International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2019): 7.583

Urban Neighborhood Regeneration through Reading the Evolution of Urban Form in the City of Tirana

Renilda Hyseni[1], Florian Nepravishta[2], Kristalba Asanbejlli[3]

[1]PhD. Candidate, Polytechnic University of Tirana, Faculty of Architecture and Urbanism of Tirana,
Rr. "Muhamet Gjollesha", Tiranë, Albania.
renildahyseni@gmail.com

[2]Professor, Polytechnic University of Tirana, Faculty of Architecture and Urbanism of Tirana,
Rr. "Muhamet Gjollesha", Tiranë, Albania
f_nepravishta@yahoo.com

[3]Architect, Polytechnic University of Tirana, Faculty of Architecture and Urbanism of Tirana,
Rr. "Muhamet Gjollesha", Tiranë, Albania
kristalbaasanbejlli@gmail.com

Abstract: ***Urban morphology is the study of the physical form of cities and their characteristics. This article focuses on analyzing and reading the urban form of an old neighborhood in the city of Tirana. Thus form, resolution, and time constitute the three fundamental components of urban morphological research. These are present in all studies, whether by geographers or architects, and whether they focus on a medieval, baroque, or contemporary city. In Albania, the concept of urban morphology is almost unknown and not at all involved within the process of urban planning and regeneration practices. The reading process helps us to understand the urban complexity and development of this site over the years. Accordingly, through this way is possible to understand the adaptive capacity of the site and consequently brings an urban intervention methodology to promote sustainable urban development, replicable in urban areas with similar characteristics. In addition, this article aims at developing a methodology of finding a way of intervening and regeneration of the area through theoretical and methodological studies about urban form.***

Keywords: adaptive capacity, complexity, urban morphology, urban form, regeneration

1. Introduction

There are many reasons why spatial and structural changes occur in cities. Generally, some of them are related to economic level, social changes, age of the population and population density or other changes due to natural disasters. In addition to the transformations that occur through interventions by owners and their needs to expand individual space, even the interventions through urban regeneration projects also transform the built environment. These result in noticeable changes in the urban fabric that bring about a continuous transformation over time. In this context, the concept of morphology is not within the process of urban planning and regeneration practices in Albania. Many changes cause the disappearance of structural features of urban space and street patterns. Thus, the need arises to create a new spatial requirement of the previous period through the practice of regeneration, carried out to protect the structure of the old spatial pattern.

In Albania, the most visible transformation mostly started after the 2000s and continue even today, compromising the density, and what is more important; they have changed the urban scale of the city. These changes are carried out as part of the reconstruction of low-rise buildings, by changing the geometric shape, the size of the plot, the height of the buildings and its appearance. On the other hand, based on the macro-planning processes, the intervention through the development of the high structures has irreversibly transformed the urban scale of certain areas. The methods that are currently used in Albania, borrowed without a proper urban study of changes in space and time, do not deal with the complexity and do not incorporate the urban situation with their adaptation capacity. Analysis of the urban growth and development will make it possible to create a suitable process of regeneration of urban areas.

2. Research Problem and Objective

Researchers of different disciplines all around the world have found a common ground. The main thing is that all of them agree that the city or town can be "read" and analyzed through the changes of his physical form. Also, there is widespread acknowledgement that, at its most elemental level, morphological analysis is based on three principles.[9]

1) Urban form is defined by three fundamental physical elements: buildings and their related open spaces, plots or lots, and streets.
2) Urban form can be understood at different levels of resolution. Commonly, four are recognized, corresponding to the building/lot, the street/block, the city, and the region.
3) Urban form can only be understood historically since the elements of which it is comprised undergo continuous transformation and replacement.

Thus form, resolution, and time constitute the three fundamental components of urban morphological research. These are present in all studies, whether by geographers or architects, and whether they focus on a medieval, baroque, or contemporary city [9].

But, if while studying urban complexity helps us to understand the crucial role it plays in the city systems and urban development, and it also may help us to achieve

objectives or alleviate complex problems. So, this derives from the creation of a methodology that integrates the complexity of urban development with its adaptive capacity in urban space, moreover we find out their influence in the city's progress in time-related to sustainability.

Objective*:* This research aims at developing a methodology for finding the type of adapting intervention, replicable in urban areas with similar characteristics, through reading the urban form in time in the complex Albanian context, to better understand the complexity of the urban form and to generate an increasingly usable strategy.

