TITLE:

*Building typologies of Prishtina neighborhoods.
Visual assessment of structural and architectural
configuration towards a more distinct urban image*

AUTHOR:

ILDA RUSI

Building typologies of Prishtina neighborhoods. Visual assessment of structural and architectural configuration towards a more distinct urban image

keywords / building typologies, visual assessment, architectural and structural configuration, integrated urban district, Prishtina neighborhoods

Ilda Rusi
PhD researcher / POLIS University

Abstract
A structural typology classification may help structural engineers, architects and urban planners to understand a building's behavior and response to any type of natural hazard as well as further assists in defining improvement techniques and long-term sustainable regional planning. All part of Prishtina city, referring here mainly to neighborhoods, have to be well integrated, functional and attractive to its citizens and visitors.

This paper attempts to categorize the main Prishtina existing building stock into building typologies based on extensive field investigation of different neighborhoods of the city. In addition to this, it will be presented the potential criterion for judging through residential buildings typologies, the urban image in case of Prishtina main neighborhoods (Ulpiana, Dardania, Bregu i Diellit), etc.

The aim of this work deals in revealing the assessment methodologies used on the survey of residential buildings of Prishtina neighborhoods, through the building typologies as a case study. Such evaluation is done in order to specify the architectural form as the primary perceptible feature and its visual characteristic of the district to be in line with the degree of urban sustainability and functionality.

The following methodology divides this study in two main parts: the first will be in theoretical background referring to building structure types in terms of architectural configuration and structure assumptions; the second will be in more practical terms describing in detail about three chosen building typologies. While analysing an architectural form the following factors play a crucial role: a) Building design interpretation of surfaces configuration, internal space distribution and solar orientation, b) Texture and colour which are perceptible impressions and finishes linked to material usage, c) Composition of architectural elements and structural parts etc., which may be regular or complex. The investigated case studies and the analysis conducted based on those models will lead to the main results, presented in the paragraph of the conclusions.

Introduction

The contribution to a better understanding of Prishtina's neighborhoods architecture and design history, with emphasis on one of the most important and dynamic periods of the 20th century, will be in focus while assesing the visual aspect. From the architectural and engineering viewpoint, design intends to follow technological advance. Consequently, some specific buildings are related to different types of characteristics. This leads towards possibilities for transforming architectural styles, but only to a certain degree that

lets the contemporary play the major role. However, even with all the contemporary way of thinking, the traditions and other regional aspects were not entirely disregarded. Comparison styles and structures elsewhere in Europe, designed and constructed during similar years and period of time, will intend to give an argument of inline or aligned architectural developments (K. Aysha Jennath, 2016).

In this study is presented an analysis of building structural typologies of main neighborhoods in Prishtina with the focus to further combine the strategy of urban development and construction industry of this future European city. Typologies of built environment offer a consistent set of predefined representative buildings and building blocks with typical architectural properties and structural configuration. (Andreas BLUM) Building typologies support rapid assessments of specific object elements. On the other hand, typologies of urban structures support different models of the urban built environment for the city as a whole, as well as micro scale screening of stocks and flows on neighbourhood level. Research on the built environment deals with a complex and interdisciplinary subject. Especially with the objective of sustainable development multi-criteria approaches are needed.

The aim of this study is to identify the range of typical housing neighbourhoods in Prishtina from design and function perspective. As a shared representation of the physical object for this interdisciplinary investigation, four urban structure types of housing areas were defined, to a large extend by using a visual approach. The building typology served as a framework for the collection and presentation of different architectural and structural configuration. For this purpose, there have been conducted empirical investigation on site representative the neighbourhoods chosen in Prishtina city. Finally for the analysis and interpretation of disciplinary results, the typology provided a synoptic projection screen of disciplinary results.

