter 7 (Discussion and Conclusion). According to urban catalysis (Attoe, Logan, 1989), the design process usually flows through three separate processes: analysis, synthesis, and evaluation. These processes include a series of professionals and tools, which are often crosscutting in their nature and goals. Synthesis aims at developing possible plans for future scenarios responding to the requirements identified using visualizations; plan representations and an output of related data. This process seeks to make certain a specific solution, through plan representations, which can be examined in a particular context. These characteristics of the urban design process are of particular importance because they usually involve separate procedures and separate tools. The structure of the urban design process tends to adopt a linear strategy addressing the three activities in the stated order. However, design synthesis, according to Lawson (2006), incorporates the three activities in a design process and they are usually implemented in any order. Lawson explains the design activity as a problem and solution negotiation process using analysis, synthesis, and evaluation, in which the order is not mandatory but depends on the designer's personal methods. He states that the design process can begin with a hypothetical solution – a primary generator (Darke, 1979) – that is then evaluated to better inform the problem description. In conclusion, whatever the regular workflow of an urban design process may be, synthesis, i.e. the plan design, should always involve the three activities as much as possible. The better the analytical processes and the more integrated they are, the better the results of design synthesis will regard urban design.

The process of urban catalysis places particular differences in comparison to traditional design processes, and especially in architectural or urban design. Initiates with a fundamental difference: the main focus of the design is not a single element but a system of complex elements, which are part of a design process and interact in functional, economic and metaphorical relationships. The other difference is that various actors formulate different elements and also users to whom the main design decisions are left onto. These differences involve an interesting factor in this matrix of urban catalysis, which is the ability to create chain reaction development in the surrounding context affecting urban development, socially, economically and culturally. Even though a particular target group can be found in architectural design, this process always involves a known amount of actors, which in the case of urban design could be impossible to recognize or understand in prior since they could change in the process. In the way, the three activities - analysis, synthesis, and evaluation - are a lot more complex in the case of urban design than in other design practices. Each activity will now be considered in detail.

CHAPTER 5_

RESEARCH METHODOLOGY

In the previous chapter, the research questions and problems throughout this thesis were presented and elaborated in order to clarify its origin, need for investigation, purpose and necessity. This research aims to seek and find the necessary tools and methods for understanding, planning, and designing adaptable and flexible projects related to urban design as a response to the unpredictability of urban development in the cities. As elaborated in previous chapters, adaptability and flexibility are proposed by several architects and theoretic of architecture as strategies to respond on the complexity of urban development in the cities. The main issue to address is the production of intelligent design proposals that would be developed through an interactive process of design. The element of flexibility is understood on three levels: on the capacity to accommodate changes in the program of requirements (design flexibility); on the design of systems of solutions (flexible designs); and on the capacity of these systems to adapt during their lifespan (flexibility of the design).

Throughout this chapter, we will analyse the research methodology that will be used to address the research questions and problems that were presented previously. In the time following the identification of the main problem, the focus of analysis was separated into five different phases: the analytical phase, involving a literature review; the hypothesis formulation, in which the information collected was used to formulate a hypothetical solution; the synthesis phase, in which the theoretical model and design methodology was developed, based on the analysis of different case studies; the application phase, when two applicative models were elaborated as proof of concept of the theoretical model; and the reflection phase, in which critical reflection in n the results of the conceptual model and applicative models provided a series of recommendation for the application of model tools for urban design proposals in the Albanian context.

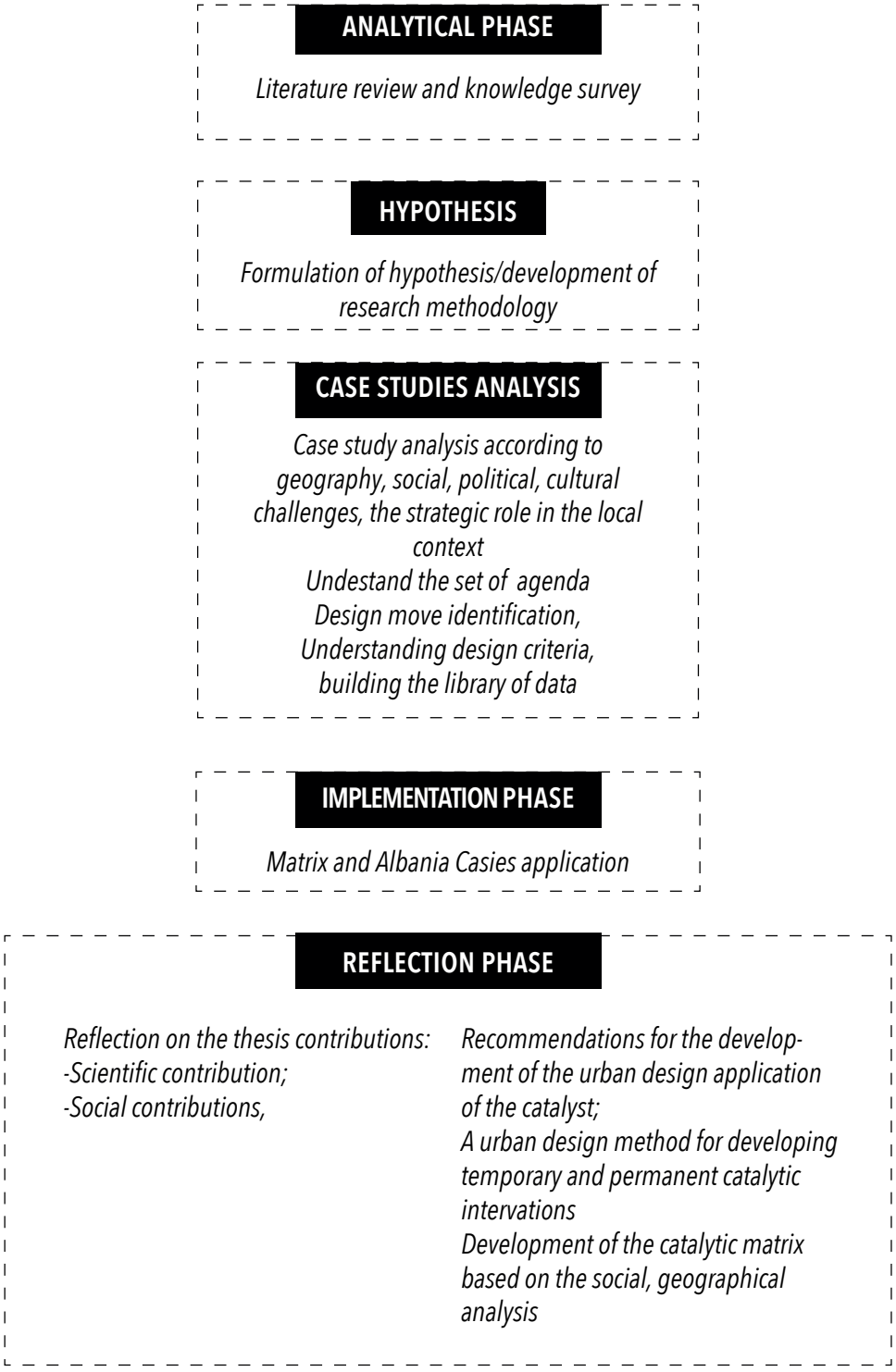


Figure 5.1 Overview of the Research Workflow - Source: (Kristo, S., 2017)

Analytical Phase – during the analytical phase an extensive literature review process is carried out in order to collect adequate supporting information on the research problem.
In the time following this process, the Hypothesis was formulated: and urban design methodology using the concept of urban catalysis and following similar notions in order to reactivate urban development.

The Synthesis Phase is taken in order to develop the theoretical model to support the definition of a design methodology and the structure of the supporting design tools.
This phase followed a three step sequence:

- Analysis of a series of case studies in order to clarify the design processes needed to taken by urban planners, urban designers and architects.
- Syntax the design processes into a matrix of urban catalysis, a scheme that organizes the design actions with its analogue interactions as result of the urban catalysis. Which are the components that are enhanced and are left of this reaction.
- A synthesis of the concepts is defined in the previous step. This was accomplished by compiling the matrix of urban catalysis in order to provide a critical reflection in the results of the conceptual and applicative models. This is composed so further on we can create variations on those designs and generate new urban designs informed by other contextual factors.

In the ***Application Phase*** alternative interpretations of the theoretical model are developed: Applicative models are informed by the case study models, and they are used as reference models for future comparative analysis and proposals. In this process a series of indicators related with the quality of urban public space is created that point out either positive or negative quality when implemented in the process of urban development in the cities.

The Reflection Phase involved critical reflection on the research achievements, identifying:

- Reflections on the pros and cons of the design methods and tools developed, identifying their main achievements and shortcomings.
- Recommendations for urban design development.
- Reflections on the scientific and social contributions of the research.
- Identification of future work.
- The following diagram provides an overview of the research workflow showing the five phases defined above.

5.1.THE ANALYTICAL PHASE

The analytical phase of this research involved a process of information survey and literature review of the research topics and problems. This survey focused on the following themes: urbanism and the complexity of cities, design models, urban design, and catalytic actions in design processes. This process referred to the research described in (Attoe and Logan, 1989), (Kiib, Marling and Mullins, n.d.), (Oswalt, Overmeyer and Misselwitz, 2013) that was also considered as an essential basis of information in the foundations of this research, but also as information related to the selected case studies that are used in this research. The analytical phase, also, included the identifica-

tion and selection of supporting case studies, including an information survey of the case studies selected to identify applicative design models used. The analytical phase involved two main approaches:

- analyzing and understanding the information areas and all the technical details related to the
- research problem and its sub-components;
- collecting the information incorporated in the catalytic design process of the authors of the ten case studies.

The former provided an in-depth understanding of state of the art knowledge and the latter an insight into on the specificities of the design decisions taken by designers while designing their plans.

5.2.HYPOTHESIS FORMULATION

The formulation of the hypothesis of this research thesis was based on the information and data that was collected during the analytical phase. The hypothesis was constructed on the premise that all the research topics and problems that were identified would be answered with the same solution, namely, that the hypothesis should respond and address:

(1) on the wide complexity of topics and issues that are related with catalytic urban design of the urban development in the cities;
(2) on the specific properties of urban design, which can be related with a participatory process which can be informed by random variables and parameters;
(3) on the necessity to propose and develop flexible urban systems;
(4) on the technical limitations and requirements of the existing facilitating systems, which can be related with environmental factors and data and information analysis that relate to specific contexts and can inform design generation processes;
(5) to a matrix based structure that could be the basis for the generation applicative models for urban design;
(6) to the reflective and informed process in urban design;
(7) to the need to understand, analyze and process several modes of information from an existing context, which can lead to the creation of a series of new applicative models guiding urban design solutions which their main basis in contextual factors;

All these problems, in particular, were firstly examined and identified with a research question that is related to a particular hypothetical solution that was formulated. Each separate solution became part of the matrix of urban catalysis to be addressed as a whole organism defining a theoretical framework capable answering the problems posed by this research.

5.3.THE SYNTHESIS PHASE

The synthesis phase was structured in three steps:
In-depth analysis of the case studies at several levels to understand the details of design details which can be further translated into design actions that were part of a larger process for urban catalysis. This analysis provided the basic information for the development of the conceptual model and further theoretical definitions. In the context of this series of results, an investigation of series urban design processes, structures of urban generation was undertaken.

Identification and structure of previously defined urban development models, using the case studies and the information provided by the authors to understand in depth this design process. This process was taken in order to create a matrix of actions and reactions of urban catalysis, comprised by a series of factors; function, size, location, connection with infrastructure, social/cultural impact, economical impact.

The above information would be the comparative elements to understand the impact of each action and the related reaction, result of the catalytic process. In this case it is possible to select only the necessary components from the matrix of urban catalysis in order to provide new models that are adapted to particular contextual factors, level of cultural impact, an amount of social interaction.

5.4.THE IMPLEMENTATION PHASE

The main goal of the implementation phase was to use the above information from the conceptual matrix developed in the previous phase, illustrating an approach and exploring separate aspects of the theory.

In order to make the implementation more possible, a new series of case studies related to the Albanian context would be required to be analyzed. In this case the creation of a scale of relative interaction would be possible, in order to bridge the gap of contextual differences. Taking in consideration case studies closely related with the urban catalysis of pedestrian streets, recently renovated or regenerated case studies were analyzed in the city of Tirana.

A new matrix of urban catalysis was created in order to organize the different data that were comprising this matrix creating a very similar structure of elements that can be used in the development of new urban design models. The results included the identification of the advantages and disadvantages of each case study and generate the matrix showing potential application in the city of Tirana and the context of Albania.

5.5.THE REFLECTION PHASE

The reflection phase provided a comparative and conclusion process for the findings of this research, going in depth in the contribution of this research in the field of urban planning, urban design, and architecture and to the concept of urban catalysis. As a concluding statement, the reflection phase provided results on three different levels:

- A set of recommendations for developing future proposals for urban design and in particular the design of pedestrian streets, as part of a comparative matrix of urban catalysis.
- A design method to enhance the quality of urban design processes and as a result in the urban design process improving the overall quality of design decisions. This includes conclusions on how this methodology and toolkit can be used in future processes of urban catalysis.
- A tool to support studies on the relationship between urban morphology and catalysis for the urban development of our cities.

The reflection phase included thoughts on how the proposed approaches would contribute to the development of more sustainable cities that would work through a catalytic approach.

CHAPTER 6_

DEFINING THE CITY CATALYST

This thesis proposes a theoretical framework for developing urban design through the use of urban catalysis as a re-generation tool for the urban fabric. This chapter defines the theoretical structure of Urban Catalysis, introduces the concept of the urban catalyst as a conceptual tool to understand the city in the same way that a chemical reaction acts. It attempts to provide an overview of this metaphorical approach and to argument this statement providing an historical background established by important authors. It is important to take in consideration previous finding in the same topic in order to understand how different authors approach the different levels of the urban catalyst. Further more in Chapter 6 this research provides an analysis of the methods, which involve the use of the process of urban catalysis, and concluding in Chapter 7 presents the applicative models for implementation based on the above theoretical model.

6.1. SUMMARISING THE HYPOTHESIS STATEMENT

The main driving force behind this research is the problem of planning and designing for the complex behavior of cities. The concept of urban catalyst is proposed as a mean to improve the relationship between urban planning and design as a clear theoretical approach and their implementation in the urban sphere. Previous work involving the concept of urban catalyst suggests that this concept has a numerous possibilities for implementation, acting not only in the plain formal and aesthetic level. However, new tools are needed to improve interoperability between the analysis, synthesis, and evaluation activities during the design process, whilst simultaneously taking advantage of the generative potential of pattern and grammar-based design.

This chapter assesses the characteristics of the urban catalyst approach, showing how it can be used as a metaphor and mechanism. These characteristics have been previously discussed in this thesis and previous chapters. The “Urban catalyst” theory provides an effective method to facilitate this goal. It emphasizes on historical contexts and local identities, researches historical areas entirely rather than a single project, bases on physical, functional, economic as well as social aspect, and most importantly starts with small interventions and participatory discussions, which helps to achieve a sustainable renovation for historical areas.

In order to maintain a regular design workflow, a design tool needs to maintain a high level of interactivity with the design process. Based on the observation, each move a trial transformation of the existing conditions towards some improvement (Schцn, 1987), this thesis attempts to address the use of a set of applicative models taking in consideration case study examples in order to present a clear overview of this concept. The core of this chapter focuses on the definition of the urban catalyst as a tool for urban development and design. The details of the structure will be described in the following chapter, whilst also exemplifying its use.

6.2. THE USE OF THE URBAN CATALYSIS – METHODOLOGY AND TOOL

While the city in its built form is static; the relationships developed in it are dynamic. These relationships are layered in different levels, social, cultural, economic, etc. While in a chemical reaction two or more chemical elements react with each other and create a final product or other byproducts, in the same manner the urban form and structure of a city reacts when new development is introduced. In this case the reaction affect a multiple of levels and layers and produces chain reaction effects, which often they are not either controlled or predicted. In most examples every public intervention considers only the strict context that is located without taking all the above levels in consideration for a wider spread and more complete overview in their relationship with the urban form and structure of a city. What the concept of urban catalysis as methodology wants to activate is the possibility to develop a tool, which could provide similar characteristics of what a chemical catalyst provides in a chemical reaction.

In chemical reactions, the role of the catalyst is to speed the process of chemical reaction and enhance the final product. In this case the concept of urban catalysis and therefor the urban catalyst doesn't have that sole attribute. What this methodology seeks to achieve is to consider the process of urban development not as a single object or project intervention, but to firstly provide a full overview of the needs of the urban structure and form. It is important to highlight that these needs must be understood in the different above layers in order to achieve sustainable development in our cities and can't be fragmentized or isolated for any reason. The operational behavior of the catalyst is to act as a an element that stimulates urban development and creates a ripple effect into other surrounding elements.

In this case the level of urban interventions is not short sighted but obtains a more holistic approach and impact. This strategy could enhance our urban development capacities and provide more efficient and effective strategies with limited economical resources.

The concept of urban catalysis, defines the eight (8) characteristics below on which each intervention should operate;

Urban catalyst original concept was defined into 8 characteristics as following;
(1) New element modifies the elements around it.
(2) Existing elements are enhanced or transformed in positive ways.
(3) The catalytic reaction does not damage its context.
(4) A positive catalytic reaction requires an understanding of the context.
(5) Not all catalytic reactions are the same.
(6) Catalytic design is strategic.
(7) A product better than the sum of the ingredients.
(8)The catalyst can remain identifiable. These characteristics have described by investigated downtown revitalization projects in many cities USA, in particular Grand Avenue shopping center in Milwaukee city in the Book of American Urban Architecture: catalysts in the design of cities).

6.3 CITY AS A METAPHOR

6.3.1 Designing and Thinking in images, Metaphors and Analogies

One could argue that thinking processes happen in two ways. Each claimed to be the only way in which thought processes occur in science, arts and philosophy. The first is commonly known as the empirical way of thinking. It is limited to the study of physical phenomena. The actual concern is with facts that can be measured and justified. This intellectual concern concentrates on separate elements and isolated facts, deriving from direct practical experience. Thinking is strictly limited to technical and practical processes as they are most strongly formulated in the theories and methodologies of pragmatism and behaviorism. The other way of thinking seeks out phenomena and experiences, which describe more than just a sum of parts, paying almost no attention to separate elements, which would be affected and changed through subjective vision and comprehensive images anyway. The major concern is not the reality as it is but the search for an all rounds idea, for a general content, a coherent thought, or an overall concept that ties everything together. It is known as holism or Gestalt theory and has been most forcefully developed during the age of humanism in the philosophical treatises of the morphological idealism. Kant postulates that knowledge has its origin in two basic components intuition and thought. According to Kant all our thinking is related to imagination, which means it is related to senses, because the only way to describe an object is through imagination. The intellect is able of perceiving anything, and the senses not think. Only through a combination of both can knowledge arise. Imagination has to precede all thinking processes since it is nothing less than a synopsis, an overall ordering principle bringing order into diversity. If we accept that thinking is an imaginative process of a higher order, then, argues Kant, it means all sciences are based on imagination.

In more recent philosophical debates, Herman Friedman replaces Kant's concept of imagination and thought as the basic components of knowledge with the argument that the sense of get-the vision-and the sense of touch-the haptic are the two competing polarities, and that all intellectual activity happens either in an optical or haptic way Friedman argues that the productive; it measures, is sense of touch is none d acts in congruity. The sense of geometry sight, however, is productive it interpolates, is integrand acts in similarities. The sense of sight stimulates spontaneous reactions of mind it is more vivid and more far-reaching than the sense of touch. The sense of touch proceeds from the specific condition to the general, the sense of vision from the general to the specific The process, whose data are based on imagination, starts out with an idea, looking at an object in the most general way, to find an image from which to descend to more specific priorities every human being there is a strong meta physical desire to create a reality structured through images in which objects become meaningful through vision and which does not, Planck believed, exist because it is measurable Most of all, the question of imagination and ideas as an instrument of thinking and analyzing has occupied artists and philosophers. Only in more recent history this process of thinking has been undervalued because of the predominance of quantitative and materialistic criteria. It is obvious, however, that what we generally call king is nothing else than the application of imagination and ideas to a given set of facts and not just an abstract process but a visual and sensuous event. The way we experience the world around us depends on how we perceive it. Without a comprehensive vision the reality will appear as a mass of unrelated phenomena and meaningless facts, in

other words, totally chaotic. In such a world it would be like living in a vacuum: everything would be of equal importance, nothing could attract our attention; and there would be no possibility to utilize the mind.

As the meaning of a whole sentence is different from the meaning of the sum of single words so is the creative vision and ability to grasp the characteristic unity of a set of facts, and not just to analyze them as something, which is put together by single parts. The consciousness that catches the reality through sensuous perception and imagination is the real creative process because it achieves a higher degree of order than the simplistic method of testing, recording, proving and controlling. This is why all traditional philosophy is a permanent attempt to create a well-structured system of ideas in order to interpret, to perceive, to understand the world, as other sciences have done. There are three basic levels of comprehending physical phenomena first, the exploration of pure physical facts; second, the psychological impact on our in mindset and third, the imaginative discovery and reconstruction of phenomena in order to conceptualize them. If, for instance, designing is understood purely technically, then it results in pragmatic functionalism or in mathematical formulas. Designing is exclusively an expression of psychological experiences, then only emotional values matter, and it turns into a religious substitute. If however, the physical reality is understood and conceptualized as an analogy to our imagination of that reality, then we pursue a morphological design concept, turning it into phenomena which, like all real concepts, can be expanded or condensed; they can be seen as polarities contradicting or complementing each other, existing as pure concepts in themselves like a piece of art Therefore we might say, if we look at physical phenomena in a morphological sense, like Gestalt in their metamorphosis, we can manage to develop our knowledge without machine or apparatus. This imaginative process of thinking applies to all intellectual and spiritual areas of human activities though the approaches might be different in various fields, but it is always a fundamental process of conceptualizing an unrelated, diverse reality through the use of images, metaphors, analogies, models, signs, symbols and allegories.

This became the friendly companion of romantic couples. Before human intelligence managed uncover his secret, he was the subject of so many desires and wishes that he became part of our while existing only in our imagination. Not only about the moon, but also about the whole firmament the human mind created a vivid fantasy. It probably took a long time to structure the wide starry sky, and to develop a coherent system within a chaotic reality long before science was capable of calculating and measuring the orbits, the gravity, the intensity and speed of light of the stars and to register all relevant data. Before that, understanding was based entirely on imaginative concepts. Instead of a set of facts, knowledge referred to a set of constellations derived from perception. The firmament was filled with figures and images, such as the Orion, Castor and Pollux, the Great Bear, and others. Those star images represented a sensuous reality in the human consciousness. Therefore we might conclude: Reality is what our imagination perceives it to be. In a general sense, an image describes a set of facts in such a way that the same visual perception is connected with the conditions as with the image itself.

In everyday language we are constantly using metaphorical expressions without paying any attention to them. For instance, we talk about the foot of the mountain, the leg

of a chair, the heart of the city, the mouth of the river, the long arm of the law, the head of the family and a body of knowledge. We use many words that are vivid metaphors although they exist as common ex addition to the words, everyday language abounds in phrases and expressions of metaphorical character such as: straight from the horse's mouth, the tooth of time, or the tide of events, a forest of jungle of the city. Metaphors are transformations of an actual event into a figurative expression, images by substituting an abstract notion for something more descriptive and illustrative. It usually is an implicit comparison between two entities, which are not alike but can be compared in an imaginative way. The comparison is mostly done through a creative leap that ties different objects together, producing a new entity in which the characteristics of both take part. The meaning of metaphors is based on comparison and similarities most often of anthropomorphically character, like the human body as a metaphor for the shape of a Romanesque cathedral or the conformation of the universe. Designers use the metaphor as an instrument of thought that serves the function of clarity and vividness antedating or bypassing logical processes. "A metaphor is an intuitive perception of similarities in dissimilarities," as Aristotle defined it.

6.3.2.Models and Metaphors for the city

A model is commonly understood as somebody who poses as a prototype representing an ideal form. In a more general sense a model is a structure, a pattern, along the line of which something is shaped. As an artist paints his painting after the lines of a model, a scientist builds his theory of natural events on the basis of a concept or a plan, which acts as a model. This is all the more so when the complexity of something increases or the scientific sphere becomes so minute that any kind of observation would fail. In chemistry or physics, for instance, models are built to demonstrate the position of atoms in molecules, or biological models are used to represent the organic formation in which every organ has its function in relation to the whole system. Such models serve as instructions for technical intrusion with the reality. Generally a model is a theoretical complexity in itself which either brings a visual form or a conceptual order into the components of complex situ actions. In such a model the external form is the expression of an internal structure. It shows the wav something is put together. To make a model means to find coherence in a given relationship of certain combinations and fixed dispositions. This is usually done with two types of models, visual models and thinking models. They serve as conceptual devices to structure our experience and turn them into functions or make them intentional By means of these two models we formulate an objective structure that turns facts into something more certain and therefore more real. It i nothing else than a formal principle which makes it possible to visualize the complexity of appearances in a more ordered way, and which in re verse is a creative approach to structured reality along the knowledge of a model, Not the least the model is an intellectual structure setting targets for our creative activities, just like the design of model buildings, model cities, model-communities and other model conditions supposedly are setting directions for subsequent actions.

Analogies When Le Corbusier compared the edifice with a saw a machine he saw an analogy where nobody e before, when Aalto compared the design of his organically shaped vases with the Finnish landscape, or his design for a cheater in Germany with a tree stump, he did the same and when Ha ring designed with anthropomorphic images in mind he again did just that trying an analogy where nobody has seen one before, In the course of the twentieth century it has become recognized that analogy taken in the

most general sense plays a far more important role in architectural design than that of simply following functional requirements or solving pure technical problems All the constructivist designs for instance, have to be seen as a reference to the dynamic world of machines, factories and industrial components to which they are analogous. Melnikov once produced a series of designs for workers' clubs in Moscow, which are analogies to pistons, tubes rears and bearings.

It has been said that selective discovery consists in seeing analogies where everybody else sees just bare facts, for instance, the human body: a surgeon perceives it mainly its system of bones, muscles, organs and a circulatory system A football coach appreciates the performance capacity of the body, the lover has a romantic notion about it, a businessman calculates the working power, a general the fighting strength, and so on, Architects, like Cattaneo Haring, Soleri and others perceive the human body as a Gestalt which is analogous to their either for buildings or cities, draw inference by analogy from one to the other. The analogy establishes a similarity, or the existence of some similar principles between two event which are otherwise completely different, Kant considered the analogy as something indispensable to extend knowledge, In employing method of analogy it should be possible to develop new concepts and to discover new relationships.

The city-images as they are shown in this anthology are not analyzed according to function and other measurable criteria-a method which is usually applied-but they are interpreted on a conceptual level demonstrating ideas, images, metaphors and analogies. The interpretations are conceived in a morphological sense, wide open to subjective speculation and transformation. The book shows the more transcendental aspect, the underlying perception that goes beyond the actual design. In other terms, it shows the common design principle, which is similar in dissimilar conditions. There are three levels of reality exposed: the factual the object: the perceptual reality-the analogy: and the conceptual reality-the idea, shown as the plan-the image the word.

Cities are many things at once! They are complex and multifaceted. They are paradoxical. [1]
"To speak of a city as a whole is to speak in metaphors."[2]

Alan Latham (2008) suggests that we need a new, and more inventive, set of metaphors in addition to those we are used working with. Without new metaphors – and the shift in style of thinking that new metaphors bring with them – urban studies will be unable to do proper justice to the heterogeneity and complexity of cities. In this paper our aim is to look at cities through a set of metaphors used in organizational theory. Organizations are complex and heterogeneous. The set of metaphors is from one of the classics in organizational theory, namely Gareth Morgan's Images of Organization (Morgan, 1986; updated version 2006). So, the metaphors that will be used in this article can be seen as crossover from organization theory. Morgan portrays organizations through the metaphors:

1) the organization as a machine;
2) the organization as an organism;
3) as brains;
4) as culture;

5) as a political system;
6) as a psychic prison;
7) as flux and transformation, and;
8) a an instrument of domination.

Before turning to Morgan's work, briefly the essence of metaphor is discussed. The notion of working with metaphors is understanding and experiencing one kind of thing in terms of another (Lakoff and Johnson, 2003; Кцveczes, 2010). "Metaphor operates through the juxtaposition of images (e.g. 'A is B'; 'the organization is a machine'), where one element is understood in terms of another and provides a novel way of grasping, seeing and acting in any given situation in a manner that often ends up challenging taken for granted modes of understanding. The overall process is creative and expansive." (Morgan, 2016, 1030) Morgan's metaphors are conceptual metaphors, influencing ways in which we think and act, developed for the study of organizations, and in this paper for urban studies. Morgan (2016, 1035) explains his view of the use of metaphors as follows: to think about all metaphors in terms of their generative potential and judge the power of a particular metaphor in terms of the insights and potential implications, actions and impacts that flow from the richness and power of the metaphor and the potentials it creates.

Metaphors vary in their degree of conventionality. Conventional conceptual metaphors are seen as deeply entrenched ways of thinking about or understanding an abstract domain. Metaphorical linguistic expressions are well worn, clichйd ways of talking about abstract domains (Кцveczes, 2010, 34.) Metaphors are used in various ways, at the surface for framing a message (systems of language) and below the surface in the ways we think and act. As Geary says (2012, 3) "Metaphor is a way of thought long before it is a way with words." Todolн (2007, 52) concludes: "For a long time metaphors were seen as a rhetorical device and more specifically as a matter of poetry. Today, however, many cognitive linguists and analysts of discourse recognize that metaphors play a central role in thought and structure our perception and understanding of reality." In five experiments, Stanford researcher Thibodeau and Boroditsky (2011) explored how metaphors influence the way that we reason about complex issues and forage for further information about them, and found that that even the subtlest instantiation of a metaphor (via a single word) can have a powerful influence over how people attempt to solve social problems like crime and how they gather information to make ''well-informed'' decisions. How metaphors exactly work is a topic of academic discussion. Cornelissen (2005) and Wittink (2011) give a framework for understanding how metaphor works in conceptualizing in organization research. Pee *et al.* (2015) relate metaphors to better understanding problem framing. Metaphors depend on their context, and there is a multitude of theories on how metaphors work (Gerber, 2012). They may be 'vague and unstable' (*ibid*.), but this does not distract from their significance in practice, because they are widely used.

Cities and organizations are different objects of course. First, according to Scott and Storper (2015) a city can be understood in terms of dynamics of agglomeration / polarization, and the unfolding of an associated nexus of locations land uses and human interactions (and a number of scholars would not agree to this definition). An organization can be understood as a human institution that is structured and managed to pursue collective goals or the goals of an owner or meet a public need (and a number of

scholars would not agree to this definition). Second, unlike most organizations, cities have no unity of command based on organizational goals or ownership, that apply to all members (but neither have self-managed teams or cooperatives). And the average life span of cities and organizations differs. However, cities and organizations as objects of study have some important features in common. Both cities and organizations can be seen as human institutions, forms of multifaceted human organization functioning in complex environments. Second, cities and organizations are built on formal and informal rules, rules which provide for rationality (Clegg *et al.*, 2016). And both cities and organizations go on while their members change – they have an embedded structural reality that endures irrespective of their members and visitors. Thirdly, both cities and organizations as objects of study are heterogeneous and complex. Cities can be small and simple and have one main function, or can have the size and complexity of a metropolis. Organizations vary a lot too, from small and simple to big and complex. But for both cities and organizations it can be said that small does not mean simple. As human institutions, even the smallest city or organization can entail all sorts of complexities.

Bridges between organizational and urban theory are being constructed (to use a metaphor). Van Es and van Rossum (2016) elaborate in their volume on 'The city as organization', with questions such as 'which knowledge from organization theory and change management can deliver a positive contribution to the development of the city', and 'which way organization and which attitude of actors contribute to the city as organism.' Case and Gaggiotti (2014) explore the way in which uses or abuses of urban metaphors can inform differing polities and ethics of human organization. The urban catalysis as research uses the metaphor of the catalyst instead of the rest of the metaphors.

The use of metaphors in urban studies is nothing new; for long metaphors have been widely used in urban theory and urban planning (Gerber and Patterson, 2014; Secchi, 2014). Gerber (2014, 18-19) notes that architecture and urbanism have elusive and hard to grasp objects. Metaphors help to understand what is at the core of these disciplines, which can only partially be captured by language. Larsen (2004), writing on urban culture, calls his contribution 'The city as a postmodern metaphor'. Marcuse (2005) suggests that 'city' is often used in a metaphorical sense, and he distinguishes three usages with political overtones: cities as actors (cities competing, winning or losing in the global economy), 2. cities as components of globalization, as unitary entities, and 3. cities as a unified aggregate of groups. Popular metaphors include the portrayal of a city as a concrete jungle, as a hybrid city, as a contested or divided city, as a person, or as a moving city. Metaphors vary in their degree of conventionality. Some are rather direct, like the 'soft and hard city'. Others are more poetic, such as "Cities are a never ending process, a constant fight between the oasis and the desert. They deploy edge logic, a sort of 'theatre of rise and fall.' (Martinez, 2014, 649). Rem Koolhaas said on Dubai "the ultimate tabula rasa on which new identities can be inscribed." There is a wide and creative variety of metaphors to depict and understand city phenomena. Solesbury (2013, 6) suggests, "The way we think about cities is strongly shaped by metaphors. Five recur in many variations: the city as a community, as marketplace, as battleground, as machine and as organism. These are extended metaphors, that is, they serve to structure the whole concept of the city with many dimensions and levels of meaning".

Examples of the use of metaphors are following. Laundry (2008) developed the notion of the creative city.

Skivko (2013) discusses fashion metaphors for the city, like 'branded city', 'city look', and 'urban garment'. Beekmans and de Boer (2014) use the metaphor of the Pop-Up city to discuss 'city-making in a fluid world.' Rowe (2009, 102) suggests that metaphors have been identified as the most appropriate tool to approach the development of a theory for economic development. Brown and Campelo (2014) discuss the common propensity to personify places, to treat them as living things, as organic entities – as people, in effect – that grow, flourish and finally pass away. Todolн (2007) studied disease metaphors used in urban planning in Spain to hide social change (sanitizing is in Spain what gentrification refers to), with urban surgery as intervention [and only specialist surgeons (=planners) can do that]. In the Netherlands, the metaphor of 'rotten tooth' is common language for obsolete ugly buildings, backward areas etc., and it helps to make clear to the public what needs to be done (the urban 'dentist' will have to pull the tooth). Gregory (2012) studied critical and provocative metaphoric constructions found in the gentrification discourse of Detroit, and Furbey (1999) gives critical reflections on urban regeneration as a metaphor. Haar (2007) explains the metaphor 'ecological city'; natural processes were embraced as metaphors for the city rather than as its underlying metabolism. Newell and Cousins (2015) discuss the urban metabolism metaphor in detail. Pickett *et al*. (2003) discuss the metaphor 'resilient cities', and see 'resilience' as an integrative metaphor, linking the disciplines of ecology and design. Urban resilience has become an important topic in Europe. Stieber (2012) uses visual metaphors as a means of contending with the dynamic nature of the urban condition in the case of historical Amsterdam, namely personification (the city as a person), the plan as an icon of the city, as historical and allegorical palimpsest and the city in motion. Singer (2010) edited the volume '*Psyche & the City, a soul's guide to the modern metropolis'*, using the notion of 'soul' to explore spirit and matter, and the unconscious of the city.

Spatial metaphors are commonly used (Dьhr *et al*. 2004, 59 ff.). Mehmood (2010) analyses evolutionary metaphors in urban planning. A metaphor is a support to recognize and remember spatial concepts. A well knows Dutch metaphor is in the name Het Groene Hart (the Green Heart), a more rural space surrounded by cities. The Amazon is depicted as the world's lungs, and Copenhagen's planning past has the 'Five finger plan'. The urban DNA is biological metaphor (Ning Wu and Silva, 2011). In their book The Flexible City, Bergevoet and van Tuijl (2016) look at the complexities of what they call 'Europe in transition'. From a picture of 'the system crisis' and the need for sustainable solutions, they argue for 'from urban expansion to reuse, user-driven flexibility, and from blueprint to unpredictability. Their metaphor is the flexible city (Morgan's root metaphor 7 – Flux and transformation). This flexibility is what they illuminate – they do not look at political systems, culture, dominant ways of thinking, etc., this remains hidden. Interesting is also the smart city metaphor. In their article's section on the smarter city discourse as a framing devise, Sцderstrцm *et al.* (2014,316) conclude on IBM registering the name 'smarter cities': "On the surface, the dominant smart cities' storyline is about efficient and sustainable cities, but underneath it is primarily a strategic tool for gaining a dominant position in a huge market where, as Townsend (2013, 63) puts it, 'Siemens and Cisco aim to be the electrician and the plumber [...] [and IBM] their choreographer, superintendent, and oracle rolled into one." A variety of theories

is used for understanding cities (cf.). In the titles of chapters of the volumes of Bridge and Watson (2013), Ederson and Jayne (2012), Paddison and McCann (2014), and Parker (2015), we come across metaphors as in the next table, and in the texts of the three volumes many more metaphors can be found.

