



New Bulgarian University - Sofia

Department of Architecture

Kosovo



Prishtina



**Sustainable Development
and Revitalization of
Residential Environment of Prishtina City,
Republic of Kosovo**

Arch. Armend H. Fazliu

A U T O R E F E R A T E

of doctoral dissertation for the acquisition of educational
and scientific degree "DOCTOR" in scientific field 5.7
"Architecture Construction and Geodesy"

Supervisor: Prof. Dr. Arch. Georgi Georgiev

Sofia - 2019

The author was assigned as a full-time Ph.D. student at the Department of Residential Buildings with Order of the Rector № 3-PK-357 / dated: 19.07.2017.

The PhD student has been admitted to defense by Rector's Order No. 3-PK-112, Sofia, February 4, 2019.

The public defense will be held on2020. from at the New Bulgarian University - Sofia

The dissertation work contains

208 pages, including:

146 illustrations

Table of Contents

Module 1. Introduction Error! Bookmark not defined.

- 1.1. General Setting - current nature and importance of the topic. **Error! Bookmark not defined.**
- 1.2. Research Setting **Error! Bookmark not defined.**
 - 1.2.1. Purpose of Study **Error! Bookmark not defined.**
 - 1.2.2. Tasks of Study **Error! Bookmark not defined.**
 - 1.2.3. Subject of Study **Error! Bookmark not defined.**
 - 1.2.4. Object of Study **Error! Bookmark not defined.**
- 1.3. Scientific and theoretical setup **Error! Bookmark not defined.**
 - 1.3.1. Expected results and approbation..... **Error! Bookmark not defined.**

Module 2. Situational analysis of the socio-economic and spatial development of the city of Prishtina, Republic of Kosovo. ...Error! Bookmark not defined.

- 2.1. Historical and spatial development of the Republic of Kosovo and Prishtina.....**Error! Bookmark not defined.**
- 2.2. Socio-economic and spatial development of Kosovo and Prishtina 11
 - 2.2.1. Natural and geographical features 11
 - 2.2.2. General analysis of socio-economic development 12
 - 2.2.3. General analysis of municipal utilities and transport-traffic infrastructure 13
 - 2.2.4. General analysis of cultural heritage 14
- 2.3. General analysis of the demographic development of Kosovo and Prishtina 14
- 2.4. General analysis of spatial-temporal development of Prishtina 19
- 2.5. Strategies and guidelines for the development of Prishtina..... 24

Module 3. Analysis and diagnosis of the conditions of the residential environment in Prishtina 25

- 3.1. Architectural planning analysis 25
- 3.2. General analysis of the state and public works development of parks and green spaces in housing complexes and neighborhoods. 28
- 3.3. Typology of residential structures, inter-block spaces and apartments in high-demand in the real estate market 31

Module 4. Guidelines on sustainable development of PrishtinaError! Bookmark not defined.

- 4.1. Alternative scenarios for sustainable regional and urban development. Macro-spatial and applied urban development model..... 33

4.2. Priorities of citywide sustainable development.....	45
4.3. Valorisation of cultural, historical and natural heritage for tourism and to support the cultural and historical identity of Prishtina	51

Module 5. Priority directions in the revitalization of the residential environment in Prishtina 61

5.1. Priorities in the revitalization of housing projects and neighborhoods.....	61
5.2. Energy policy and energy efficiency of residential environment	64
5.3. Housing Policy	66

Module 6. Conclusion..... 67

6.1. General conclusions	67
6.2. Research and applied contributions of the thesis.....	67
6.3. Applicability of results of study.....	Error! Bookmark not defined.
6.4. Recommendations to the concerned ministries and departments ...	Error! Bookmark not defined.

Literature used.....74

List of illustrations.....79

PhD publications on the topic.....80

Module 1. Introduction

1.1. General Setting - current nature and importance of the topic.

The geopolitical and geostrategic changes caused by the fall of the Berlin wall, have formed the basis of the new political, socio-economic and physical realities taking shape in the European and global natural and anthropogenic environment. They have significantly changed the existing raw material, economic and energy balance, resource, labor and market certainty, as well as internal state and transnational commodity-money relations.

To some extent, they contributed to overcoming political, religious and ethnic confrontations, and the closed and opposing nature of the bipolar model of global development of the better part of the XXth century.

The countries of the former socialist camp, the constituents of the former USSR and Federal Republic of Yugoslavia, and the new countries that emerged from them, including the Republic of Kosovo, have adopted the model of development based on the principles of market democracy, which will have a significant impact on the economic and urbanization processes of development.

Besides the model, this development will be significantly influenced by: global warming and climate change; economic recession, national and transnational investments; residual and new armed conflicts in the Arab world and the related refugee flow to Europe; and the hidden dangers of globalization, such as the loss of historical roots, cultural identity and tradition and the disappearance of authentic architectural and urban settings.

The urban environment and the architectural image of the city, as well as future urbanization processes, will be significantly impacted by: the degree of clear focus, systemization, order and integration of design solutions and practices; environmental protection and the rehabilitation of degraded

landscapes, ecosystems and ecological niches in and around settlements on the regional level; urban space macro and micro climates; the full functioning of refurbished transport systems; renewed labor market, production and service sectors; residential buildings, terrain and the need to address their existing moral and physical atrophy; increased levels of energy efficiency; urban renewal and the projected architectural image of the city for decades to come.

This reasoning forms the basis and shows the relevance of the topic of this PhD study. This multi-layered research is presented through: the general situation analysis of the development of the city up to now; the diagnosis and related problems; the research of the conditions of the habitat, residential and construction environment, and their management; and finally, the guidelines and policies for their future sustainable development.