From a design related and functional perspective building structures (sustainable, functional, quality structure), were analyzed. As a result, it is shown that the internal structure of the buildings and flats is favorable for flexible uses and refurbishment. On the other hand open structure apartment block developments have relatively favorable environmental conditions like green spaces, while structural homogeneity and monotony like identical flats with uniform design are often perceived as shortcomings. Sustainable development requires that the building provide healthy
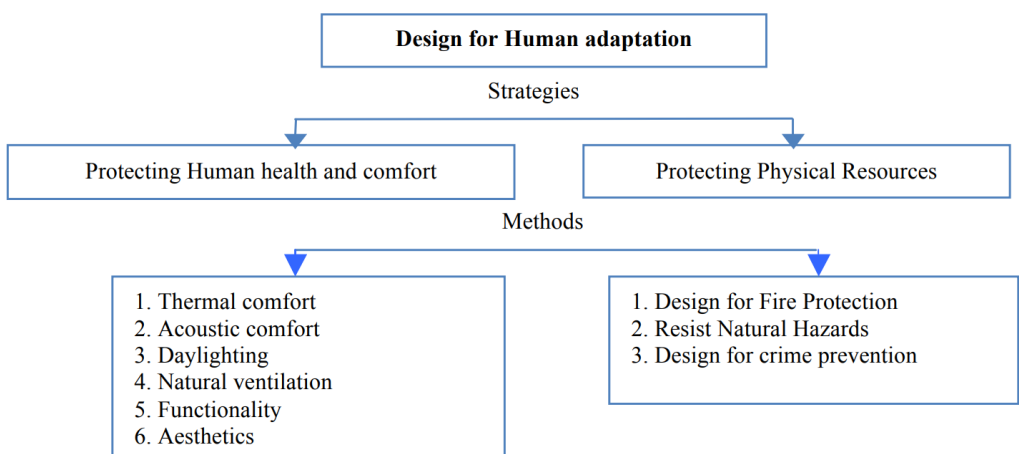
167

Fig1 / The proposed of two design method with the main focus to promote and enhance human adaption. Source / Peter O. Akadiri, 2012

and comfortable environments for human activities. A building must accommodate the activities it is built for and provide floor-space, room volume, shelter, light and amenities for working and living. In meeting these basic requirements, the building should also be structurally stable and fire safe.

Refering to architectural design theories, there are two main building classification. The first is based on occupancy which in this paper were selected the residential buildings (multi-family building) and the second is based on type of construction and in this case is refered to ordinary buildings (Type 3A, 3B). Older constructions may have unreinforced masonry and have conventionally framed roof, while newer houses have light roof systems, supported by R.C.C masonry or concrete frame (Peter O. Akadiri, 2012).

Construction Type identifies the type of materials utilized for constructing a building and fire resistance associated with the building elements of a structure. These building elements include the primary structural frame, exterior and interior bearing and non-bearing walls, and the floor and roof construction elements. Patterns of settlement are often formed around types of houses. Sizes of homes vary widely from small homes to residential dwellings in which domestic architecture creates patterns of urbanization and density. Buildings often line both sides of a street and offer multi-story living. Duplexes and triplexes offer housing for two families to four families.

In a sustainable building, the architecture itself is expected to provide comfort for the occupants. Thermal comfort is a key to occupant's satisfaction and productivity. The environmental parameters which constitute the thermal environment are: Temperature, humidity, air velocity and the personal parameters: clothing together with activity level. A building that optimizes daylighting and natural ventilation would be shaped so that more of the floor area is close to the perimeter. While a narrow shape may appear to compromise the thermal performance of the building. Effective daylighting depends on apertures of appropiate size and orientation. Building envelope considerations, such as reflective roofing, low-E windows, window tinting and solar shading are some of the tools that enable designers to optimize thermal comfort as well as improving energy efficiency. Siting the building according to seasonal heat gain and use is another key to thermal comfort, as is landscaping.

The orientation has also direct effect with the ventilation or wind speed. For instance, Meir, et al.(1995) has concluded that the correct orientation of buildings can improve their thermal comfort; however, orienting them irrespective of solar angles and wind direction may create thermal discomfort. Daylighting involves designing buildings for optimum use of natural light and provides numerous benefits over artificial lighting. Generally it is understood to be beneficial both to health and well-being. Therefore maximising good daylight in housing is an important consideration.

On the other hand, natural ventilation is the process of replacing air in any space to provide high indoor quality without the use of mechanical means. Ventilation conditions inside a space have a direct influence on the health, comfort and well-being of the occupants. Natural ventilation has become an important strategy in building designs. It can be used to supply outside air, reduce odours and pollutants, and remove heat from spaces, people and mass. Designing for natural ventilation also has potential to reduce construction and operational costs associated with the purchase

and use of mechanical equipment, and the increased productivity of building occupants due to improvements in the indoor environment and connection with the outdoors. The climate suitability, window orientation and operable windows are the key factors for natural ventilation. Examples include providing cross-ventilation to make use of wind chimneys to induce stack ventilation, and using water evaporation systems in hot dry climates to induce air movement.