To conclude, metaphor in urban studies (Figure 6.1) and urban theory has been widely applied, and it seems that a 1000 flowers bloom. The use of metaphors varies from a simple system of language to a shift in style of thinking. 'The liquid city' is not just language, it is a way of perceiving the city via the concept of liquid life / liquid modernity of Baumann (2005). 'The Green Heart' is not just language; it has emotional and rational connotations. And the metaphor of 'the rotten tooth' makes it clear what has to be done: pull it (i.e.: sense making for redevelopment). Metaphors are concepts that frame thinking and feeling.

By way of example, this set is translated into examples of theories that can be applied to one single organization in table 2, be it giants like BP or Ikea or a health clinic around the corner, metaphors and examples of theory Morgan's point is that these metaphors and theories are different ways of grasping the organization, they illuminate and hide, show aspects of the organization. Multiple perspectives offer a broader perspective. Liu (2012) examined the applicability of urban paradigms derived from Los Angeles school; five metaphors — world city, cyber city, dual city, hybrid city and sustainable city — are each examined against Shanghai's urban context. This provides an interesting broadened urban framework.

6.3.3. Metaphor and mechanism of the urban catalysts

In view of urban design, the mechanism of Urban Catalysts can be described as follows. New urban elements (urban spaces) satisfied with specific requirements act as 'Urban Catalysts' then stimulate and guide other urban elements' development with the help of some positive and effective 'Catalyst Media' (applied forces). Accordingly, Urban Catalysts can have an active and linked 'Catalyst Reaction' on urban contexts. In this process, urban design usually acts as the 'Catalyst Media' (applied forces).

Taking in consideration the urban development model applied in Albania during the last three decades, mostly based on informal development and radical urbanization, a model that was mainly supported by private investment. This model was not based in a holistic approach to urban development and design, but rather than singular interventions which provided isolated development resulting in minimal or negative impact in urban form and structure. Actually the needs for sustainable development for Albania are eminent, based on a new model, which would efficient economical investment but also provide considerable impact. It is clear that the existing models applied in Albania were not able to generate the above development and a necessity to articulate and place in action such a model is reflected on the research of this thesis.

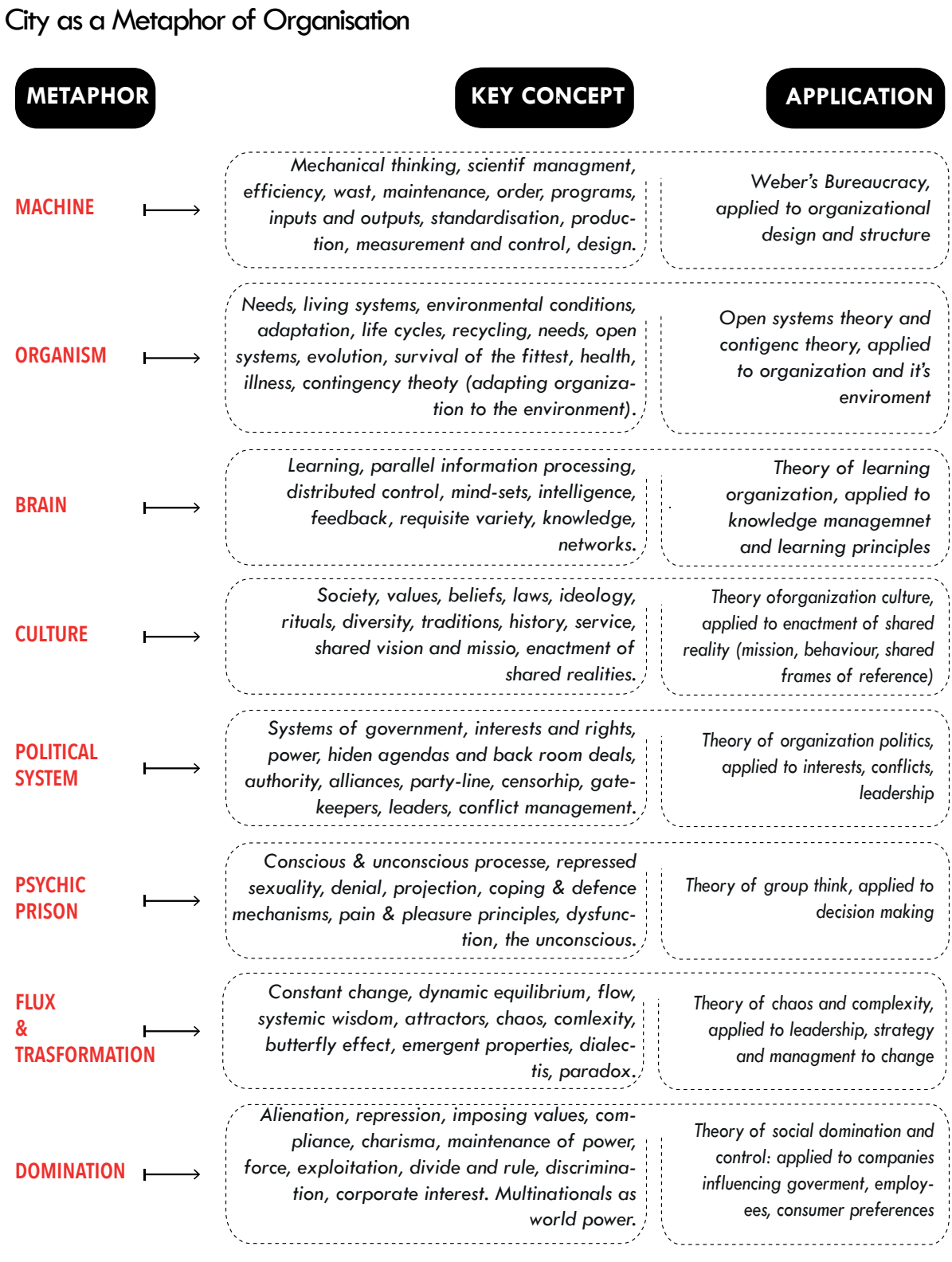


Figure 6.1: Morgan's metaphors and their associated concepts are as follows - Source: (Lawley, 2001)

6.4 CATALYST AS A METAPHOR FOR THE CITY

Analogue of catalyst definition in chemical course 4) to urban study (Figure 6.1) Finding of active efforts of urban catalyst to utilize in urban development. However, scientific course and urban study are different in its application. The metaphors guiding urban design theory to date have been inadequate. Organismic and mechanical metaphors ("heart of the city," "the city is a tree—or semi lattice," "organism," "mechanism") are of limited use as guides to architectural and urban design decisions. We find the chemical/catalytic analogy to be more useful and versatile. An urban catalyst might be a hotel in one city, a shopping complex in another, a transportation hub in a third. It could be a museum or theatre. It could be designed open space or, at the smallest scale, a unique feature like a colonnade or a fountain.

A***n urban catalyst has a greater purpose than to solve a functional problem, or create an investment, or provide an amenity.*** A catalyst is a central element that is shaped by the city (its "laboratory" setting) and then, in turn, shapes its context. Its purpose is the incremental, continuous regeneration of the urban fabric. The important point is that the catalyst is not a single end product but an element that impels and guides subsequent development (Figure 6.3).

Definition of the catalyst

According to the Oxford English Dictionary, a chemical 'catalyst' has three specific properties: it is a substance, it activates or accelerates a process and, in that process, it is not itself changed (Juliet, 2009, p.296). Talking to the question that how do these properties accord with and/ or translate to notions of 'urban catalyst', different urban thinkers at different time explained it based on various bodies of work as well as under different theoretical and political contexts.

Aldo Rossi (1966) as cited by Juliet (2009), the author of the book The Architecture of the City, ascribes the term 'catalyst' to what he views as the 'primary elements' of a city. From Rossi's point of view, many of these- if not all-are physical substances or 'artifacts', thus broadly complying with the first component of the definition of a catalyst above (Juliet, 2009, p.296). In his book, Rossi (cited in Juliet, 2009, p.296) investigates how these constructed primary elements can simultaneously be 'capable of accelerating the processes of urbanization' including the deployment of its residential districts and thus of acting as 'catalysts'. Rossi (1969) as cited by Juliet (2009) also claims that with regarding to the second component of the definition of a chemical 'catalyst', primary elements 'catalyst' are not always 'physical, constructed, measurable artifacts. In relation to the modern city, Rossi's opinion (cited in Juliet, 2009, p.296) is that it is important to understand that 'primary elements' act not only in processes of incremental development but in those of redevelopment. Through this, Rossi (1966) as cited by Juliet (2009) indicates that catalysts, whether as 'artifacts' or events, affect rates of change in processes of initial urban assemblage or of re-assemblage, and in terms either of growth or of negative decline.

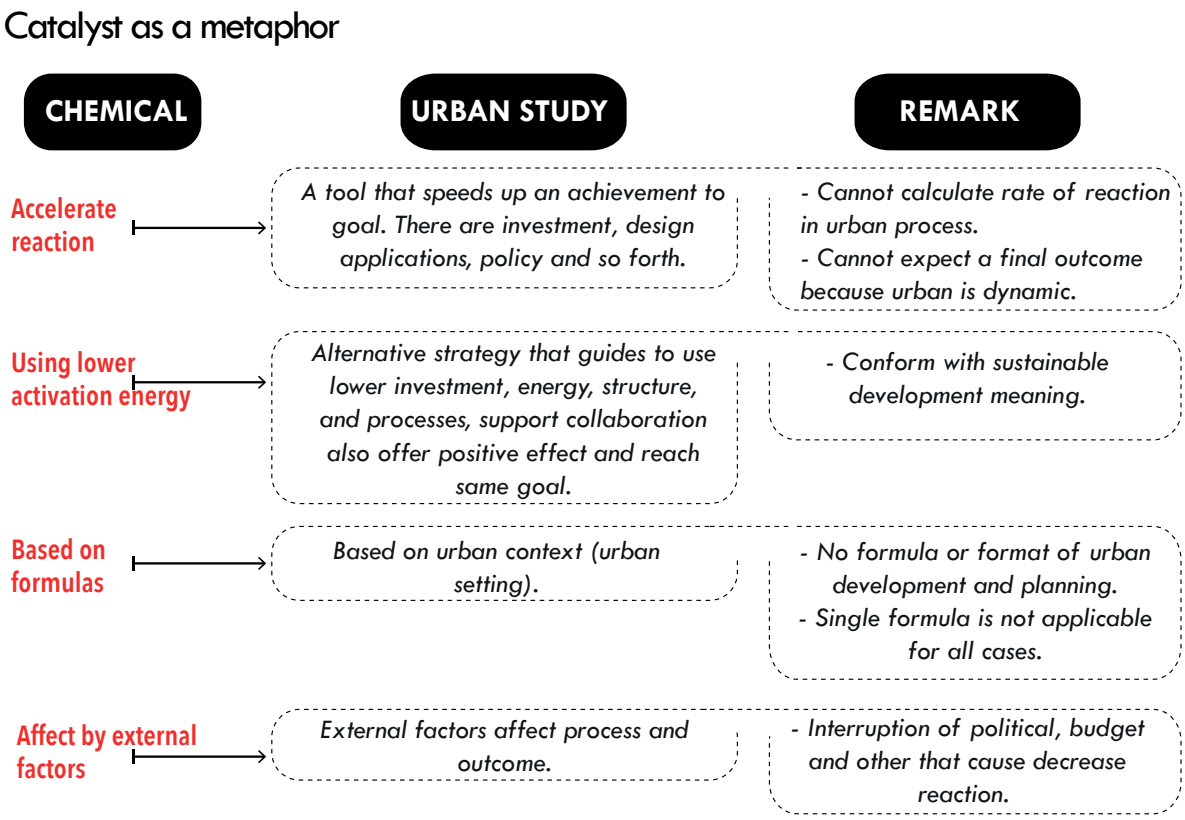


Figure 6.2: Catalyst as a metaphor and definitionin the associated concept as chemical reaction to urban study- Source:Kongsombat 2001

As far as the second component of the dictionary definition above is concerned, Juliet (2009) introduces that the writer and urban activist Jane Jacobs3 also elaborates urban catalysts in her classic early 1960s book The Death and Life of Great American Cities. Jane Jacobs (1961) as cited by Juliet (2009) states that, 'once one thinks about city processes, it follows that one must think of catalysts to those processes, as this too is of the essence'. Identifying by close analysis what the catalysts to renewal are, she argues as cited by Juliet (2009), should form a basis for the development of long-term views and process-driven objectives in both urban policy and design.

Oswalt, Misselwitz and Overmeyer, who are the representatives of the contemporary interdisciplinary group known as Urban Catalyst, investigate what they term 'temporary use' catalysts for the contemporary post-industrial European city in their book Urban Catalyst: The power of Temporary Use (Juliet, 2009, p.296). In focusing on the 'temporary' and on 'use' rather than on building, they as cited by Juliet (2009) suggest that 'urban catalysts' may be elements or acts of potentially limited duration, initiating processes that may continue long after they have transformed or disappeared.

In the year of 1989, American architects Wayne Attoe and Don Logan elaborate the definition of urban catalyst in the book American Urban Architecture: Catalyst in the Design of Cities. Wayne Attoe and Don Logan (1989) suggest that an urban catalyst might be a hotel in one city, a shopping complex in another, a transportation hub in a

third. It could be a museum or theater. It could be a designed open space or, at the smallest scale, a special feature like a colonnade or a fountain (Attoe & Logan, 1989, p.46).

An urban catalyst has a greater purpose than to solve a functional problem, or create an investment, or provide an amenity. A catalyst is an urban element that is shaped by the city (its “laboratory” setting) and then, in turn, shapes its context. Its purpose is the incremental, continuous regeneration of the urban fabric. The important point is that the catalyst is not a single end product but an element that impels and guides subsequent development. (Wayne Attoe and Don Logan, 1989, p.46)

By reviewing all the above opinions about urban catalyst, from my point of view, urban catalyst mainly refers to the process that induce larger scale of innovation in cities by introducing the appropriate variables ranging from designing an open space, an architecture to celebrating a historical event under original circumstance. And together with ‘encouraging the continued and gradual reform of urban fabric’, these two design principles are the key points of the Urban Catalyst Theory.

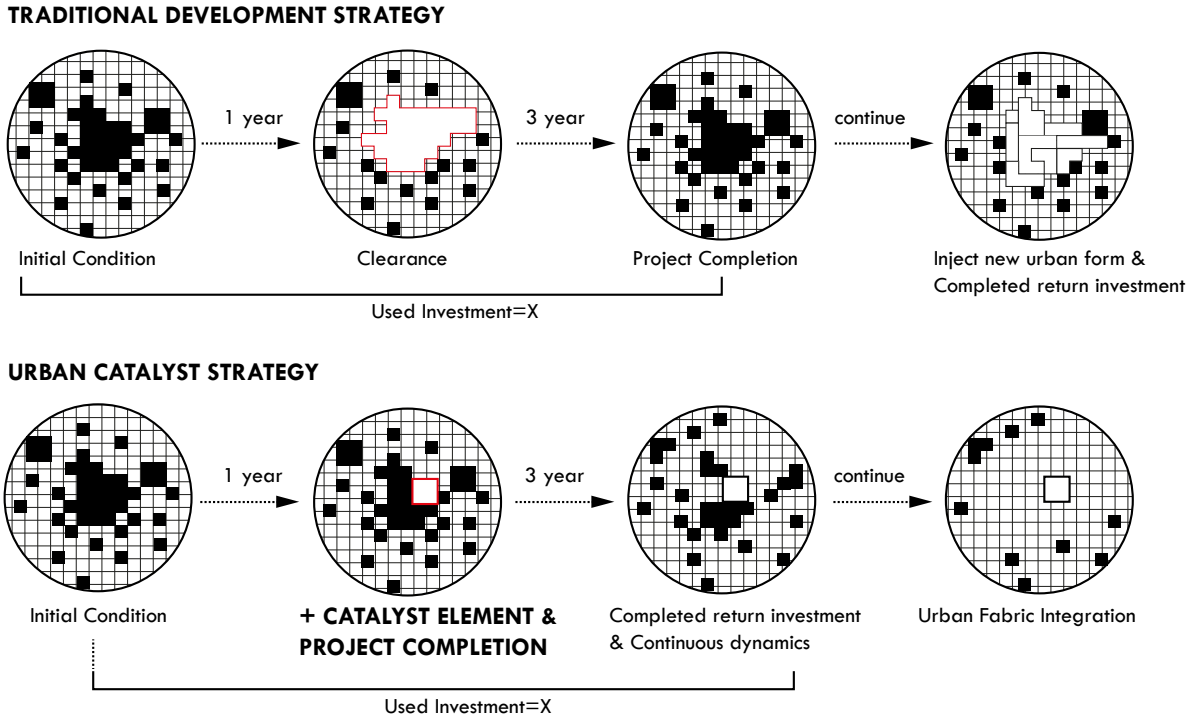


Figure 6.3: Study on urban catalyst urban development in comparison with the traditional development- Source: Kongosombat, P. (2012).

6.5. THEORETICAL STUDY OF THE URBAN CATALYST THEORY

6.5.1.The Origin and Outline of Urban Catalysts Theory

'Urban Catalysts' advocates urban design on some small-scaled elements in cities. After being remodeled strategically, this or these urban elements can be made into a 'catalyst', which could lead the future renewal of cities. During this kind of process, cities will be provided with more self-limitations and various flexibilities by 'catalysts' so that urban renewal can be controlled integrally fanning out from a point to an area. Attoe and Logan (1989) argue that a catalyst is an urban element that is shaped by the city (its "laboratory" setting) and then, in turn, shapes its context. Figure 6.3 shows the operation process of urban catalysts according to Attoe and Logan (1989): Actions (represented by hatching), whether developments, restorations, report, or whatever, catalyze other actions, which in turn lend impetus to others. Each action is constrained too, so that the reaction does not destroy the city (Attoe & Logan, 1989, p.47). The moderating aspect of the process is represented by the broken lines around the hatching (Attoe & Logan, 1989, p.47). From Attoe and Logan (1989), catalytic theory does not prescribe a single mechanism of implementation, a final form, or a preferred visual character for all urban areas. Rather, it prescribes an essential feature for urban developments: the power to kindle other action (Attoe & Logan, 1989, p.47). The focus is the interaction of new and existing elements and their impact on future urban form, not the approximation of a preordained physical ideal (Attoe & Logan, 1989, p.48).

In this thesis, I conclude the definition of urban catalysts as architecture, a place or an area, which can promote the subsequent development of surroundings effectively. They can not only drive the economic development but also increase the urban renewal and stimulate various social activities.

6.5.2. The Operation Mechanism of Urban Catalyst

In view of urban design, the mechanism of Urban Catalysts can be described as follows. New urban elements (urban spaces) satisfied with specific requirements act as 'Urban Catalysts' then stimulate and guide other urban elements' development with the help of some positive and effective 'Catalyst Media' (applied forces). Accordingly, Urban Catalysts can have an active and linked 'Catalyst Reaction' on urban contexts. In this process, urban design usually acts as the 'Catalyst Media' (applied forces).

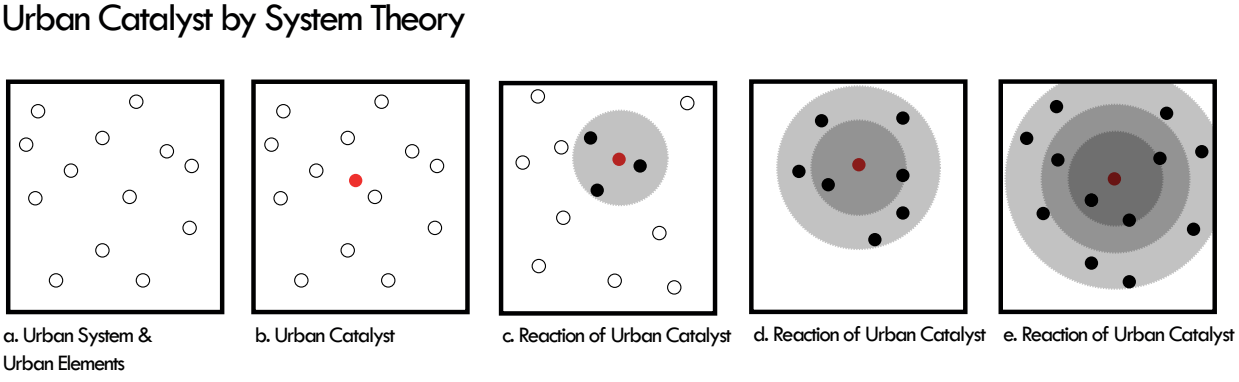


Figure 6.4: Diagrammatic representation of the catalytic process - Source: (Attoe & Logan 1989, Figure 29)

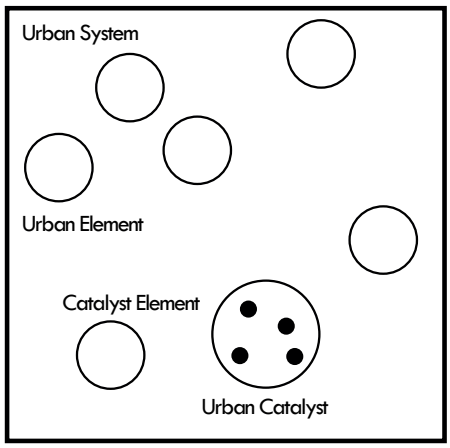


Figure 6.5: Operation Mechanism of Urban Catalysts - Source: (Qin, S., 2014)

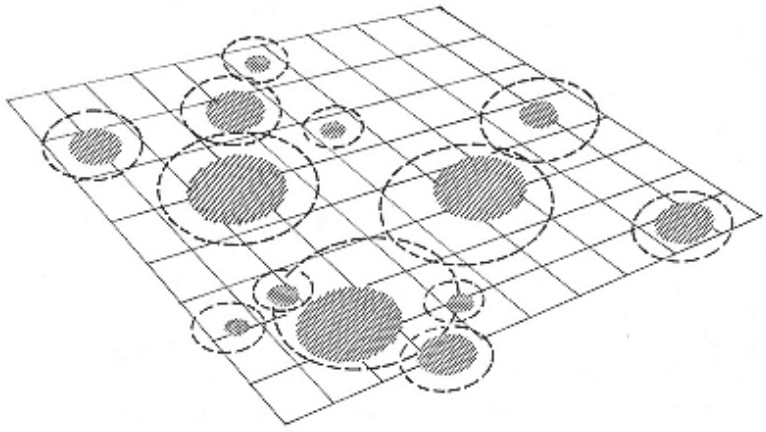


Figure 6.6: Diagrammatic representation of the catalytic process. Actions (represented by hatching), whether developments, restorations, reports, or whatever, catalyze other actions, which in turn lend impetus to others. Each action is constrained too, so that the reaction does not destroy the city. The moderating aspect of the process is represented by the broken lines around the hatching.- Source: (Attoe&Logan 1984)

6.5.3.The Characteristics of Urban Catalysts

According to Attoe and Logan (1989), Catalysis involves the introduction of one ingredient to modify others. In the process, the catalyst sometimes remains intact and sometimes is itself modified (Attoe &Logan, 1989, p.46). Adapted to describe the urban design process, catalysis may be characterized as follows:

1. The introduction of a new element (the catalyst) causes a reaction that modifies existing elements in an area.
2. Existing urban elements of value are enhanced or transformed in positive ways. The new need not obliterate or devalue the old but can redeem it.
3. The catalytic reaction is contained; it does not damage its context. To unleash a force is not enough. Its impact must be channeled.
4. To ensure a positive, desired, predictable catalytic reaction, the ingredients must be considered, understood, and accepted. (Note the paradox: a comprehensive understanding is needed to produce a good limited effect.) Cities differ; urban design cannot assume uniformity.
5. The chemistry of all catalytic reactions is not predetermined; no single formula can be specified for all circumstances.
6. Catalytic design is strategic. Change occurs not from simple intervention but through careful calculation to influence future urban form step by step. (Again, a paradox: no one recipe for successful urban catalysis exists; yet each catalytic reaction needs a strategic recipe.)
7. A product better than the sum of the ingredients is the goal of each catalytic reaction. Instead of a city of isolated pieces, imagine a city of wholes. 8. The catalyst need not be consumed in the process but can remain identifiable. (Attoe &Logan, 1989, p.46-47)

Based on the above descriptions of 'Urban Catalysts' proposed by Attoe and Logan, several viewpoints can be summarized. First of all, the fundamental feature of Urban Catalysts is excitability. They will stimulate and guide the development of other urban elements. Meanwhile, the effects of the stimulation are usually up to the spatial distance or their own particularities.

Secondly, as the catalysis of urban development, the feature of Urban Catalysts can be independent and remain identifiable. This is also the most significant characteristic of Urban Catalysts.

Thirdly, when talking about Urban Catalysts, more positive reactions of them rather than negative ones are often discussed. Actually, in some practical situations, negative reactions usually exist and most of them are recessive. However, when there were more recessive but negative reactions than positive ones produced in the process of urban renewal, it proves that some urban development or renewal projects acting as Urban Catalysts may have serious problems.

Fourthly, Urban Catalysts also have their potentials. If those three characteristics can be regarded as the commonalities of Urban Catalysts, potential could be seen as their individuality in that way. This kind of individuality is the prerequisite of being Urban Catalysts and it is also the fundamental property of the catalysis's positive reaction.

Last but not least, Urban Catalysts needed to be regarded systematically. In view of system theory, elements and system is relative. When talking about the relationship between Urban Catalysts and other urban elements, it is an element in the regional system as well. However, when discussing the mechanism of Urban Catalysts itself, it turns out to be a system made up of corresponding elements.

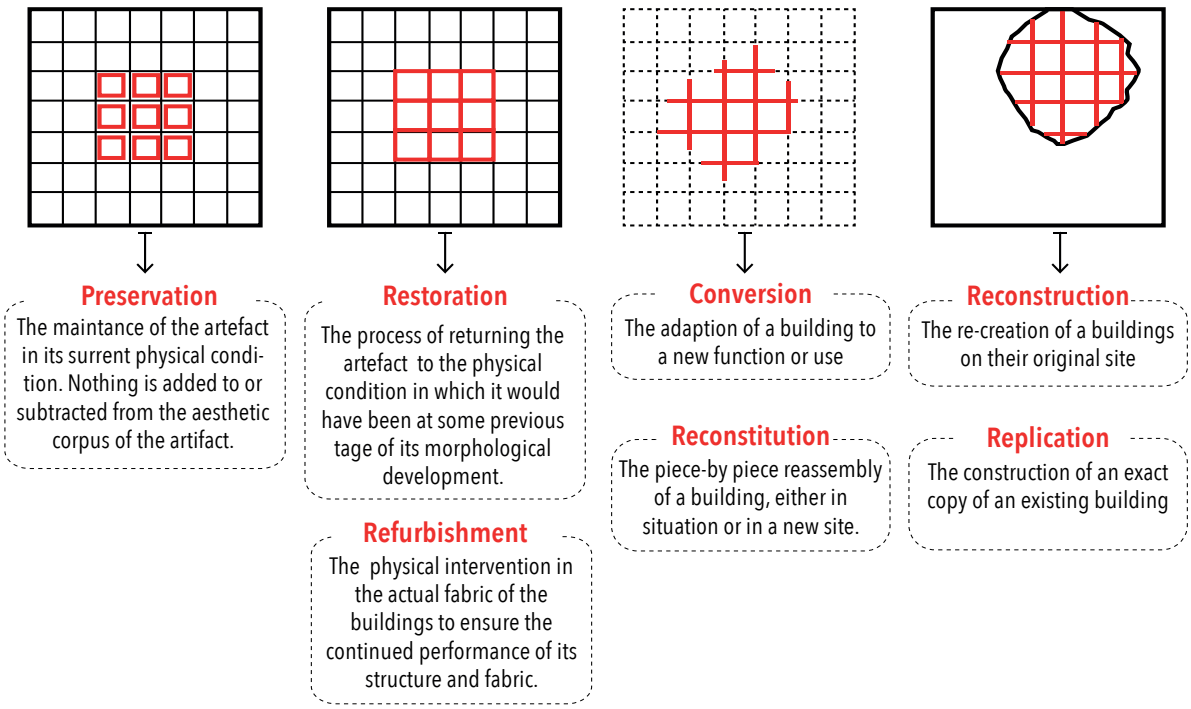


Figure 6.7: The relationship among Urban Catalysts, catalyst elements and urban system - Source: (Kristo, S., 2017)

6.5.4. Application Principles of Urban Catalyst

In the book American Urban Architecture Catalysts in the Design of Cities, Attoe and Logan (1989) elaborate the principles of Urban Catalysts as the following four points. The first one is to preserve the urban fabric, to work within it. This method emphasizes comprehensive consideration of the local context instead of destroying the connotation of urban development. The second principle is to reinforce a fabric that has come undone. Urban Catalysts can improve the value of existing elements as well as lead them towards more favorable direction. Another is to repair a fabric that has lost its power to order the city. Here, Urban Catalysts can modify and revitalize the urban environment. The fourth is to create a new format for the city to give it a new order. This application principle mainly reflects on creating new life atmosphere and promoting urban extra economic value.

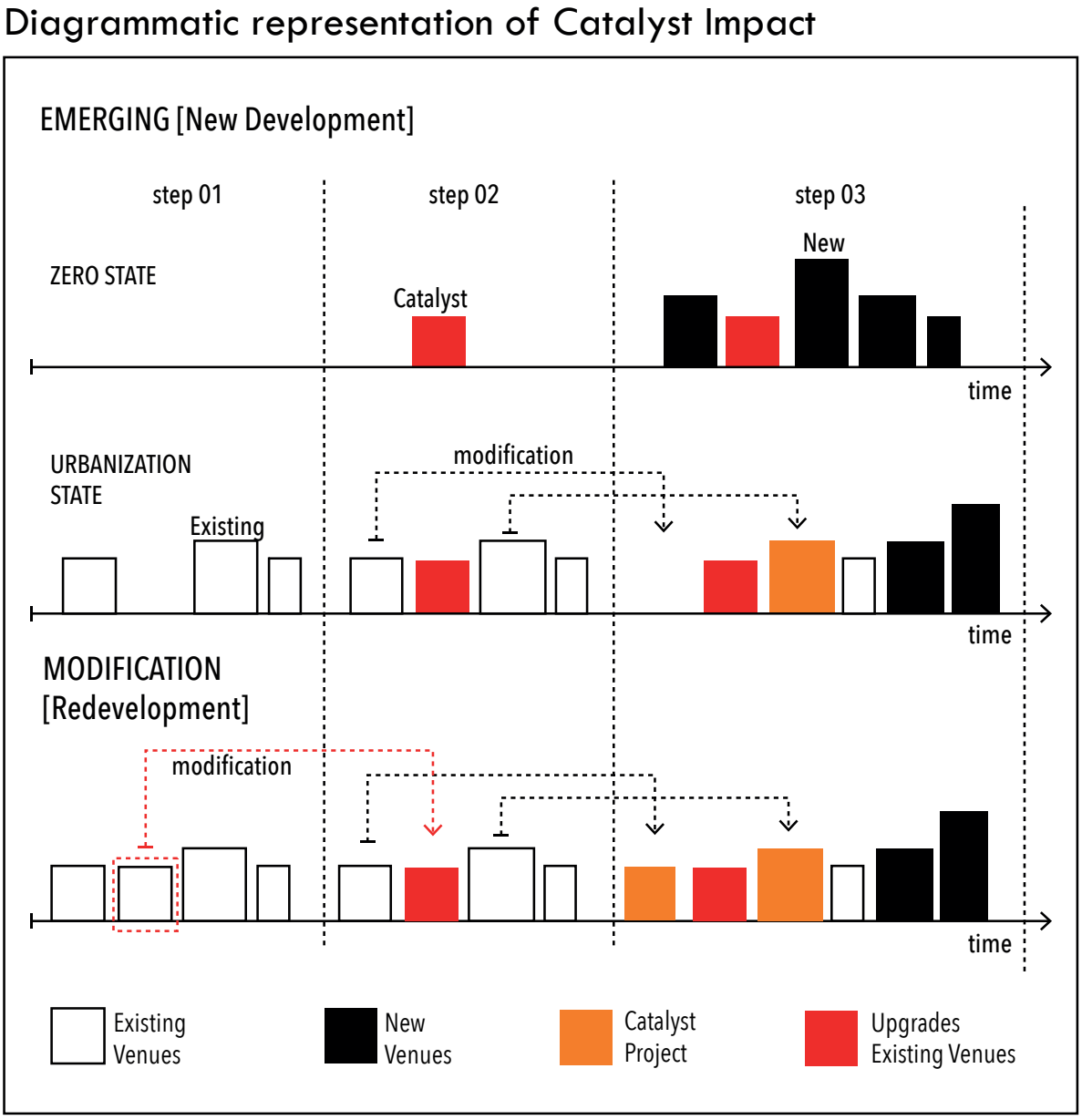


Figure 6.8: Diagrammatic representation of catalyst application in the urban context and each impact - Source: *Kongosombat, P. (2012)*

6.6. INGREDIENTS OF URBAN CATALYSTS IN PUBLIC SPACES

According to the different existing situations of different types of public spaces, specific types of catalyst element needed to be chosen in order to produce the catalyst reaction smoothly. Based on the form of urban catalyst, it can be classified into physical and nonphysical ingredients (Figure 6.7). In this thesis, I will discuss some elements of these two kinds of ingredients derived from Attoe & Logan (1989) as well as my own conclusions with the contemporary situation in Albanian and the current situation in the study sites of Tirana and other Albanian cities.

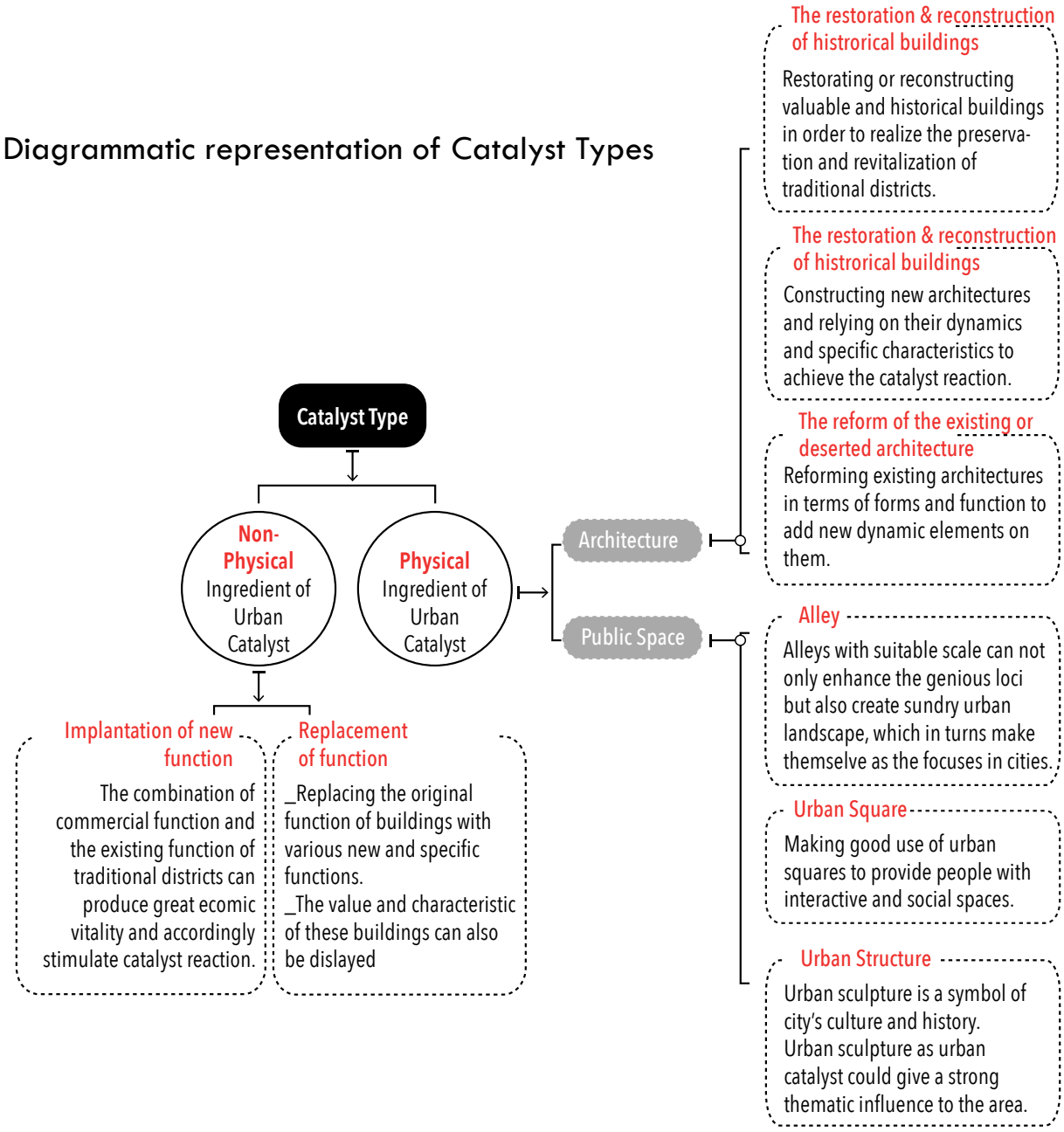


Figure 6.9: Physical and Non-physical Ingredient of Urban Catalyst - Source: (Kristo, S., 2017)

6.6.1 Physical Ingredient of Urban Catalyst

The physical ingredients of Urban Catalyst mainly refer to those available elements, which have the potential of catalyst effect in cities. These elements are often combined and a successful catalyst strategy usually includes integration of several elements, due to the fact that a single element can only produce one-sided and limited effectiveness. According to the composition of city, the physical ingredients of Urban Catalyst can be classified into the following aspects: architecture, urban public space and structures.