3. Theoretical and Historical Framework of Urban Form

Urban morphology is the study of the physical form of cities as a human habitat. It is focused also on the city's agents and other processes responsible to define its shape during its transition time. So, this is the reason why the 20th century is called the age of urbanization and urban life - the period when cities have experienced their greatest expansions over history. Based on the International Seminar of Urban Form meetings we can say that generally has been conducted that urban morphology can be categorized into three main schools: British, Italian and French. Also, they have identified the presence of many other individual researchers that had to contribute in different ways on this field, for example, M.R.G Conzen (b.1907), a German geographer well-known for one of his studies, the detailed one about Alnwick, referred to a post-war quantitative revolution in geography, which largely passed over his inductive and empirical research as lacking in rigour and predictive power [2]. On the other hand, Saverio Muratori (1910-1973) an Italian architect who has used his self-termed "operational histories" of Venice and Rome are the theoretical basis for his architectural design studios [10].

Each school have had different intentions in their theory-building efforts. The primary proposes of the Birmingham school, which is more complete than other urban morphology schools, is focused on the study of urban form for descriptive and explanatory purposes, to develop a theory of city building. In this way, they concerned with their studies on *how cities are built and why*. Also, the British school has another advantage when it comes to the attention it gives to historical events. For the Italian School, the primary focus is the study of urban form for a prescriptive purpose, intending to develop a theory of city design, which led to *how cities should be built*. This purpose is orientated to a special direction, namely to develop a theory of building design resting on a historical city-building tradition. But it seems like the Italian school of thought is not useful enough due to the fact it does not consider the past and different dimensions of fabric forms creation. On the other hand, the French School-based principally at the Versailles School of Architecture, focus their study on the urban form to assess the impact of pas design theories on city building. Besides the fact that this remains a difficult mental exercise for many planners, they have reached to assess the differences or similarities between stated directives about *what should be built and what was actually been built*. French school of thought integrate and analysis a lot of dimensions of architecture, social, economy and politic at the same time[9].

Urban morphology can make us understand an urban transformation and how diversified processes are involved in it. In this way, urban morphology can be a very suitable tool by connecting the city's technical components of sustainability with various aspects of city life in general, such as culture, social and civil, through urban architectural design. So, based on this relation we can build up the urban morphology by telling how the way we build and organize our cities has an impact on our urban life and its aspects When addressing a city, an urban morphologist starts his/her analysis by the physical form of the city, eventually by a limited number of elements of urban form. *Urban forms refers to the main physical elements that structure and shape the city including streets, squares (the public space), street blocks, plots, and buildings, to name the most important.* At present, we can identify four schools of thought in urban morphology, and these four approaches are the historic-geographical approach, the process-typology approach, space syntax and spatial analysis. All of this approach includes a wide range of their theories, concepts and methods of the way they address the physical form of cities[12].

4. The Concept of Adaptive Capacity

Complexity theory has become a hot topic across all scientific disciplines, especially in the 21st century[1]. Complexity is a characteristic of many open systems, especially when adaptation is involved [14]. Holland, put forward that all complex systems have one central property: their ability to maintain coherence under change, without any central control. Also, complex systems where adaptation is very important are often referred to as complex adaptive systems (CAS) [5]. Cities are prime examples of complex adaptive systems.

The main reason why cities are complex is because of the people. By itself, a city's-built environment and the artifacts which it is composed of, do not form a complex system; these artifacts do not interact with their environment or among themselves[13].In essence, the built level is entirely made up of simple, closed systems. Because they act and interact as urban agents, it is people who create the adaptive capacity of the city system. Nevertheless, they can be supported by the built environment in creating this adaptive capacity. Hence, there are two important factors in complex (urban) systems: agents and their environment.

Portugali (2016) put forward that humans are subject to two evolutionary self-organizing processes: a slow process of biological evolution and a fast process of cultural evolution. Also, another fact that indicates the adaptive capacity of a specific area is that while humans might not be conscious of their slow biological evolution, the feedback they get from cultural evolution is fast, leading to a constant interaction between external and internal representation in urban agents [13].

The process of adaptation in a current area is made by the owner's adapting needs. The owners increase the space to

complete his/her personal needs and comfort. But while studying the situation from the point of view of an urban planner and urban morphologist, the research comprises a lot of concepts and methods to understand the spatial processes and changes to provide a solution that connects buildings to urban space through the human scale.