Building functionality should be planned to enable the smooth operation of the activity for which the building is designed. The capacity of a building to absorb future functions should be studied at the outset, in the event of an expansion, and to reduce the additional material and building waste disposal costs. The consideration of low-maintenance and durable constructive elements is of special importance, even where it may not be strictly necessary in the long term.

Prishtina at present - Architectural configurations of buildings

Since 1999, Prishtina was slowly transformed into a dynamic city, mainly characterized by unauthorized construction, erecting or extending structures which has affected the urban structure of the entire city. In more specific areas like in the main neighborhoods, it was given rise also to different problems such as infrastructural, building safety or even social aspect. It was due to the lack of law enforcement, and the absence of mandatory planning and building standards.(PRISHTINA, 2009)

The work consists in developing a key concept by analyzing Prishtina's neighborhoods potential and identify structural building typologies and architectural configuration as the key factors for future development. The paper later is focused on a new visual aspect that gives rise to future urban development of these areas. The analysis is focused on small scale, the urban built environment of the selected areas of study. The first focus is on structures along categories like residential buildings or villas due to construction periods and types.

An analysis of urban areas in seven largest centres of Kosova presented in the report of 2010 year by Institute of Spatial Planning, it is clearly stated that the largest developments in space were those of housing facilities. The average urban growth for the last 20 years (1980-1999) or the area of each centre has grown for 2.7 times. An estimate may be given only for the Prishtina Municipality: in 1980 Prishtina used to have 450 ha coverage, and after 20 years, it has grown into 1500 ha or at least 1000 hectares more. These methods would promote better use of urban land through a higher population density like in case of Prishtina city. (Institute of Spatial Planning, 2010)

The importance of the architectural configuration is enormous for the image of the City in general and for the specific areas like neighborhoods. It sometimes influence in boosting tourism as an economic factor. Therefore Prishtina shall improve the existing architectural potentials, and in this respect, the residential areas

No.	Settlement / name	Urgency			Applicable plan			Size			Urban/rural context		
		ST	MT	LT	MDP	UDP	URP	S	M	L	U	UR	R
1	Bregu i Diellit	X					X	X			X		
2	Kolonia "R. Sadiku"	X					X	X			X		
3	Kodra e Trimave	X					Partly		X		X		