(1) Architecture

a. The restoration and reconstruction of historical areas or buildings.
Historical neighborhoods and buildings are elements of cultural heritage with important physical and non-physical wealth for local people or even for the whole country. These kinds of historical architectures recorded and are recording the lifestyles of the district and the city and are often a precious representation of the collective memory and genius loci. An interesting example of restoration and reconstruction of historical buildings in the city of Shkodra is the recent revitalization of “Gjyhadoli” Street, creating a good example in its catalytic use.

b. The construction of new architecture.
For instance, constructing a small museum that displays the history of the district in order to not only confirm the old texture but also stimulate the district’s vitality, as part of the reconstruction of “Gjyhadoli” Street, in Shkodra was the construction of the “Marubi National Museum of Photography” enhancing the area with an important cultural and architectural element.

c. The reform of the existing or deserted architecture.
An interesting case study example is the project of High Line in New York City, by James Corner Field Operations + Diller Scofidio + Renfro. Enhancing the urban design qualities of the left over rail tracks and replacing their function with public spaces and areas to develop temporary activities.

(2) Urban Public Space

a. Main Streets: From Attoe and Logan (1989), Main Street is a major traffic artery but it is a civic place, too. Besides the need for traffic, Main Street also has to satisfy the requirements of various activities so as to create the genius loci admitted by citizens. An interesting case example in Albania of a similar structure is “Myslym Shuri” Street, offering abundant sidewalks for pedestrians and creating an interesting landscape microclimate with its surrounding greenery and trees, it offers a good layout for the development of retails services and shops from its two sides. Even though it is not a pedestrian street and traffic is an integral component with many elements of urban design quality that can be enhanced it offers a significant urban comfort making it an important commercial destination for the city of Tirana.

b. Alleys: In Tirana, Albania the revitalization of “Abdi Toptani” Street created the first example of pedestrian public space in Tirana. Since the area is closely

connected with the National Gallery of Arts, National Theater and Experimental Theater of Tirana, but also close to the city center attracted a lot of new temporal and permanent cultural and leisure activities in the area, foreign visitors and enhanced social interaction between citizens. This intervention acted as an urban catalyst for the area providing a positive reaction to its surroundings.

c. Urban Square: Making good use of the abandoned lands and building them into new open and public spaces for local people. Through this way, the environment can be promoted and more social activities and interactions among people could be hold as well.

(3) Urban Structure

Considering the revitalization of the old Bazaar in the city of Korca, were revitalized in their original state restoring an important area of the city's urban morphology. Restoring their strong identity, part of the genius loci of the city reformed their relation to the urban fabric. In this case their revitalization stimulated a considerable catalytic reaction generating new economy and creating a new pole for the cultural, social and economical sphere of Korca. Its value can considered an important ingredient for the architectural and urban wealth of the city, raising the importance of requalification in traditional and leftover urban structures.

6.6.2 Non-physical Ingredient of Urban Catalyst

The non-physical ingredient of Urban Catalysts mainly reflects on the integration and renewal of the area's functions. Besides, the non- physical ingredient of Urban Catalysts needs to be combined with the physical ingredients in order to create the real catalyst reaction. (Figure 6.7)

(1) Implantation of New Functions: The implantation mainly includes culture function and commercial function. Integrating new culture function with the genius loci of local area can create a meaningful and attractive atmosphere. The combination of new commercial function and the district's existing function may bring the economic vitality like tourism development, which is also one kind of catalyst effect.

(2) Replacement of Function: *The possibilities of transforming industrial areas in Albania, part of the industrial heritage that was built in the years of communism is one of the aspects that could be strongly influenced by urban catalysis. Due to functional and locational issues these industrial leftovers are difficult to be maintained in their original industrial function. Nevertheless their interior space presents a strong potential for future redevelopment due to its high value.* In this case we can intervene by replacing the existing or initial function and converting those areas with commercial, residential, cultural or mixed use functions. The introduction of these new functions can make possible the reuse of these buildings and as a result the revitalization of larger areas or districts.

6.7. APPLICATION STRATEGIES OF URBAN CATALYSTS IN PUBLIC SPACES

The deterioration and degradation of urban neighborhoods or traditional areas in our cities do not occur by a single factor or element, but there is a multiple series of factors or elements that are responsible for it. In this consideration, the process of urban catalysis should have a flexible and practical approach to attack the above problems. It is fundamental to establish not only a theoretical framework but also a network of planning regulations and strategic projects for government and planners of public advocacy. This will require an exploration for an alternative model for urban renovation, or else a “common interests” model, which will be based in the theory of “urban catalyst” in the existing urban planning approach. The above considerations will make possible to improve the physical environment, balance reconstruction capital, conserve the local identity and enhance social inclusion in historical areas, which will be taken in consideration for future urban regeneration or renewal.

Aims of the Urban Catalysis process:

Social Enviroment and Inclusion
- Emphasizing original residents’ real needs and demands
- Enhancing cohesion of neighborhoods

Local Identity
- Remaining historical authenticity
- Maintaining traditional activities, lifestyles and genius loci of historical areas

Economic Value
- Encouraging local economies

Physical Environment
- Creating qualified and diversified public spaces

6.8. CONTEXTUAL ANALYSIS AND FACTORS

Following the above analysis of the two ingredients of the urban catalyst; its physical and non-physical and the clarification of the aims of the urban catalysis process we must identify and analyze the contextual analysis and factors which are part of this complex process. Comprehensive analysis of the project context is necessary to insure that an urban catalyst will fit the physical and spatial context, which it occupies. Among the critical contextual considerations are the analysis of are morphological, perceptual, social, visual, functional, and temporal factors.

In this framework there are four (4) categories on the contextual analysis following the goals of the catalytic process. These are defined in the social environment, the local character and place, the physical environment and the economic functional character. Each of these divisions contains factors according to the information below. The morphological factors that belong in the physical environment focus on the layout and form of streets and the pattern of urban blocks.

Perceptual factors address the response to how people observe, understand and contribute meaning to the urban environment. The social factor, introduces key issues concerning the relationship between space and society.
The visual factor pertains to the visual experience of the urban environment. Function strongly supports urban design as a design process; because design criteria must be met simultaneously to insure the design responds to its context. Time involves cyclical changes and changes that unfold progressively, hence designers need to understand the impact time has on places. This framework for urban design is helpful in the understanding the complexity of the urban environments that form the settings for urban catalyst projects.

6.8.1 Economic Value

Actors Stakeholders and Economic Value -- Reconstructing economic order and reproducing local vitality

The main actors in the project involve government, business institutions, creative groups (artists and celebrities) and local residents (unemployment /low-income people). The creative groups and local residents play a dominated role in the project. They have choices to decide directions of the project and future functions of the space. A catalytic project should be considered more as a bottom-up strategy. It is about the project can attract government and business institutions actively participate in the renovation process without destroying historical and cultural value of the quarter. The catalysts emphasize small interventions, strategies of place - making, appropriate adaptive reuse and long-term economic benefits. Government takes an important position in the project as well. First, they provide subsidies to encourage artists to occupy parts of the vacant factories. Second, with success of the early stage, they will invest in a part of networks and collective spaces in order to enhance attractiveness of the public space. Lastly, with a holistic revitalization of the area, government will cooperate with some business institutions to operate and manage the art district with a more sophisticated system. With the cooperation, the business institutions get benefits from estate management and advertisements, and the networks, collective spaces and infrastructures of the art district get maintained and enhanced.

Most of us live in a market driven economy, most urban design actions occur within the forces of supply and demand. The notion of gaining a return that covers production cost is closely related to budget limits. Furthermore, in a market economy, decisions that have public consequence are often times made in the private sector. Carmona states, “this decision-making context is mediated by policy and regulatory frameworks to produce better outcomes” (et.al 203). Thus urban design actions usually occur in market economies that are regulated to some extent. To effectively operate designers need to understand the financial and economic processes by which developments come into existence. Market economies are fueled by the pursuit of profit and are often characterized by regimes of capital gain. The development and redevelopment of the built fabric, is a means of making profits, and urban design is a key component of such strategies (Harvey, 1989).

There are two misconceptions about the processes that drive development: that design professionals are the main people shaping the urban environment; and that developers make the critical decisions, while designers simply provide packaging for those decisions (Carmona et.al. 2003). The first overstates the role of designers. It also opens designers up for criticism for areas of development that are out their control. The second understates designers’ role in shaping the urban environment, which we live.

Economic and market power lies in the hands of the groups with the resources and power to initiate development. Development has to be economically viable before it is undertaken. Furthermore, the risk and rewards that are attached to a development reflect both the complexity of the process and the broader economic context. A project is vulnerable to external and internal risk at all stages. In the private sector, viability is measured in terms of the balance between risk and reward. A major barrier for urban developments is that they may not pay off, at least on the time scale that is set by investors. In the public sector, viability is normally considered in terms of broader objective of achieving and maintaining a healthy economy, and value for public money.

For an urban catalyst to be successful economically there needs to be a strong partnership between the public and private business sectors. This partnership will allow strategic planning of elements that will draw the most economic gain, allowing the development to be shaped by both the public and private sectors. The local economy, fueled by local business, should be considered in the makeup of catalytic developments. It is important that catalysts economically stimulate the areas in which they are developed.
Concluding, in order to address the process of degradation of historical areas it is important to consider the renewal of physical structure as a prerequisite factor. In order to maintain and enhance the effects of the renewal, economic revitalization is always necessary. As a result both physical and functional renewal combined are the most significant strategy of urban catalysis.

6.8.2 Physical Environment

In historical areas, the aesthetic values of architecture are very important to create a positive impression for the citizens. The decay of form and materials is an inevitable factor that threatens such areas and structures. As a response to this problematic, strategies derived by urban catalysis are able to consider and focus on the structural renewal of the architectures. Fitch (1990) as cited by Shen (2013), with respect of historical buildings, suggests a useful classification of 'levels of intervention according to a scale of increasing radicality'. From Fitch, these are preservation, restoration, refurbishment, reconstitution, adaptive use, reconstruction and replication.(Figure 6.8). Accordingly, different treatments need to be chosen based on different traditional districts and their specific architectures.

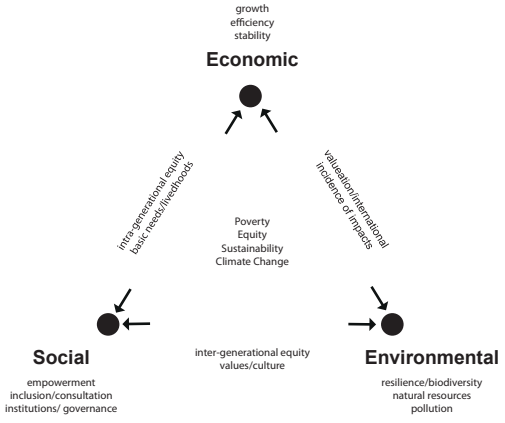


Figure 6.10: Levels of intervention according to a scale of increasing radicality - Source: (Fitch, 1990)

- ***Morphological Factors***

  The morphological dimension of public space deals with the configuration of urban form and space, an important factor in understanding the spatial structure surrounding a catalytic project. Most American downtowns are characterized by a concentration of two urban space systems, traditional and modernist. Traditional urban space is comprised of spaces defined and enclosed by blocks, where buildings make up the majority of the urban block. Modernist urban space is usually made up of freestanding buildings located within the landscape. During the modernist design period, public space changed morphologically in two key ways (Pope, 1996, Bentley, 1998). The first change was the transition from buildings as elements in urban blocks that defined streets and squares, to free- standing buildings in blank space. This was a defining transition in public space structure (Carmona et. al 2003). Modernists were known for designing buildings in which the internal spaces dictated external form. Modernist urban space was intended to flow around buildings rather than be contained by them. The shift towards freestanding buildings was also fueled by the desire for buildings to be distinctive. Prior to the modernist period only a handful of building types, town halls, churches, used this method of gaining distinctiveness. These building types were public rather than private and served an important purpose for the city and its people. Freestanding buildings played a key role in the character of public space. As a result, public space changed from defined spaces like streets and squares to formless spaces. This led to the loss of spatial coherence in cities, as they were increasingly made up of formless spaces punctuated by monumental buildings. The second change saw small- connected street grids become road networks that segregated the city. An awareness of morphological characteristics of the context of a catalytic project can help designers respond to patterns of change in the urban environment.

  There is a preference for permeable street layouts in urban design. Urban patterns that are composed of small blocks have a fine urban grain, while patterns with fewer, large blocks have a more coarse urban grain. Smaller blocks have more permeability and offer more circulation choices in the urban fabric. A fundamental distinction in street patterns can be determined by the geometric regularity of ideal grids or the irregularity of organic grids. In his research, Hillier (1993) discusses the relationship between evolution of the grid and movement in urban environments. Hillier's main point is that movement plays a large role in the spatial configuration of urban space. The awareness of street patterns provides designers the opportunity to make changes in the street pattern if needed to make projects fit their context better.

  Due to a shift in contemporary urban design, projects are currently envisioned in terms of blocks defining space. The configuration of urban blocks is critical in establishing the pattern of pedestrian and vehicular movement in developments. Working on the configuration of blocks is a good way to achieve coherent urban form (Barnett 1982 from Carmona et. al). Since the block pattern forms an essential part of the urban fabric, the configuration of blocks should be designed to respond to the morphological dynamics of the city. Block sizes should also be balanced. A range of block sizes, determined by the local context, provides the best opportunity for a variety of land uses and building types, which supports catalytic activity.

From this discussion about urban morphology, one can derive some principles that can ensure contextual compatibility with the existing fabric. For a development to fit contextually there needs to be an understanding of how the site and the adjacent area evolved. Street blocks need to be permeable enough to allow circulation options for pedestrians. Catalytic developments need to be able to accommodate and integrate various movement systems while supporting economic and social activity.

- ***Visual Factors***

  According to Carmona (et. al 2003), the aesthetic appreciation of the urban environment can be broken down into two parts: visual and kinesthetic. The design of urban catalytic projects should provide for both experiences. Visual awareness is a product of the influences of perception and cognition. This information greatly influences how we feel about an environment and what it means to us. In his research, Nasar (1998 from Carmona et.al) identified five attributes of "liked" spaces derived from users' perceptions. People tended to like environments that had a degree of naturalness, that were kept up, that were defined but had a degree of openness, that had order, and that had historical significance. These attributes demonstrate how aesthetics are closely related to socially and culturally related issues.

  The kinesthetic experience relates to how one move through space, including the awareness of movement of the entire body (Carmona et. al 2003). Gordon Cullen's work on how people experience space through unfolding sequences is a great example of spatial dynamics documentation. Cullen's concept of 'serial vision' states that experience consists of a sequence of surprises highlighted by the excitement of juxtaposition (1961). Cullen's work hinted at a sense of being in a place "here" and also the sense that outside it are other spaces "there", and the tension between the two. The advent of new modes of transportation allowed additional ways to perceive the urban landscape, as viewers could see at different speeds and with different levels of engagement (Carmona et. al 2003). The pedestrian has the freedom to stop and interact with his surroundings. Drivers, on the other hand, see the landscape through the windshield and at speed, but they have to concentrate on the act of driving. Passengers in cars also view the landscape through the windshield but have more freedom to observe the environment than the driver. However, both passenger and driver view the environment at the same level of interaction.

  Outdoor spaces can be conceived of in terms of positive and negative space. Positive space has a definite shape and boundaries. The shape of positive space is as important as that of the buildings that surround it. Negative space, on the other hand, lacks a definite shape and leaks at the edges. Trancik makes a good distinction between hard space, usually bounded by architectural walls and soft spaces like greenways and gardens, which have less enclosure. (1986) Although positive space comes in various shapes and sizes, the two main positive spaces are streets and squares. Streets are dynamic spatial corridors of movement, while squares are more static with less sense of movement. Streets and squares can be characterized in two ways; formal and informal. Formal spaces tend to have a strong sense of enclosure and symmetry. Informal spaces have a more tranquil

character with more of an asymmetrical layout. A clear distinction between street spaces and square space can be seen though width to length ratios. A ratio that is larger than 1:3 begins to suggest more dynamic movement as one axis dominates the other. This ratio defines the upper proportional limit of a square and conversely the lower limit of street (Carmona et. al 2003).

Urban catalysts need to provide movement cues for users by providing sequences of spaces for people to navigate through. This sequence should allow people the chance to reflect on what they have experienced as well as speculate on what is coming up in the sequence. Catalysts should also take advantage of alternative modes of transportation; trams and trolleys, that have the potential to provide the movement of users through the catalytic developments, much like the public transit along Denver's 16th street mall.

- ***Functional Factors***

  The functional dimension of urban spaces deals with how places work and how urban designers can make spaces better. Much as how the success of a place is determined by its ability to facilitate activities, the design of urban spaces should be informed by the ways in which people use them. Bacon (1974) argues that through first hand experience, a designer can begin to understand an urban space. A designer should examine the relationship between activities and spaces. The observation of place is an extremely important tool for designers to use, because when we learn how spaces are used (rather than speculating on how we think they are used) our design efforts will be more successful. This is critical for the development of an urban catalyst project, especially in how the project will function within its context.

  On the use of urban spaces, Carr (et. al 1992) derived five needs that people seek to satisfy in urban public space— comfort, relaxation, passive engagement, active engagement, and discovery. Comfort is necessary for a space to be successful. This can be measured by the length of time that a person stays in a space. Sense of comfort includes environmental factors, physical comfort, and social and psychological comfort. Relaxation is the state where the mind and body are at ease; site elements such as greenery, water features, and trees make it easier for people to relax. Passive engagement, such as people watching, involves encountering a setting without becoming actively engaged. Whyte (1980) found through his research that people attracted other people. Active engagement usually involves a more direct experience with a place and the people within it. This is not easily accomplished because the simple proximity of people does not foster interaction. For interaction to occur, the designer needs to provide external stimuli that will prompt people to talk to strangers. Whyte calls this process "triangulation". The inclusion and arrangement of site elements, such as benches, sculptures, and fountains can foster social interaction especially along routes between urban catalysts.

  Landscape discovery relies on the management and animation of public space. Discovery may also require some sense of unpredictability. Zukin (1995) and others have written a great deal about liminal spaces—those that are formed from everyday life where different cultures interact. Animation in design also relates to discovery. For example, art exhibits, festivals, and parades can add to the discovery. Moving through space is an important factor in the experience of urban space

and is closely related to desire lines. Duany (2000 pg. 64) states, “pedestrian life cannot exist in the absence of worthwhile destinations that are easily accessible on foot ” Simply put there is no reason to walk if the streets are void of elements that will convey movement and mystery. To be able to successfully design a public space, the movement through it and adjacent spaces is needed. This is important for pedestrian movement, especially in the connection between places. These connections need to be integrated into the local movement patterns of an area.

The journey a pedestrian takes is rarely single-purpose; thus, designers need to capitalize on the potential for pedestrians to partake in optional activities. Hillier (1996) calls this the “by-product” of movement and further argues that this can be accomplished by routing pedestrian movement past outward facing building blocks with a high level of visual permeability. The configuration of the urban grid plays a significant role in the movement of pedestrians. Pedestrian movement can be broken down into three parts—origin, destination, and by product spaces (Hillier, 1996). No matter the location of the origin or destination, some routes have more potential to spur contact than others because of by- product potential. Thus it is imperative to prioritize catalytic development on the urban grid that has the most potential to generate interactive uses. This development prioritization is related to land use, especially dealing with magnets and attractors in urban space.

The types and density of uses in an urban environment is an indicator of vitality. A key aspect of a widely used- neighborhood or district is the concentration of land uses and activities spatially and temporally. Mixed-use zoning is a response to the sterile functional zoning of post-war development planning. There are two types of mixed uses, 1) by having a mix of buildings of a single use or 2) having buildings in that contain a mix of uses. Jane Jacobs (1961 p. 155) argued that the vitality of a city district or neighborhood depends on the overlap of activities.

Catalysts need to respond to the basic needs people seek to satisfy in urban space: comfort, relaxation, passive and active engagement, and discovery. By responding to these needs a catalyst can offer a variety of uses and have a higher possibility to generate activity. Activity generation also depends on the configuration of projects, thus catalytic projects with the highest potential to generate interaction between people should be placed to capitalize on the movement of pedestrians and other modes of transportation. A catalyst should embrace a variety of activities and uses; this variety will strengthen the vitality of not only the new project but the surrounding area as well.

- ***Perceptual factors***

  The perceptual dimension of urban design, deals with one’s awareness and appreciation of place. There is an enormous body of research available about people’s perceptions of the urban environment. The environment affects us and in turn, we affect it. For this process to happen, we must perceive and be stimulated by sensory stimuli. These offer us cues about our environment and are usually appreciated as a whole. Stimuli can be individually singled out by selective attention. For most people, vision is the most dominant sense, but our environment is not merely perceived visually. Bacon (1974) argued, “the changing visual picture was only the beginning of the sensory experience ” (89). The non-visual sensations

and perceptions are often underdeveloped despite their contributions to place experience (Lang. 1994).

Perception is more than just responding to stimuli; it is a complex process of actually understanding stimuli. There are four dimensions of perception that work simultaneously (Ittleson, 1978 from Carmona et. al). The cognitive dimension enables us to make sense of the environment through thinking and organizing information. The affective dimension processes the stimuli, which affect our feelings and vice versa. The interpretative dimension refers to meanings that we obtain from the environment by relying on memory to compare new stimuli. The last dimension, evaluative, assimilates our preferences of good and bad.

Perception is socially and culturally learned. Although sensations are similar for everyone, people filter, organize and react differently to them. These differences depend on a person's age, gender, ethnicity and lifestyle. Kevin Lynch's work in urban imagery during the 1960's provided a breadth of knowledge about how we read the city. Lynch's main argument was that we navigate the city better when we can organize and construct mental images of it. This led to the concept of imageability, the potential that an object has to evoke strong images. He later defined five key physical elements that contributed to the image of the city: paths, nodes, edges, districts, and landmarks. These elements are the perceptual building blocks that designers utilize in urban designs.

A catalyst needs to be able to be perceived by its users. Catalysts should have enough image ability that the project will become engrained in one's cognitive map of the city, district, and neighborhood. Catalytic developments should be legible enough so that people perceive what the project means not only to them, but to the context as well. This center will be beneficial to people in different ways, this difference can become the seed of interaction later on. This shows how interrelated the urban design factors are.

8.6.3. Social Environment and Character of use

Social factors of urban design deal with the connection between space and society. It is difficult to visualize space without social content and equally difficult to visualize society without a spatial component. This connection is best conceived as a two- way process where people create and modify spaces while simultaneously being influenced by space. In their research, Dear and Wolch (1989 from Carmona et. al) argue that social relations can be mediated, contained, and constituted by space. Thus, urban designers can influence patterns of human activity by shaping the built environment. This section will focus on the relationship of people and space and the concepts of public realm and public life.

The relationship of people and space is important in urban design. It is vital to note that people are not passive; we influence the environments in which we live as they influence us. This two- way process reveals that our behavior is situational; it is embedded in physical, cultural, perceptual and social contexts and settings (Carmona, 2003). Jan Gehl (1996) developed an approach to understand the way design influences behavior. He argues that design of an urban setting, within certain limits—climatic, social, and re-

gional— can influence the number of people and their duration in the space. Gehl goes on to classify outdoor activities into three groups: necessary, optional, and resultant. Critics of Gell's argument state that in spaces that are poorly designed, only necessary activities occur. However, in spaces that offer more choice, people may engage in optional activities as well as necessary ones. Furthermore, resultant activities depend on the presence of others in public space and are supported when necessary and optional activities are given better conditions. Drawing from this, the choices that people make are greatly influenced by their environment, thus catalytic projects need to be strategically planned in terms of activities and the arrangement of those activities.

The social context for urban revitalization cannot take place without discussing the public realm and public life. Loukaitou-Sideris and Banerjee (1998) note that public life involves universal contexts, unlike private space that is usually controlled by an individual. The public realm functions as a common ground for interaction and communication and as a stage for social activities. The public realm, as noted by many writers, is declining in significance, in relation to the private realm. Ellin (1996) attributes this to the transition of once public activities to the private realm. On a general note, this disengagement from public space is a consequence of privatization of public space. Ellin (1999) further noted that as the public realm became more individualized, a decline of meaningful space occurred, which led to a desire to privatize public space. This is evident in the public spaces that are developed by private agencies, such as corporate plazas that are closed off, or have their own set of "behavioral" rules associated with them. This implies that catalytic projects should provide public spaces for users.

As stated earlier catalysts are shaped by their context and in turn shape their context. This is also true in terms of the social stage that a catalyst can create. Streets, squares, and other public spaces should be designed in a manner to capitalize on flow of movement between catalytic developments, by providing spaces that are meant as movement corridors as well as spaces that are meant to hold users and allow more interaction.

- ***Temporal Factors***
  Time plays an important role in the experience of place. As time passes environments gain a richness of being used and lived in. Kevin Lynch (1972, p.65) identified two ways that we experience time in the urban environment: 1) through progressive change the growth and decay of an environment, and 2) through rhythmic repetitions—the cycles of the moon and sun, breathing, hunger. This perspective provides the basis for Lynch's argument that time and place construct "the framework within which we order our experiences (1972, p.241)" Rhythmic repetition is the first way we know that time has passed. The most dominant natural cycle is the 24-hour circadian cycle that is tied to the earth's rotation. This cycle affects our daily activities. The yearly cycle and seasonal changes also affects our activities according to the tilt of the earth, sun exposure and length of days. To encourage the use of urban spaces designers need to understand the effect cycles have on the seasons and night and day. Urban spaces are used and perceived differently according to the time of day. As Carmona argues (2003 et.al) designers can benefit from the investigation of a space's changing rhythms and pulses. Seasonal cycles have a profound effect on the way spaces are used. Designers may play on this to exploit seasonal changes to bring variety to urban spaces.

Not all time cycles that affect our lives have a relationship to natural cycles. Zebrubavel (from Carmona 2003 et.al) claims that a number of our daily activities are now being structured by mechanical time. He suggests “we are detached from ‘natural periodicity’ and are replacing it with ‘perfunctory periodicity’ as dictated by our schedules, clocks, and calendars” (from Carmona 2003 et.al p. 194). Krietzman argues that we are now shifting into a 24-hour society in which “the time structures that regimented our lives are breaking down” (1999, p.2). As a result, the patterns of users’ activities in regards to time are being altered, which provides urban designers the opportunity to extend the design uses to other parts of the day.

As stated earlier in this paper, mixed-uses are known to create more life in urban areas, but activities need to be pondered in terms of time as well. Urban designers need to understand activity patterns and ways to encourage activities during different times. Krietzman (1999) argues that buildings and spaces in today’s society need to be polychromic, that is, they should have more than one use to achieve a sense of vitality, rather than being monochromic, with single use spaces and buildings. Urban vitality is strongly stimulated by the animation that an area has. Montgomery (1995) stresses the importance of soft and hard infrastructure in urban spaces. Soft infrastructure relates to the programs and activities that occur in and around a space and hard infrastructure relates to the buildings, spatial designs, and streets that make up a place. These two types of infrastructure need to be integrated in such a way to foster synergy in the urban environment.

As well as repetitive rhythms of time, time also passes through progressive or permanent change. Urban environments are continuously changing. Economic, social, and cultural forces, from design to demolition, affect the urban environment. Any change in the physical fabric of a place is recorded in that place’s history. Therefore all urban design developments contribute to the evolving urban timeline. The concepts of resiliency and robustness are important when discussing time and the urban environment (Carmona 2003 et. al). Resiliency is the ability to resist change without deformation. Robustness is the ability to accommodate change without any significant physical change. Robustness usually deals with significance that is derived from meanings and symbols personified by form.

Catalysts should be timeless; therefore they should be able to accommodate change while keeping their importance. The urban environment is dynamic, thus designers need to understand and respond to urban changes: economic, social, and cultural forces. The principle of time is very important in the life of any design. Urban catalysts should provide a mixture of uses and activities that will extend the life of a project into different times of the day as well as seasons. This will provide a richer environment for users, and will foster repeat users of the development.

For an urban catalyst to respond to its context there are a few key contextual principles that need to be applied. Morphologically, the understanding of block and street layout needs to be recognized and enhanced if needed to insure that the circulation framework is functioning properly. The overall perceptions of an area need to be noted to understand what perceptional changes need to be made. This is also helpful for understanding the social fabric of an area and what changes

the urban catalyst can foster to promote a positive social fabric. Urban catalysts should provide and enticing visual experience to the area in which they are developed, by using local architecture vernacular in a way that responds to change. Urban catalysts should enhance the functionality of an area, not hinder it. Catalyst should also respond to the "times" of a place, as a place changes the catalyst should be able to adapt to that change.

8.6.4. Local Identity

Character sense of placeness and authenticity

For urban catalysts to be successful they need to have a strong sense of place. "Place" is a commonly used word in the English language. The word comes with many connotations— physical, psychological, or social. The word's various meanings convey a richness that expresses the role that "place" plays in our daily lives. We often associate place with home, but place takes on a deeper meaning than that. Places have the power to become symbols of ideals, imageability, and hope. Think of landscapes like the Gateway Arch in St. Louis, the Inner Harbor in Baltimore, or the Vietnam Memorial in D.C. What do these landscapes mean to us? When you are in one of these spaces you know you are in a special place. That is the importance of place in design. Fritz Steele (1981) identifies two aspects of "place". The first is sense, which is the experience in a particular setting. The second is spirit, which is the combination of attributes that give a place personality. Sense of place is an interaction between people and settings that creates reactions such as feelings, perceptions, and behaviors.

Setting is a critical piece in the theoretical chain that describes sense of place. Simply put a setting is the environment that surrounds a person at a location and time. A setting is made up of social and physical features. Physical features have a direct effect on activities as well as feelings in a place. For example, consider the difference between the way a person may feel while on a farm versus feelings experienced on an urban street. These two settings are made of different attributes that carry distinct meanings. Social features of a setting are a mixture of forces that work on an individual as a result of interactions with others. The social context has an immense impact on place. Steele (1981) later mentions that "the social context helps to determine the impact of the physical setting" and vice versa. This solidifies the interrelationship between physical and social features of place. How a person responds to this relationship is also affected by our perceptions. Perception is a two-stage process in which a person receives signals from a setting (place) and then organizes those signals to give them meaning. The meaning that is applied is often derived from personal or cultural views of the world.

Within settings, there are some physical features possessing strong qualities that stimulate one's sense of place. Steele identifies these as location, boundaries, scale, and imagery. A place with a strong location has a sound spatial relationship to its surroundings. Boundaries, a clear delineation of a place from its surroundings, are important in creating sense of place. Boundaries can be of varying scales from small—the arrangement of furniture in a pocket park — or larger, such as cities like New Orleans where the sense of place is clearly defined by district boundaries.

The size of the environment in which a place sits plays a key role in the spirit of place. Steele (1981) states that elements that are big, small, or a mixture of the two can make

this impact. Imagery within a setting is equally important to spirit of place. If a setting does not have components that invoke images in one's mind it will be hard to realize what that place is about. In other words, a city that is rich in imagery will posses a strong sense of place and is more memorable.

The design of an urban space can enhance or weaken sense of place. Steele (1981 p. 94) believes designers should provide choices to people within a setting. Settings that allow user- flexibility convey a spirit of place that is specific to each user, much like a plaza with movable elements with which people can interact. Providing sequences in settings that build on each other tends to provide a more high-quality experience. The way a person enters and exits a space plays a key role in the experience of it; a badly designed entry/exit sequence will weaken the actual place experience. Places that have cues that trigger past experiences often present a high quality setting, much like a place that is consistent with its theme, symbolism, and form. User activities also affect the quality of a setting by amplifying the vitality of the area and drawing more people to it.

For the themes to be implemented successfully designers must understand the methods of making spaces (Steele 1981). The first is creating new settings where designs must meet human needs and be flexible enough to change as the dynamics of place change. New settings also need to incorporate new and old buildings to further strengthen sense of place. The use of locally owned businesses and names that are related to a place is another way to enhance the spirit of a place. Designers have the opportunity to improve existing settings as well as to create new ones. In the last few years there has been a resurgence of adaptive reuse in development projects. Renovation can produce a heightened sense of place if the designs can pick up on the important sense factors of the old setting rather than wiping the slate clean and starting over.

Authenticity in design is a topic in design-related discussion today. Authenticity is a concern in catalytic developments, because new developments need to fit into their context. There is a large amount of literature available about the topic. The definition of the terms "authentic" and "inauthentic" often vary from critic to critic. Critics argue that some urban developments that draw from historical references lack authenticity. Boyer (1992) argues that retro urban designs are for the inattentive viewer. Likewise, Ellin (1999) writes, "although preserving the past, both preservationists and gentrifies could be more accurately described as rewriting or inventing the past..." (p.83). This raises the question of the "real" and the "simulation".

Baudrillard (1983) describes three levels of simulation that can be applied in design. The first level is when simulations are blatant copies of reality. The second level is when simulations blur the boundary between reality and representation. In these two levels of simulation the real world still exists, and the simulation is distinguished from it. The final level of simulation occurs when imitations of things that never really existed are

presented. This level generates a realm of “hyper reality” because it does not have a real origin. An example of a third level simulation would be Disneyland. Even though Disneyland’s Main Street is meant to bring to mind a main street anywhere in the United States, it is actually from nowhere.

On the contrary Ellin (2000) argues that even though themed places are criticized for being artificial, these spaces might embody the qualities people actually enjoy. Ellin gives ground to this argument by stating, “ themed environments might also be applauded for the diversion they offer, for simply providing places in which people can relax and have fun in the company of family and friends” (103). This raises the question of why urban design should not accommodate people’s desires, and design spaces they enjoy? Ultimately, people enliven spaces that they enjoy and charge them with value and meaning. For designs to be successful, people need to actively use them. Designers need to utilize their observation skills, and design according to context and use.

Overall, the issue of design authenticity is critical to the discussion of urban catalyst and I have developed my own criteria for authenticity in urban design. I will use the concepts of “rooted” and “non-rooted” to identifying the type of authenticity a design or design elements have. “Rooted” design means the project is ingrained or has some connection with the area in which it is located. This can be accomplished by either using local vernacular or a combination of building and landscape types. “Non-rooted” means the de- sign or elements of the design are not particularly rooted in the area, but may be placed there due to economic or social reasons. Even though they are not originally rooted in place, “non-rooted” elements have the power to become ingrained. Overtime the users of the space, who impact meaning and sense of place through their presence, supply this characteristic. A good example of this is large chain restaurants, like the Hard Rock Cafe, that are placed in districts that already possess a strong character. These establishments survive because of the dollars that people, either locals or tourists, spend there. This makes the place a strong economic draw to the area even though it may not add to the inherent qualities of its context. We as designers see how badly these establishments unravel the fabric of a place, and need to be able to plan for more “rooted” developments to be created instead.

Urban catalysts need to successfully convey a strong sense of place and authenticity. For this to happen a catalyst needs to be rooted in its environment, and respond to its context. The setting in which a catalyst inhabits is critical, because it de- scribes place. Therefore the catalyst must not ruin the setting; it must amplify it. Catalysts need to respond not only to the physical features, but also to the social features. This interrelationship plays a vital role in the “sense” of a place. Urban catalysts need to respond to the influences that surround them, so that their meaning and function is derived from place, providing an authenticity that comes from a real place.

CONCLUSIONS

As stated in the introduction of this chapter, its main aim is to analyze, examine and understand the importance and role of the urban catalysis process in the improvement of urban development, regeneration and renewal interventions.
It is important to highlight the unique values of each city and richness of information necessary to understand in order to place every single action. That pool of information is the foundation on which processes of urban catalysis can be initiated and impact positively urban development driven by sustainable economic investments in the cities. The literature review provides us the necessary theoretical framework supporting the research and design process methodology of this study.

The lack of connectivity between urban developments and their contexts is a major problem in contemporary development. This disconnect results in projects that not only do not fit the spatial structure of their contexts, but also are not functionally, socially, and economically feasible. This lack of connection translates into a deficiency of authenticity in redevelopment projects. This issue is relevant because many cities are now focusing on downtown revitalization efforts. With a design framework focused on urban catalysts, landscape architects, architects, and urban designers will be able to apply catalytic principles to the existing unique resources of the city to direct urban rejuvenation.

Urban catalysts provide a spark that revives the city. The urban catalyst approach relies on comprehensive urban analysis to address morphological, perceptual, social, visual, functional, and temporal factors. Urban catalysts should generate activity, act as anchors, and respond to spatial conditions that can promote positive development. Catalysts should be able to respond and be influenced by the qualities that can help them generate a strong sense of place.