5. Understanding the Context

This article aims to discuss the challenges of the growth of urbanization and land-use changes in the city of Tirana, Albania. Also, it will focus on analyzing the urban morphology of a neighborhood of Tirana by studying the characteristics of the road network changes and the increase of the importance and a multidimensional transformation of urban public space during the time. This approach will take part in a lot of different arguments that affect directly urban morphology and the form of Tirana, such as politics and economic changes. Also, referring to the rapid development and expansion of the city of Tirana, the main problem is to find the best way of adapting the old urban and architectural elements with the new architecture and urban planning. [4]
Looking through the history of Tirana's urban growth, especially in our case study, it will be possible to identify the complex changes and the urban form it hasreached over time. Besides, through this analysis, the research will shed light on understanding the neighborhood development and anticipating its adaptive capacity by proposing concrete solutions.

5.1 The urban pattern

Figure 1: The relationship between spaces and mass and the urban structure

The original pattern is a small-scale grid and orthogonal. It can also be evident the transit pattern, between old and orthogonal. The character of this area, its urban and built form is influenced by many different factors including historic context, street patterns, block sizes and heights and public spaces. However, the activities and uses within the area as well as the patterns of movement to and through the area also play an important role. But in the historical evolution, this urban fabric has become fragmented and undistinguished, characterized by high density. The new built environment has destroyed the original pattern.

5.2 The urban structure

The urban grid is represented by the built lines of the objects that go parallel with the roads that border the area in the study and with the longitudinal shape of the parcels. With a direction from west to east, it is seen densification of the urban grid which is translated into the disintegration of the urban morphology. In the perimeter, the area is limited by main roads. The situation is seen as difficult especially on the inside of the block where there are missing secondary roads. Some spaces are inaccessible. Characteristic for the area are the dead ends roads.

5.3 Land use and activities

Figure 2: The functional zoning.

The area currently contains mostly residential uses, but also including some small economic activities, arts and cultural uses, and car parking. However, there are also levels of vacancies in some of the buildings and in recent years the area has increasingly exhibited signs of neglect. These two complementary uses have historically drawn people to the area and this attribute should be central to the creation of a new culture/leisure-based regeneration of this part of Tirana. There are several small-scale businesses scattered around the area that contribute some vibrancy at street level but many of the upper floors are vacant. This low density of development in places is unable to support a high level of activity and is reflected in the condition and appearance of the buildings which in some places are neglected and in need of repair. At night time their locations do not generate enough activity leading to inactive streets in the evening. There is potential to reuse some of the existing buildings to create a retail mixed-use offer but a more innovative distinctive concept may be required to create a "magnet" capable of sustaining a mix of uses.

Issues

- What type of uses/development should the pedestrian area include?
- What mix of uses would contribute to successful daytime and nighttime activities?

If we make a retrospective to the scales of houses intervention, we do understand that intervention on a grand scale is done after the 1990s. This has damaged the small urban scale. Small economic activities, in the forms of a small shop, are built-in their private land properties.

Figure 3: Scale of housing intervention.