ST - short term;   MDP - Municipal development plan   S - small   U - urban
MT - medium term;   UDP - Urban development plan   M - medium   UR - urban rural
LT - long term   URP - Urban regulatory plan   L - large   R - rural
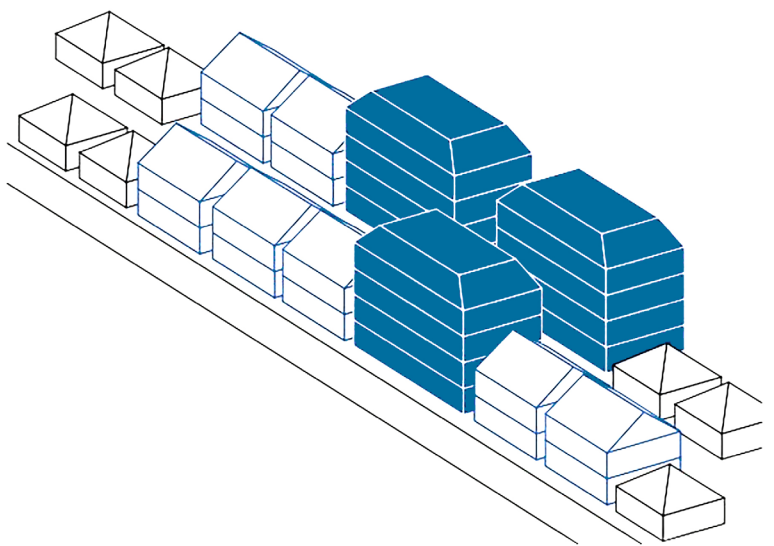
Fig2 / Informal settlements in Prishtina neighborhoods
Source /author's redesign from Ministry of Environment and Spatial Planning Report of Kosova , October 2005
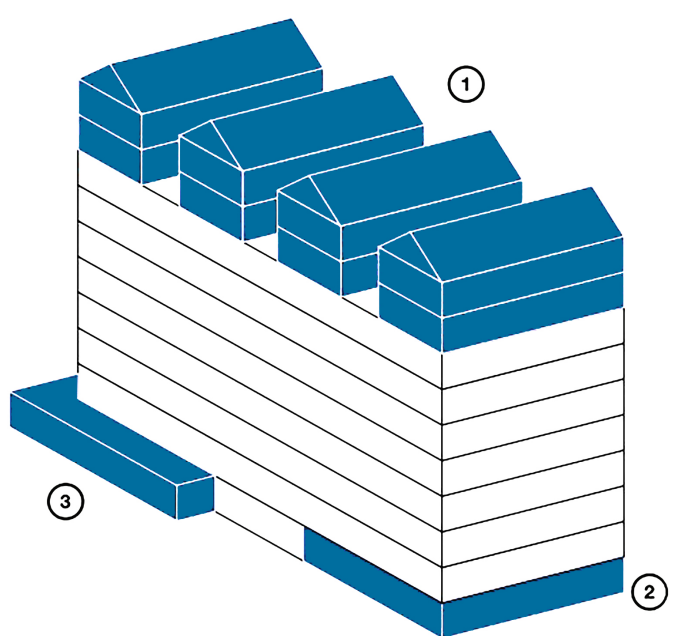
1
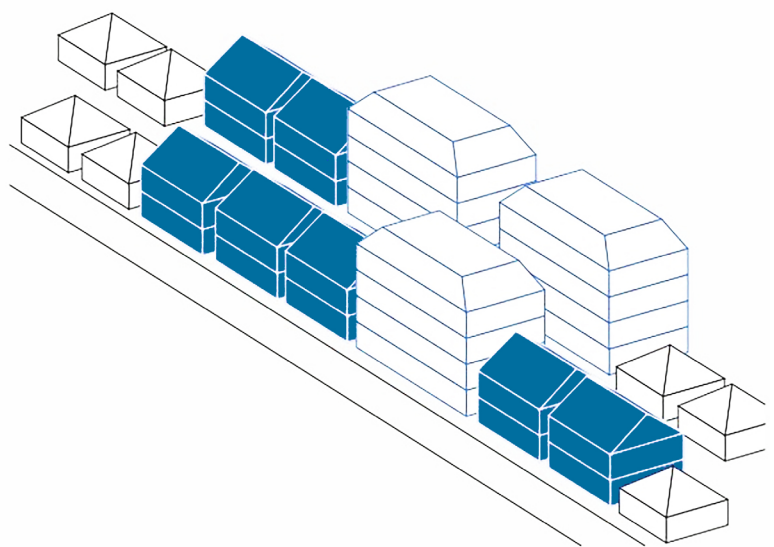
2

3

Fig3 / Prototype 1 – buildings up to two-story high; Prototype 2 – buildings up to 4-5 story high;
Prototype 3 – extensions to existing buildings
Source / Prishtina, A. i. (13-15. March 2009)

such is Dardania, Ulpiana or other well known neighborhoods in order to highlight the city's specific values and increase its competitive edge in the region. Prishtina should clearly identify urban areas for improvement and development of neighborhoods which shall improve the image of the city in general. Such urban areas should be developed with standards and should have strong connections within the city and robust perspective. (PRISHTINA, 2009).

Structural typologies

In this part there will be analised the main structural typologies explaining in three main headings; prototype 1, 2 and 3, in the selected neighborhoods. So the prototype 1 refers to buildings up to two-story high. (Prishtina, Manual on the legalization of structures built without permission, 2009)

Prototype 2 refers to buildings up to 4-5 story high which from the structural point of view, the buildings should comply to main criteria: building static and building dynamic. In this context, each building should be structurally safe, in terms of its static calculation in order that its static complies with the applicable norms and standards. So for main building blocks, the following visual assesment consist of the following:

a)   Verification of the structural safety of the building;

b)   Technical aspects of existing building in terms of the stability of the building suggesting also interventions or proposals for structural additions due to the overall static calculation.

On the other hand, refering to building's dynamic (earthquake hazard), each building should be structurally safe in terms of its dynamic calculation. A rapid visual assesment will be done in this respect in order to check the structure of the building in terms of its earthquake resistance. The evaluation begin first with the verification of building's current status, and conclude whether their dynamic aspect comply with the applicable norms and standards. In this regard for several building blocks, the most problematic issue is the 'soft story' phenomena especially in the ground floors. It is recommended that further analysis should be done to ensure the dynamic aspect of the building.