Cities have unique attributes, such as cultural landmarks or districts that can serve as existing resources for urban revitalization. These urban resources can serve as conceptual and structural models for future development scenarios in the city. For example a city like New Orleans that has a strong music presence, could use music as a catalytic concept to redevelop a street that would celebrate the city's rich musical heritage. Music could be used, as a conceptual idea that could be translated into a built fabric would educate users on the various influences music has had on the city. This is not a clean slate approach such as urban renewal that actually robbed many cities of their vitality, but rather an approach where the design works within the context of the city. The result, urban regeneration, would amplify flavor and coherence in the urban fabric. As described by Wayne Attoe, "an appropriate urbanism for America must grow out of characteristics and conditions of American cities " (1989, p. ix).

A series analysis should be conducted in order to have a clear overview of the requirements of each context. The requirements that must be considered in order to initiate a catalytic process should take in account morphological, perceptual, social, visual,

functional and temporal factors of the urban context. The next step is to include the residents of the redeveloped area, to discuss and record what the residents feel are the unique attributes of their place. From this study, designers should be able to describe unique characteristics of the city that can be expressed in catalytic design proposals. For example “entertainment catalyst”, would be supported by a set of urban spaces for that city that fit the criteria for entertainment catalysts. These criteria are derived from the general characteristics.

It is important that urban catalytic projects be considered as a revitalization strategy for urban redevelopment. It is essential that urban catalyst projects include the investment of local stakeholders from the beginning to help finance the project. Urban designers are capable of designing a project that not only reflects the site’s character, but also the city’s as well. This insures the city a place that cannot be found in another city, amplifying the local attributes as a draw for users.

The development of urban centers is a complex typology of interventions. Many of them face considerable struggles to address while they attempt to regenerate them. Expert professionals in the fields of architecture, urban planning and landscape design is important to acknowledge and respect their context and collective value of our cities, understanding the uniqueness of each of them. This framework can provide a strong basis initiating processes of urban catalysis, and in this case we can undertake intelligent strategies that will be able to achieve our revitalization goals. A comprehensive analysis is important to be taken in consideration since the context analysis. Crucial to this process is the articulation of the above information and values to the design process and proposals. What differentiates the catalytic approach from the traditional examples is the configuration of actions to be taken in action. That configuration is part of the matrix of urban catalysis and provides the different applicative models that will guide the implementation process.

For redevelopment projects to fit into an existing context, the existing sense and spirit of a place needs to be understood. Redevelopment projects should enhance rather than dull the sense of place. Projects that are developed to serve catalytic functions need to generate development and economic activity in the surrounding areas while respecting their context and being authentic to “place”. If conceived and developed according to what a city needs these projects can have profound effects on downtown revitalization efforts.

The following and final chapter will attempt to analyze case study examples of projects, which intentionally or unintentionally initiated processes of urban catalysis in their surrounding. These case studies in different cities of Albania show contemporary examples and interventions in urban public space in different programmatic functions, scales and size of transformation but also speed of reaction. Finally we will identify the elements and components of the urban catalysis components in the selected case study examples in order to provide a correlation of the urban catalysis projects that have been developed internationally with the case study examples in Albania.

CHAPTER 7

STRATEGIC RESEARCH AND SELECTED CASE STUDIES

This chapter in particular aims to present the ten (10) case study projects to understand the process of urban catalysis. In this chapter, we will attempt to analyze the background of the typologies of the different urban interventions and their contribution to the catalytic process as a tool to regenerate and revitalize the urban growth and development of the cities which these case studies are located.

Each project is chosen due to their strategic role on a local level, in which they are located: and also because they seem to interact with the challenges in a local but also in a more complex level in relation to the city. These projects are considered as interventions which don't act only as singular elements in the city becoming isolated islands of development, but because with their implementation, they made possible a chain reaction effect, which as a result brought further strategic short-term and long-term development in areas adjacent or connection to them.

Also, their selection is part of this chapter is affirmed by the urban design and architectural qualities they express which are interesting in particular and very valuable to study and through this research extract key elements which will further develop a comparative matrix on the urban catalysis process.

There are many different aspects of the value of case studies such as teaching, re-

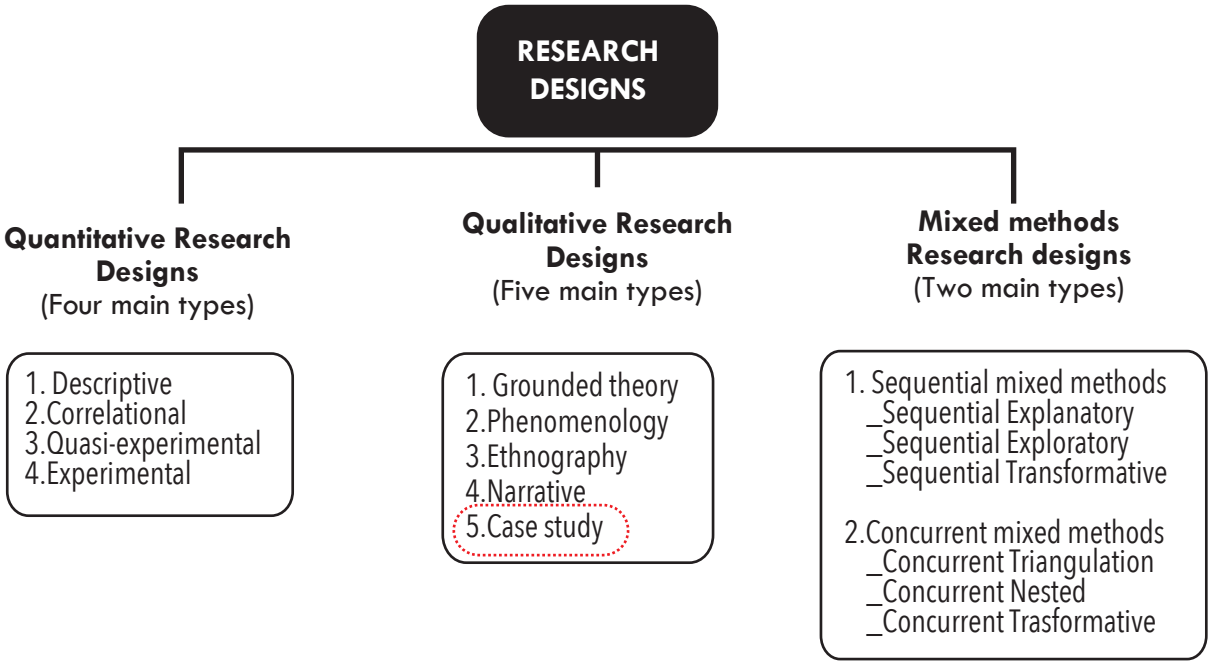


Figure 7.1: Research Methodologies - Source: (Cresweel, 2007, Plano Clark, Gutmann &Hanson 2003:Keele, 2011)

search, practice, theory building, and communication and outreach. Thomas (2011) defines case study as a method that involves systematically collecting sufficient information about a concrete individual, social setting, or an organization to allow the researcher to effectively understand how the subject works. Stake (1995) argues that the case study can be understood as a study process of one single event that takes

place within special conditions or particular circumstances. Yin (2009) deems that the case study can be a research strategy that needs empirical inquiry which is always used for investigating the phenomena in the context of real life, especially when the limits between the phenomena and the context are not clearly evident. It could be supposed that the strategic case studies can be regarded as an approach that is suitable for studying a phenomenon in a specific situation.

Additionally, the approach of case study research analysis has some benefits: the case study is a kind of empirical study rather than a purely theoretical one. It encourages researchers to answer the 'why' and 'how' questions more than the 'what' questions. Meanwhile, the case study makes researchers pay more attentions on details. Finally, this kind of method requires an integral and comprehensive thinking of a whole perspective and lead researchers consider how the elements affect with each other.(Qin, S., 2014)

However, every coin has its two sides. Case study also has some limitations that can not be ignored. Yin (2009) claims that some negative aspects of case study lie on: (1) the case study is short of rigor for the research; (2) case study takes too long and cost too much for the researcher to do the massive analysis and documents researching; (3) case study provides little basis for scientific generalization.

A direct link of reference will be provided in Chapter Eight (8). In that particular chapter, the main aim will be to study and analyze further a series of ten (10) public space interventions in the cities of Tirana, Durres, Shkodra, Kruja, Elbasan, Korca, Qeparo

REFERENCE	SINGLE CASE	MULTIPLE CASE
(Yin, 1994)	Critical - Testing a well formulated theory Extreme or unique - Documentation and analysis of a rare case Revelatory case - Observation and analysis of a phenomenon inaccessible to scientific investigation Prelude case - Exploratory, e.g. the first phase of a multiple case study research	Literal replication - Cases selected to predict similar results - When rival theories are grossly different - Three to four cases Theoretical replication - Cases selected to predict contrasting results - When rival theories have subtle differences or to increase the degree of certainty of results Two (or three) sets of three to four cases to pursue two (or three) patterns of theoretical replications

Table 7.1: Selection strategies for the strategic selection of the case studies - Source: (Yin, 1994)

and Lushnja, conducted during the last two decades. These interventions have acted in a smaller scale but with a considerable impact in the urban or landscape territory which they are located. After providing the matrix of urban catalysis, this thesis will attempt to add a new comparative layer between the international case studies, taken in an analysis in this Chapter, about Albanian case of public space interventions and in particular pedestrian streets which attempt to act as urban catalysts in their nearby context.

The methodology to convey the case studies we are based on the descriptive method taking a series of factors in consideration to provide a clear view on their impact in the city. Taking into account their context it will be important to introduce the general background of each case study project, analyzing each location about the scale and size of each project. Further on it is fundamental to elaborate on the details of the imple-

mentation of each project, their urban design, and architectural qualities and features. This information will allow a thorough understanding of their relationship with the user and citizens of the city. This factor will be important to relate the user experiences in each public space and how they improve urban quality and perception, adding value to their success as public spaces. In this case, we will attempt to investigate how their design making process was possible and if public participation and engagement were possible to improve and open the decision-making process.

Concluding this chapter will provide a critical overview of the above elements which will be based on all references and information accumulated during this research and finally will to make recommendations for improvement and will highlight lessons to learn as a result of this descriptive methodology.

7.1.THE SELECTED CASES FOR THIS STUDY AND DESCRIPTIVE METHOD

This series of ten (10) case study projects as part of this comparative research methodology are selected because they represent some of the earliest case examples of catalytic urban interventions in Europe and United States.

This analysis includes the project's' location in the built environment, the type of landscape, urban design or architectural intervention in the particular site. It also includes very concrete descriptions of the catalytic intervention as physical structure and typology. Following it investigates the relationship between architecture and public space, attempting to understand its programmatic values and use.

In this case, we consider taking into account the classification of several studies as a result of the research "Catalyst Architect," further elaborated and analyzed in Chapter Four (2). It is important to mention that several of the case studies are considered as architectural interventions, and in this case, we can observe how architecture can act as a catalyst within the urban fabric and contains features which can enhance, upgrade and regenerate public space.

It is fundamental to consider the architectural and urban design space as part of the aesthetic value and experience of the user in the area. In the case studies that are taken into research, architectural narrative and idea are considered as an essential element of each intervention. This study will not consider a system analysis of signs and symbol meanings but will focus on the nature of the catalyst as the initiator of the process of urban catalysis.

The approaches to the analysis and description of the above projects can be firstly summarized in the following seven themes:

- Urban design in transition zones (near the district, the district's edge or in a public area.
- Architecture that opens and changes the district's structure and creates transparency.
- Architecture's programmatic diversity.
- Architecture's aesthetic effects and structure.
- Urban design and architectural narratives.
- Infrastructure as the motive for economic and urban regeneration.
- Landscape and architecture as facilitators for public space.

The emphasis in the case studies is on the analysis of the landscape, urban design and architectural projects since their impact on the urban fabric and social experience are quite evident. Place forms the context with which public space projects interact and which they in turn influence. The cases analyze how and to what extent the urban catalysis process impact and change positively built environment. The cases assess in which way urban catalysis projects seem to change social practice. While not all the cases are analyzed in depth, but still social practice is examined in depth whenever possible. It is observed who uses the sites and how the site is used, and another important analysis is which are the new condition of the site or the previous one regarding the social and cultural exchange or the spatial interactions that might have been drawn.

7.2. CLASSIFICATION OF THE PROJECTS ACCORDING TO THE EXTRACTED INFORMATION

The cases at the end of the chapter are divided, classified and reviewed in groups according to the use and combination of four criteria, which represent their impact in the built environment.

TIME, PHYSICAL OPERATION, PROGRAMMATIC OPERATION and *SOCIAL ENGAGEMENT* are the above criteria which will help this thesis define further indicators to examine more in depth the impact of each one of these case studies in the site of their application.

TIME: identifies the temporal and permanent quality of each project, which ranges from a one-off temporary installation to a permanent intervention within the city, on how a project is permanent or temporary. Permanent elements cover on the building characteristics and construction. Temporary elements relate to the intervention in a setting or the usage of a space in the moment of for a specified time.

(1) ***Permanent cases***: Although the impact of each project contributes to an increasing number of users in public space and a magnetization of investment, they also have other roles in particular. For example, multipurpose buildings and sports facilities with a distinctive architecture can serve as a landmark that can improve the image of an area and can operate in the role of an urban catalyst. Nevertheless, these cases do not imply to be urban catalysts. Considering each project development as emerging and each action as a modification of the existing urban fabric. This fact showcases that in emerging situations an element that can impact urban development could be their placement in areas located on the outskirts of urban centers. Such projects which often relate to the function of suburban shopping malls, are created only for commercial activities and not to serve as an element of integration for the existing community.

(2)***Temporary cases*** (Table 7.2): Most of these cases are traditional and contemporary events, which are held annually. Also, commercial, art and music events which are occasionally held. Temporary settings or installations that can be divided into three cases including street vendors, food stalls that appear at night; and pilot projects which can also use the container (in an attempt to reuse existing materials). Although often temporary cases can attract people, improve local benefit and catalyze social integration, still there is a lack of clear evidence that these cases can impact the urban fabric or improve the surrounding area significantly.

STAND IN:

Temporary uses do not have any lasting effect on the location, but only use the vacant space for the time available.

SUBVERSION:

Temporary use is interrupting an existing permanent use(institution) by squatting as a political action.Even this occupation is normally of a very limited time period, it effects the squatted institution and results in change of the institution. In the situation of the squatting effects different uses than normal are established at the loation, e.g. housing in an university of factory. Example:Squatting of Factory Alactel in Berlin-Neukolln, Squatting of Universities.

COEXISTENCE:

Temporary use continues to exist (in a smaller sie) even after establishment of a formal permanent site at the location.Example:Flee market and Yaam Club at Arena Berlin. Also the aim of the planning authorities in Helsinki

PARASITE:

Temporary use is developed in dependence of existing permant uses and takes advantage of existing potentials and availability of space.Example:Market at Berlin Ostbahnof

PIONEER:

Temporary use is the first ‘‘urban’’ use of the site, establishing a way of settlement which might become permanent. Example: Building of World Expo’d which have intended to be temporary but became permanent.

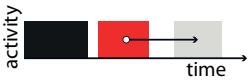
DISPLACEMENT:

A permanet institution is displaced for a limited period of time and during this time established in an improvised way as a temporary use. Example: Displacement of Railwaystation at Berlin Ostbahnhof in year 2000.

CONSOLIDATION:

Temporary use gives an impulse for the future development of the site by establishing new programs/ new programs cluster at a certain loation. Example: Berlin Club WMF followed by London Media Company, quatting of Kokos Factory in Helsinki

IMPULSE:



Temporary use gives an impulse for the future development of the site by establishing new programs/ new programs cluster at a certain loation. Example: Berlin Club WMF followed by London Media Company, quatting of Kokos Factory in Helsinki

Table 7.2: Type of temporary users - Source: Studio Urban Catalyst, 2003)

PROGRAMMATIC CHARACTER

implementation/reactivation

Each reaction that occurs in the urban fabric is developed respecting the existing context without damaging it. It operates through careful implementation taking strong advantage points of each context and resources by transforming existing functions, introducing new program and use and rehabilitating urban spatial qualities to generate new social interactions and economy.

The programmatic character of the urban catalyst could be divided into two types of operation:

1. Can consider the implementation of interventions which contain new functions able to reactivate the urban layout due to their added value as the service provider for the community.

2. Could be present in the form of reviving strategies which could replace existing functions which are no longer necessary with new specific services which are required to activate further development.

PHYSICAL OPERATION (TYPOLOGY OF THE CATALYST)

addition/reuse/regeneration/mobility/infrastructure/ public space

An important aspect of each intervention fundamentally influenced by the particular context of intervention and programmatic attributes is its physical form in the territory. Each formal tactic that is elaborated has a direct impact in the urban design qualities of public spaces enhancing its operation and as a result user experience empowering social interaction. The typology of each catalytic intervention can be distinguished in two approaches in terms of scale and size:

1. In the urban design and layout level it can be found in the form of: alleys, urban spaces, urban squares, urban structures, infrastructure and mobility interventions.

2. In the architectural scale it is evident in: the form of a new *building/ construction*, in the restoration of an existing building and in the regeneration of an existing or leftover structure.

SOCIAL ENGAGEMENT

Social interaction/ community participation

The defining element which clarifies how successful is a catalytic intervention is its short-term and in particular its long-term impact it develops in the community. Community engagement identifies the means by which the community is engaged and which is the purpose of such engagement.

1. Common, everyday use by the direct community impacted

2. Temporary use by visitors

3. Seasonal use due to a particular function or environmental conditions.

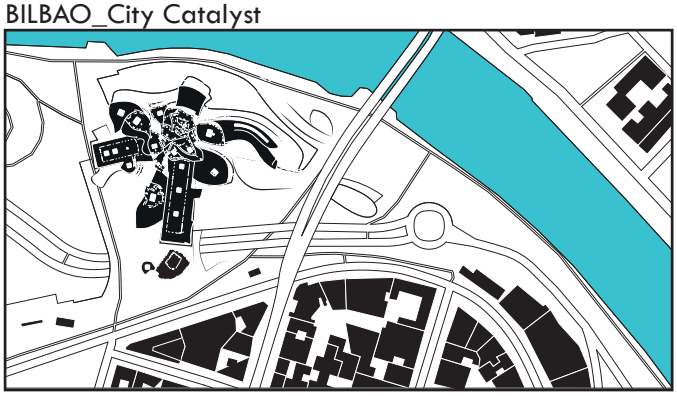
7.3. DESCRIPTION OF THE (TEN) 10 SELECTED URBAN CATALYST CASE STUDIES

Figure 7.2 Map of the location of the ten strategic case studies - Source: (Kristo, S., 2017)

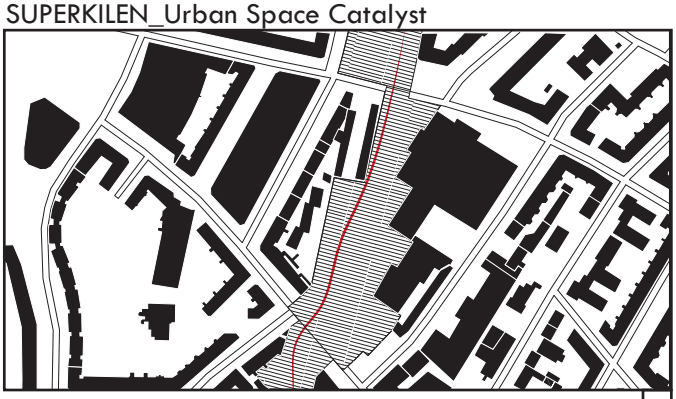
1. BILBAO GUGGENHEIM MUSEUM
   Frank O. Gehry - Bilbao, ES
2. HIGHLINE PARK
   James Corner Field Operations & Diller Scofidio + Renfro - New York, U.S.A
3. EURALILLE MASTERPLAN
   O.M.A – Rem Koolhaas - Lille, FR
4. PARC DE LA VILLETTE
   Bernard Tschumi Architects - Paris, FR
5. ARNHEM CENTRAL STATION
   UN Studio - Arnhem, NL
6. BEURSTRAVERSE
   Pi De Brujin, The Jerde Partnership – Rotterdam, NL
7. ROTTERDAM MARKTHAAL
   MVRDV Architects – Blaak, Rotterdam, NL
8. MADRID RIO
   Burgos & Garrido + Porras La Casta + Rubio & Álvarez-Sala + West 8 - Madrid, ES
9. SUPERKILEN
   B.I.G Architects - Copenhagen, DK
10. OSLO OPERA HOUSE
    Snohetta – Oslo, NO

Table 7.3 Classification of the gen plan of the ten strategic case studies - Source: (Kristo, S., 2017)

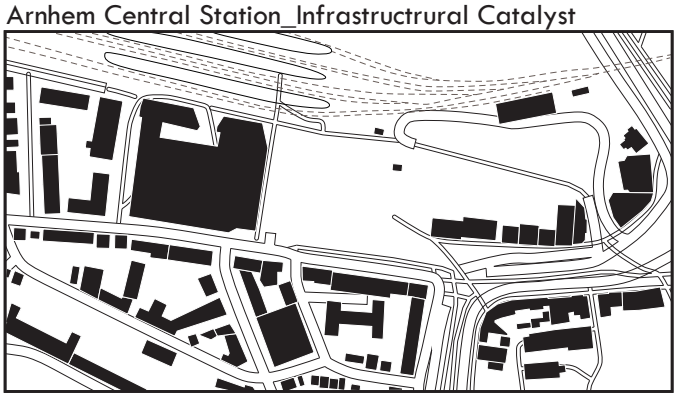
BILBAO_City Catalyst



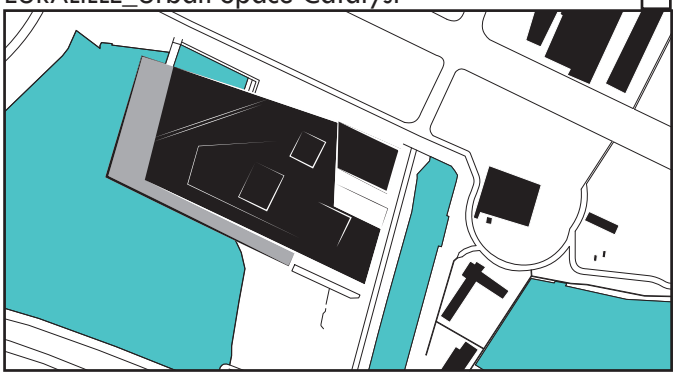
SUPERKILEN_Urban Space Catalyst



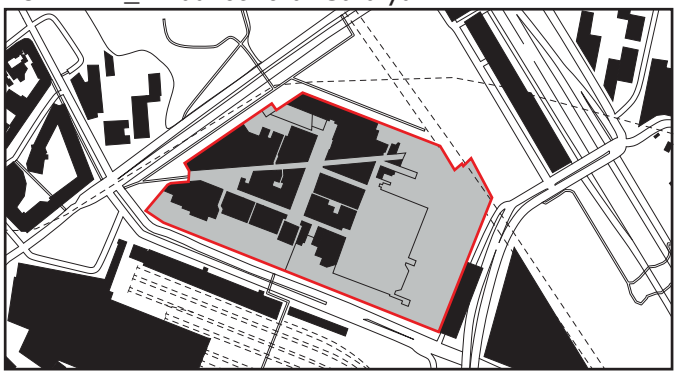
Arnhem Central Station_Infrastructrural Catalyst



EURALILLE_Urban Space Catalyst

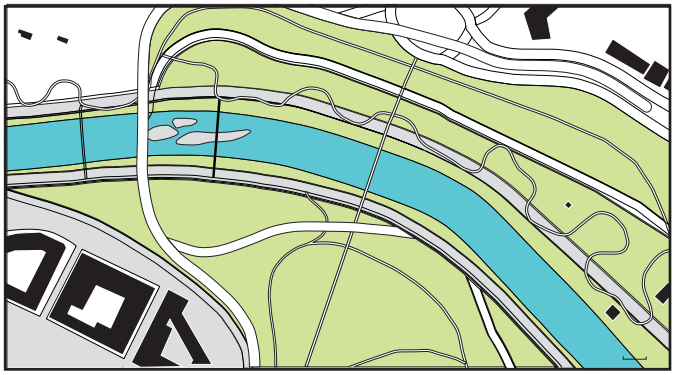


EURALILLE_Infrastructrural Catalyst

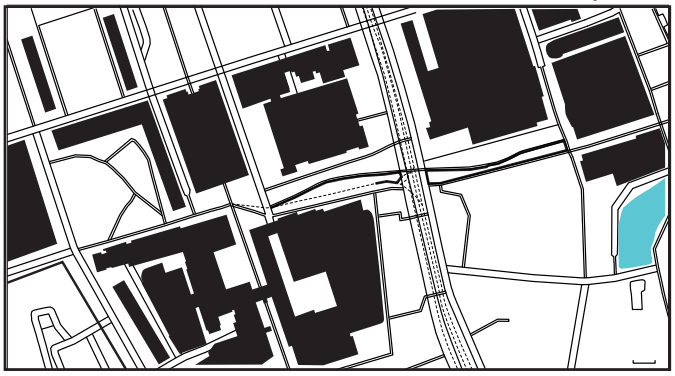


Parc de la Villette_Public Space Catalyst

Madrid Rio_Urban Green Space Catalyst



Rotterdam Beurstraverse_Commercial Area Catalyst

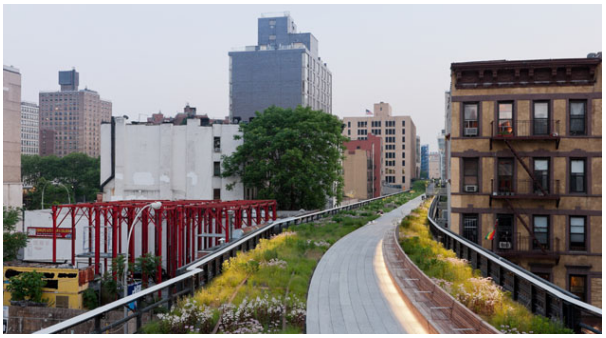


Rotterdam Markhaal_Commercial Catalyst

High Line_Urban Green Space Catalyst


8350
James Shaughnessy, 1953


Author Unknown, 1934




Iwan Baan © 20

CASE STUDY 1: USA_ HIGHLINE PARK

Name: The High Line

Location: New York

Architect: James Corner Field Operations + Diller Scofidio + Renfro

Project Year: 2004-2011

Project Background

In 1847, The City of New York approved road level railroad finds Manhattan's West Side, as of now a clamoring new waterfront. Before long, trains from Hudson River Railroad and different lines start to serve the manufacturing plants and stockrooms on the waterfront and along tenth and eleventh roads. However, in 1851-1929, such a large number of mishaps happen between cargo trains and road level activity that Tenth Avenue gets to be distinctly known as Death Avenue. Following quite a while of open level headed discussion about the peril, in 1929 the city and the condition of New York and the New York Central Railroad conceded to the West Side Improvement Project, which incorporated the High Line. The 13-miles extend disposed of 105 road level railroad intersections and added 32 sections of land to Riverside Park. It cost over $150 million in 1930, more than $2 billion today. The High Line opened to trains in 1934. It initially kept running from 34th Street to St. John's Park Terminal, at Spring Street. It was intended to experience the focal point of squares, for example, the Bell Laboratories Building, now the Westbeth Artists Community, and the Nabisco plant, now Chelsea Market, as opposed to over the road, to maintain a strategic distance from the disadvantages of raised trains. The development of interstate trucking in the 1950s prompted to a drop in rail activity all through the country. In the 1960s, the southernmost area of the line was pulverized. This area began at Gansevoort Street and kept running down Washington Street to the extent Clarkson Street, speaking to half of the line. Conrail worked the last prepare in 1980 with three carloads of solidified turkeys. In mid-1980, a gathering of property proprietors campaigned for pulverization of the whole structure. From 1990-1999, the High Line stayed in legal limbo and was lay unused and in decay. In 1999, Conrail passed on the High Line to CSX Transportation.

Design Development & Decision Making Process /Use & User Analysis

At the point when the organization's Field Operations and Diller Scofidio + Renfro went up against the test of re□imagining this iron behemoth as an open stop, they were dealing with a swarming set of inconsistencies. They needed to make individuals trust that they were walking around a recreation center while they were strolling on a prepared track thirty feet off the ground. The recreation center must be present day, perfect and modern. However, it additionally needed to fill the need of verifiable safeguarding: both of the rusted, obsolete High Line, and the wild that had developed on it. Around 3 million individuals visit the High Line every year, making the recreation center a standout amongst the most traveler and guest situated stops on the planet.

Individuals appreciate cookout, strolled as an inseparable unit, read their books, lying on the grass, sunbathing and mingling. Distinctive individuals come up here will feel diverse things and have an alternate arrangement of encounters.

Motivated by the wild seeded scene left after the line had been surrendered, the plan means to refit this modern movement into a post-mechanical instrument of relaxation. Through a technique of “agri-tecture”- part agribusiness, part engineering, the design group made another clearing and planting framework that considers differing proportions of hard to delicate surface that move from high-utilize ranges (100% hard) to lavishly vegetated biotopes (100% delicate), with an assortment of experiential inclinations in the middle.

General Features

The main area of the High Line Park is comprised of 2.88 sections of land and more than 0.5 miles in length, which keeps running from Gansevoort Street to West Twentieth Street. The second area, which is likewise 0.5 miles in length, can’t stop running from Twentieth Street to 30th Street, while the third segment keeps running from 30th Street to 34th Street. The High Line Park has the width of 30–50 ft and profundity of 18–24 inches and is 18-30 ft tall. It has an aggregate length of roughly 1.5 miles and an aggregate surface range of 753,500 sq ft. Along the High Line, there are a few key parts to pull in clients to invest energy and investigate the entire stop. At area 1, there are Gansevoort Overlook, Sundeck and Water Preserve, Chelsea Market Passage, Northern Spur Preserve and Tenth Avenue Square. At Tenth Avenue Square, which glides directly over the road, the planners proposed an amphitheater to bring guests down into the structure, so that the High Line itself would shape its particular eight ft high hindrance. Their approach is to cut into the structure and uncover it from the inside instead of simply assemble it. As the creators needed to coordinate the city with the recreation center, the steel is removed and supplanted by glass, giving a view up Tenth Avenue, and uncovering High Line guests to those on road level. Though at area 2, there are Street Lawn and Seating Steps, Falcone Flyover, 26 Street Viewing Spur, Radial Bench and 30th Street Cut-Out.

Limitations & Constraints

Real imperatives included unusual conditions connected with a lifted structure.Its introduction to the wind and frosty from above and beneath; negligible width and profundity; the trouble of giving community using new stairs and lifts over exclusive properties; establishment and usage issues connected with a hoisted structure that traverses 22 open roads through dense neighborhoods.The possession issues are identified with existing and potential private designers underneath and adjoining the structure.While the overhauls are repairing of the current structure to meet code and wellbeing and security directions.

Significance of the Project

The explanation behind the Community Board 4 and others upheld conservation of the High Line over the past 25 years to a great extent was driven by a longing to keep advancement out, private and business land costs down, and the dirty, modern feel of the area in place. Indeed, production of the High Line Park and protection of the line itself appears to have had the inverse impact. Despite the fact that the High Line Park has prodded land improvement in the areas, yet it has brought about some entrenched organizations in West Chelsea that can't contend with worldwide chains to shut down because of loss of neighborhood client base or lease increments.

The High Line Park is a critical venture regarding its versatile reuse, which has transformed a relinquished lifted cargo prepare track into an open stop, while remains its regular and authentic past, which are coordinated in the design. It is additionally a one of a kind urban stop since it drifts over the ground while bringing the bustling existence of the city into the recreation center as you can hear horns blaring and see movement and taxicabs underneath. The work that David and Hammond did to safeguard the High Line is excellent as they cherished the demolish of the high Line and found in it a chance to make another approach to encounter the city. I trust the lesson learned here is that we can assemble something new and still hold the old.

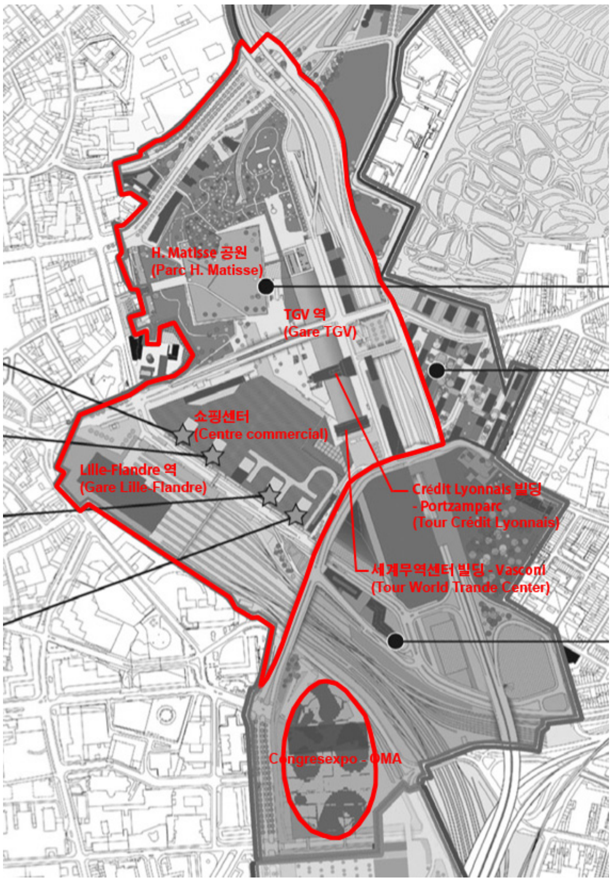
TIME: *PERMANENT USE. TEMPORARY INTERVENTIONS*

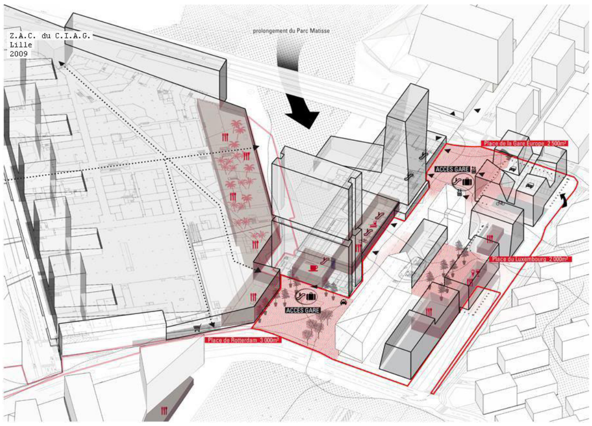
PROGRAMMATIC OPERATION: *FUNCTIONAL REFORM*

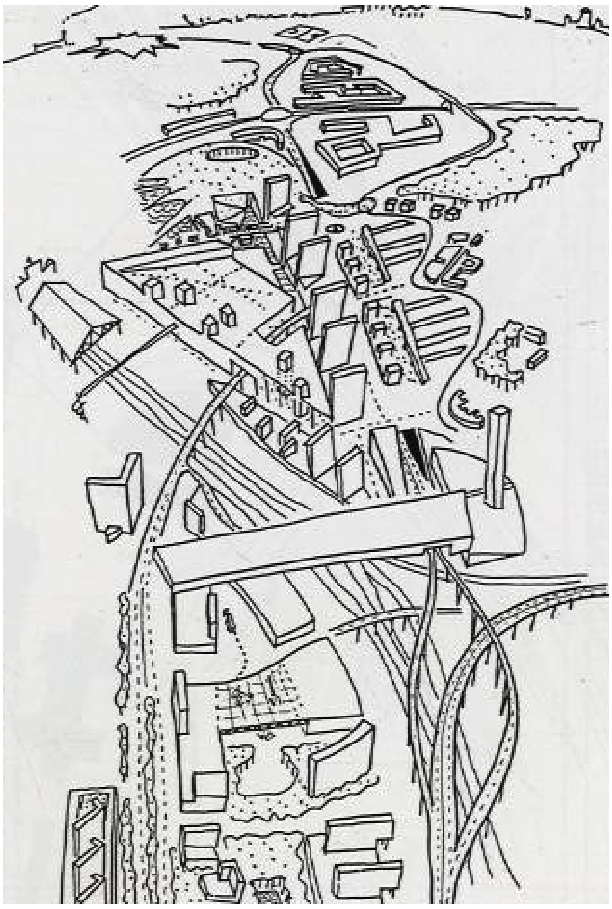
PHYSICAL INTERVENTION: *REGENERATION, LANDSCAPE DESIGN, INFRASTRUCTURE*

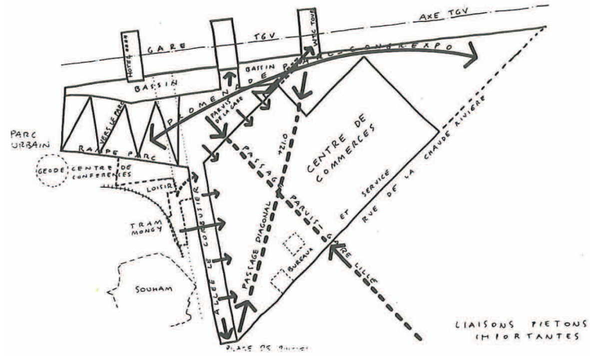
SOCIAL ENGAGEMENT: *PUBLIC SPACE SPACE*

Exploiting the potential of existing infrastructure in the city creating a new typology of public space, empowering social life and public space quality in the city. Its structure is able to facilitate temporary functions which add value to the public space.