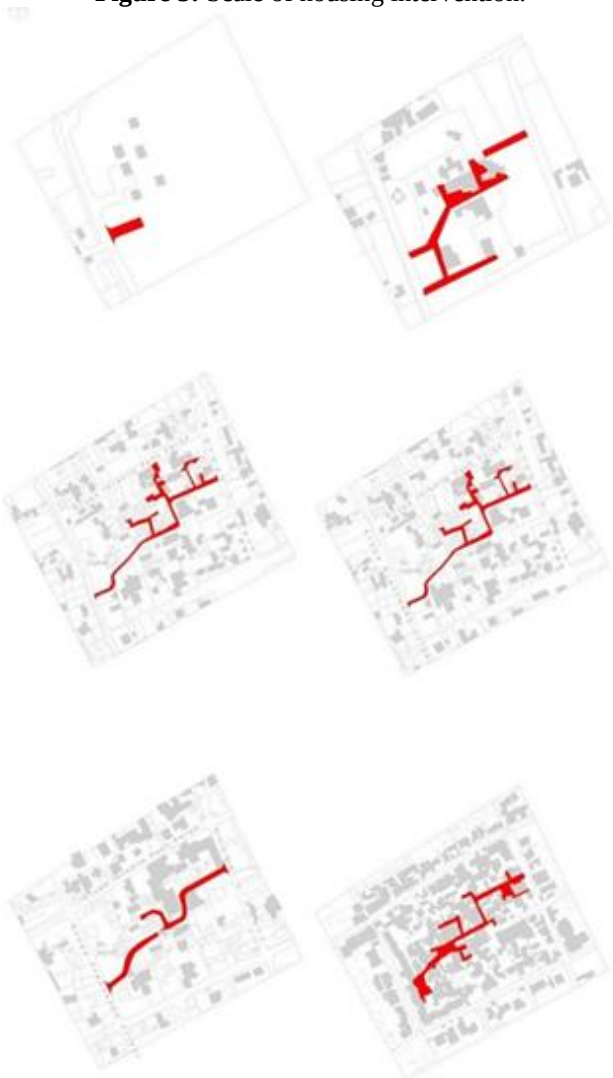

Figure 4: Historical urban development[15]

5.4 Historic development

In the historical development of the area is noticed the densification of the buildings in the period from 1921 to 1937. In the year 1921, the majority part of the road was with agricultural use, while in the year 1937 all the territory is fragmented with buildings. In the period from 1937 to 1953, there is not so much difference in the urban development of the area and the buildings being built. The water supply pipes pass along the main western road that it is seen since the first regulatory plan design by Austrians.

Main data of the area

1) Parcel surface 41976m^2
2) Built surface 15667 m^2
3) Land use coefficient 0.37
4) built intensity 1.03
5) Road's coefficient 0.14
6) Semi-public coefficient 0.11

6. The Intervention

As there is a dynamic relationship between buildings and their settings this analysis will consider, the historical evolution of the area. Compared to the other part of Tirana this is not a high density of population. The area has a high density, but a small intensity. This means that the human scale buildings are very near to each other. This is a general measure used in urban morphology that captures the density of entrances along streets and pathways, here measured as several entrances per 100 meters along axial lines. The intensity of activities in the inner block is measured because every entrance represents a possibility for the interior life of buildings to activate this so-called 'public space'

6.1 The Conversation of the area

There are groups of buildings that have a strong influence on the historic character of the area. The range of building types shows how the area has evolved over time resulting in very different forms of development. A more recent addition has an adverse impact on the historic character of paths or streets. It obscures sightlines along the street and views of 'historic buildings' and does not respect the building line. The building by physically intruding into the street impacts the overall perception of the street as a continuous form.

Figure 6: The map with preserved objects.

It is made to understand the historic evolution of the area merits reinforcement in conservation and regeneration of the area.

Issue

- How should the historic importance be preserved and enhanced?
- How can groups of 'historic buildings' be incorporated into new development?

The 'historic buildings' also relate in size and mass to their function and the constraints of building techniques at the time of construction. Many of the buildings were a response to commercial pressures for buildings in a modern style. They were the first large buildings within the area, on a scale that emphasized their roles. The group of large buildings varying between six to ten storey's screen the area from the impacts of the motorway. There is potential for consistently larger development to occur in this location but any development must acknowledge the need to provide clear and legible routes into and out of the area. The height of historic buildings and their use reflects the predominant architectural character from their period of development. The heights of buildings such as Italian villas are therefore appropriate and should be carefully considered and respected. The scale and massing of the buildings within the area are directly related to plot sizes but not so directly related to block size. Plot sizes influence both the diversity of form and use. Smaller plot sizes generally produce a variety of form and have the potential to increase the range of uses however, a number of small plots can make up a larger block. Block sizes within the area vary but are generally largely reflecting some extent the historic street pattern. The individual plots of buildings are unified by the elevational treatment which makes them appear as one distinct entity within the block. There has also been an attempt to unify the elevational treatment of the buildings along the pedestrian with the use of consistent materials. But in this case, the overall appearance is of large slab blocks with minimal detailing therefore the facades are of lesser architectural merit. Perimeter blocks within the area will create a continuous frontage. This gives a sense of enclosure to the street and allows live edges such as shop fronts.

6.2 Regeneration street area

There are several historic streets and listed buildings within the area. The intervention recognizes the roots of local character. Streets, which contour the block and contribute to the character of the area. The undistinguished road lines, most of the time without a certain destination, co-exist and create an evident historic character. The inner block roads are fragmented and some public spaces exist in maps of 1953 and 1980. Conversely where buildings have become detached from their historic context or where the historic street pattern has been fragmented the historic character of the area has been eroded. The configuration of streets gives a framework to the area which reflects its development over time. However, this framework has in places lost its meaning through development which has truncated routes or eradicated them. From the earlier maps in figures 6 and 7, we can distinguish a central axis, and public space, that remains like a gateway to the area from the east and no longer directly connects to the west.