Prototype 3 refers to high rise buildings which under this division are covered the buildings with extensions to existing ones: a) roof extensions, b) in basements and c) annexes. The issue to be discussed for all the categories, is the assessment of the structural safety of the building (the building's static and dynamic). If findings regarding the stability of the building suggest interventions in its structure, the technical documentation should include proposals for structural additions or other interventions, and the overall static calculation.

Methodology

The impact of the construction industry on the expansion of urban areas show the importance of land as a vital indicator of sustainability with the potential to become an absolute indicator of sustainable construction. Land can be conserve by adaptive reuse of an existing building, thereby eliminating the need for new construction. In addition, placing sustainable building project within easy access of public transportation, medical facilities, shopping areas and recreational facilities, would prevent the expansion of built environment and occupation of eco-sensitive areas. These methods would promote better use of urban land through a higher population density that would make better use of infrastructure services and transport systems. (Peter O. Akadiri, 2012)

With the next step the building typology was further developed along physical and spatial criteria related to construction. This kind of typefication, can build on existing predefined

typologies of urban structure with integrated building types. However, the structural typologies can only be a starting point and have to be adapted to the local situation and context. In a second step the certain structure types would be able to absorb future specific land use demands like enclosed residential block or detached single family house.

As a methodology, structural typologies can be used for a modeling and fast screening of characteristics of the chosen neighborhoods by representing relevant elements of this system with typical characteristics. Given empirical objects (building blocks within a neighborhood) can then be classified and quantified along the system under investigation. In spatial research typology approaches are used to describe or analyze and monitor the built environment with respect to buildings, infrastructure and the urban structure. Typologies of the built environment offer a consistent set of representative buildings or building blocks, resource consumption for renovation or demolition. Building typologies as an example classify buildings along construction periods and technologies. Building typologies support large scale inventories as well as micro scale rapid assessments and may even provide quick info on easy to apply good practice solutions (Dominik H. LAng, January 2018). The chosen cases attend to present in more detail the neighbourhoods dominated by single-detached family homes, open structure apartment block or residential concrete slab buildings.

As above, it ought to initiate pilot projects or monitoring programs undertaken for implementation of new and recent initiatives such as Low Impact Development or Winter City design, as in the case of Edmonton's Strategy (Council, 2013). Projects could also be undertaken for other alternative development and engineering standards to explore new ideas and applications prior to their formal adoption. In addition to this, Design and Construction Standards may also require review and re-evaluation over time based on new or improved knowledge to enable alternative and adaptive design in pre-setting the neighbourhood infrastructure (lighting, landscaping, servicing, etc.), neighbourhood's character, public art, community focal points, and new landmark buildings and features used to address this principle in a new neighbourhood.

Aesthetic vocabulary of buildings of the chosen neighborhoods

The importance of dealing with the aesthetic vocabulary is that the four neighbourhoods should be used as a main reference point in the city, although the extent of relevant local context will vary from site to site. Relationship is achieved by establishing visual links with the context, particularly its primary characteristics. When reference is made to existing characteristics, even though it may be in some abstract form, the result should be clearly seen and understood from the street. While relationship is important, this does not mean stylistic consistency or replication of the detail of neighbouring buildings. New buildings may relate successfully in a number of ways while also introducing new elements. Contrast can create a focus of attention. The extent to which this is appropriate depends on the public significance of the proposed development and its function. It also depends on the heritage or cultural value of the setting. Where a street or neighbourhood is valued for its complexity and diversity, design solutions that contribute to that diversity and largely remain within its boundaries will maintain those qualities. Such places are usually more able to accept diverse forms and contrasting building types. Particularly in areas characterized by diverse character and complexity, new building types, for example

apartments, may be appropriate. Where the area is characterised by consistency and unity, then the design response should aim for similarity. The collective quality of such a group of buildings could be degraded if new development did not visually relate to it in important ways. This does not imply replication, nor that the style of new buildings should match existing. It is often possible for a well-designed building of contemporary form and style to complement an existing area with a few key references, particularly to the primary characteristics of its neighbour. Conversely, where an area is characterised by diversity, the general limits of that diversity should be identified. This will be the range of design responses and elements that will reinforce a link with the area.

The Facade articulation refer to existing patterns and use of secondary and tertiary forms to achieve a complementary level of visual relief and formal complexity. This means comparable levels of visual complexity and intensity and quality of detail, and entrances and windows that relate in scale, proportion and percentage of wall surface to local patterns.