H. Matisse 공원
(Parc H. Matisse)
TGV 역
(Gare TGV)
쇼핑센터
(Centre commercial)
Lille-Flandre 역
(Gare Lille-Flandre)
Crédit Lyonnais 빌딩
- Portzamparc
(Tour Crédit Lyonnais)
세계무역센터 빌딩 - Vasconi
(Tour World Trande Center)
Congresexpo - OMA


Z.A.C. du C.I.A.G.
Lille
2009




AXE TGV
TGV
GARE
CONGREXPO
BASSIN
PROMENADE
PARVIS DE LA GARE
PARC URBAIN
RAMPE PARC
VERS LE PARC
GEODE
CENTRE DE CONFERENCES
LOISIR
TRAM MONGY
ALLEE LE CORBUSIER
PASSAGE DIAGONAL
PASSAGE
PARVIS
CENTRE DE COMMERCES
BUREAUX
ET SERVICE
RUE DE LA CHAUDE RIVIERE
SOUHAM
LIAISONS PIETONS IMPORTANTES

CASE STUDY 2: FRANCE_EURALILLE MASTERPLAN

NAME: EURALILLE

LOCATION: IN THE CENTRE OF LILLE, FRANCE

ARCHITECTS: O.M.A. LED BY REM KOOLHAAS

YEAR PROJECT: 1989-1994

Project Background

Euralille is a urban quarter Conceived as a noteworthy European business area. It is deliberately situated in Lille at the crossing point of the fast railroad lines connecting Paris, Brussels, and London, and consolidates the Gare de Lille Europe and Gare de Lille Flandres rail line stations. Before Eurostar associated the UK to whatever remains of Europe; this latent town was an idea in retrospect of a rail ride.Today, Lille is a goal. This venture depends on the theory that the “experience” of Europe will change to the point of being unrecognizable through the consolidated effect of the passage that connections Britain and the Europe, and augmentation of the French TGV (Train a Grande Vitesse = high-speed train) system to incorporate London. On the off chance that this speculation ends up being valid, the city of Lille - the torpid focal point of gravity of a calculated triangle of London/Brussels/Paris, which contains more than fifty million tenants - will mysteriously procure a hypothetical significance as the repository of an extensive variety of interestingly “contemporary” exercises. This immense advanced venture is envisioned two stages from the verifiable focus, a half breed condition history and innovation - that permits the infusion of fringe exercises close to the heart of the city.The Master Plan for Euralille, the range around the prepare station, was at the time the biggest acknowledged urban arranging venture for the Dutch engineer Rem Koolhaas.Yet the Lille venture was exceptionally censured at the time. Says Koolhaas: “Lille has been shot to strips by the French savvy people. The whole city mafia, I’d say, who call the tune in Paris, have revoked it a hundred for every penny. I surmise that was halfway on the grounds that it has had no intelligent safeguard. The end-all strategy created by Rem Koolhaas in Lille picks up a coherent shape because of various relations and components. What is imperative to underline is that regardless of how diverse or vague these components are, they generally fill in all in all.

General Features

The colossal size of the all-inclusive strategy dispenses with the likelihood of doing a notorious building or a building so huge that would resolve every one of the issues. The huge size of the venture surely obliges assorted qualities to be the key component of the groundbreaking strategy. As should be obvious in Koolhaas’ portray, the structures he admired have different sizes and relations to the region. By this portray we can likewise tell that Koolhaas does a specific kind of regional engineering and this purpose is plainly observed when he adjusts the skyline line at the top. By this mean, he overstates and clarifies the significance of the regional scale.

Local/Global

Recognizing different scale setting in which the end-all strategy destinations, it can be perused locally and all inclusive. Locally as in the ground breaking strategy settle activity streams of Lille by making a vital bunch of differing transports. The bunch can likewise be comprehended as a bunch whose significance is not any longer neighborhood but rather additionally worldwide. This is because of the way that Euralille fills in as a station to the TGV and is the primary stop in the event that one comes to France from England.The drawing represents Koolhaas' musings about making another middle in Lille which accentuates the nearby and worldwide relations. It is additionally intriguing that in his design he likewise thinks about separation and time.

In Rem Koolhaas' end-all strategy none of the structures can be comprehended as free. Every intercession is deciphered as far as others and the solid relations that the different streams force. The consistency or get-together compel of the groundbreaking strategy is given by an arrangement of items and not by a notable building. The huge size of the venture is the one that endorses heterogeneity and variety to wind up distinctly the binding together variables. Thick structures in the upper part and a major level rooftop in the lower divide. These components appear to be very surprising and conflicting. When one understands that the rooftop acts as a go between the old downtown area and the new piece of Lille one comprehends the relations between the clearly opposing components.

Design Development & Decision Making Process /Use & User Analysls

Euralille can be comprehended as a venture in which stream, dynamism, or essentially movement rearrangement are in the center of the venture. Positively, Euralille gives another option state of mind a contemporary city. Another part of the city which can have a discourse with many sorts of movement streams. Indeed, Euralille could be comprehended as a part of the city and at a contemporary time as a station in which both components work concordantly. Such is the amicability that it's difficult to envision one without the other. The distinctive surfaces or examples demonstrate to us how every one of these components get to be rules of how to build up a venture which tries to relate itself with the obvious existing streams and flow. The position of the Triangle 'des Gares' is exhaustively followed and characterized by the railroads, and in addition the arrangement of tall structures, are put to go with the stream of the interstate. The will of letting road Le Corbusier go between the recreation center and Triangle des Garres again affirms the design thought for streams.

Limitations & Constraints

A fascinating angle about Euralille is that it fills in as another middle inside Lille and therefore on a worldwide scale. One could surmise that new focuses have the danger of getting to be distinctly self-ruling and not have an association with the old urban texture. Rather, Euralille acts as an inside which adds to the vitality of Lille by being infiltrated by different movement and person on foot frameworks.

Significance of the Project

The difference which exists between the densification of “Triangle des Gares” and the openness of the recreation center offset and it cooperates rendering considerably more clear components, for example, heterogeneity and variety. A stream additionally exists between the uber working of Nouvel and the recreation center of Gilles Clйment in which one is pulled in by the differing volumetric language structure that each of this place has. A halfway or go between point is accomplished with the lane Le Corbusier by Franɜois Deslaugiers. In the first venture, this difference between the thickness of the Triangle des Gares and the recreation center was significantly more explained with these arrangement of crisscross inclines that isolated and related the two spaces. The Grand Palais planned by OMA communicates its thickness and openness on two levels. A building which contains a presentation corridor, a congress lobby, and a show corridor which is perused as one when seen from the outside. This building builds up a rationale in which the building turns into an inside of the all-inclusive strategy and an outside of the building itself. This outside and inside relationship rehashes itself in the building itself. One could state the Grand Palais has an inside all-inclusive strategy which is made out of various components yet from the outside it can be perused in general. In the arrangement, the three sections are plainly isolated but on the other hand obviously the outside veneer binds together the different components and presents them as one to the outside. Another fascinating part of the building’s exterior is its obvious strength. During the evening, all the strength that exists amid the day vanishes and the building gets to be “alive”, uncovering its inward capacities. Euralille is an apparent case of how differing scales and flow can be consolidated with a specific end goal to make engineering that can react amicably to the problematics that emerge from a given regional setting.

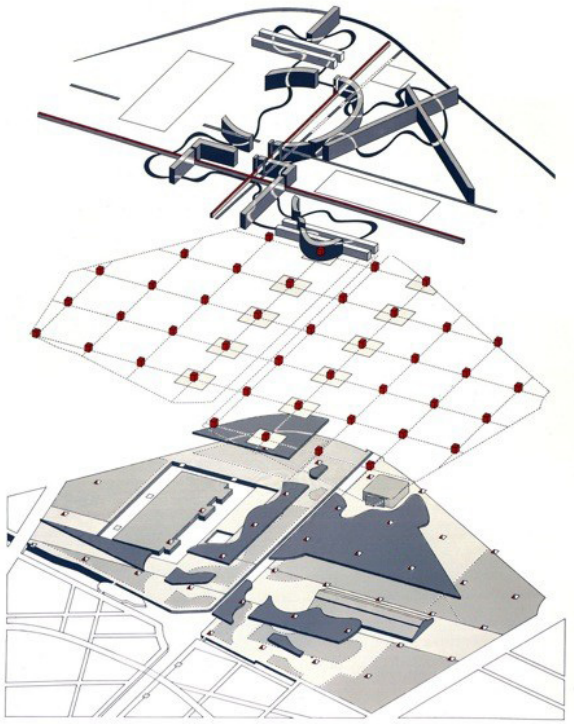
TIME: *PERMANENT USE*

PROGRAMMATIC OPERATION: *NEW INTERVENTION*

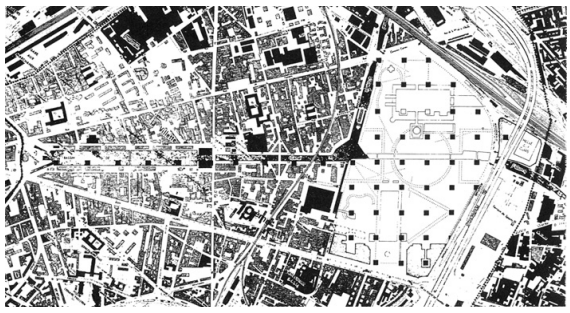
PHYSICAL INTERVENTION: *MASTERPLANNING, URBAN DESIGN, INFRASTRUCTURE*

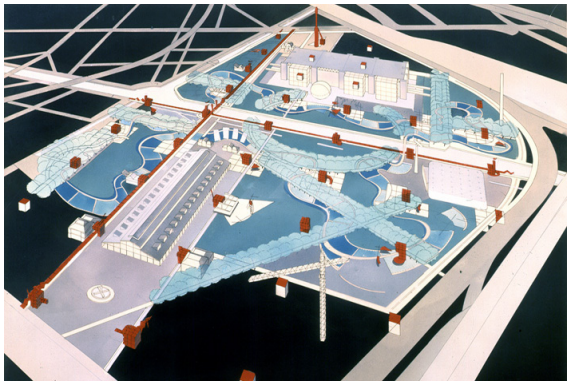
SOCIAL ENGAGEMENT: *MIXED USE URBAN DEVELOPMENT*

A new approach to master planning providing new a new intervention methodology for the development of the city through the decentralization of new functions and services generating growth in a wider territorial part.




PORTE DE LA VILLETTE
CITÉ DES SCIENCES ET DE L'INDUSTRIE
Canal de l'Ourcq
Canal de l'Ourcq
ZÉNITH
GRANDE HALLE
CITÉ DE LA MUSIQUE
PORTE DE PANTIN
STANDS FOR HIP-HOP VILLAGE
STANDS
VILLAGE HIP HOP
STAGE
SCÈNE
LOGES - DRESSING ROOM
FOLIE N6
SECURITY POINT/ ENTRANCE
POSTE DE SÉCURITÉ ENTRÉE
PARKING FOR LOGISTICS
PARKING LOGISTIQUE
Cité administrative
Accueil-billetterie
Toilettes
Restaurant
Ascenseur
Antenne de secours
Appels d'urgence
Eau potable





CASE STUDY 3: PARC DE LA VILLETTE

NAME: PARC DE LA VILLETTE

LOCATION: PARIS

ARCHITECT: BERNARD TSCHUMI

PROJECT YEAR: 1982-1998

Project Background

As a major aspect of an international competition, 1982-83, to renew the relinquished and undeveloped land from the French national discount meat market and slaughterhouse in Paris, France, Bernard Tschumi was browsed more than 470 passages including that of OMA/Rem Koolhaas, Zaha Hadid, and Jean Nouvel. Not at all like different passages in the opposition, Tschumi did not design the recreation center in a conventional outlook where scene and nature are the prevalent strengths behind the plan. Or maybe he imagined Parc de la Villette as a position of culture where characteristic and simulated are constrained together into a condition of steady reconfiguration and discovery.During the mid 1980s, after President Mitterand took office, Paris was experiencing a urban redevelopment as a component of city beautification, and additionally making Paris a more traveler impacted city. In 1982-3, the Parc de la Villette rivalry was composed to redevelop the relinquished land from the meat market and slaughterhouses that dated back to 1860. The brief required the envisioning and design of a urban stop for the 21st Century over the 135-section of land site that was separated by the Canal de l'Ourcq. With more than 470 recommendations for what might turn into the biggest stop in Paris, the design that was picked was nearest to the possibility of the 21st Century, which did not abide or depend upon history as point of reference, yet rather investigated the contemporary issues and in addition what's to come. For Tschumi, Parc de la Villette was not intended to be a beautiful stop reminiscent of hundreds of years past; it was a greater amount of an open territory that was intended to be investigated and found by those that went to the site. Tschumi needed the recreation center to be a space for action and connection that would summon a feeling of flexibility inside a superimposed association that would give the guests perspectives. As a component of Tschumi's general objective to prompt investigation, development, and connection, he scattered 10 themed plants all through the extensive broad site that individuals would unearth either actually or equivocally. Each themed cultivate allows the guests to unwind, ruminate, and even play.

Design Development & Decision Making Process /Use & User Analysis

Parc de la Villette is designed with three standards of association which Tschumi characterizes as focuses, lines, and surfaces. The 135-section of land site is composed spatially through a matrix of 35 focuses, or what Tschumi calls habits. The series of follies give a dimensional and hierarchical quality to the recreation center filling in as perspectives. The redundant way of every indiscretion, despite the fact that every one is one of a kind and distinctive, take into account the guests to hold a feeling of place

through the expansive stop. Tschumi's lines are basically the fundamental delineated development ways over the recreation center. Dissimilar to the indiscretions, the ways don't take after any authoritative structure; rather they converge and prompt to different purposes of enthusiasm inside the recreation center and the encompassing urban zone.

General Features

Of the 135 acres, 85 acres are dedicated to the green space, which is categorized as surfaces. The large open green spaces give Parisians space to interact, play, relax, and gather. The open space is typically used for large gatherings and even in the summer it becomes a large open air cinema. Even though most traditional picturesque parks are unprogrammed and usually mean for user definition and interpretation, there is usually still some semblance of desired activity. However, Tschumi's Parc de la Villette is conceptualized as one large user-defined space that is completely open to interpretation. Each of the deconstructivist follies is centers for the informal program. Although each folly is unique and formally different, there is no designated program just a space that can harbor activity. It's only until recently that some of the follies have been converted into restaurants, offices, and information centers for the park.

Limitations & Constraints

Parc de la Villette is regularly criticized being too large being designed without thought for the size of a human and contended to exist in a vacuum as it doesn't take the historical backdrop of the site or the encompassing setting into thought. However with such a huge site and the scale apparently to be withdrawn from the human, it turns into an investigative and calculated way to deal with the way a human feels inside a bigger urban setting. The recreation center is very nearly an unreasonable emphasis of urban life where the human is gotten in the persistently overpowering milieu that evacuates humanistic sensibility to oblige for bigger quantities of individuals. Just when a guest falters along an imprudence or a garden is the scale diminished and the guest can reorient them inside the bigger setting. Similarly as with the Tschumi's Manhattan Transcripts (1976-1981), Parc de la Villette is by all accounts a basic sign of urban life and action where space, occasion, and development all focalize into a bigger framework.

Significance of the Project

La Villette could be imagined as one of the biggest structures ever developed — an irregular building however a solitary structure in any case, covering the site's current components and articulating new exercises. It contradicts the scene thought of Olmsted, boundless amid the nineteenth century, that "in the recreation center, the city shouldn't exist." Instead, it proposes a social and social stop with exercises that incorporate workshops, gym and shower offices, play areas, displays, shows, science trials, diversions, and rivalries, notwithstanding the Museum of Science and Technology and the City of Music on the site. Around evening time amid the late spring, the expansive playing fields turn into an outside motion picture theater for 3,000 onlookers. The recreation center right now obliges around eight million guests a year.

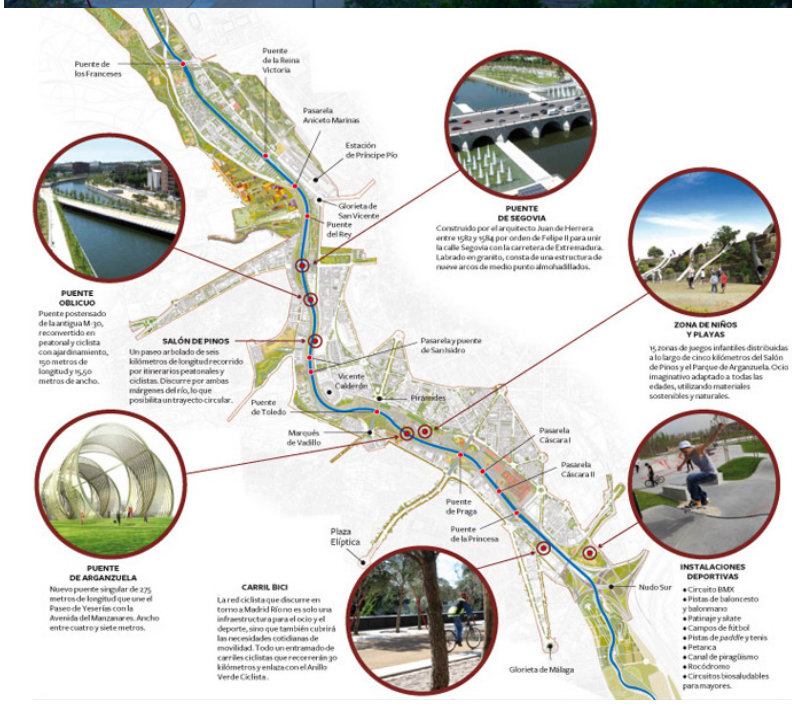
TIME: *PERMANENT INTERVENTION, TEMPORARY USE*

PROGRAMMATIC OPERATION: *THEMATIC INTERVENTION*

PHYSICAL INTERVENTION: *URBAN SCULPTURE, LANDSCAPE DESIGN*

SOCIAL ENGAGEMENT: *PUBLIC SPACE SPACE, RECREATIONAL SPACE*

A territorial intervention which is consisted as a link between landscape and the city through a series of signs in the nature. It comprises a living landmark which has a series of diverse type of activities. These activities due to the "Folie" nature can operate permanently but also temporary providing a diverse series of functions.


Puente de los Franceses
Puente de la Reina Victoria
Pasarela Aniceto Marinas
Estación de Príncipe Pío
Glorieta de San Vicente
Puente del Rey
PUENTE OBLICUO
Puente postensado de la antigua M-30, reconvertido en peatonal y ciclista con ajardinamiento, 150 metros de longitud y 15,50 metros de ancho.
PUENTE DE SEGOVIA
Construido por el arquitecto Juan de Herrera entre 1582 y 1584 por orden de Felipe II para unir la calle Segovia con la carretera de Extremadura. Labrado en granito, consta de una estructura de nueve arcos de medio punto almohadillados.
SALÓN DE PINOS
Un paseo arbolado de seis kilómetros de longitud recorrido por itinerarios peatonales y ciclistas. Discurre por ambas márgenes del río, lo que posibilita un trayecto circular.
Pasarela y puente de San Isidro
Vicente Calderón
Pirámides
Puente de Toledo
Marqués de Vadillo
Pasarela Cáscara I
Pasarela Cáscara II
Puente de Praga
Puente de la Princesa
Plaza Elíptica
Nudo Sur
Glorieta de Málaga
ZONA DE NIÑOS Y PLAYAS
15 zonas de juegos infantiles distribuidas a lo largo de cinco kilómetros del Salón de Pinos y el Parque de Arganzuela. Ocio imaginativo adaptado a todas las edades, utilizando materiales sostenibles y naturales.
PUENTE DE ARGANZUELA
Nuevo puente singular de 275 metros de longitud que une el Paseo de Yeserías con la Avenida del Manzanares. Ancho entre cuatro y siete metros.
CARRIL BICI
La red ciclista que discurre en torno a Madrid Río no es solo una infraestructura para el ocio y el deporte, sino que también cubrirá las necesidades cotidianas de movilidad. Todo un entramado de carriles ciclistas que recorrerán 30 kilómetros y enlaza con el Anillo Verde Ciclista.
INSTALACIONES DEPORTIVAS
• Circuito BMX
• Pistas de baloncesto y balonmano
• Patinaje y skate
• Campos de fútbol
• Pistas de pádel y tenis
• Petanca
• Canal de piragüismo
• Rocódromo
• Circuitos biosaludables para mayores.

CASE STUDY 4: MADRID RIO, SPAIN

PROJECT NAME: MADRID RIO

LANDSCAPE ARCHITECT: WEST 8

YEAR: 2006-2011

LOCATION: MADRID, SPAIN

CLIENT: MUNICIPALITY OF MADRID

PARTNERS:MRIO ARQUITECTOS, A JOINT VENTURE OF THREE MADRID-BASED FIRMS BURGOS & GARRIDO ARQUITECTOS ASOCIADOS, PORRAS LA CASTA ARQUITECT OS AND RUBIO & ÁLVAREZ-SALA

Project Background

The city of Madrid delved 43 kilometers of passages into which the leave courses and motorways of the six-kilometer area along the River Manzanares vanished. West 8, cooperating with MRIO arquitectos, a joint wander of three Madrid based firms oversaw by Ginиs Garrido Colomero, composed the all-inclusive strategy for the recovered riverbanks and the new urban territory. In 2005, a welcomed universal rivalry was declared for a design of the recovered territory over a passage holding a segment of the M30 ring motorway instantly neighboring the old downtown area. The group proposed to determine the urban circumstance only by method for scene engineering, and were the triumphant accommodation. The design is established on the thought »3 + 30« – an idea which proposes separating the 80 hectare urban advancement into a set of three of introductory vital activities that build up a fundamental structure which then fills in as a strong establishment for various further tasks, started to a limited extent by the region and in addition by private financial specialists and occupants.

Design Development & Decision Making Process /Use & User Analysis

An aggregate of 47 sub ventures with a consolidated aggregate spending plan of 280 million Euros have since been created, the most imperative of which include: the Salyn de Pinos, Avenida de Portugal, Huerta de la Partida, Jardines de Puente de Segovia, Jardines de Puente de Toledo, Jardines de la Virgen del Puerto and the Parque de la Arganzuela. Notwithstanding the different squares, streets and parks, a group of scaffolds were understood that enhance associations between the urban locale along the stream. The principal sub ventures were acknowledged in spring 2007. The acknowledgment of the entire venture is anticipated spring 2011.

General Features

The Salon de Pinos is composed as a straight green space, which will connect the current and recently designed urban spaces with each other along the Manzanares River. found totally on top of the motorway burrow, the reference to the verdure of the mountains was decided for the edges of Madrid. The pine tree which can make due on

the fruitless shake is planted in more than 8.000-crease. A “choreography” of the tree planting with a collection of cuts, choice of developed trademark trees, consolidated and slanted planting prompts to a characteristic and sculptural character of the space to make an organic landmark. An assortment of tests, painstakingly chose plants and materials, the design of a tree bolster with alludes to the bull’s horns and the specialized arrangements of the structure of the substrates in the passage archive the intricate way of this stop in the city.The Avenida is a standout amongst the most essential streets into the focal point of Madrid and is portrayed by its noteworthy environs. The motorway lies at the limit between a standout amongst the most thickly assembled private quarters and the Casa de Campo – in the past the Spanish lord’s chasing grounds – and from far away offers a noteworthy view to the notable downtown area on the banks of the Manzanares. By moving the street in a passage and giving underground stopping to 1.000 vehicles, it was conceivable to change over the space into a garden, profiting the nearby occupants specifically. The design takes a trip to Portugal as its topic – the expansion of the Avenida de Portugal leads towards Lisbon, in the process crossing a valley celebrated for its cherry blooms in the generally greatly fruitless and cold atmosphere of the Estremadura. The deliberation of the cherry bloom as a design component of the recreation center, the planting of various types of cherry trees to amplify the period in which they blossom, the reinterpretation of the Portuguese clearing and the association of the space to its surroundings has prompted to the making of a famous open space.

The City Palace was worked as a Baroque gathering with a strict choreography that associated the Royal Palace with the chasing grounds and the foods grown from the ground cultivate at the opposite side of the waterway. Through the framework changes of the fifties the plantation was transformed into a transportation center point. As opposed to the underlying propensity to make a recorded recreation, the Huerta is presently a cutting edge understanding of the plantation. The thought process of the hortus conclusus has been framed with a wide assortment of organic product trees in gatherings, shaped from skipping positions. Fig trees, almond trees, pomegranate and a greater amount of such plantings symbolize heaven before. The in late decades under burrowed waterway is winding again through the room. Its source and the mouth are uniquely formed. From the surrender, which sets the endpoint of the conduit the scene gives the watcher the picture of the group in place again – the mix of the components of the Baroque city chвteau. As an outcome of the design there is another passage to the Casa de Campo that sensibly interfaces with the general population space.

Limitations & Constraints

Improvement arrangements were then arranged for the individual segments: Salyn de Pinos, Avenida de Portugal, Huerta de la Partida, Jardines del Puente de Segovia, Jardines del Puente de Toledo, Jardines de la Virgen del Puerto and Arganzuela Park. The most essential of which include: the Salyn de Pinos, composed as a straight green space, which interfaces the current and recently designed urban spaces with each other along the Manzanares River. Salyn de Pinos is found totally on top of the motorway passage and elements a “choreography” of 8.000-crease pine trees and a collection of cuts. Avenida de Portugal, by migrating a standout amongst the most imperative

streets into the focal point of Madrid underground and giving underground stopping to 1,000 vehicles, it was conceivable to change over the space into a garden to profit nearby inhabitants. Decorated with Cherry trees and cherry theme, the outcome is the formation of a greatly well known open space. Huerta de la Partida, the old Royal Palace is presently a cutting edge translation of the first illustrious plantation and a wide assortment of natural product trees in planted in gatherings to make an encased garden. For the Arganzuela Park, the prevailing rationale is the water. The canalized waterway Manzanares is encompassed by architectonical walls.The arrangement of streams going through the recreation center will cross through the geography and converge into the distinctive spaces and themes.

Significance of the Project

Puentes Cascara, filling in as scaffolds and notorious milestones, Puentes Cascara makes a place where the stream is truly experienced. Planned as a huge solid arch with an unpleasant surface, the extensions highlight more than one hundred links looking like whale baleens, which are settled to the thin steel deck. The fine itemizing gets to be distinctly obvious when entering the extension. The roofs are canvassed in a delightful mosaic work of art done by Spanish craftsman Daniel Canogar. The initial segment of the venture were finished in spring 2007 and in spring 2011 the whole venture was finished.

TIME: *PERMANENT USE*

PROGRAMMATIC OPERATION: *URBAN - LANDSCAPE INTERVENTION*

PHYSICAL INTERVENTION: *LANDSCAPE DESIGN, INFRASTRUCTURE*

SOCIAL ENGAGEMENT: *PUBLIC SPACE*

A linear urban park which develops thematic functional islands inside providing a vectorial development for the city.

CASE STUDY 5: BILBAO GUGGENHEIM MUSEUM

Name: The Guggenheim Museum Bilbao

Location: Bizkaia, Spain

Architect: Frank Gehry

Project Year: 1997

Project Background

Located in the verge of the Nerviyn River in Bilbao, Spain, the Guggenheim Museum is a fusion of complex, swirling forms and captivating materiality that responds to an intricate program and an industrial urban context. With over a hundred exhibitions and more than ten million visitors to its recognition, Frank Gehry's Guggenheim Museum Bilbao not only changed the way that architects and people think about museums, but also boosted Bilbao's economy with its astounding success. In fact, the phenomenon of a city's transformation following the construction of a significant piece of architecture is now referred to as the "Bilbao Effect. "Twenty years on, the Museum continues to challenge assumptions about the connections between art and architecture today.

In 1991, the Basque government proposed to the Solomon R. Guggenheim Foundation that it fund a Guggenheim museum to be built in Bilbao's dilapidated port area, once the city's main source of income. Appropriately, the museum became part of a larger redevelopment plan that was meant to renew and modernize the industrial town. Almost immediately after its opening in 1997, the Guggenheim Bilbao became a popular tourist attraction, drawing visitors from around the world.

Design Development & Decision Making Process /Use & User Analysis

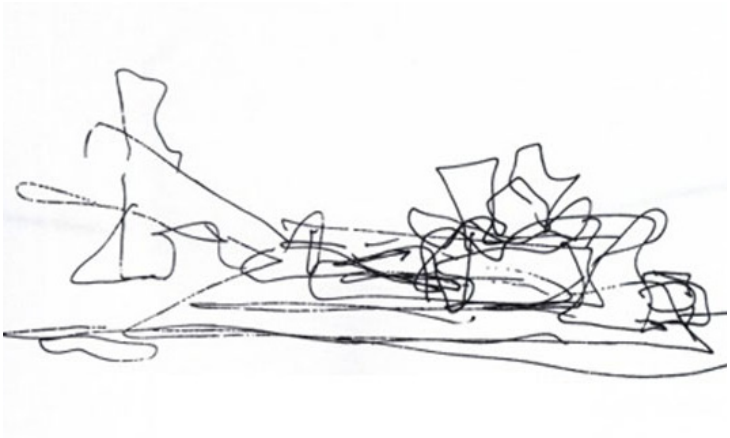
The riverside site is on the northern edge of the city center. A street and railroad line is toward the south, the waterway toward the north, and the solid structure of the Salve Bridge toward the east. Making a substantial physical association with the city, the building circles and expels around the Salve Bridge, creates a bended riverside promenade, and shapes a liberal new open square on the south side of the site where the city network ends. The building suggests landscapes, such as the limited way to the main entrance corridor reminiscent of a gorge,or the bended walkway and water highlights in light of the Nervion River.

General Features

In spite of the fact that the metallic type of the outside looks practically botanical from above, from the ground the building all the more nearly takes after a boat, evoking the past mechanical existence of the port of Bilbao. Constructed of titanium, limestone, and glass, the apparently arbitrary bends of the outside are intended to get the light and respond to the sun and the weather. Fixing cuts make a shallow focal gouge in each of the 0.38mm titanium tiles, making the surface seem to swell in the changing light and giving an unprecedented luminosity to the general composition.

Significance of the Project

The financial effect of the historical center has been astounding. During the initial three years of operation, almost 4 million travelers went by the museum—generating around 500 million in profit. Furthermore, the cash guests spent on hotels, restaurants, shops and transport gathered more than 100 million in taxes, which more than balance the cost of the building. However, the promise of the ”Bilbao Effect” likewise sparked a building blast in “articulation” engineering over the globe, one which demonstrated hasty in the wake of the late monetary crisis.



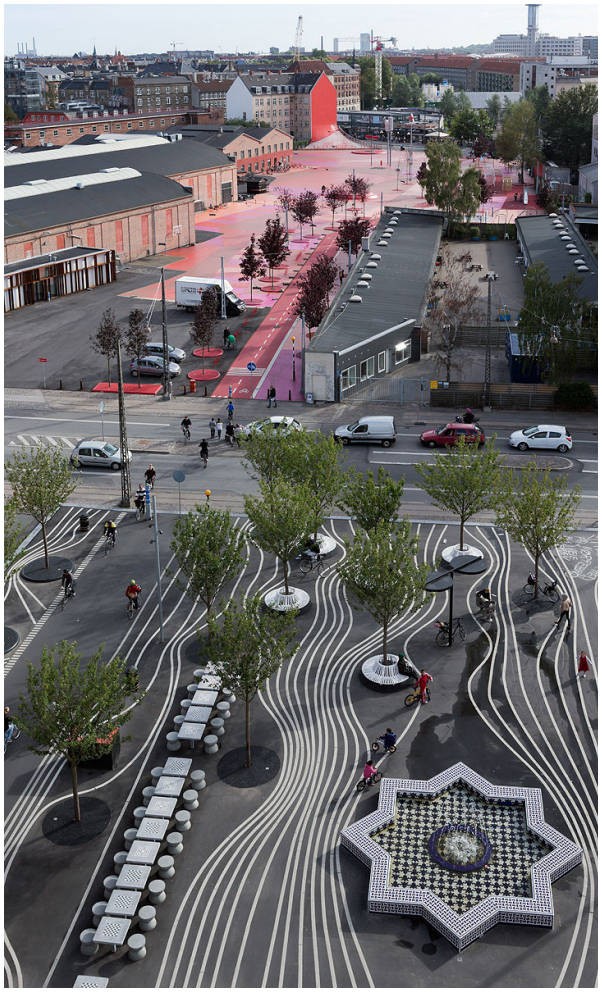
TIME: *PERMANENT USE*

PROGRAMMATIC OPERATION: *URBAN - LANDSCAPE INTERVENTION*

PHYSICAL INTERVENTION: *LANDSCAPE DESIGN, INFRASTRUCTURE*

SOCIAL ENGAGEMENT: *PUBLIC SPACE*

A linear urban park which develops thematic functional islands inside providing a vectorial development for the city.



CASE STUDY 6: SUPERKILEN, COPENHAGEN

Name: Superkilen

Location: Nɯrrebro, Copenhagen

Architects: BIG Architects, Topotek 1, Superflex

Year project: 2012

Project Background

Superkilen is an a large portion of a mile long urban space wedging through a standout amongst the most ethnically various and socially tested neighborhoods in Denmark. It makes them overarch thought that it is imagined as a goliath presentation of urban best practice – a kind of gathering of worldwide discovered articles that originate from 60 unique nationalities of the general population possessing the range encompassing it. Extending from practice adapt from muscle shoreline LA to sewage channels from Israel, palm trees from China and neon signs from Qatar and Russia. Every protest is joined by a little stainless plate decorated in the ground portraying the question, what it is and where it is from – in Danish and in the language(s) of its root. A kind of surrealist gathering of worldwide urban assorted qualities that in reality mirrors the genuine way of the nearby neighborhood – as opposed to sustaining a petrified picture of homogenous Denmark. Superkilen is the aftereffect of the innovative coordinated effort between BIG, Topotek1 and SUPERFLEX, which constitutes an uncommon combination of engineering, scene design and workmanship - from early idea to development arrange. Superkilen is a recreation center that backings differing qualities. It is a world show of furniture and ordinary articles from everywhere throughout the world, including seats, lampposts, waste jars and plants – essentials that each contemporary stop ought to incorporate and that the future guests of the recreation center have chosen. Superkilen re-properties themes from garden history. In the garden, the translocation of a perfect, the generation of somewhere else, for example, a distant scene, is a typical subject through time. As the Chinese reference the mountain ranges with the small shakes, the Japanese the sea with their undulated rock, or how the Greek vestiges are displayed as imitations in the English greenhouses. Superkilen is a contemporary, urban form of an all inclusive garden.

General Features

The reasonable beginning stage is a division of Superkilen into three zones and hues – green, dark and red. The distinctive surfaces and hues are coordinated to frame new, dynamic surroundings for the ordinary articles. The yearning for more nature is met through a noteworthy increment of vegetation and plants all through the entire neighborhood masterminded as little islands of assorted tree sorts, bloom periods, hues - and birthplace coordinating the one of encompassing regular articles.

To make better and more straightforward foundation all through the area, the present bicycle ways will be revamped, new associations connecting to the encompass-

ing neighborhoods are made, with accentuation on the association with Mimersgade, where nationals have communicated crave for a transport section. This move concerns the entire activity in the range at external Norrebro and is a part of a more prominent framework arrange. Other options to the transport entry incorporate signs, an amplified center path or hindrances.

Design Development & Decision Making Process /Use & User Analysis

As an augmentation of the games and social exercises at the Norrebrohall, the Red Square is considered as a urban expansion of the interior existence of the lobby. A scope of recreational offers and the huge focal square permits the neighborhood inhabitants to meet each other through physical action and diversions. The shaded surface is coordinated both as far as hues and material with the Nɯrrebrohall and its new main entrance, where the surface converges inside and outside in the new lobby. Veneers are consolidated outwardly in the venture by taking after the shade of the surface thoughtfully collapsing upwards and thusly making a three-dimensional affair. By the vast veneer towards Norrebrogade is a raised open space, which practically like a tribune empowers the guests to appreciate the evening sun with a view. Notwithstanding the social and games offices, the Red Square makes the setting for a urban commercial center which pulls in guests consistently from Copenhagen and suburbia. Superkilen's focal commercial center is situated in the region of the current hockey field. An extensive region on the square is secured by a multifunctional elastic surface to empower ballgames, markets, parades, and skating arenas in winter and so on. The portable tribunes of Norrebrohallen can be moved there for outdoors film/sports presentations. The square towards East permits open air benefit from the bistro inside by the future main entrance. Towards North, the guests will appreciate b-ball courts, parking spots and an open air wellness range.