Figure 7: The road structure in 1953.

Figure 8: The road structure in 1980.

Figure 9: The today road structure.

Figure 10: The evolution of the road structure.

The pedestrianization of this main axis will also revitalize what is formerly done today into an access road. Traffic flows have been substantially reduced by the two new roads

Figure 11: The intervention area.

but this reduction has not been accompanied by an increase in pedestrian flows. The main central axis is the catalyst for its construction. Its location and scale remain consistent with its development and does detract from its character.

6.3 Movement and Connections

The site studied, is edged by traffic roads, on three of the sides. The inner block is not accessible to motor vehicles but this also makes it very difficult for pedestrians to move to and through the site. Roads are narrow and in the peak hour's circulation becomes impossible. Good access and connection are key to create good urban development. A comprehensive movement framework will enable movement to be undertaken by a variety of routes and different methods and to connect clearly to existing routes. Movement patterns and routes influence the character and sense of place positively. From the analysis of the existing movement, we have extended the two-existing north-south roads, from the adjacent blocks.

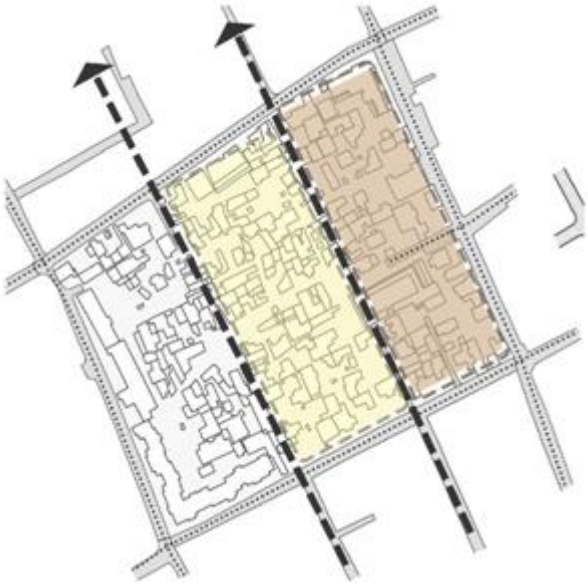

Figure 12: The extension of two existing north-south.

These roads have existed from the eldest maps. These roads ensure the movement with vehicles, but they will be interrupted by the main axis of the pedestrian path. By the two roads, there will be destroyed some small buildings and houses, saving the buildings with historical values. The destroyed buildings are mostly built the recent years and some of them are not on the appropriate urban scale.

Traffic

Except for the pedestrian, all movement corridors within the area carry some traffic. However, not all types of traffic are allowed on every street. The current locations of both private and public parking encourage traffic into the area. Vehicular traffic is still being given a high priority in most of the area and that constrains pedestrian movement to specific paths only, contributing to the isolation of certain parts of the area.

Issues

- What access should be given to vehicular traffic?
- Should traffic be allowed to use the area as a through route?
- Where parking should be located to reduce the impact of vehicular traffic?

Figure 13: The objects that will be destroyed

The main idea for regeneration of the urban space is the pedestrian movement and the solution of parking will be underground. The entrances for parking are provided along the pedestrian path.

6.4 The Pedestrian

The walkable paths have no visual impact on the permeability of the site. Despite its proximity to major well-used areas of the city, pedestrian footfall is decreasing dramatically. Creating a legible, walkable development, linking it to the new roads and giving maximum choice as to make it a vital axis. It is necessary to examine why the area currently lacks this cohesion and what measures need to be put in place to address the issue. There is currently good accessibility to the area for pedestrians. Whilst walkways do give pedestrian priority their quality and difficulty in use, and perceived issues of safety reinforce the feeling that they 'cut off' from the areas they are meant to connect. There are also several signalized crossings with difficult two-stage crossings and delay for pedestrians which make movement within the area disjointed.

Figure 14: The pedestrian area

Pedestrian is shown in the plan with the walkable space, with villas on two sides. The existing villas are the ones with roof, they can be easily reachable, because of the new roads and paths. The new villas have two-slope roofs, but a stylized view.