Materials are proposed to be plastered, which is more typical for facades of local buildings, as well as natural stone, bricks and cement fibers. Exceptionally, wood and exposed concrete can be used. Windows should be double or triple glasses due to the energy efficiency and comfort of the residents. Depending on the type of façade, balconies should be solid or glazed. Natural colors should be used for the main façade parts, highlighted colors used mainly in logs and balconies, in some cases for the entire facade. Flat roofs are applied to all buildings. They avoid slipping snow on the streets and sidewalks and can be used for private roofs or terraces. The roofs defined as unavailable can be filled with green roofs. Green roofs contribute to reducing urban reflection and enhance the protection

of non-penetration of heavy rainfall. In situations characterized by consistency of materials, finishes, textures or colours, it is noticed the integration of complementary materials into new developments, considering both texture and colour. The goal is in combining uncharacteristic materials with typical materials, ensuring that they emphasise the visual impact of the typical. Such materials might be used where they provide a significant improvement in building performance that cannot be achieved in any other way.

Refering to adding to existing building, it was maintain a general consistency of character of the existing structure. This include consistency of form, alignment, window type and proportions, and overall quality of materials and detail. Contrast is possible, but this requires design skill for successful integration. The emphasis should be on the new elements fitting in, rather than an arbitrary contrast just for contrast's sake. Instead a similar level of visual quality, and common materials, forms, proportions and alignments may be used. A new building may be contemporary in style, but if it is to be in keeping with the existing, it should relate in significant ways to that building. Optimising sun exposure and natural lighting is another design concern. The main recommendation is orientation of main living rule for all dwellings to receive midwinter sun for at least 4 hours at mid-winter. Sunlight access must be considered for reasons of amenity and energy efficiency. In addition to complying with rules for sunlight access for neighbours, sunlight access within the development is also an important consideration. The location and the building form is very important in avoiding unnecessary or unreasonable shading of private outdoor living spaces or windows to main rooms in dwellings.

Attention should be paid to balancing the effects of screens located for visual privacy and the sunlight

access that they may block. In this regard, it is crucial to provide visual interest on new façades, articulating or eliminating wall surfaces that are featureless or plain. This is particularly important at the street edge or where a facade is conspicuously larger, higher or more prominent in view than others around. The following paragraphs would better describe the above elements and characteristics for each of the neighborhoods taken into consideration.

Bregu i Diellit, it may be considered a typical modern neighbourhood with new residential building complex. It can be distinguished two main blocks; the white buldings and red buildings. They content vertical layer in order to close a building opening and a unit like a volume added to the building at the top floor. Those three types of informal structures can be found on the top, on the facade and on the bottom of the building. Since it is a new constructed area, the buildings seem to optimize daylighting and natural ventilation by their orientation.

Dardania is a typical socialist - modern architecture neighbourhood in south Prishtina built during 80"s. It is a triangular-shaped site marked at its borders by three streets: two high traffic roads and a secondary connection road. After the war of 1999, this site went through a period of urban densification increase. New informal structures started to be built illegally and individually above all on the building's flat roofs and also many terraces were closed in order to increase the dimension of the inhabited units to allow a higher number of people to live in.
The building structures in Dardania neighborhood are of 3 main typologies which can be found on the top, on the facade and on the bottom of the building: layer (a vertical element is erected in order to close a building opening, usually a balcony), unit (a

volume is added to the building) and linear (an entire floor is built on the previous building). The main known site of the area is the so called Kurrizi, in which it is located a well known underground shopping mall. It is almost a dense constructed area that seems to compromise the thermal performance of the buildings.

Kalabria, during the site visit and survey in Kalabria neighbourhood, the lack of public spaces was easily perceived. This part of the city of Prishtina is characterized by its division into two parts: one part constituted with small private houses, which maintains, its original shape and the other part is with new high rise buildings. The part of the old city remains the most regulated and more functional than the rest recently built. Among these two parts of the neighbourhood there is the city park, which is hidden between the high-rise buildings and is difficult to discover. The building structures in Kalabria neighborhood are composed of prototype 1 and 2.
The prototype 1 is refered to the existing buildings and the prototype 2 to the new constructed residential complex. There is also a third tipology of private houses converted into multi-story buildings which on the other hands had impacted to the entire urban area of the neighboorhood with narrow streets, without sidewalks, demaged sewage structures, etc. Refering to the daylighting and orientation, the narrow shape appear to compromise the thermal performance of the buildings.