The red square is characterized by a road in every end and building and fences at the edges. The edge is moving in and out - and we have entwined the region by associating the encompassing given lines and edges in the huge red example. A major celebrity main street extended between all sides of the square. Wellness territory, Thai boxing, play area (slide from Chernobyl, Iraqi swings, Indian climbing play area), Sound framework from Jamaica, a stencil of Salvador Allende, a lot of seats (from Brazil, exemplary UK cast Iron litter receptacles, Iran and Switzerland), bicycle stands and a stopping range.

Mimers Plads is the heart of the Superkilen Masterplan. This is the place local people meet around the Moroccan wellspring, the Turkish seat, under the Japanese cherry-trees as the augmentation of the zone's yard. In weekdays, lasting tables, seats and barbecue offices fill in as a urban front room for backgammon, chess players and so forth. The bicycle activity is moved toward the East side of the Square by mostly tackling the issue of stature contrasts towards Midgaardsgade and empower a bicycle incline amongst Hotherplads and the crossing bicycle way association. Towards North is a slope confronting south with a view to the square and its action.

The square can be spotted by the enormous, dental practitioner neon sign from Doha, Qatar. Brazilian bar seats under the Chinese palm trees, Japanese octopus play area

beside the long line of Bulgarian open air tables and Argentinean BBQ's, Belgian seats around the cherry trees, UV (dark light) light highlighting all white from the American shower light, Norwegian bicycle rack with a bicycle pump, Liberian cedar trees.

To shield from the road finishing at the north east corner of the square and to meet the desires from the neighbors, we have collapsed up an edge of the square making a secured space. Not at all like the example on the red square, the white lines on Mimers Plads are all moving in straight lines from north to south, bending around the distinctive furniture to abstain from touching it. Here the example is highlighting the furniture rather than simply being a caped under it.

Significance of the Project

Bauman once said that "game is one of only a handful couple of establishments in the public eye, where individuals can at present concur on the guidelines". Regardless of where you're from, what you have faith in and which dialect you talk, you can simply play football together. This is the reason various games offices are moved to the Green Park, including the current hockey field with a coordinated b-ball court as it will make a characteristic social occasion spot for nearby youngsters from Mjolnerpark and the neighboring school. The exercises of the Green Park with its delicate slopes and surfaces bids to kids, youngsters and families. A green scene and a play area where families with kids can meet for picnics, sunbathing and softens up the grass, additionally hockey competitions, badminton recreations and workout between the slopes. Armenian open air tables by Mjшlnerparken with South African BBQ's, a fountain of liquid magma shapes sports field for ball and football, a line move structure from Texas, muscle shoreline from LA with a high swing from Kabul, Spanish ping pong tables and a structure for the children to hang out in. The green stop is transforming into Mimers Plads on the highest point of the slope toward the south. From the highest point of the slope you can nearly ignore the whole Superkilen.

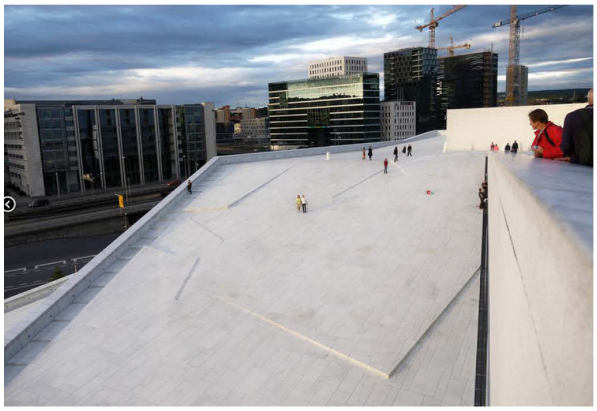
TIME: *PERMANENT USE*

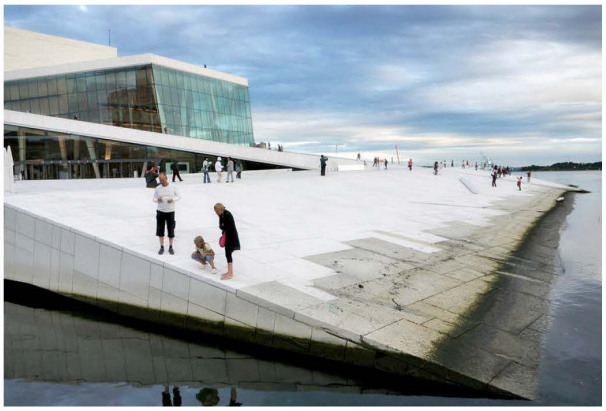
PROGRAMMATIC OPERATION: *URBAN - LANDSCAPE INTERVENTION*

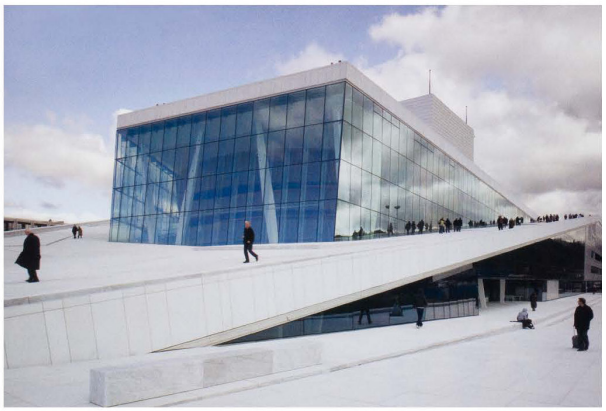
PHYSICAL INTERVENTION: *URBAN LANDSCAPE DESIGN, INFRASTRUCTURE*

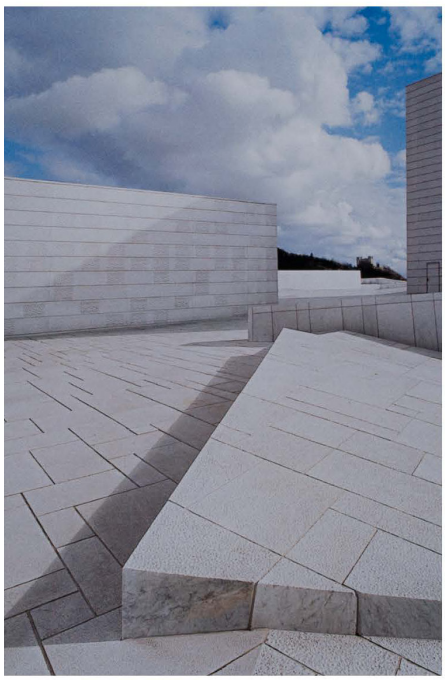
SOCIAL ENGAGEMENT: *PUBLIC SPACE*

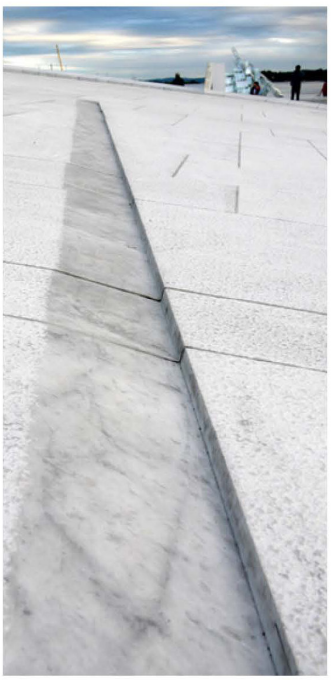
A linear urban park which successfully engages the community to appropriate the public space. The intervention is considered as an open living room in the area improving significantly urban quality and generates further social interaction.

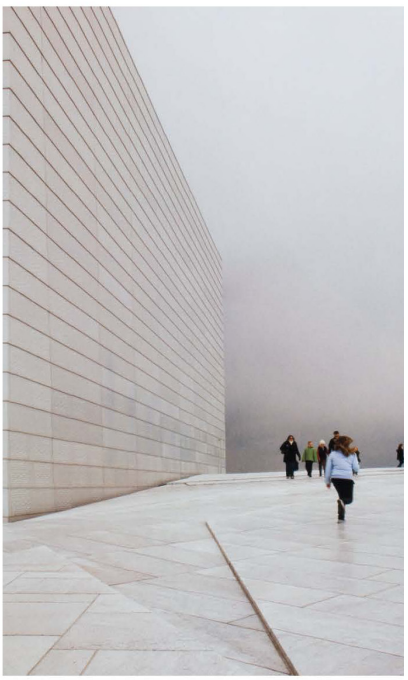


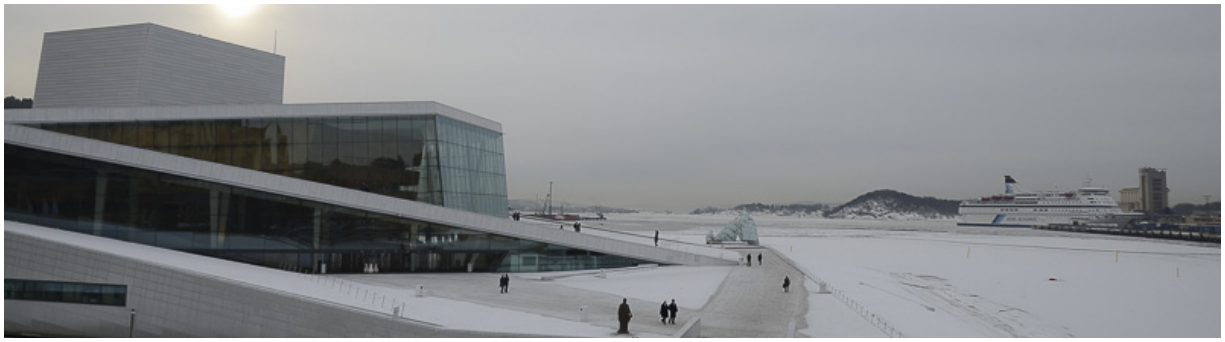












CASE STUDY 7: SNOHETTA, OSLO

Name: Opera House

Location: Oslo, Norway

Architects: Snohetta

Year project: 2007

Project Background

Statsbygg is Norway's biggest common property supervisor, with 650 workers. It is the state's fundamental advisor on building and property issues, advancement and administration. Statsbygg is an administration organization under the Ministry of Renewal and Administration, yet gives administrations and support to all services and state organs. In 1998 the National Assembly chooses that Statsbygg would be the building customer for the new opera house, in charge of arranging and administration. Statsbygg secure administrations in the private part, yet are in charge of expert coordination and quality control of the specialists, contractual workers and providers. The Norwegian Opera and Ballet is the building's end client. They are Norway's biggest music and showy organization. Their center design is to be the national maker of musical drama, artful dance, music and movie theater, and shows. They plan to have approx. 300 shows and 250,000 guests for every year. The Opera house will be a working environment for approx. 600 workers from more than 50 callings. The musical drama house is the acknowledgment of the triumphant culmination section. Four graphs, which were a piece of the passage, clarify the building's essential idea. Musical show and expressive dance are youthful fine arts in Norway. These fine arts develop in a worldwide setting . The Bjшrvika landmass is a piece of a harbor city, which is truly the meeting point with whatever remains of the world.. The partitioning line between the ground "here" and the water 'there's both a genuine and a typical limit. This limit is acknowledged as a vast divider on hold of the meeting amongst land and ocean, Norway and the world, workmanship and regular day to day existence. This is the edge where the general population meet the craftsmanship.

A nitty gritty brief was created as a reason for the opposition. Snшhetta recommended that the creation offices of the musical show house ought to be acknowledged as an independent, objectively arranged 'industrial facility'. This manufacturing plant ought to be both utilitarian and adaptable amid the arranging stage and in addition in later utilize. This adaptability has ended up being essential amid the arranging stage: various rooms and room bunches have been balanced as a team with the end client. These progressions have enhanced the structures usefulness without influencing the engineering. The opposition brief expressed that the opera house ought to be of high building quality and ought to be amazing in it's demeanor. One thought emerged as a legitimation of this monumentality: The idea of harmony, joint possession, and simple and open access for all. To accomplish a monumentality in view of these ideas we wished to make the musical show available in the most stretched out conceivable sense, by laying out a "cover" of flat and slanting surfaces on top of the building. This cover has been given a verbalized shape, identified with the cityscape. Monumentality

is accomplished through even expansion and not verticality. The reasonable premise of the opposition, and the last building, is a blend of these three components - The wave divider, the processing plant and the cover.

Significance of the Project

The musical show house is the primary component in the arranged change of this range of the city. In 2010 the substantial activity next to the building will be moved into a passage under the fjord. Because of its size and tasteful expression, the musical show house will stand separated from different structures in the zone. The marble clad roofscape frames a vast open space in the scene of the city and the fjord. General society face of the musical show house confronts west and north - while in the meantime, the building's profile is clear from an incredible separation from the fjord toward the south. Seen from the Akershus stronghold and from the network city the building makes a relationship between the fjord and the Ekerberg slope toward the east. Seen from the focal station and Chr. Fredriks sq. The musical drama gets the consideration with a falling which designs the eastern edge of the perspective of the fjord and its islands. The building associates city and fjord, urbanity and scene. Toward the East, the "industrial facility" is enunciated and fluctuated. One can see the exercises inside the building: Ballet practice rooms at the upper levels, workshops at road level. The future association with a living and enlivened new piece of town will give a more prominent feeling of urbanity. The level of reflection to be found in the external spaces has made it characteristic to limit the quantity of unmistakable building components and points of interest. In the meantime it has been a reasonable point that the furniture components utilize a similar design dialect as the working overall. Bigger components, for example, bar counters, shop fittings, ticketing work area, and cafи insides are either coordinated in bigger building shapes or design as detached sculptural structures in white corian. These can be totally shut down when not being used.

Design Development & Decision Making Process /Use & User Analysis

The musical drama's scene contains the marble rooftop, extra marble clad zones, and the zones between the building and the encompassing boulevards. Access to the court and the fundamental passage is over a marble clad footbridge over the musical show waterway. The court frames a part of an open promenade and cycle path which proceeds around the west and south sides of the building, and in the end going to an arranged scaffold over the Aker waterway toward the east. As ahead of schedule as the opposition passage, Snшhetta recommended that the roofscape ought to be straightforwardly available to the overall population and that it ought to be clad with white stone. Today the building's characterizing highlight is the trademark geometry of the rooftop as it ascends from the fjord and is laid out like a cover over people in general regions. A critical move has been to present channels along the rooftop edges with slopes and steps. This permits the coordination of direction stature balustrades with raising the line of the rooftop itself.To accomplish enough acoustic volume in the assembly room, the rooftop has been raised indepently inside the line of the balustrades. This has made another survey point from which the city and the fjord can be experienced. The

rooftops are for the most part excessively soak for wheelchair utilize however access to the close level, upper ranges is given by means of a committed elevator.The surface treatment of the stone, its example, trims and lifts which make a shadow play, have been composed in close joint effort with the specialists. The white marble is 'La Facciata' from the Carrara quarries in Italy. The north facade and all the stone cladding which is in contact with water is a norwegian rock called 'Ice Green' Prototypes and tests at full scale were learned at the contractual worker's offices before the last decisions were made for shading subtlety and surface. A running quality control administration has been actualized all through the generation procedure Adjacent regions During the building time frame it turned out to be certain that quick and impressive settling of the ground level around the building would should be tended to. Vast ranges of rock which is intended to take neighborhood vehicular movement have been laid around the building impression. This is anything but difficult to alter as the ground sinks in respect to the building which is established on the bedrock. Trees are planted in the rock ranges, and a zone of road furniture is situated along the asphalt line with cycle stopping, seats and uncommonly planned road lights in stainless steel. The asphalts are of black-top with dark rock edges and bigger territories of stone clearing who highlight the passageways to the eatery, musical drama road, and stage entrance. The dim shading palette is an unmistakable complexity to the light stone and aluminum of the building itself inside a cool monochrome dialect. Finishing of the encompassing zones has been composed in joint effort amongst Snшhetta and Bjшrvika Infrastructure who have been in charge of the arranging of the road around the operahouse.

TIME: *PERMANENT USE*

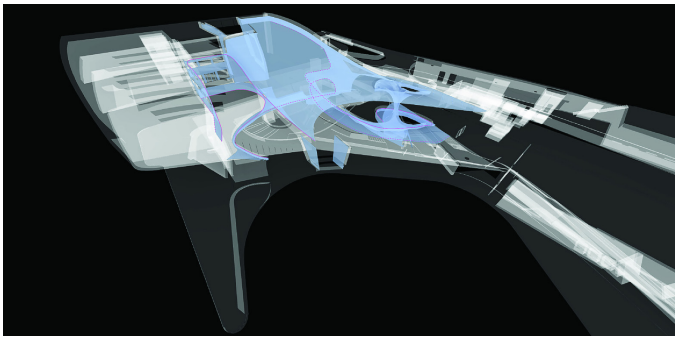
PROGRAMMATIC OPERATION: *URBAN REQUALIFICATION*

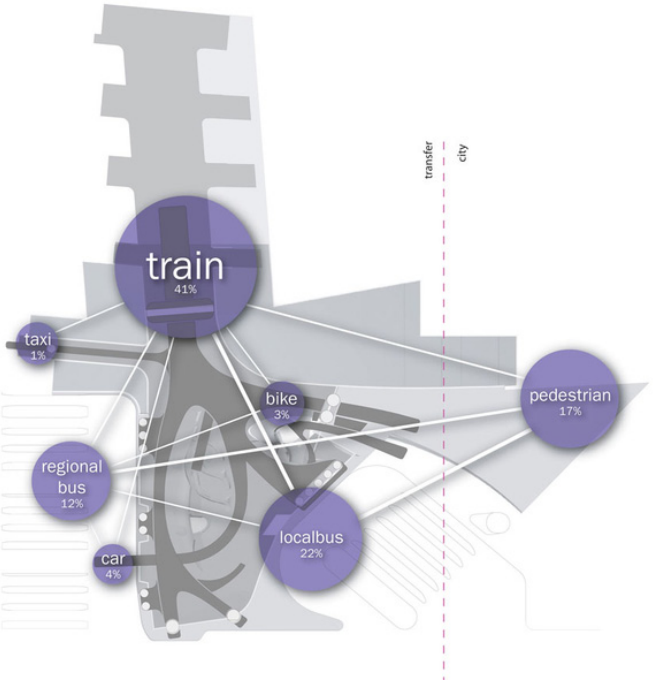
PHYSICAL INTERVENTION: *PUBLIC SPACE*

SOCIAL ENGAGEMENT: *SOCIAL INTERACTION*

The project showcases a clear example of urban renewal and regeneration which develops a landmark public function building but also creates an open public space for the city.


Arnhem
A
B
C

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taxi
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bike
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regional
bus
12%
localbus
22%
car
4%

CASE STUDY 8: ARNHEM, CENTRAL MASTERPLAN

PROJECT: _ARNHEM CENTRAL - MASTERPLAN

ARCHITECTS: UNSTUDIO

LOCATION: ARNHEM, NETHERLANDS, 1996–1998

YEAR PROJECT: 1996 – 1998

PROJECT PROGRAM: 1. Master plan, 2. Transfer hall, 3. Underground parking, 4. Bus terminal, 5. Two office towers, 6. Bicycle storage, 7. Railway platforms

Project Background

Arnhem Central is a substantial urban arrangement improvement made out of different components which amassed constitutes a dynamic transport center point. The groundbreaking strategy consolidates office space, shops, lodging units, another station lobby, a railroad stage and underpass, an auto burrow, bike stockpiling and a vast parking structure. A venture with such a mind boggling set of prerequisites requires a methodological approach that can suit the half breed nature of the advancement. The dynamic way of the Deep Planning process permits the locus to wire components of time, tenant directions, and program into an effective and essential framework. Housed under a persistent rooftop component these projects constitute one of the fundamental edges into Arnhem, its engineering adding to the iconography of the city. The new Transfer Terminal at Arnhem Central Station in the Netherlands is presently finished. The station is the aftereffect of a yearning 20-year extend – ace arranged by UNStudio – to redevelop the more extensive station zone; the biggest post-war advancement in Arnhem. Supported by the Dutch government, this exchange center point revises the rulebook on prepare stations and is the most complex of its sort in Europe. The station will turn into the new ‘front entryway’ of the city, grasping the soul of travel, and is relied upon to set up Arnhem as a critical hub between Germany, the Netherlands and Belgium. The new terminal houses business zones and a meeting focus and gives connections to the adjacent office square, downtown area, underground parking structure and the Park Sonsbeek. The range around the station will turn into a place in of itself.

General Features

The Transfer Terminal elements a sensational bending basic rooftop geometry, which empowers section free traverses in the exchange lobby. Taking references from the nonstop inside/outside surface of a Klein Bottle, UNStudio meant to obscure qualifications between within and outside of the terminal by proceeding with the urban scene into the inside of the exchange lobby, where roofs, dividers, and floors all consistently move into each other. The structure of the rooftop and bending section was just made conceivable by deserting conventional development strategies and materials; much lighter steel supplanted concrete – initially proposed for the station – and was built utilizing watercraft building methods on a scale at no other time endeavored. UNStudio started the all-inclusive strategy in 1996 and finished its first design plan for the Trans-

fer Terminal in 2000. After seriously inquiring about traveler streams and transportation modes, UNStudio recommended that the new terminal ought to grow to end up distinctly an ‘exchange machine’ that fuses the entire range of open transport, taking care of the travel requests of the 21st century. Working with auxiliary specialists Arup, space without sections was created, shaping a compositional expression planned around the ways individuals will naturally utilize the space. The station takes a shot at worldwide, national and territorial levels, permitting travelers to move between urban communities naturally and effortlessly. This venture is a piece of a countrywide railroad update that will see new stations in Rotterdam, Delft, The Hague, Breda and Utrecht.

‘’Arnhem Central is no longer only a prepare station. It has turned into an exchange center. We needed to give another and indispensable stimulus to station design, so as opposed to just planning the station around the exercises and individuals streams that as of now occurred there, the extended engineering of the new Transfer Terminal coordinates and decides how individuals utilize and travel through the building” said Ben van Berkel, originator and primary modeler of UNStudio.

Design Development & Decision Making Process /Use & User Analysis

“To keep all partners on board and in good shape amid the long trip to fulfillment was a genuine test,” said Karin van Helmond, Project Manager Station Development at ProRail. “In the previous a quarter century, things changed in the economy, innovation, legislative issues and social environment. By concentrating on our definitive objective, the genuine working of this sublime station, we prevailing with regards to beating all difficulties and dangers and by working firmly together we completed this uncommon employment”.

Coordinating the actually slanting scene unmistakable to Arnhem, UNStudio considered the Transfer Terminal as a streaming, utilitarian scene of various capacities stacked up to four stories over the ground and two underneath. The key space is the fundamental Transfer Hall, finished with an element, undulating rooftop frame. In the advancement of the design, the practice utilized a progression of calculated auxiliary instruments to form the geometry of the terminal scene to suit the distinctive program capacities. These incorporate the utilization of ‘V-dividers’, a heap bearing solid structure that ingests the distinctions in the required matrices and gives light to the subterranean levels. The spaces between these components likewise frame the free from the underground auto stop to alternate parts.

Significance of the Project

In 2001, Arnhem Central gained the status from the Dutch Government starting at one of the ‘New Key Projects’ (station ranges of national significance). These stations ought to work as impetuses for urban reestablishment and monetary development. It is foreseen that the new Transfer Terminal, which replaces a 1950s prepare station, will encourage financial development by empowering an endlessly expanded day by day traveler stream to the city of 110,000 workers for each day in 2020.

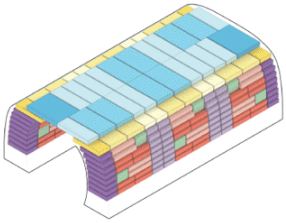
TIME: *PERMANENT USE*

PROGRAMMATIC OPERATION: *INFRASTRUCTURE, URBAN PUBLIC SPACE*

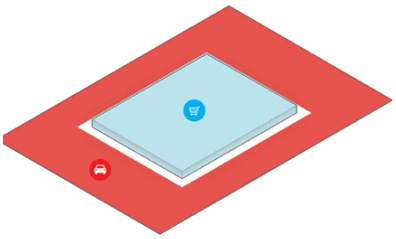
PHYSICAL INTERVENTION: *PUBLIC SPACE, MOBILITY*

SOCIAL ENGAGEMENT: *SOCIAL INTERACTION*

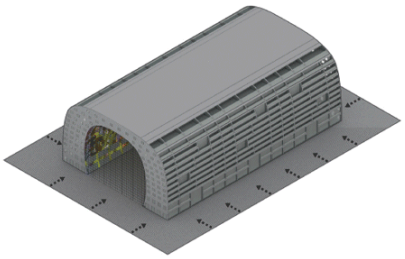
Arnhem Central Station features unique characteristics as an infrastructural projects which serves as a social magnet in the area, it fulfils its main infrastructural purpose but also its design promotes a diverse functional composition adding commercial and leisure spaces creating stronger social interaction



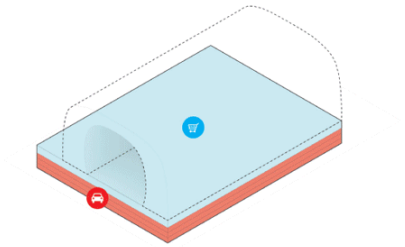
Markthal accommodates are broad range of housing types. 102 rental apartments and 126 apartments for sale.



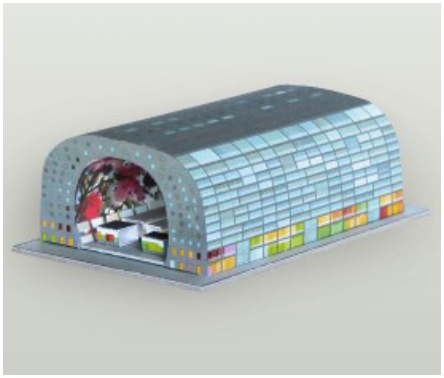
On level -1, a supermarket for all additional shopping

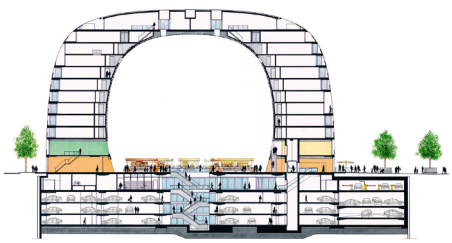


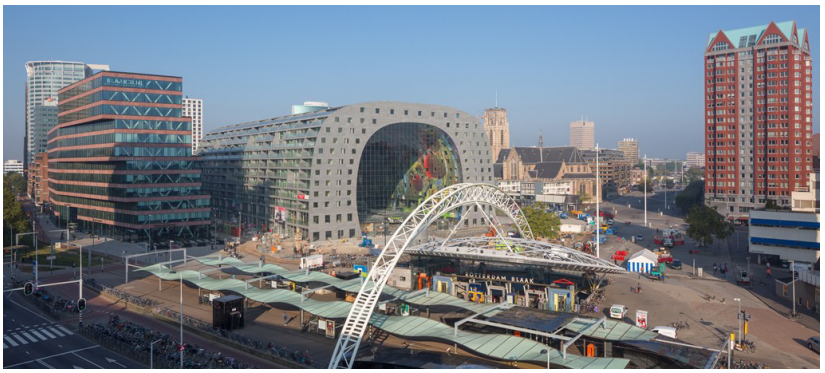
The loading and distribution take place underground so that at ground level Markthal can be accessed from all sides

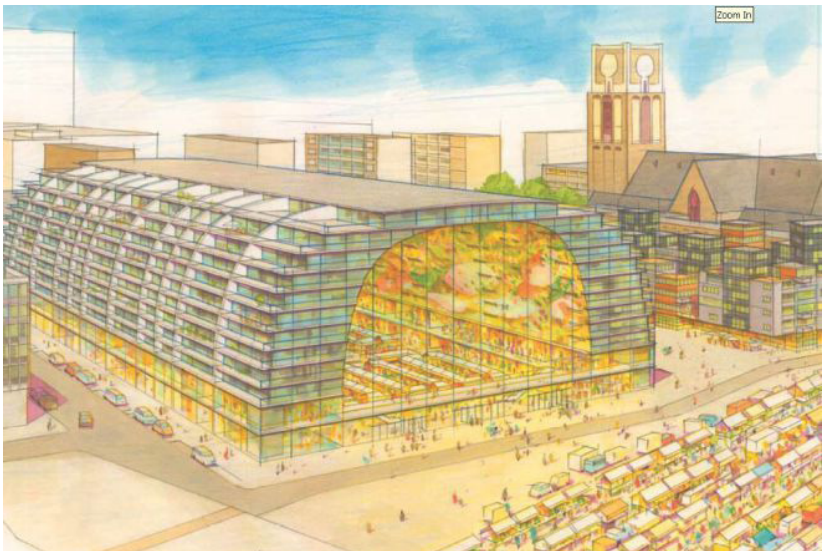


Parking and loading only takes place underground which means that the building has no back side









CASE STUDY 9: MARKTHAL, THE NETHERLANDS

PROJECT: MARKTHAL

ARCHITECTS: MVRDV

LOCATION:ROTTERDAM, NETHERLANDS, 1996–1998

YEAR PROJECT: 1996 – 2014

PROJECT PROGRAM: 1. Market 2. Retail

Project Background

In October 2004 the group of Provast engineers and design studio MVRDV won an opposition sorted out by the city of Rotterdam for the design and development of a market corridor at Binnenrotte. The region needed to broaden the current outside market with a secured expansion. As per stricter European principles later on the outdoors offer of new and chilled nourishment would not be allowed any longer. Beside this the region needed to increase the measure of occupants in the downtown area keeping in mind the end goal to make more limit with respect to the administrations in the zone. The requested program – lodging, stopping and a market corridor – requested a conspicuous arrangement: two private sections with a financially constructible market lobby in the middle.

Provast and MVRDV had found in the South of Europe that these sort of market corridors are frequently dim, thoughtful structures with little association with the encompassing urban region. The Markthal in Rotterdam however was to be a vital motivation in the improvement of the “Laurenskwartier” (Laurens quarter) neighborhood and needed to reinforce the Eastern side of the downtown area. An exceptionally open, open working with great availability was required. The group chose to simply flip the two chunks and market which prompted to a bigger lobby with two wide openings towards the city. Keeping in mind the end goal to make the development more proficient a bend was picked that fitted a conventional lift center. By adding some space to the lower floors for additional retail space the present volume of the curve developed 120 meters in length, 70 meters wide and 40 meters tall.

Design Development & Decision Making Process /Use & User Analysis

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the middle. Provast and MVRDV had found in the South of Europe that these sort of market corridors are frequently dim, thoughtful structures with little association with the encompassing urban region. The Markthal in Rotterdam however was to be a vital motivation in the improvement of the “Laurenskwartier” (Laurens quarter) neighborhood and needed to reinforce the Eastern side of the downtown area. An exceptionally open, open working with great availability was required. The group chose to simply flip the two chunks and market which prompted to a bigger lobby with two wide openings towards the city. Keeping in mind the end goal to make the development more proficient a bend was picked that fitted a conventional lift center. By adding some space to the lower floors for additional retail space the present volume of the curve developed 120 meters in length, 70 meters wide and 40 meters tall.

General Features

The building contains 228 flats that curve more than 96 advertise slows down and eight eateries. Subterranean, there is stopping for 1,200 autos. One condo stays unsold: it has 101 sq meters of living space and a soliciting cost from □276,000. The building should have been as open as conceivable to draw in people in general and in the meantime it must be shut off because of climate conditions. Keeping the conclusion as straightforward as conceivable a link net faɜade was picked which needs not very many productive components. Its guideline is similar to a tennis racket in which the steel link are utilized as strings in the middle of which the glass is mounted. This link net faɜade is the biggest of its kind in Europe. As a result of this supernatural occurrence of designing the workmanship piece inside is noticeable all things considered, its rich shapes and hues welcome the general population to enter the building. The outside of the Markthal is executed in dim regular stone, the same as on the asphalts, to put the accentuation onto the inside.

Markthal is a working without a posterior. All sides of the building are open or shop windows. The whole supply for the corridor, the shops and eateries is consequently found underground. The principal storm cellar floor includes an endeavor court to which the conveyance can occur with vans, from this display court cargo lifts achieve the market lobby. Along these lines occupants are not thwarted by circulation exercises that frequently happen in the early hours of the morning. Additionally in the storm cellar is an Albert Heijn grocery store, Etos and Gall and Gall. The conveyance for these stores is sorted out through an underground passage prompting to concealed lifts at Binnenrotte square, along these lines bigger lorries can work in separation to the corridor. Tenants have storage spaces and shared bike rooms in the cellar.

Significance of the Project

The force of new design to recover a city is very much archived. Outstandingly, Bilbao’s change from a declining modern port to a blasting social goal is regularly credited to the opening of the Guggenheim Museum Bilbao, planned by Frank Gehry, in 1997. More than 1m individuals went to in the primary year, three circumstances more than conjecture. Numerous different urban areas, for example, Doha, Hull and Valencia have since dispatched planners — frequently enormous names — to design structures that will pull in the group.

Typically they are historical centers or workmanship exhibitions, in some cases inns — yet once in awhile are they as trite as a secured advertise with lofts and underground stopping. However Rotterdam is encountering a surge in guests since its new Markthal, the initially canvassed showcase corridor in the Netherlands, opened in October 2014. As indicated by Rotterdam Partners, the association that advances the city's economy, the building has gotten 6m guests to date. At ends of the week there are lines to get in. The city's chairman, Ahmed Aboutaleb, contends that the impact of the new engineering reaches out past guest numbers. "The Markthal contributes enormously to the picture and appeal of Rotterdam as a city . . . where national and universal organizations need to contribute".

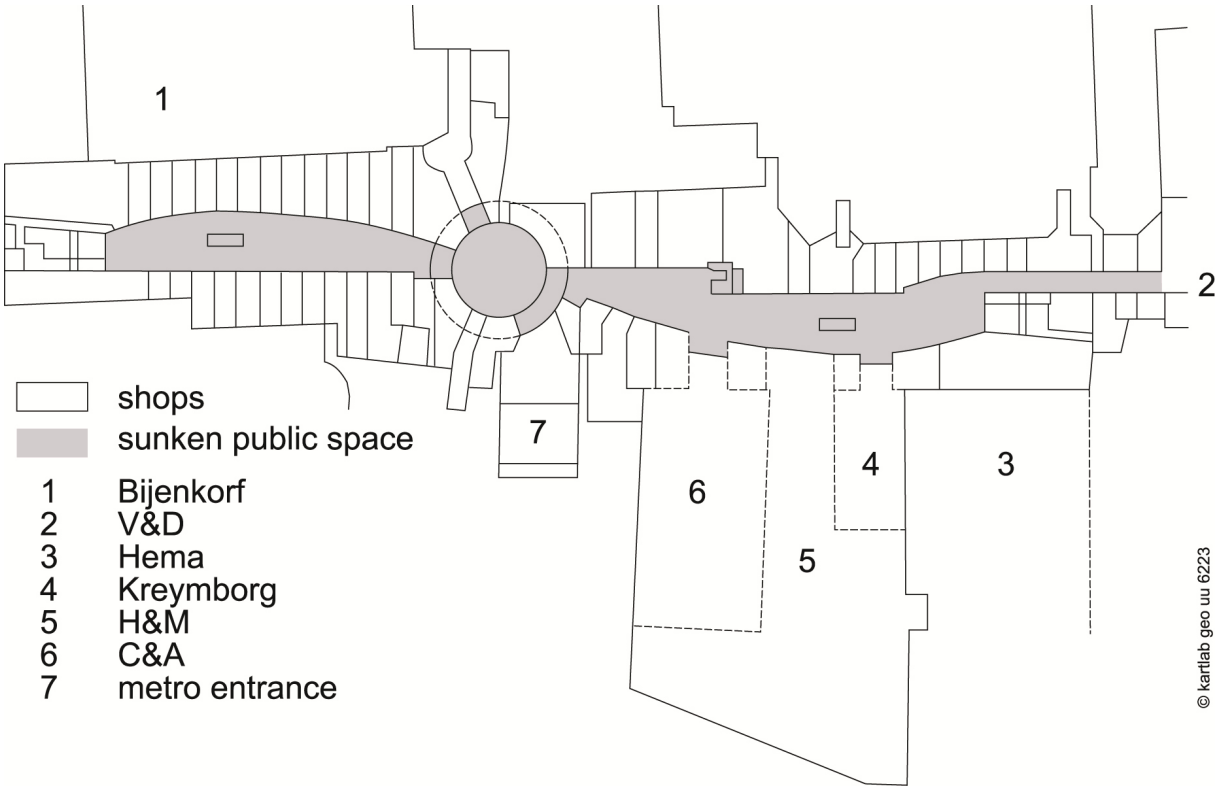
TIME: *PERMANENT USE*

PROGRAMMATIC OPERATION: *RETAIL ACTIVITIES*

PHYSICAL INTERVENTION: *PUBLIC SPACE, LEISURE*

SOCIAL ENGAGEMENT: *SOCIAL INTERACTION*

The project is characterized by a clear architectural and design strategy to provide social engagement, economical growth and finally retail activities.