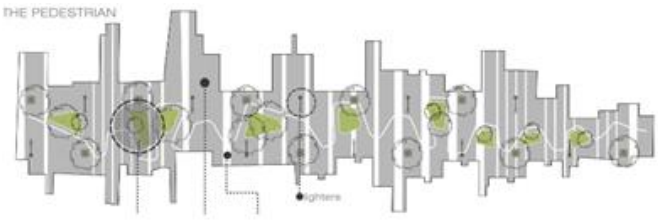

Figure 15: The pedestrian path

6.5 Pedestrian street design improves neighborhood's social qualities

A human-friendly scale is not a traffic flow impediment, but an excessive road width that can create a traffic barrier. The pedestrian area of the main axis will have a new dynamic and attractive urban space. Analysis of the likely strong desire lines for movements into the area shows that this axis should be an important nodal point for pedestrians attracting movement from all directions. It is also an important gateway to the area from the northeast. It is the area's only pedestrian priority space but today is linked by weak and poor-quality connections which contribute to its lack of vitality and its role as a positive space within the city.

Issue

- How should the area around the pedestrian be better connected to the surroundings?

Figure 16: Creating new semi-public and public spaces

6.6 The proposed land use

With the regeneration of the space of the inner block, we have not changed the land use. The proposal spaces are housing. Regeneration of the old houses and replacement with the new ones is the main criteria of the intervention. Demolishing the perimetral walls of the preserved houses and creating new public spaces. The main axis will be a pedestrian one, creating a new massive public space, accessible by the citizens. The configuration of the pedestrian is an irregular form and identifying once more the irregular character of the area.

Figure 17: Land use.

6.7 Legibility and Public Space

Legibility is the quality that makes a place easy to 'read' where routes can be easily deciphered and followed to chosen destinations. Orientation is aided by features and landmarks which make a positive contribution to the public realm as they aid way finding. The area has several landmarks some of which could be considered to make a positive contribution to the public space.

Enhancing the setting of historical buildings which are currently 'hidden' between poor quality buildings could turn it into a landmark. A few other historic buildings in the area have the potential to be landmarks as they have intrinsic characteristics which denote their distinctiveness. It is the location, distinctiveness and visibility in relation to desired routes that will ensure that new or old buildings will form a landmark with positive impact.

Figure 18: Public space.

Issue

- How can existing positive landmarks be incorporated into a new development?
- Should any existing landmarks which could be considered to have a negative impact be demolished?
- Where and how can new landmarks be created?

The low level of activity within the area has meant that even existing buildings, such as villas built till 1953, do not create a successful space as their settings are compromised by lesser quality buildings with uses that do not engage with space. These will be the positive landmarks of the area. They will be reconstructed and will be part of the new pedestrian street. These are well-known in the area.

Some high buildings have created the existing landmarks, because they have been developed recently, losing the identity of the area. Their big urban scale has a negative impact on the citizens. The one in the area is proposed to be demolished, which is a 7-storey residential building.

Successful public spaces are defined by the buildings that form the spaces and by the activities that enliven them. At the same time, these are new landmarks. The pedestrian street and the characteristic villas will be the new landmarks of the area. This will be made up of some elements, the street, the pavement, squares as well as lighting, street furniture, planting and public art. Coupled with less than satisfactory pedestrian connections the overall perception is one of an eclectic range of buildings with inactive frontages rather than a distinct place.

Successful public spaces are defined by the buildings that form the spaces and by the activities that enliven them. At the same time, these are new landmarks. The pedestrian street and the characteristic villas will be the new landmarks of the area. This will be made up of several elements, the street, the pavement, squares as well as lighting, street furniture, planting and public art.

Figure 19: The site plan

Coupled with less than satisfactory pedestrian connections the overall perception is one of an eclectic range of buildings with inactive frontages rather than a distinct place

Issue

- Should significant area/areas of public space are created?
- How can important listed buildings contribute to successful spaces?

Linking public spaces, as a set of 'outdoor rooms' with direct routes to and through them, helps to support activities created within the spaces, as people attract people. The area in the pedestrian street will become a focus for a number of activities since the public realm improvements created areas for people to gather and steps to sit on. The movement framework for the area shows that there is potential to create a dynamic space in the area of the existing not only attracting people to the area with nodes of activity such as shops and cafes but also facilitating movement through the

area. There is potential to enhance the connection between the two spaces because they also have a direct visual link.