Ulpiana, neighbourhood is characterized mainly by new constructed high-rise buildings. There do exist another typology which is that of private houses converted into multi-story buildings, composed by vertical layers using mainly to close balconies. So it can be said that the main building prototype in this neighboorhood is the second one, high rise buildings. As explained above the buildings should

comply to main criteria: building static and building dynamic. This area seems to have an effective daylighting depending on apertures of appropiate size and orientation of the new building blocks.

Boosting visual simulation through public art intervention

Below it is represented an intervention that use zero volume by adding value to existing building elements. This intervention is called public art intervention and is done using colored paint lines that visually link them between parasite and public spaces. The lines are drawn on the vertical building facades and on the horizontal public grounds: sometimes coloring the pre-existing elements. On the other hand these measures thorough public art intervention increase the peoples awareness on common tools and devices of the common public space.

Fig5 / Dardania – "Kurrizi" neighborhood. Source / http://wikimapia.org/#lang=en&lat
=42.651321&lon=21.161213&z =15&m=b&show=/29333541 /Dardania-Kurrizi&search=Ulpiana

Fig6 / Configuration of buildings in Kalabria neighborhood
Source / http://wikimapia.org/15295710/sq/Kalabria#/photo/1498492

Fig7 / Configuration of buildings in Ulpiana neighborhood
Source / Googlemaps.

To better explain the intervention it is described an example of Tirana city, in 2000-2003, the municipality of Tirana presented the public art project "Return to Identity". https://issuu.com/whsp/docs/whsp_book_def
The aim was giving an expressive free state of the city and the society too. This was achieved on some buildings through wild patterns of stripes, plaids, and polka dots which add visual stimulation to the building facade.
So following the same example by applaying this kind of intervention,

Fig7.1 / Configuration of buildings in Ulpiana neighborhood
Source / https://l.facebook.com/l.php?u=https%3A%2F%2Fwww.flickr.com%2Fphotos%2Fgentibeh
ramaj%2F25081549293%2F%3Ffbclid%3DIwAR2uNL4i3xD_nBL4-_SSzOlB5hVdZSDCDkrApJV-
WtZEJS8JPWtM4nfDhFrY&h=AT14muX5eofAYsj5tL4Kr8HRVreEH82tcgahP3G67JYT2CBJGPOyxyL9K
ER3OY-GS-Nfykcu9iJEepOSk6LOOiA-qZemqRtHfvxbNpDAOQc8iVcUUqbV2pLhBgFSlagYwko7yg

it may give positive result to the four study neighbourhoods of Prishtina city by revitalizing the buildings facade and their common public spaces. So this structural typologies create a model to better understanding the inner city potential regeneration.

Conclusions

Visual aspect may be achieved in a number of ways including three-dimensional modelling to create contrast between foreground and background elements, layering architectural elements, use of contrasting surface finishes, colours or patterns, or by emphasising part of a building's frontage to create a visual hierarchy. The image and character of new development should respond to the best traditions of residential and mixed-use architecture in the area. In this regard, it is important to recognize the dwelling as the basic element of a neighborhood. Neighbourhoods should be connected to regional patterns of transportation and land use, to open space, and to natural systems. Neighborhoods ought to be compact, pedestrian-friendly and mixed use with many actyivities of daily life available within walking distance.

New development should help repair existing neighbourhoods because unique suburban neighbourhoods add character and value to Prishtina City in celebrating cultural and historical contexts to establish an authentic identity.

The goal for the city of Prishtina, as future metropolitan city, within cities in the Balkans and in Europe, is the need to be proper integrated within its main neighborhoods. Furthermore they have to be functional and attractive to citizens and visitors. The work with typology approaches offers several opportunities. First it offers theoretical aspect. Structure assumptions about the relation of specific buildings and the sorroundings. And then it offers empirical aspect. Structural types in different architectural configuration support empirical inventory. They can be empirically identified on-site. This qualitative research, conducted in two parts, theoretical and practical, begins with the hypothesis that the four neighbourhoods of Prishtina do not offer an visual expression of themself and also for the entire city as they are not integrated in it.