1
2
3
4
5
6
7
shops
sunken public space
1 Bijenkorf
2 V&D
3 Hema
4 Kreymborg
5 H&M
6 C&A
7 metro entrance
© kartlab geo uu 6223

CASE STUDY 10: BEURSTRAVERSE, THE NETHERLANDS

PROJECT: MARKTHAL

ARCHITECTS: JON JERDE

LOCATION:ROTTERDAM, NETHERLANDS

YEAR PROJECT: 1996 – 2014

PROJECT PROGRAM: Retail

Project Background

The “Beurstraverse” is broadly acclaimed for its commitment to the business recovery of the downtown shopping region and in addition to the rejuvenation of Rotterdam’s downtown. By the late 1980s, the downtown shopping area had descended in notoriety and business suitability; the eventual fate of the “Lijnbaan” as Rotterdam’s head retail focus was in uncertainty. By then, a large number of its potential benefactors were rushing to new territorial strip malls at the edge of the city.

Two recorded advancements were considered in charge of this circumstance. When it was finished in the 1950s, the “Lijnbaan”, in Rotterdam’s pioneer focus, was proclaimed as Europe’s first downtown walker outdoors shopping center. After thirty years, nonetheless, the same physical design was woefully obsolete. The second advancement was the division of the downtown business focus; the bustling Coolsingel blocked the dissemination of customers between the Lijnbaan and the second real retail group downtown. Division had undermined its allure, and customers wanted to go to the new ad fixates on the city’s edge. At the point when the need to revamp the Lijnbaan was perceived, the incorporation of the two retail bunches in the business heart of the city was set at the highest point of the plan.

General Features

Development of an underpass underneath the Coolsingel was proposed keeping in mind the end goal to coordinate the shopping locale. To transform this underpass into an appealing component, extra retail space was imagined. This thought tied in with the current circumstance: in that spot, a passageway to the metro station (“Beurs”) as of now suited a few booths and shops. Besides, the storm cellars of the contiguous retail chains could be gotten to specifically from the underpass. T+T Design, the engineering office of the designer MultiVastgoed, submitted preparatory portrayals for the venture. The city of Rotterdam supported the activity, as it fit in with its approach for the downtown area. In any case, City Hall demanded getting a notable draftsman; in the long run, Pi de Bruijn of the Amsterdam-construct Architekten Cie touched base in light of the scene. Furthermore, an American firm, Jerde Partnership International, was brought on board for the inside plan.

The underpass is a piece of “Beursplein”, a bigger complex in the downtown business focus, where shopping, stimulation, and stopping are consolidated with an augmentation of the private capacity of the downtown area. Presently, Beursplein has significantly more than a retail underpass: an indoor shopping center; a whole piece gave to three huge retail establishments having a place with surely understood Dutch retail aggregates (C&A, Kreymborg, Hema); parking spot; and a private tower, the Schielandtoren. Moreover, Beursplein is situated in the heart of the downtown business focus near its real office fixations (e.g., Weena, Coolsingel, Blaak/Westblaak, World Trade Center, Coolse Poort). The closeness of as of late finished private improvements (Hoge Heren,

Kop van Zuid) and anticipated inward city condo buildings can strengthen its feasibility by guaranteeing the maintained nearness of an essential market. The “Beurstraverse” is basically an exhumed underpass, which permits walkers to cross the bustling Coolsingel securely beneath grade level. Many retail locations have been suited in this space. As the underpass likewise gives access to the metro station, it is not (and can’t be) cut off during the evening.By joining a few sorts of conveniences, it was a moment accomplishment with general society. The plan created its moniker, the “Koopgoot” (“shopping trench”), and gave the inside moment name acknowledgment, a great component of business achievement.

The Beurstraverse is an accomplishment in a few regards: it pulls in numerous customers; it is a symbol of Rotterdam, a city known for its creative engineering; and it won the Urban Design Honor Award of the American Institute of Architecture in 1998. Be that as it may, this example of overcoming adversity has another side; the territory’s law based character, its popularity, may have been traded off. It might appear to be outlandish to scrutinize the general population character of the complex; the underpass can’t be shut off like a building; and the imagined spatial complementarity with adjoining ranges has been accomplished. The question emerges from the pervasiveness of hostile to popularity based measures in the Beurstraverse: this space is privately owned and operated, whereas most of the adjacent streets and plazas are owned by the city and managed by its public agencies.

Design Development & Decision Making Process /Use & User Analysis

The piece of the consortium of proprietors of the “Beurstraverse” is fairly shocking, in that the city of Rotterdam is part proprietor. Be that as it may, the city takes part as a private gathering, not as an open performing artist. The principle explanation behind the (semi)- privatization of this open space and for the metropolitan interest in the private consortium of proprietors is the craving to control the nature of the place to forestall degeneration of the range. (A representative for the advancement organization Multi-Vastgoed said the disintegrating Lijnbaan was an awful case in this regard.) According to a representative for the region, the city would not have the capacity to do what’s necessary in its open ability to keep the nature of the zone high. In the meantime, the hazard that a private gathering would trade away this imperative part of the downtown area was unsuitably high. Accordingly, the contention ran, the city would need to play an essential and perpetual part in this venture; at exactly that point could the territory’s imagined commitment to the renewal of the downtown business focus be defended.

Limitations & Constraints

This “quality assurance” relates not exclusively to physical viewpoints. Measures are additionally taken to control the piece of the general population. These measures transform the Beurstraverse into a “counterlocale”, an open space that is not as open as it may appear.

The idea “counterlocale” was authored by the American humanist Lyn Lofland (1998) to characterize the way of a place. It joins the two ideas of “region” and “area”, which were proposed by Anselm Strauss (1961), another American humanist. In Strauss’ view, a “region” is an open place with a base level of isolation by way of life; in this regard, it is the inverse of an “area”, which is characterized as a place with an abnormal state of isolation. Lofland’s term counterlocale means a place that is expressly intended to control such impacts. It is a place where the sythesis of the guests is checked and controlled to limit the possibility of uncomfortable and undermining social showdowns. The reason for existing is to evacuate the “hard edges” of general society domain in urban communities.

The general population domain is characterized by Lofland (1998) as “a universe of

outsiders", a co-nearness of new people who are just completely known to each other. It is the inverse of the private domain (described by cozy relations) and the parochial domain (portrayed by public relations). To be clear, all in all utilization, the word domain alludes to the social substance of a specific topographically bound space. Since the start of the nineteenth century, a predisposition has created towards favoring private and parochial domains (Sennett, 1974). General society domain, which is communicated in the general population space, lost a lot of its fascination and its need for individuals. This self-fortifying procedure has eventually prompted to isolation, through "rural flight" and the sign of counterlocales in the urban scenes of today.

Since counterlocales are "set apart" from whatever remains of the city, the level of isolation by way of life has expanded. The hard edges of people in general domain are expelled, however without creating a private or parochial domain. Counterlocales are "purged" and "sterilized" renditions of Strauss' areas, being a great deal less "open" than individuals acknowledge at first sight. Their tendency is developed via cautious administration and the utilization of expound reconnaissance systems that disintegrate the popularity based character of people in general space.

Significance of the Project

The Beurstraverse in Rotterdam's downtown business focus is an open space that offers a contrasting option to open space in its unique quality. The methodologies to achieve a counterlocale discolor its popularity based and free character, regardless of the possibility that this is concealed by spatial complementarity, an outdoors character, the nearness of civil police, and the way that requirement by the private security constrain in the event of shoplifting or other risky circumstances are escaped see (there is an extraordinary space to manage troublemakers). At first look, people in general, popularity based character of the Beurstraverse does not appear to be flawed. A nearer review uncovers that the guests are in a privatized space where they are observed and controlled.

TIME: *PERMANENT USE, TEMPORARY ACTIVITIES*

PROGRAMMATIC OPERATION: *RETAIL SPACE*

PHYSICAL INTERVENTION: *URBAN PUBLIC SPACE, INFRASTRUCTURE, LEISURE*

SOCIAL ENGAGEMENT: *SOCIAL CONTROL*

Despite the controversial design strategy in terms of social control this project is putting in action, its values can be found in the economical impact it provides in the retail market of the area.

CONCLUSIONS

Each case study taken into consideration and analysis in this chapter, executed in different cities by various design professionals, addresses a site-specific circumstance within the public realm. Their scale and size extend in interventions in public infrastructure, in multi-modal and mobility structures, in urban design requalifications and regenerations, in architectural development, functional rehabilitations, but also smaller scale permanent or temporary projects which initiate a new process of urban catalysis. This process provides further development not only in the aesthetic and urban quality level but mainly in their social and economic impact providing further possibilities for development. Although independent projects, their analysis derive a series of operations which are connected with several criteria that can provide a clear synopsis on the focus of this research:

TIME, PROGRAMMATIC CHARACTER, PHYSICAL INTERVENTION, SOCIAL ENGAGEMENT

Combining the above criteria, we can develop further operations that can create a toolkit that can provide indicators for exploring the physical and social development of urban public space. This process can be initiated through temporary and permanent public space interventions in different scales and programmatic qualities. The main outcome of this chapter is the definition of the theoretical structure of the process of Urban Catalysis, as part of the conclusions of the analysis of the ten (10) case study interventions in an international context.The following chapter of this dissertation aims to organize and categorize this information and develop a toolkit as part of the urban catalysis matrix. This Matrix is a design generation reference tool that can provide further applicative models. The main scientific contributions of the analysis and collection of the project's defined in this chapter are threefold:

- The definition of a synopsis on the criteria which the urban catalysis process is based. Principles which define the typologies of interventions, social impact, sustainability in time and programmatically added value in urban public space.
- Taking into consideration the eight (8) characteristics of the urban catalysis process as defined by Attoe and Logan, before mentioned in Chapter 4, about the above case study analysis we can relate projects different in scale, function, context and typology according to the intensity of their catalytic role.
- The definition of a relational structure (ontology) of urban concepts regarding conventional design reasoning, that is, considering the role of ideas in the design process.

The above three (3) contributions provide a design model which takes into account the traditional reflective structure of the design process, processes information and creates applicative models which are based in particular contexts. The next chapter will aim to extract the above indicators and attempt to apply them in case study projects and interventions in public spaces in different cities in Albania. This comparative dialogue will try to provide a more clear correlation between the methodologies that are applied in Europe and United States and examine if similar methods for sustainable urban development can be adapted in Albania.

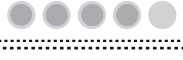
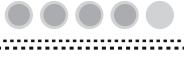
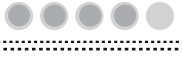
CASE STUDY	PHYSICAL OPERATION	PROGRAMMATIC OPERATION	SOCIAL ENGAGEMENT	TIME
BILBAO GUGGENHEIM MUSEM				
ARNHEM CENTRAL STATION				
SUPERKILEN				
PARC DE LA VILLETTE				
HIGH LINE				
BEURSTRAVERSE "KOOPGOOT"				
MARKTHAAL				
"MADRID RIO"				
EURALILLE MASTERPLAN				
OPERA HOUSE				

Table 7.3: Classification of the ten strategic cases studies according to the four integral elements of catalytic intervation - Source: (Kristo, S., 2017)

CHAPTER 8_

ANALYSIS FINDINGS

8.1. INTRODUCTION

As mentioned previously in the chapter 5 the goals of a catalytic process can be summarized into the four (4) main integral elements below; social inclusion, stimulation of local identity, activation of the stakeholders and encouraging the local economies, and redevelopment of physical environment.

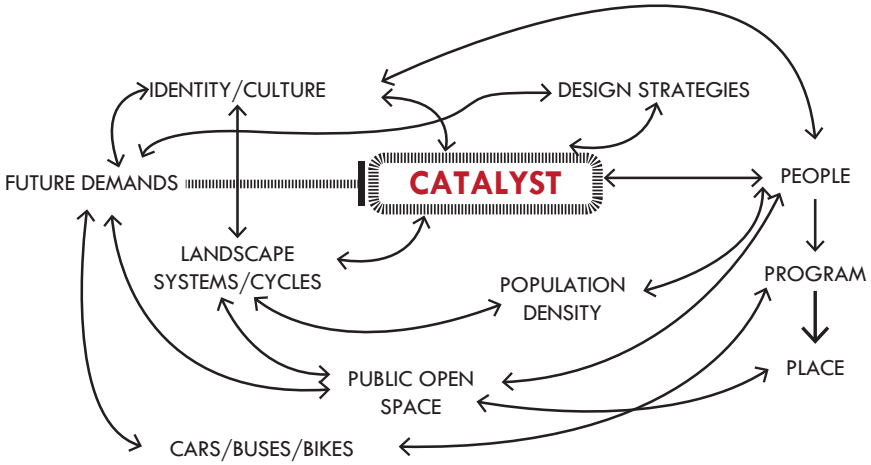


Figure 8.1: Components of the Urban Catalysis process - Source: (Kristo, S., 2017)

8.2. URBAN CATALYSIS PROCESS GOALS:

Social Inclusion
- Emphasizing original residents' real needs and demands
- Enhancing cohesion of neighborhoods

Local Identity
- Remaining place authenticity
- Maintaining local activities, lifestyles and genius loci of historical areas

Economic Value
- Encouraging local economies

Physical Environment
- Creating qualified and diversified public spaces

The analysis of the case studies together with the theoretical framework can help to develop a model matrix providing the guidelines, principles and necessary criteria in order to initiate an urban catalytic process. This action should consider all the stakeholders in the process and understand the specificity of the physical and non-physical environment. Keeping these possible outcomes in mind, the development of the area is not limited to a single planned and implemented project. A necessary open-source development process allows the physical and social nature of the urban area to be shaped through a collaborative process between the city and community at large.

PROJECT/THEME	LOCATION	ARCHITECTURE	PROGRAM	AESTHETIC EFFECTS	ARCHITECTURAL NARRATIVE
	Within enclaves Between Enclaves Public Area Private Area	Form Scale Accessibility	Single minded Open minded Serial Folded Layered	Transparency Relational Visual Effects Bodily related aesthetic effects	Historical Monument Coexistence and Community Civility and Cultural Education
Bilbao Guggenheim Musem, Bilbao	At the edge of an enclave Public Area	Sculptural form Explodes scale of build structures Publically accessible	Open minded Layered Serially organized	Large degree of transparency Relational Visual Effects Bodily related aesthetic effects	Civility and Cultural education - icon of a common culture
Central Station, Arnhem	Between enclaves Public Area	Horizontal band Explodes scale of green parks in the area. Publically accessible	Open minded Layered Serially organized	Large degree of transparency Visual connection between the city Bodily related aesthetic effects	Civility and Cultural education - icon of a common culture
Superkilen, Copenhagen	Through several neighborhoods Public Area	Horizontal band Explodes scale of green parks in the area Publically accessible	Open minded Serially organized	Large degree of transparency Relational installations Bodily related aesthetic effects	Coexistence and Community-bridging different cultures
Parc de la Villette, Paris	Between enclaves Public Area	Horizontal band Explodes scale of green parks in the area Publically accessible	Open minded Layered organized	Large degree of transparency to the city. Relational installations Bodily related aesthetic effects	Civility and Cultural education Narrates the park as the city's state
High Line, New York	Through several neighborhoods Public Area	Raised horizontal ribbon. Explodes scale of green parks in the area Publically accessible	Open minded Serially organized	Large degree of transparency to the city. Strong visual aesthetic means Bodily related aesthetic effects	Historical monument-staging natural and cultural hertage as a narrative
Beurstraverse "Koopgoot", Rotterdam	Between enclaves-located between train tracks, parking and office buildings	Horizontal band on ground floor Adapts to building scale Publically accessible	Open minded Layered Serially organized	Large degree of transparency. Visual aesthetic means	Civility and Cultural education - icon of a common culture Economical Focal Point
Markthaal, Rotterdam	Between enclaves-located between train tracks, parking and office buildings	Horizontal band on underground floor. Adapts to building scale. Publically accessible	Open minded Layered. Serially organized	Large degree of transparency Bodily related aesthetic effects. Visual aesthetic means	Coexistence and Community Civility and Cultural education - icon Economical Focal Point
"Madrid RIO", Madrid	At the edge of neighborhoods Public Area	Horizontal band on underground floor.Adapts to building scale. Publically accessible	Open minded Serially organized	Large degree of transparency to the city. Strong visual aesthetic means	Civility and Cultural education Narrates the park as the city's state
Euralille Masterplan, Lille	Throughout the city Public Area Private Area	A vertical structure Adapts to building scale Publically accessible	Open minded Layered organized	Large degree of transparency to the city Bodily related aesthetic effects	Coexistence and Community-bridging different cultures
Opera House, Oslo	Between enclaves-located between harbor, parking and office buildings	Sculptural form Explodes scale of build structures Publically accessible	Open minded Layered organized	Large degree of transparency to the city Bodily related aesthetic effects	Coexistence and Community Civility and Cultural education - icon of a common culture

Table 8.1: International Case Studies Classifications and general background - Source: (Kristo, S., 2017)

The results of a testing phase in prior are open to multiple possibilities as the development of the proposed design interventions are allowed to unfold over time. As the proposals develop, perish or mutate, the broader strategy, commonly understood as the 'Master Plan', emerges from within. The following typologies reveal the possible effects of the catalytic interventions and program testing can have on the development of a given urban area. This chapter is divided into to sections the analysis of the case studies as the first section and the section is the creation of the model and criteria of the catalytic process. As a critical conclusion from the analytical process of this study, and in particular the research on the case studies, architecture can provide a critical role as a catalyst for the process of urban development. Architecture can serve in a middle scale in the process of urban development able to affect the physical environment in a particular context. A clear reference is given in the understanding of architecture as an element that considers and fulfils functional necessities as an experienced structure but also architecture as the impact it can have in the behavior and perception of place.

The comparative analysis and research of the case studies during the previous chapters can make possible the introduction of the urban catalyst as a concept as a framework to transform both physical and social environments. In this consideration, the role of urban catalysis cannot be nor a consistence concept neither as an established idea. It is a defining element of the transformative process in urban development with three major concepts that are its ingredients; catalyst, architecture and place.

8.3. CATALYST

8.3.1. Catalyst as a facilitating agent

The concept of the catalyst as analyzed in the second chapter is a chemistry metaphor. That a substance may act catalytically implies that it can promote a chemical process or speed up this process without itself being transformed or consumed by the reaction. A catalyst is therefore a facilitating agent, a teammate, but it is neither a chemical reactant nor a part of the subsequent chemical result. A catalyst allows for substances that otherwise would have reacted, to react with each other. In a figurative sense, the term is also used for a person who stimulates a particular development: a coach of a football team or a mental coach, for example. These people do not establish the actual rules of the game or match programs, but they pursue the goals on which the tournament is modeled. They should ensure the fitness and ball technique of the individual players and make sure that there is a good understanding between them, so that the team performs well and wins as many matches as possible. Similarly, theater directors are neither writers nor actors. The director interprets the authors' manuscripts for the actors and gives direction or particular focus for the play's performance. The director is not part of the performance of the piece but acts as mediator between scripts and actors. It is their role, together with the actors to deliver an overall interpretation and integrated performance.

Changes in societal discourse can also act as a catalyst for a particular development. for example dominant pedagogical discourses in which grades are held to promote learning and enable students to find employment more easily after graduation will cause school systems labor markets to develop behavior accordingly. Individuals will be assessed on grade averages and their ability to perform will be compared to those with lower grades. A counter discourse could be that play and social skills are essential for learning. Such a discourse would argue that grading systems are counter-productive, and that instead focus should be placed on teamwork, in order to develop creative and innovative people who are skilled in entrepreneurship. This requires the promotion of creative school, which trains students through cooperation and social responsibility, to break new ground.

All three examples-a substances, a person or a change in pedagogical discourse- are catalyst for processes. The catalyst initiates and accelerates a trend without being lost or incorporated in the final product. As in the case studies taken in consideration in this research, a facilitat-

LABEL	CRITERION	PURPOSE/SCOPE OF THE CRITECRION	MEASURABLE PARAMETERS	MAX /MIN
C.C.1	Causes a reaction that modifies existing elements in an area. A catalyst can be social, legal, political, and architectural. The potential of a building to influence other buildings, to lead urban design.	The new element modifies the elements around it. Creation of a spilover effect.	Combination of interventions that have cultural and commercial characteristics	MAX
C.C.2	Existing urban elements of value are enhanced or transformed in positive ways. The new need not obliterate or devalue the old but can redeem it.	The princple is manifested in two ways, in buildings and in people's behavior. Architectural character and physical organization. Restoration and preservation need no justification.	Vibrant and economically viable. Creaction of a collection mind. Following behavioral patterns. Indentify the range of attitudes characterized.	MIN
C.C.3	The catalytic reaction is containted. It does not damage its context. To unleash a force is not enough. Its impact must be channeled.	It is not possible to leave what exists as benign edges, nevertheless edges remain can still have an important impact for a building or a development offers cues to what could or should follow from it on adjacent sites.	The responsibility for containing side effects lies notwth the architects of development, but with the developers, owners, architects, and minicipal overseers of subsequent developments. Although there is an inclination to capotalize on increased land values created by a catalyst.	MIN
C.C.4	To ensure a positive, desired, predictable catalytic reaction, the ingredients must be considered, understood and accepted. A compr hensive understanding is needed to produce a good limited effect. In cities; urban design cannot assume uniformity.	Urban architecture should be sensitive. The revitalization of urban areas requires appropriate architecture, not contrived atmosphere or generic design.	Architectural and Urban Character Composition of People and Ingredients Image	MIN
C.C.5	The chemistry of all catalytic reactions is not predetermined no single formula can be specified for all circumstances.	All catalytic reactions are not the same. Feasible and implementable strategies. City developments must be conceived as unique collections of existing ingredients needing to be customized to satisfy new sets of requirements.	City development calls for idealism and ragmatism: idealism about the specialness of the place and pragmatism about making that place work in relation to contemporary traffic needs and local culture and values. This dual need calls for nothing short of a unique vision for each such urban place.	MAX
C.C.6	Change occurs not from simple intervention but through careful calculation to influence future urban form step by step due to the strategic nature of catalytic design. No one recipe for successful urban catalysis exists, yet each catalytic reaction needs a strategic thinking.	Catalytic design is strategic. Catalytic urban design is based on formulas and programs, not specific plans and designs. It works not from a master plan, but from a master program.	Creating multiple views on the topic. Create a linkage of elements which is better to practicality. Not a collection of developments but integrative urbanism, parts reinforce each other.	MIN
C.C.7	A product better than the sum of the ingredients is the goal of each catalytic reaction. Instead of a city of isoluated pieces, imagine a city of wholes.	The goal of any catalytic reaction should be not a collection of developments - so often the case in revitalization schemes - but the integrative urbanism in which the parts reinforce one another and each is better for its association with the others	Integrative Urban Architecture Ongoing Catalysis Building confidence	MAX
C.C.8	The catalyst need not be consumed in the process but can remain identifiable. Its identity need not be sacrificed when it becomes part of a larger whole.	In chemistry the catalyst often disappear or is transformed in the course of a reaction, but this is not the case with urban chemistry. The ingredients of rejuvenation remain and contribute to the city's unique character and sense of depth. The layers of urban experience and urban history, the collage of styles and uses characteristic of a vital center city are the essence of urbanity.	A unique place is emerging, both old and new a new gateway to a city, helping restructure the image of downtown. establishes precedents for other developments, precedents in design quality, precedents for thinking about existing buildings, precedents for using the city, precedents for relating interior-oriented architecture to existing streets and street life, and precedents for an integrative urban architecture that is new in the experience of the cityes.	MIN

Table 8.2: International Case Studies Evaluation of the Catalytic Process - Source: (Kristo, S., 2017)

ing agent assists in the transition fro one state to another. The director interprets the author and instructs the actors and in the latest case, the educational discourse stands between the school system and community. The director is not on the stage but behind the scenes between many different professions, investors and contributors. Similarly, pedagogical discourse is not directly placed within the learning situation but behind the whole system.

8.3.2.Architecture as a catalyst

In the framework of the concept of ''catalyst architecture'' we have not so much focused on what architecture is but what architecture does. We claim that architecture projects 'can do something' to and with their user's commercial and experiential needs-and ''can do something'' to and with their environment-their built environment-but built environment and people's behavior on the site.

Following Leathbarrow's attempt to define the concept of ''Performative Architecture'' where he focuses on the architecture of interaction with users and environments: the performance of architecture' (Leatherbarrow 2009). Based on this approach, we have developed two analytical concepts: first, an internalized performance and secondly, an external architecture-related performance.

On the one hand architecture performance includes THE SPECIFIC project's programmatic structure and organization, its formal language, associated semiotic meanings and aesthetic effects. This internalized performance is related to the work's different users and to the user's active use and experience of architecture. Results show us that if many different programs are involved, they show us that if many different programs are involved, they will attract different social groups (marling, Kiib& Jensen 2009: Haajer&Reijndorph 2001). As a result of this, the spatially organized programs are expected to be of importance for the user's experience and for whether for example a community center appeals to many different people. The internalized performance also includes architectural response to the user's interaction with the architectural work: whether it is flexible enough to meet much different need and to change its aesthetic appeal accordingly.

On the other hand, architectural performance includes the contribution of the given project to the physical transformation of the built environment, the everyday life in the projects' immediate environment, site usage, and safety as well as toward encouraging interests in meeting and learning from other people. This externally related performance also includes the experience of place and the resident's/users perception of place's narrative. Physically, architecture can help to change the space, scale and access t a given site. Research shows us that through its programs or aesthetic expression, architecture can help to adjust the set rules that govern behaviors in the area (Gehl&Svarre 2013). If for example architectural projects can embed new programs and aesthetic expressions, then they are expected to be able to signal that the given place can accommodate several different cultures and that the norm is that a diversity of people may use the area. Both types of performance can have an impact on architecture's ability to act as a catalyst for physical, social and cultural transformation.

8.3.3. Catalytic processes and their role

An important feature of the catalyst is, as we have seen, that it is at the edge of the process. The question asked is whether architecture as catalyst must have a corresponding position located in the transition zone between various enclaves in the built environment or in a more figurative sense between different social groups and cultures? Urban sociologist Richard Sennett answers the questions in a rather direct way in his reflections on the significance of the edge. He writes about the transition's importance as a zone of physical, social and cultural interaction between communities and neighborhoods with different cultures and everyday practices.

According to Sennett, the transition zone in cities is twofold. From the edge difference are

visible as factual aspects of multicultural cities and it is possible from the edge to reduce the antagonistic role of social and cultural disparities (Sennett 2006).

Sennett argues that the city's in-between spaces and transition zones have great potential in terms of creating new democratic space. This implies according to Sennett platforms where strangers can interact with each other by being in the same place at the same time. In this way different people can feel connected and related to each other. Sennett also point out the transition zone have far more potential that say, inner areas because of the open character of the transitions zones and their potential to connect various neighborhoods with large difference in resources, lifestyle ethnicities and economies.

Therefore as he states working with edge conditions'' (….)is an important, strategy to architecturally build associative democracy'' (Sennett 2006). This parameter is very central to the analysis in subsequent chapter where the specific physical location and user's social and cultural diversity will be included.

8.4. ARCHITECTURE

8.4.1. Architecture as structure and typology

Architecture can be viewed as static structure. It physically assembles diverse programs and serves as a framework for the user's use and application. The architect gives the building form and ensures that accessibility; building envelope and structural conditions are in order. In this understanding of architecture, the buildings and space are referrer to as a physical entity that organizes and brings an integrated order to program access and use. Buildings are tangible structures that can withstand the elements; architecture is facades, light and shadow, series of spatial sequences. This refers to a structural architectural concept, i.e. architecture as object and structure (Bech-Danielsen and Kiib 2004).

This structural understanding of architecture is widespread. The brothers rob and Leon Krier (1979) are exponents of such an architectural approach, as is Aldo Rossi (Rossi 1984). In the course of their research, buildings and urban spaces were surveyed, mapped and categorized into typologies. The 1980s saw great interest in focusing on each country's unique architectural heritage as a reaction to modernism's uniformity. It attempted to return to basic elements and structures of the architectural tradition as springboard for the development of a more regional or local architecture. This architectural understanding was translated and enshrined into an objective architectural analysis. In a Nordic context, the Norwegian architectural theorists Thomas Thiis Evensen, is a prominent exponent of this approach (ThiisEvensen 1982).

In our case studies the structures, form and use of materials are analyzed using the architects drawings (plan, section and elevation) and through architectural analysis in site.The advantage of the structural analysis approach to architecture is that it provides concepts of architectural form, so-called typological relationships, and concepts of space, so called morphological relationship. It provides concepts for the interaction between design, form and materials, both in the case of an honest building where this interaction is visible and in that of a dishonest building, where the constructions and the surfaces are not integrated as such. The disadvantage of this architectural understanding in our context is that the approach is reductive. It focuses on architecture as a static physical structure while other properties like the relationship between architecture and human-that is human interaction with architecture and the experience of architecture-are left in the dark (Bech-Danielsen and Kiib 2004).

8.4.2.Architecture as relationship and in use

The structural architectural perception must be supplemented by a concept of relational architecture. This approach emphasizes the user's occupation and use of architecture. It deals with who occupies and uses architecture and the way in which they are present there. In the relation architectural understanding, a building becomes architecture in its interaction with human be-

ings. In the 1950s, Jane Jacobs studied resident's behavior and their relationships with urban architecture. From her cafй chair in Chelsea, New York City, she made countless notes and records of form, scale, structures and how these were used. Her research was published as the controversial book, the death and life of great American cities (Jacobs 1962). Jacob's studies have been used to debate how architecture appears to operate and not oper ate; amongst others, the Danish architect Jan Gehl was inspired by her work. In this book 'life between buildings of 1972, Gehl studied the relationship between urban life and urban architecture.

8.5. PUBLIC SPACE

8.5.1. Duality of Physical and Social Construction

As previously indicated, architecture's more externally related performance describes the importance of the given project for the physical transformation of the built environment, for the everyday life of the project's immediate environment, for the site's sense of security and for the interest it inspires for meeting and learning from others. On the one hand, architecture can help to change spatial relationships, access, scale and the development's alignment to a given site: architecture is part of the built environment's continuous transformation. On the other hand, architecture through its programs helps to adjust everyday practices on the ground. In this way, it can help shifting the perceptions of the neighborhood. Thus the book works with two approaches to the understanding of the concept of 'place'. That is: Place as a changing built environment and place as a dynamic social construction.

The departure point for the two approaches is that place is a physical as well as a social construction and that it is not only static but also eminently dynamic, in the sense that they are under continuous transformation. Here, the starting point is in Doreen Massey's relational concept of place (Massey 2005). Doreen Massey argues that first of all, space must be recognized as the product of interrelations constituted through interactions from the immensity of the global to the intimately tiny. Secondly, we must understand space as the sphere of the contemporaneous plurality. Her third argument is that we must recognize space as always under transformation and construction (Massey 2005). Instead of focusing on a frozen image or a static model of place as it appears at any given time, the emphasis in this analyses of the book is inspired by the approach of Massey. The emphasis is on space as a physical, social and power relationship and on processes as they occur.

8.5.2. Public space as Built Environment in Transformation

The built environment consists of buildings, squares and roads organized into structures and patterns. These are located topographically, in ancient times given by nature and man-made in the case of large cities.

Rivers are regulated, shorelines are created through landfill, the soil is drained and slopes regulated to that they could be built upon. Throughout history, cities have been built, burned down and rebuilt several times. Each time new technology has allowed that they could be built larger, higher and more spacious than before. As Rossi states, each period has added its layers to what we see as the build environment (Rossi 1984). At this time the built environment appears as a composite of different, superimposed structures and patterns. Its architecture emerges as a bricolage of scales and styles, which the trained eye will be able to identify in terms of year of construction, scale, facade, expression and ornamentation. However, it is difficult from the programmatic content to determine the building in time and place because this varies depending on the owner's business and local needs.

It has been especially architects, geographers, historians and town planners who have taken a

physical approach to the understanding of place. The 'SAVE' analyses of Danish cities from the 1990's onwards reflected the desire to survey and record the conservation value of urban environments and buildings (Ministry of Culture, Heritage Agency 2011). The analytical focus was on three levels. The dominant features of the landscape and overall infrastructural conditions that decisively described the city and place; settlement patterns, that is, the built environment's encounter with nature, roads or other forms of buildings; finally through the unique, specifically selected 'slices and parts'. Other countries in Scandinavia, especially Norway, have been concerned with similar structural mapping and designation of identity-giving physical conditions. The aim was an intention to preserve and safeguard historic features and values. The starting point thus has existed patterns and space.

Christian, Norbert-Schulz is the most significant of the post-war theorists who defined a theory of place which is based on physical conditions. In his book entitled 'Between Heaven and Earth' (1992), he placed particular characteristics, building patterns and scale in relation to the landscape. he argued that, based on these characteristics, on can speak of an identity of place, a 'genius loci' . In this context he refers directly to Heidegger's a "garment on the relationship between building, dwelling and being. Norberg-Schulz's errand as an architecture is to establish an authentic relationship between the built; and the natural - between architecture and place. he develops his though so far that the equates place with human identity. He argues that the very specific nature of place influences the minds and identity of the people who inherit the site. For Norbert-Schulz this is a great challenge for architecture and architects. (Norbert-Schulz 1992)

"Architecture means to visualize the genius loci, and the task of the architect is to create meaningful places, whereby he helps man to dwell" (Norbert-Schulz 1980 p.5). The quote shows Norbert-Schulz's notion of the architect and the role of architecture as being the catalyst for a meaningful "world by translating natural characteristics into cultural form (Norbert Schultz, 1992, 1996 & 1980).

20 years later, Mari Hvattum calls this concept of genius loci, i.e. the special relationship between the natural and built, a tyrannical relationship - or the place of tyranny (Hvattum 2010). According to Hvattum, laces cannot only be described as something naturally given or as a particular identity-giving physical relationship between the natural and man-made. Inspired by David Harvey Hvattum argues that places change pragmatically in an overall interaction between economic interests, market development and policy decisions. But the built environment also changes bottom-up. Planned, self-growing cities do not arise due to for example migration. wars and refugees dictate a physical transformation that is not directly linked with a distinct identity.

In this way, one can say that the built environment adjusts in time: new spatial layers are laid on top of existing structures, urban transformation occurs through new architecture, new urban spaces and renewed waterfront. It is this aspect of the transformational that we focus on in this project. The work in this book is inspired by Hvattum's argument that analysis of place must consists of both a physical structural approach - however without leading to a tyrannical relationship - and of an understanding of the social construction of place. The latter will be unfolded in the rest of this thesis.

8.5.3. Public Space as Space for Social Practice

In recent years, focus on social practice, action and action space, rather than on form and visual expression has been a characteristic of research into place by the social sciences and humanities. That place is constituted through social practice implies that place is produced and reproduced by urban life, events and historical events. This is the approach taken by many sociologists and geographers. Geographers John Urey and Kirsten Simonsen both reject the reduction of place to its physical and visual characteristics. They believe that place is first

and foremost constituted through joint human actions in time (Urey 2005, Simonsen 2005). Mari Hvattum points out that as an architect who works with materiality and the physical, she often finds that such an approach to place lacks an understanding of the importance of physical form. On the other hand she also finds that the understanding of place as social practice and action opens up new perspectives: “To understand place as a dynamic space for action, rather than a static form, can be liberating and contribute to a new interpretation, rather than to a rejection of place. Conceived in this way, place can be as much constituted by actions as by physical form, just as a battlefield can be an important focus without the need f having a single trace of hostilities” (Hvattum 2012, p.42).Public space as a social practice opens for the analysis of life lived in place, as a vital prerequisite for understanding both the mental and practical importance of place.

Urban life, and especially urban life n the city’s public spaces and places, is in this work seen as indicators of the city’s cohesion and social dynamics. We have already described how Jane Jacobs observed the relationship between people’s behavior to the city’s streets, buildings and spaces in the dense urban neighborhoods of New York City in the 1950s and 60s. Her work has inspired others in the study of the everyday life of a particular place (Baumann 2005, Sennettt 1995, Walzer 1995). Behavior in public places has since received special attention and has been exposed by George Simmel (Simmel 1995). E. Goffmann (Goffmann 1963) and M. De Cereal (De Cereal 1984), among others.

In the continuation of this tradition, social practices in this project are understood as the everyday practices that occur. That is to say, what we as humans do and how we do it; how we move through space, our length of stay and presence; what conflicts there might be and what social relationships and exchange occur. The analyses communicate the observations of this through short descriptions of the atmosphere, through narratives and through specific selections of photos.

8.5.4. Public space as Space for Social and Cultural Exchange

Following the description of space and place as social praxis, the analytical term ‘public domain’ is now presented and investigated. Public domain refers to both physical public places as well as the more abstract term for space in the city, where a set of open social codes and rules of public life dominate. Public domain is an important place from which we can experience the pulse of the city and be with other people, but it is also a term for a set of social conventions that facilitate social interaction.

Maarten Hajer and Arnold Reijndorp, the authors of the book “In Search of New Public Domain” published in 2001, are interested in the role of urban life in the development of democratic cities and places. Based on the research of urban sociologists such as Richard Sennettt and Zygmunt Bauman, they focus on the places that are not only publicly available, but also those where a socially inclusive urban life occurs.