Figure 20: Creating new landmarks

6.8 Properties

The properties in the area are very fragmented and most of them are social conflicts. The area that is included has a surface of 7967.9 m^2. About 36 land properties are included in the process of redevelopment and regeneration of the urban pedestrian. My intervention will densify the area and will improve the quality of life by creating new public and semipublic spaces. In total the urban parameters will stay almost at the same figures.

Figure 21: General Plan

The new houses will be two or three storey's, respecting the architecture of adjacent houses. Even though the intensity has not significantly changed, the public spaces are added. The verminous space before the intervention the public one now is turned into a semi-public space and a pedestrian movement path. The semipublic space is multiplied five times. This urban development will happen in the process of merging the land properties and redistribution of the newly built area, related to the surface of the land properties. Densification of the area is the main characteristic of today development. By improving the general view of the pedestrian street.

Table 1: Urban Parameters

	Existing	*Proposed*
Occupation of territory	7967.9 m^2	
Number of properties	36	29
Property surface	9682 m^2	9682 m^2
Ground floor footprint	3031.8 m^2	2670.4 m^2
Total built area	10112.98 m^2	6287.5 m^2
Coefficient of land use	40%	47%
Intensity	1.3	1.1
Public space surface	518 m^2	2323.6 m^2

6.9 Building typologies

Building typologies include the size of buildings' floor plate, their storey heights and location of access. The land use is mainly residential. The new buildings that we have proposed are traditional houses, but we have proposed a new relationship of a building to adjacent buildings and how it relates to outer space on the ground floor level. Considering that the target group who live there prefer living in a community, the new semipublic spaces will be without walls and no surrounded properties. The building typologies proposed will be two types of villas, the first type will be three storeys' villas and the second type will be two storeys' villas. The placement will in detached villas, to create a continuity facade. Villas are positioned in an alternative way; two storeys and three storeys. The intervention of the new typologies will be in the urban scale of the area. They will have small spaces, but a good distribution of functions.

6.10 Sense of enclosure

Sense of enclosure is an important element in setting the character the pedestrian street. Successful urban space is defined by buildings, structures and landscape and it is the way this enclosure occurs that contributes to a street or space's particular identity. In our case, the character changes from an enclosed space in the east to a more open and spacious environment in the west. It is the area where the sense of enclosure is greatest as a result of the small height houses on the sides of the street.

6.11 Building line and setbacks

Building lines are a main characteristic of the area, the new buildings do not respect a certain line, but they are positioned along the pedestrian street. Only in the Italian period, a few buildings created a setback from the properties line. They created square houses and gardens. The building line was historically created spontaneously and there was no pavement. The characteristic of the area is the attached placement of objects and spaces often blocking the paths. This cannot respect the construction lines but creates a façade continued throughout the length of the block. While all subsequent interventions have had a consolidating character. Through my intervention, we want to add new facilities so linear. The presence of active frontage contributes to the character of an area by increasing the likelihood of people visiting and dwelling in the area

6.12 Roofscape

There is a variety of roof treatments within the area with the traditional pitched roof treatments with natural slate in evidence on the fine grain buildings. However, the predominant roofscape is associated with 1930's buildings. The new objects have also roofs, but they have a new stylized shape. The usage of roofs creates unity and continuity in the area.

Figure 23: Roofscape

6.13 Rhythm and symmetry

There is a distinct vertical rhythm evident on the facades of the area. The manner in which this rhythm is employed varies between buildings creating both a strong rhythm and symmetry on their facades. This rhythm is not necessarily associated with one building period rather it is a manner of expression which has given buildings a strong unifying presence. This rhythm is complimented by rich detailing which gives the buildings their distinctive character. Repeating in certain distances in the main axis will be placed some wood structures in a storey high, which will be used as a place where people can sit and rest. This space can also be used to make small economic activities.