Fig8 / Example of public art intervention on building facade, city of Tirana

The work consisted in developing a key con¬cept by analyzing Prishtina's neighborhoods potential and identify structural building typologies and architectural configuration as the key factors for future development. Also it was focused on a new visual aspect that gives rise to future urban development of these areas. The analysis is conducted on small scale, the urban built environment of the selected areas of study and also along categories like residential buildings or villas due to construction periods and types.

The example presented in the case of Tirana city for actions taken to revitalize the buildings and space may appear similar also for the neighborhoods of Prishtina but may also differ significantly because of different characteristics of the built environment. Further investigations should be done in these cases.

Understanding the fundamental needs of Prishtina using qualitative and comparative methodology to catch up with the actual European trends of sustainable urban development, trigger the question raised by the study to analyse the construction industry development versus rapid urban growth in Prishtina and give recommendations on feasible actions to comply with international standards.

Bibliography

Abazi E., and Dervishi S. (2014) Colour and Participative Process in Urban Requalification of Tirana, Proceedings of the 2nd ICAUD International Conference in Architecture and Urban Design, Albania, Paper No. 142

Akadiri P., Chinyio E., and Olomolaiye P. (2012) Design of a Sustainable Building: A Conceptual Framework for Implementing Sustainability in the Building Sector. Buildings Journals, ISSN 2075-5309, pp. 126-152.

Blum A., and Gruhler K., (2017) Typologies of the Built Environment - An Approach for Inventory Benchmarking and Monitoring Towards Sustainability. (2017). Kelowna Official Community Plan, Canada.

Jennath, K. A., and Nidhish P.J., (2016). Aesthetic judgement and visual impact of architectural forms: a study of library buildings. International Conference

on Emerging Trends in Engineering, Science and Technology, Elsevier Ltd, pp. 1808-1818, Retrieved from https://www.sciencedirect.com/science/article/pii/S2212017316303176

Kajtazi T., and Jakupi A., (2017) Interpretation of Architectural Identity through Landmark Architecture: The case of Prishtina, Kosova from the 1970s to the 1980s. Fronters of Architectural Research, Volume 6, 480-486. Retrieved from https://www.sciencedirect.com/science/article/pii/S2095263517300560

Lang D., Kumar A., Sulaymanov S., and Meslem A., (2018) Building Typology Classification and Earthquake Vulnerability Scale of Central and South Asian Building Stock. Journal of Building Engineering, Volume 15, pp. 261-277.

Meir, I. A., Pearlmutter D., and Etzion Y., (1995) On the microclimatic behavior of two semi-enclosed attached courtyards in a hot dry region. Building and Environment, Elsevier Ltd, pp. 563-572.
Report by Archis Interventions in Prishtina and Municipality of Prishtina, (2009) Prishtina - Dynamic City, Knowledge and Education: Key Factors for the Future Development of Prishtina.
Report by Archis Interventions in Prishtina and Municipality of Prishtina, (2009) Manual on the legalization of structures built without construction permit.

Report of Congress for the New Urbanism, Principles for Inner City Neighbourhood Design, Creating Communities of Opportunity.

Report by Ministry of Environment and Spatial Planning of Kosova , (2010) Spatial Plan of Kosova : Spatial Development Strategy 2010-2020+.

Report by Council of Edmonton City,(2013) Designing New Neighbourhoods. Edmonton: Edmonton City Council.

Report by Ministry of Environment and Spatial Planning of Kosova , (2005) Informal Settlements, A Survey of the present situation.

Rudlin D., and Folk N., (1999) Building the 21 century home: the sustainable urban neighbourhood, Architectural Press (An imprint of Elsevier)

Rural Area Design Guide, (2000) Wellington City District Plan. Wellington: Residential Design Guide.

Town Planning Design Workshop, (2014) Common Ground Prishtina masterplan. Retrieved from ISSUU: https://issuu.com/giulia.mp/docs/cgl_prishtina_book

Webliography

http://wikimapia.org/15295710/sq/Kalabria#/photo/1498483

http://wikimapia.org/15329164/sq/Bregu-i-Diellit#/photo/1344399

http://wikimapia.org/#lang=en&lat=42.651321&lon=21.161213&z=15&m=b&show=/29333541 / Dardania-Kurrizi&search=Ulpiana

https://issuu.com/whsp/docs/whsp_book_def

http://www.banesatereja.com/properties/kompleksi-banesor-exclusive-3-ne-lagjen-kalabria/

https://www.researchgate.net/publication/322140094_Garden_Cities_of_the_21st_Century_A_Sustainable_Path_to_Suburban_Reform.