They investigate interaction zones and places where there is social and cultural learning and an interaction among people with completely different lifestyles, cultural, ethnic and economic backgrounds. They place focus on everyday practice and how everyday practices create democratic places. They examine classic urban spaces, but their attention is especially on transition zones, voids and unnoticed places. They are interested in public urban space - but also in privately owned, publicly accessible and publicly administered places. ‘Public domains’ may occur in the open air or under cover, they may be permanent locations, or they can occur as temporary public domains in connection with events, summer bars and the like.

“Public space is in essence a space that is freely accessible for everyone: public is the opposite of private. That is not to say, that every public space is a public domain. Public domains entail additional requirements…We see public domains as places where an exchanges between social groups is possible and also actually occurs.

So what we are seeking is more than meeting points - it is spaces that facilitate cultural mobility; that is places where people can have new experiences, where a change of perspective is possible. Public domain should be a perspective from where you should analyze existing public, semi public or private space in the urban landscape or from where you should develop and design new ones. It might be old places in the historic city center as well as new places in the urban landscape… public domain might contemporary places or contemporary events. We are interested in the question of which spaces are positively valued as places of shared experience by people from different backgrounds or with dissimilar interests. In principle, such places can also be found beyond the tradition urban space of streets, parks and squares. They can even be spaces that are not public in the strict sense, for example privately managed collective spaces that still function as public domains" (Hajer&Rejindorp 2001, p.11).

Hater and Reijndorp state that it is particularly programs of place that determine what ensues there. The programs and their organization are a key part of the analysis of place's social practice (Reijndorp 2007). Hater and Reijndorp's work has been of great importance for urban research and urban design over the last decade. It has also greatly inspired the work in this thesis.

8.5.5. The social relations and discourses of place

As mentioned earlier, we see the places as dynamic and very often, the social praxis are influenced by a greater societal discourse. Based on the critical theory of capitalism's spatial, social and political development David Harvey also argues that places are continuously in the process of being socially constructed by the powerful forces of the capitalist market economy. His platform to discuss social practice has a very broad and fundamentally social approach. Pursuit of profit and capital accumulation is the dominant discourse in this approach (Harvey 1993).

Doreen Massey takes a similar broad social approach. She examines the relationship between global discourse and local development and she, like Harvey, explores the global dynamics and struggles between the interests of capital and the impact of these on the specific development of a given place (Dovey, K 1999/2008).Doreen Massey is however not only interested in uncovering representational forms of capital power and market forces in local development. She explores the possibility of fissures and resistance against this order in local spatial transformation; she seeks to analyze how such resistors are represented in local practices and how this manifests itself in the development of the built environment.

Each in their own way, Massey and Harvey add a dimension of power and market forces to the understanding of space and place as social construction. To be able to 'read place as socially constructed' one must therefore identify different forms of practice as representations of the rules that apply to the locality. Similarly, one must identify and analyze the physical representations of the competing positions of power and social resistance in the given urban environment. This approach to power is very present, when it is analyzed how the architecture is used and by who. David Harvey's focus on the capital interests and the market forces and their influence on the development of place,, and Doreen Massey's research, showing the importance of both the local as well as the global relations of a given place are themes behind this case analyses. Power, the care studies do not include actual analysis of power and discourses of place or similar types of research related to social science. The topic is only included in few cases and when the architects themselves bring up the question of power.

8.5.6. Cityscapes and Narratives of place

Finally, the focus is on narratives of place and the cityscapes that manifest place. These deals with how place, as both physical place and social practice is represented in architecture, symbols, signs and narratives. A cityscape is a term for an overall personal perception of physical and social space. To the extent that there is a correspondence between many individuals or groups cityscape, we may speak of a common frame of reference. The cityscape is constituted

#	CASE STUDY	PHYSICAL OPERATION	PROGRAMMATIC OPERATION	SOCIAL ENGAGEMENT
#CS01	BILBAO GUGGENHEIM MUSEM			
#CS02	ARNHEM CENTRAL STATION			
#CS03	SUPERKILEN			
#CS04	PARC DE LA VILLETTE			
#CS05	HIGH LINE			
#CS06	BEURSTRAVERSE "KOOPGOOT"			
#CS07	MARKTHAAL			
#CS08	"MADRID RIO"			
#CS09	EURALILLE MASTERPLAN			
#CS10	OPERA HOUSE			

#	CASE STUDY	PHYSICAL OPERATION	PROGRAMMATIC OPERATION	SOCIAL ENGAGEMENT
#AL01	CAPE SQUARE			
#AL02	"GJYHADOLI" STREET			
#AL03	KRUJA BAZAAR			
#AL04	"ABDI TOPTANI" STREET			
#AL05	KORÇA BAZAAR			
#AL06	NATIONAL PARK "LUSHNJË"			
#AL07	"M. SHYRI" STREET			
#AL08	QEPARO WATERFRONT			
#AL09	"MOTHER TERESA" SQUARE			
#AL10	ELBASAN ARENA			

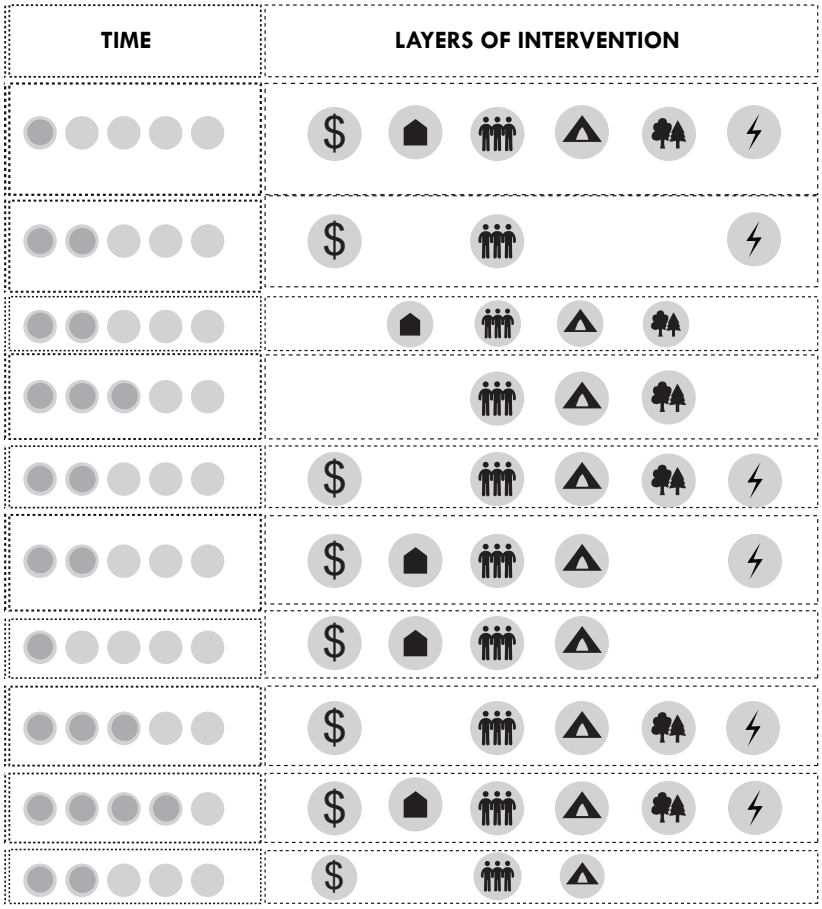


Table 8.3: Albanian Case Studies Classifications & Evaluation - Source: (Kristo, S., 2017)

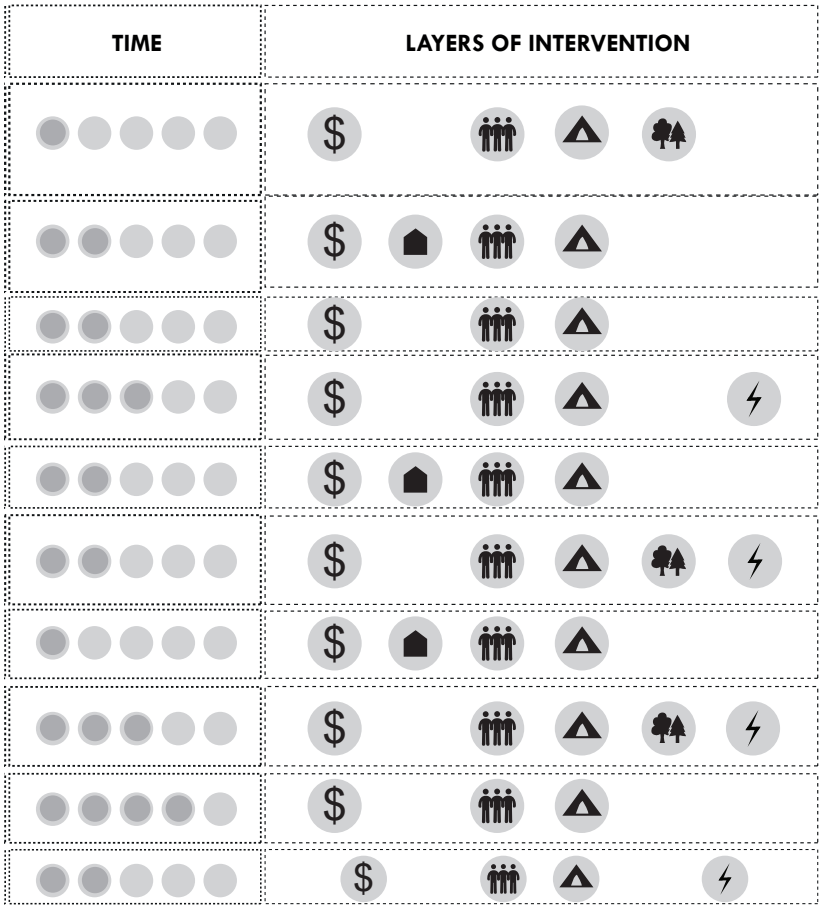


Table 8.4: Albanian Case Studies Conclusions in relation with the evaluation of the catalytic process of the international case studies - Source: (Kristo, S., 2017)

through our physical movements through the city and the way each of us perceives the city. City's social segregation leads to a division in lifestyles, which in turn affects the cityscape. The cityscape as a common frame of reference is constituted through social interaction in public spaces where personal or lifestyle-related cityscapes are negotiated and composed.

Kevin Lynch (1962, 1990) had been a pioneer in the analysis of the urban landscape. in his research, he together with and in dialogue with others noted their experiences of place and cityscape on asks through the city. His starting point was that the experience was dependent on a personal relationship to the city. He argued that memories, stories and everyday practice influenced the experience:

"Every citizen has had a long association with some parts of his city and his image is soaked in memories and meaning" (Lynch 1960, p.2).

After several map drawings, interviews and walks with many different people through American cities, he developed a number of urban categories, which he found were important for the experience of the cityscape and the identity of place. Lynch's work in the late 1950s concentrated on the visual qualities of the city: "he apparent clarity and legibility of the city-scape". By this he want the way in which the city can be joined by particular patterns. As a result he found that a legible city was one which has clear districts; distinctive, large, as well as smaller local landmarks and a clear and easy to read system of streets, paths and squares.

He found that the city was visually legible, when these factors were included in an identifiable overall pattern with recognizable symbols (Lynch 1960). Later, in the book "City Sense and City Design" he sought to qualify his analysis of "The legible city" by involving additional aspects of physical presence in the built environment (Lynch 1990). It can be said that his concept of the cityscape expanded from being primarily based on visual perception to the broader concept of sensed city, narrative and identity (Lynch 1990). Lynch insisted that a strong and diverse cityscape is important for a place's identity and that cityscape can be important impetus for the design of our cities. the goal for him was not only to create visually beautiful and resolved designs. The goal was that the design supports diverse and sensual urban life.

In her book "Urban Songlines - the dream tracks of everyday life" and similar works, Gitte Marling analyses the relationship between citizens and their experience of their city or rather their particular territory in the city. She finds that urban space and the street as a framework for urban life are central to the local narratives in which people participate. She seeks answers to the questions of where different people feel comfortable; and what are they conditions that make them feel included and feel at home or conversely where they feel excluded. Are power relations and everyday practice the cause? That is, who uses the area and dominates it? Or is it perhaps the aesthetics of the place that feels foreign or homely?

Marling places particular emphasis on the relationship between citizens' aesthetic and experiential preferences and their lifestyles and cultural backgrounds. In walks through the city and through discussions of photo shoots, the inhabitants (of various age groups, genders and socio-economic backgrounds) tell about their experiences of and relationships with the city, street, urban space, urban life, and architecture. The studies are undertaken in Danish, Asian, permanent as well as temporary cities (Marling 2003, Marling &Kilb 2011; Marling 2012b, Marling&Kilb 2013).The studies show that the perception of a place or a particular neighborhood is conditioned by lifestyle and social status. The narrative of a place is composed of many different stories - both positive and negative.

Leonie Sandercock works with 'storytelling' as an important part of change of a place's identity and therefore addresses these various, often lifestyle related stories. If the goals for a place's social cohesion is to be strengthened and its ability is to be socially inclusive, it is important to work with these different narratives of place and attempt to make them visible (Sandercock 2003).Sandercock's research shows how new, socially inclusive narratives of place can provide a new and more contemporary foundation for change and development of districts (Sand-

ercock 2003). It is important to negotiate lifestyle-related stories about place and to be able to mediate these, in some cases, it may be done through an event, a party or through a physical manifestation in the form of, for example, a cultural building.

Narratives have been central for several of the case studies. From the very start, it has been obvious that projects like Superkilen in Copenhagen through the overall architectural concept and through the design created central, new local storytelling. But during the work it became clear that all the projects created new storytelling by their designs and use of programs. This became obvious through interviews with the creating architects and during the architectural analyses of projects.

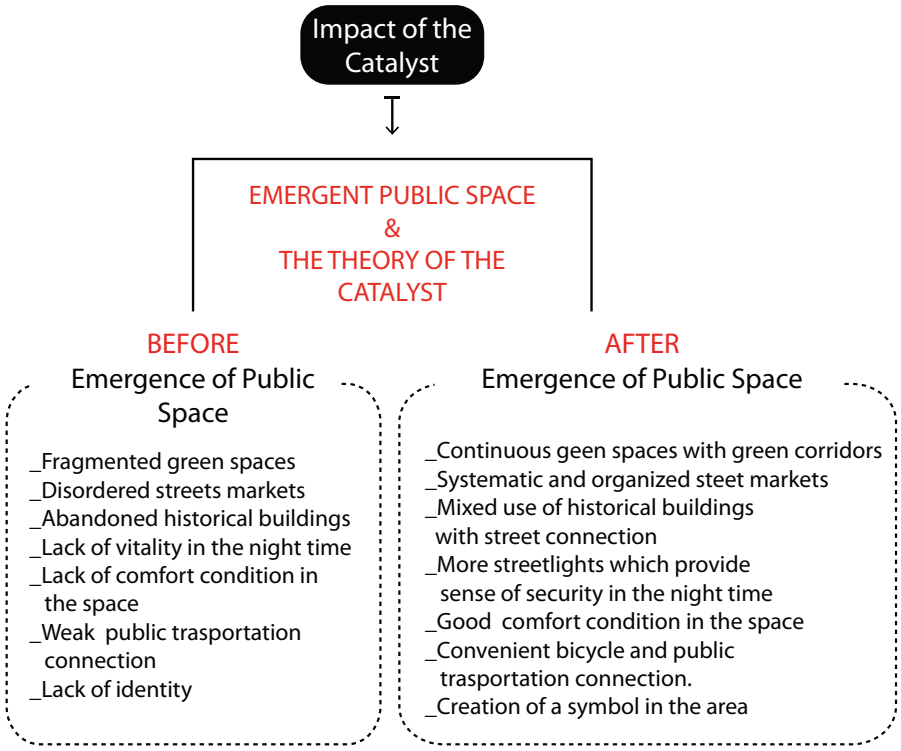


Figure 8.2: Impact of the catalyst on the public space as conclusion from the case studies - Source: (Kristo, S., 2017)

8.6. RESEARCH SITUATION OF THE URBAN CATALYSTS THEORY IN ALBANIA AND RECOMMANDATIONS

The Urban Catalyst Theory provides a brand new direction for the incremental urban renewal. Countries with rapid urban development and increasing needs to rethinking their spatial and urban development strategies. In this case, a series of interviews was organized with different academics, architects, urban planners, sociologists and anthropologists in order to understand their overview related to the catalytic role of urban strategies that can be undertaken in the development of our cities. These experts are professionals acknowledged in their fields internationally with a valuable experience on the Albanian territory and way of development, providing their input on this topic. In this sections there are their answers and opinions in the above question.

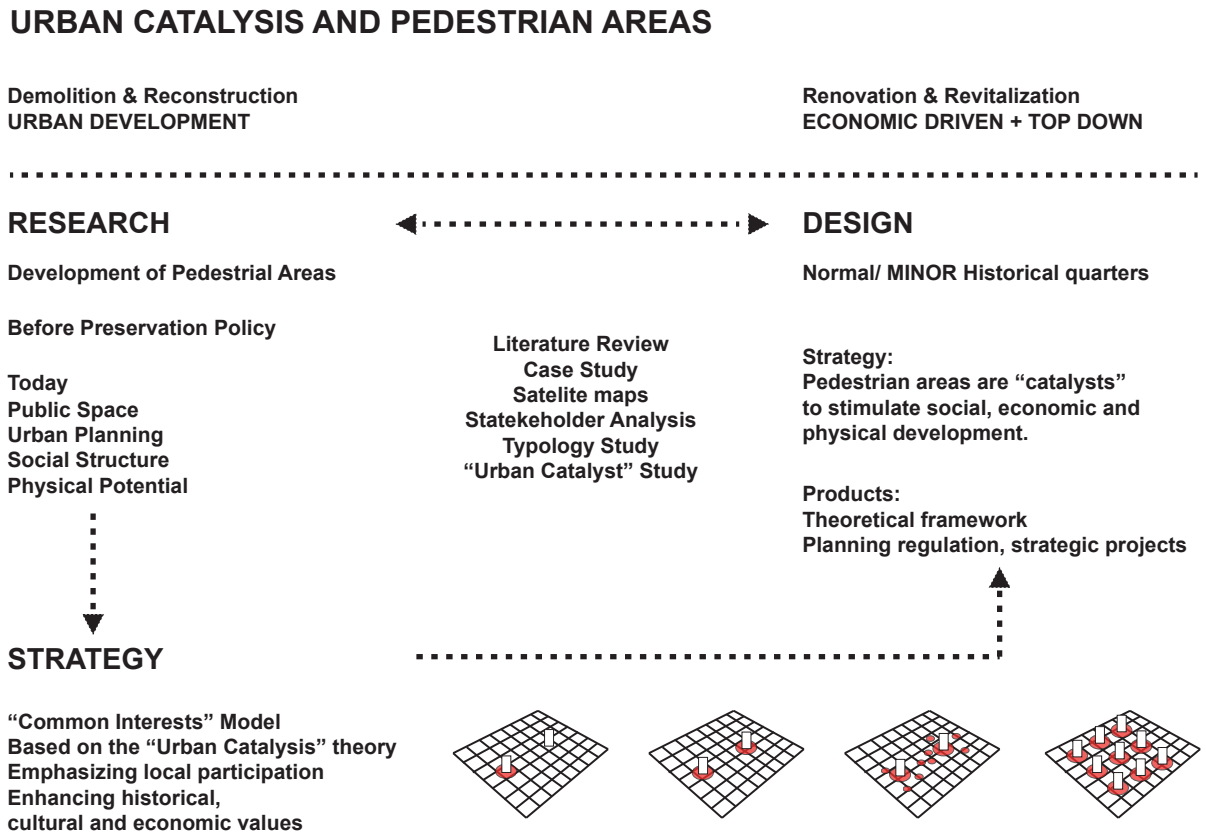


Figure 8.3: Urban catalysis as a model for Albanian Context and its impact

Source: (Kristo, S., 2017)

It is a common denominator from the above interviews between the selected experts that the role of architecture and architects must not be isolated from the multitude of layered developments in the urban sphere. The architect should act interdisciplinary in order to analyze all the levels on a city operates, and be an active part of not only design making but also decision-making. The above discussions highlight the importance of developing new strategies, which don't act solely in singular operations focused in an architectural level, but understand the city as a living organism where every action should provide positive reactions.

There is a clear attempt from the Albanian government to address more attention in the importance of urban public space. This concern is taken in account as part of the national governmental strategy of “Urban Rebirth”. This strategy aims to revitalize all major city centers in Albania and renew public squares, historical areas and other buildings of significant importance. It can be considered as a necessary strategy in order to improve the quality of the urban sphere in Albania, but there are no evidences of a catalytic approach since most examples consider the development of singular elements, which act alone. In this case they are not able to penetrate in the deep layering of the urban complexity in order to provide sustainable urban solutions generating economy. In this framework most of examples are only able to intervene superficially, considered actions on city beautification than urban renewal and regeneration. This section will focus on strategies that can be considered furthermore, improving the existing interventions.

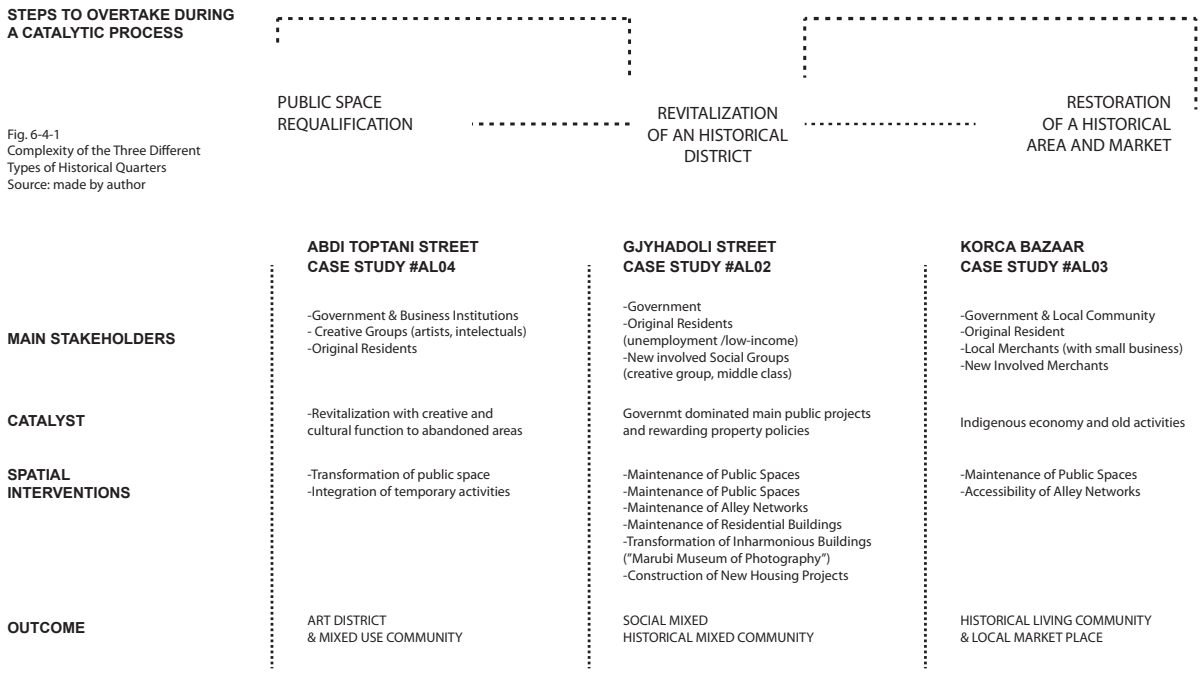


Fig. 6-4-1
Complexity of the Three Different Types of Historical Quarters
Source: made by author

Figure 8.4: Policy and Regulation Actions for urban catalysis model- Source: (Kristo, S., 2017)

Building inclusive, healthy, functional, and productive cities is perhaps the greatest challenge facing humanity today, and there are no easy solutions. A key part of the puzzle, though, lies right at the heart of the world’s urban areas: its public spaces. Here are 5 ways you can help strengthen the social fabric of your community and jump-start economic development by creating and sustaining healthy public spaces.

1. Enhance the human scale in public space

Placemaking is based on a simple principle: if you plan cities for cars and traffic, you will get cars and traffic. If you plan for people and places, you will get people and places.

Increased traffic and addition of supporting road infrastructure are not measures to avoid intensive flow of automobiles in the city which as a result create an unfriendly environment for pedestrians in the city. it is important that catalytic actions in order to provide urban development and in particular near the city center must take in account the human factor. Future development should provide the necessary infrastructure in terms of public transportation, space for pedestrians and bicyclists and also drivers acting as the main catalyst for urban regeneration and development.

Several examples across the world such as the Metrocable in Medelin, Colombia, river and boat transportation in cities such as Delft, the Netherlands but also Gjakova and Prizren, Kosovo have created successful pedestrian public spaces which enhance street life contributing to social cohesion.

2. Transform public space as a destination

An urban oasis and park serves as a buffer zone for the city, specially for citizens living in dense urban areas. It is often not only an area of leisure and recreation but also a gathering point for city creating a new dimension away from the heavy trafficked roads. Depending the activities and accessibility in such areas they can result in successful public spaces, but also if all measures to ensure safety and maintenance are not taken it can result into an undesirable place to visit.

An positive example in this case is the one of Santiago, Chile and the Las Condes Plazas as a former successful area of intermodality after a desolated area full of muggers and crime.

Actions were taken from the local and central government, investing in the development of retail spaces but also the urban regeneration of the adjacent public spaces creating also new ones to enhance the public character of that area. This action required a coordinated effort from the authorities and cannot be conceived as an action of direct economic investment but as an action of strategically planned and executed urban development.

The main ingredient of this action was the inclusion of the local community and integration in all the processes of this initiative. In this case the sense of ownership was strongly transmitted to the community acting as the main actor and catalyst on this urban development process.

3. Develop local economies

The recent phenomena of urban development created a chaotic structure not only in terms of cityscape but also local economy. Even Though private initiative was one of the main driving forces growing the Albanian economy, the conditions were in many cases informal. Examples that initiate from industry till small scale initiatives and local markets in the city centers are still part of informal schemes either in terms of economic operation but also in the infrastructure on which they operate.

Various reasons in addition to lack of governmental control but also lack of of public and private investment to implement qualitative infrastructure for commercial facilities were the main aspects for the above phenomenon.

A successful strategy to reactive urban centers and in particular historical urban centers in different cities in Albania initiated with the restoration of different historical bazaars/ markets in cities such as; Kruja, Korca, Tirana, Shkodra, Gjirokastra, etc. This initiatives showcased successful results not only as part of a facade operation strategy and city beautification, but because of their short and long term impact in the local economy.

Their development should focus in the creation of sustainable economy within the communities in order to serve as a catalyst for social cohesion. Areas as such for the small scale cities of the Albanian territory became reference points in the city and as a result they quickly become touristic viewpoints attracting visitors from nearby cities or foreign tourists from abroad. In this case they are able to provide much more from what they were designed for in the beginning, but in the end they can serve as true catalysts for sustainable urban development.

4. Empower public space through design

The use of design is fundamental in the implementation of any urban development project. What makes a design strategy or solution successful is its ability to empower increasingly the value and quality of public space through its implementation.

The effects of poorly designed public spaces can be easily identified among many case studies of public spaces and as easily we can observe the different between design solutions concepted as catalytic actions for a public space.

In this framework a holistic approach is required not only to understand the problems of the context of intervention but also the tools that are being offered to implement any possible idea or proposal. Both the combination of the above characteristics will provide us examples of public spaces which are not thought as sole entities but they are conceptualized as agents of urban catalysis. Being able to affect positively their surrounding context and generate development by triggering the local economy and enhancing urban quality for the communities.

5. Create a comprehensive public space agenda

it is important for the future development of public space to understand the need of including two typologies of approach. “Top down” and “bottom up” strategies are necessary not only to include all levels of decision making but also to provide the sense of ownership to all actors and interested parties.

All actions that need to be overtaken in the successful development of a new intervention for the city require strong collaboration along the above parties.

Catalytic urban development cannot occur through isolated and sporadic actions but through a comprehensive urban agenda that takes in account a larger vision for the city and operates with the use of all necessary tools that are required to provide effective and efficient result.

including all parties since the beginning of this process would provide a full view of the issues that must be addressed for the improvement of the quality of life in one city and also through coordination to attack all the issues strategically. The actions that would be overtaken would not only work in the aesthetic, functional and design level but their impact will contribute with a focus in the social and economical layers of the city.

CONCLUSIONS
9.1. OVERALL CONCLUSIONS

The research “Urban Catalysis: Theoretical framework for urban regeneration of public spaces” is a study that aims to investigate alternative development strategies for the Albanian context. The discussion on the previous development strategies is that they are based in theoretical theories, which do not completely respond in the complexity of urban sphere, and they overlook the social and physical components that urban development has; and in this case they place in further consideration the vitality of our public space. This research considers the theory of urban catalysis and the urban catalyst as an alternative methodology of effective urban development and revitalization.

Chapter 6 was dedicated examine the evolution of public space and urban design theories in Europe and United States, taking account of the urban catalyst theory, elements linked to the context, the sense of place, social impact and economical factors. Information and case studies that are studied from the literature review guided the consideration of this thesis that cities have componential elements that can provide conceptual models for development. The matrix of urban catalysis then was developed from the findings and elements that were analyzed from the ten (10) international case studies.

In order to investigate further the formulated consideration and matrix of urban catalysis that was formulated in Chapter 5 and Chapter 6, ten (10) more case study examples were taken from the context of Albania. Even if these case studies in their majority were not developed using the urban catalyst as their main principle, their development created a similar chain reaction effect from the one occurred in the process of urban catalysis. These case studies were taken to examine how urban catalysis could differ in terms of social, economic and physical development. Nevertheless all of the projects showcase how an urban development can be initiated by taking in account the above factors with the purpose to improve the spatial qualities of public space. Below are the conclusions that are a result of this research thesis;

- Design Process
- Outcome Value
- Further Considerations

Design Process can be initiated with the literature review process, which took into account a wide range of themes that consider the conceptual elements of urban design: morphological, functional, visual, social, perceptual and temporal elements. In this point the literature review also took into consideration the role that sense of place and authenticity have in the process of urban catalysis. Analyzing the sections of the literature review in parts, we can conclude that key elements that support the consideration that every urban sphere has unique values, and they can be used as models for development. These elements were taken in use as a strong foundation for the design matrix that guided the urban catalytic process and they are presented below;

- Recognize urban components that need development or regeneration
- Perform a thorough analysis, using morphological, functional, social, temporal, visual and social components.
- Recognize the unique properties of each site in study-recreation, culture, history, etc. Interview the residents of each site to obtain further information and feedback on the

research findings.
- Understand the project typology, clarify its elements and cross references the attributes of the urban catalyst.
- Analyze the project in relation with the elements of sense of place and authenticity;
- Respond to the need of each context.
- Provide a unique character
- Integrate cultural heritage in every context

The aim of this research thesis was to investigate that urban catalysis could become an effective methodology for urban development. Among the different objectives of this thesis was to firstly showcase if urban catalysts provide variety in typology, scale and programmatic operation and in the same time to provide necessary standard for proper growth in economy, spatial quality and social development. Following this process was necessary to showcase the influences that are result of the analysis of context could be the foundation for achieving sense of place and authenticity in urban development. In order to fulfil these two objectives was important to conduct a thorough literature review process. As part of this process below we can find the components that can guide a successful urban catalysis development process:

Urban Catalysis

- Providing pedestrian areas is an important element that can enhance development in a particular context.
- Each development must be designed property and connected to its context in a physical but also visual manner
- Urban development can attract pedestrian circulation and can result as an amenity even if pedestrians do not use that particular development.
- The character of a particular urban development integrated with its property to complement the context in which it is located can provide an amenity that is able to spark development.
- Urban catalytic processes must be relevant to the context on which they are implemented.

Contextual Factors

In terms of morphology, the concept of the block and street layout should be acknowledged and empowered if it is necessary to insure that the movement diagrams function properly.

- The overall perceptions of an area should be analyzed in order to understand which changes must be made in the level of the perceptional experience.
- The process of urban catalysis must provide and enforce visual experience to the context site in which it is applied, with the use of architecture which is strongly connected to the context. It can be considered vernacular if it is responsive to external factors.
- Urban catalysis should empower the functional operation of a site and not to make it more difficult to be applied.
- The urban catalysis process must interact and adapt with seasonal or more extended changes of a place, and should be able to adapt to these changes.
- Sense of place and authenticity
- Urban catalysis is a process that must obtain a strong sense of place and authenticity, connected deeply in the context and environment responding to particular characteristics of the place which it is implemented.
- A particular property of urban catalysis is that should empower a particular site of implementation and not damage it.
- Urban catalysis is required to react not only to the physical components of a place but also to its social components and behavior. This interaction is very important in the “sense” of a place.

The importance of urban catalysis relates to its meaning and function evolving from the context in order to provide an authenticity that is initiated from the context itself. In this manner it can respond to influences that are part of this context.
Economical Factors

In order for the process of urban catalysis to be profitable in terms of economy we must initiate a close partnership between public and private. A particular importance must be raised in the local economy which can be empowered by small and medium local entrepreneurs. As a result this can provide the foundation for the catalytic development of an area since one of the most important criteria of urban catalysis is to generate economy in the areas which they are implemented. This research thesis provided a framework for the possibility to undertake further urban development processes considering an alternative process, based on the model of urban catalysis. This process is influenced by attributes that are based in international case studies and successful examples but always takes in consideration the importance of context and as a result sense of place in their implementation.
It is necessary to point out that this study in order to be fully investigated should provide elaborated economical factors. These factors can directly correlate to urban design and architectural parameters. Furthermore these economical factors could be linked with the real estate market and additional state references on the price of private and public property. This consideration could help evaluate the potential of the local communities to be fully considered as a part of the catalytic process. In this research a key characteristic of the urban catalysis process is the variety in terms of type, scale and program. Nevertheless some of these aspects haven not been fully investigated due to time constraints and limitations to the focus of this thesis. A series of clear strategies and projects implemented in Albania which are initially based in the process of urban catalysis could provide a more in depth understanding of how this process can be optimized. Another component as part of this dissertation could be the quantification in concrete values and impact of the participation of key actors and interest groups as part of the design process. This component could enrich the matrix of urban catalysis and give more depth in the understanding of the context but also functional and programmatic values of each process.

It is important to consider the rapid transformation of cities and in particularly in Albania. Due to the new territorial reform, which is, mentioned in the previous chapter, Albanian cities are challenged by an intensive process of urbanization in the cities but also I the rural areas. In order to respond to this phenomenon we must implement effective development strategies. If we will be able to understand the impact that contextual factors, economical factors and sense of place and authenticity can provide in urban development it is necessary to prioritize the importance of the context. In order to address influences derived from the context, which impact a particular site, when we are responding to the sense of place and authenticity, we can acknowledge catalytic interventions from one another. In this case we will be able to be based on the components, which are relevant and in this case nurture development projects that are influenced by the context on which they are located.

9.1.1.Contribution to the knowledge

The main scientific contributions of the thesis are:
A theoretical model for an urban design tool involving catalytic design capabilities and

an accompanying design method. The theoretical model provides a structure for urban design generation for urban design renewal of public spaces. The model provides a flexible design platform for the production of renewal urban designs.

- A set of recommendations for developing urban design, namely in terms of how the temporary use and the concept of time in the use of public space could function as a catalyst This contributes to the field of computational methods applied to urban design.
- A design method to enhance the quality of the physical and non physical ingredients of the urban environment in order to redefine the process of urban planning.The factor of time could function as measurement unit for the success of this catalytic process.
- A tool for supporting studies on the relationships between urban morphology place time and social engagement. This contributes to urban morphology studies by improving awareness of the relationships between urban environment and the need for social engagement.

The contributions made by this knowledge to design practice are likely to improve the quality of urban design, its management and response to complexity of contemporary cities. In other words, the above contributions will allow for improvements to flexibility in the urban design process. Without introducing any other meaning to the term sustainability than the internationally, the approach proposed in this thesis will certainly provide a step forward towards the production of more sustainable cities, at least in the sense that it provides a greater capacity for designing cities that are able to adapt to the evolution of societies.

Regarding urban catalyst studies, one of the main problems is the lack on the relationship with the local legislation system. This is probably due to the fact that most research about regeneration projects has focused on the use of traditional analytical processes and, in particular, the analysis of historical styles. Designers are usually interested in two things: (1) solving a design problem and (2) finding some innovative, expressive way of doing so. As such, a scientific domain that does not present strategies for producing creative design does not attract the attention of typical designers. In addition, with regard to problem solving, design problems may contain several determined components which are by definition computable components.

9.2. RECOMMENDATIONS FOR FUTURE RESEARCH

It is clear from the statements in the previous section that Urban Catalysis still contains quite extensive opportunities for future development. Three different kinds of possible future developments can be considered, first concerning the theoretical model and then the next step is to create prototype models, specifically for the Albanian context. In terms of the theoretical model there are two main issues that need further development: the ontology needs further detailing and research still needs to be undertaken into the development of a new system. Both kinds of developments are concerned with the goal of extending the application scope of the urban catalysis model. Regarding the ontology development, further work should involve the representation of property and land use, specifically focusing on how such concepts and representations are used in the urban design process. The same could apply to the representation of landscape and natural features.

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