6.14 Landscape

Figure 25: Elevation

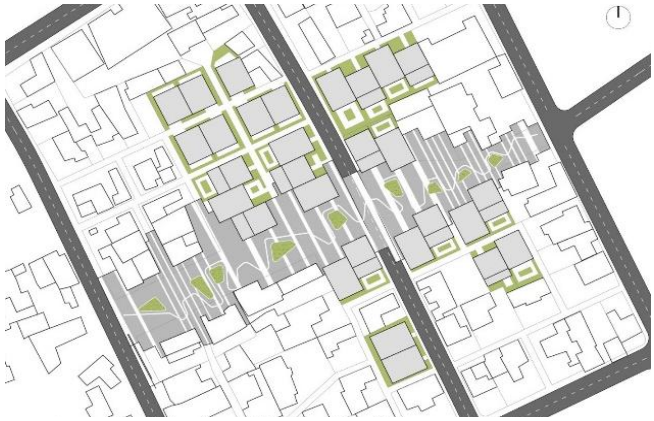

Figure 24: The green areas.

The landscape of the area is very urban with only limited soft landscaping in evidence. Additionally, there is fairly robust planting within the roundabout but due to its location, it does not register as such. This lack of soft landscaping is consistent where there are only a few green spaces.

Creating a new landscape, planting the characteristic trees of the area will highlight the use of green or brown roofs and other neighborhood measures. By creating a new landscape, I will:

- Improving safety and security
- Breaking down barriers and edges between the surrounding areas
- Improve routes and legibility
- Reveal landmarks

6.15 Facade and interface

The rhythm, pattern and harmony of the building openings are relative to its enclosure. The nature of the setback, boundary treatment and its frontage condition at street level varies from the typologies. The architectural expression of its entrances, corners, roofscape and projects are an important element of the perception of the inhabitants of the area.

6.16 Materials and detailing

Materials will vary between the historic buildings which are mainly constructed from bricks with slate roofs and the modern late 20thCentury buildings which are principally constructed from brick or concrete with flat roofs although artificial stone has been employed in some locations. Street treatments are mainly with stone paving and curbs but some historic lanes contain stone sets.

7. Conclusion

In this article, we provide that by studying the complexity and the adaptive capacity of urban space we can design and predict in some way - the regeneration of it. Our proposal aims to regenerate that area of the inner city of Tirana, into an inclusive, self-regenerative and cozy neighborhood. The proposal examines the existing site conditions on themes of land use, historical and cultural preservation, housing conditions, public space, urban design, and transportation.
The intervention we applied after the study and analysis of the site, brought out the creation of a new way of interpreting urban areas. Also, this ways of adaptation and regeneration of the site, may be replicable in other similar areas. The proposal should be seen as a long term, multi-phased iterative project with extensive involvement and inputs.

References

[1] Batty, M., and Torrens, P. M. (2001). "Modeling complexity: the limits to prediction." CyberGeo (online journal), 201
[2] Conzen, M.R.G. (1960) Almwick, Northumberland: a study in town-plan analysis Insitute of British Geographers Publication 27 (George Philip, London).
[3] Cullen, G. (1961). Townscape. New York, Reinhold Pub. Corp.
[4] Felstehausen, H. (1999) Urnan Growth and Land Use Changes in Tirana, Albania: With cases describing urban land claims
[5] Holland, J. H. (1995). Hidden order: how adaptation builds complexity. Helix books. Reading, Mass: Addison-Wesley.
[6] Holling, C. S., Gunderson, L. H., & Peterson, G. D. (2002). Panarchy. Understanding Transformations in Human and Natural Systems, chapter Sustainability and Panarchies, (pp. 63–102). Island, Washington D.C.
[7] Kropf K (2017) The handbook of urban morphology, Wiley, Chichester
[8] Mitchell, M. (2009). Complexity: a guided tour. Oxford; New York: Oxford University Press
[9] Moudon A. V. (1997) Urban morphology as an emerging interdisciplinary field
[10] Muratori, S. (1955) Trostes Tropoques (Terre Humaine, Paris).
[11] Muratori, S., Bollati, R., Bollati, S. and Marinucci, G. (1963) Studi per una operante storia urbana di Roma (Consiglio nazionale delle rieceche, Roma).
[12] Oliveira V. (2019) Urban Forms, Agents, and Processes of Change
[13] Portugali, J. (2016). What makes cities complex? In E. Portugali, J.; Stolk (Ed.), Complexity, Cognition, Urban Planning and Design: Post-Proceedings of the 2nd Delft International Conference, Springer Proceedings in Complexity Switzerland: Springer Nature.
[14] Salingaros, N. (2005). Principles of urban structure. Amsterdam: Techne Press\

Maps and Figures

[15] AQTN- Arkivi Qendror Teknik I Ndertimit (Central Technical Archive of Construction), Tirana map.