1.2. Research Setting

1.2.1. Purpose of Study

The main objective of this PhD study is a wide-ranging scientific, theoretical and applied research of the development of the city of Prishtina, its history, socio-economic and spatial structure, resources, functional and territorial systems, focusing on revitalization and sustainable living habitat.

1.2.2. Tasks of Study

The tasks related to the achievement of the main objective of the study are:

- Situation analysis, summaries and conclusions on the historical, geographical, socio-economic and spatial development of the city of Prishtina;
- General functional and spatial analysis and conclusions on the Municipal Development Plan 2012 - 2022;

1.2.3. Subject of Study

The subject of the study is Prishtina with its social, economic and spatial structure, territorial systems and infrastructure on the one hand, and the habitat system with its spatial locations and architectural and urban elements, residential areas and terrains, complexes, neighborhoods, regulated and non-regulated real estate, low-rise, medium height and high-rise buildings and constructions, spaces around and between buildings, objects and elements on the other.

1.2.4. Object of Study

The object of the study is the genesis of the residential habitat, pathogenic changes, problems and potential for future growth, renewal and revitalization in the context of sustainable development.

1.3. Scientific and theoretical setup

1.3.1. Expected results and approbation

The expected results are related to the achievement of the main goal and the ensuing research tasks, aimed at the revitalization and sustainable living habitat in the city of Prishtina.

On the other hand, they are connected with the correct situation analysis and outputs: general trends and priorities in the development of the residential environment; alternative scenarios and architectural, urbanistic models; methodological setup for sustainable development and management.

Third, are the derived guidelines for approbation of the possible practical and applied development model for neighborhoods, micro-quarter spaces or residential building groups.

All of the above will permit the definition of: territorial localization through the nature, parameters and modes of sustainable operation and the interaction of key component systems and elements; the architectural image of volumes and space; the structure of spatial expansion and the relations between the citywide systems between the center, suburbs and the boundary areas; last

but not least, the required constant monitoring related to the implementation, operation and management of the renovation and development of residential areas.

Pristina	Total	Country of citizenship										
		Kosovo	Serbia	Albania	Makedonians	Montenegro	Turkey	Germany	United States	Bosnia and Herzegovina	Croatia	Other Country
Total[17]	198,897	196,155	609	147	131	28	162	58	48	19	10	1,530
Male	99,361	98,019	308	57	62	13	94	25	28	3	3	749
Female	99,536	98,136	301	90	69	15	68	33	20	16	7	781

Фиг. 8. Официално граѓанство – број, пол и држава: Косово, Србија, Албанија, Македонија, Черна гора, Турција, Германија, САЩ, Босна и Херцеговина, Хрватия, други страни

Pristina	Total	Religion						
		Islamic	Orthodox	Catholic	Other	No Religion	Prefer not to answer	Not Available
Total ^[17]	198,897	193,474	480	1,170	344	660	2,388	381
Male	99,361	96,375	221	558	181	334	1,168	164
Female	99,536	96,739	259	612	163	326	1,220	217

Фиг. 9. Религиозна припадност по број и пол – ислам, православни христијани, католици, други религии, атеисти, неуточнени, невалидни

	Higheat completed education level											
Pristina	Total	No complited education	4 Classes	5 Classes	8 Classes	9 Classes	12 Classes	13 Classes	Hight School	Faculty Bachelor	Post graduate Degree	Doctorate/PHD
Total ^[17]	165,362	12,416	6,775	14,466	23,382	14,792	47,197	15,485	4,747	21,671	3,612	819
Male	81,978	4,351	1,550	7,546	8,218	7,784	27,595	7,966	2,731	11,450	2,125	662
Female	83,384	80,65	5,225	6,920	15,164	7,008	19,602	7,519	2,016	10,221	1,487	157

Фиг. 10. Образование по број и пол – необразовано население, начално, средно, гимназиално, специјализирано и висеше образование – бакалавр, магистар, доктор

Module 2. Situational analysis of the socio-economic and spatial development of the city of Prishtina, Republic of Kosovo.

2.1. Historical and spatial development of the Republic of Kosovo and Prishtina

The Republic of Kosovo occupies a central place in the Balkans in Southeast Europe. In the past, it was part of the SFRY, and in 2008 it gained its independence. Kosovo had a population of 1,884,981 by 2015, but some institutions, including the World Bank, place the number of inhabitants between 1.9 million and 2.2 million.¹



Fig. 1. Geographic Map of Republic of Kosovo

¹ Executive Council of the Municipal Assembly of Prishtina (1987) Urban Plan 2000, (p.15)

Kosovo covers an area of 10,908 km² and borders with: Albania – 113.551 km; Macedonia – 170.772 km; Montenegro – 79.165 km; Serbia – 381.068 km. Prishtina is the capital of Kosovo; Prizren and Mitrovica are both cities with population over 100,000 inhabitants; Podujeva, Vushtri, Skenderaj, Drenas, Peja, Gjakova, Rahovec, Malisheva, Suhareka, Lipjan and Gjilan have over 50,000 inhabitants.²

The transnational and major road and rail networks linking Kosovo with the neighboring countries are directed towards Prishtina. Together with the civil airport in the capital's suburb, they define Prishtina as a major hub of energy, resources, goods and passenger flow.

This centenary period in the historical development of Kosovo and the city of Prishtina, has witnessed the adoption of European principles and ideas of architectural and urban planning realization as features of urban culture, architecture and social structure, with the addition of Balkan details and nuances of Yugoslav specificity. Today, similarly to the process occurring in neighboring countries, Prishtina is entering into the stage of global architecture and urbanism, causing a significant departure from the specifics of the local regional tradition.



“Ulpiana”

² REKOS 2010, Final Results, September 2012

2.2. Socio-economic and spatial development of Kosovo and Prishtina

2.2.1. *Natural and geographical features*

The Prishtina Municipality³ is located in the northeastern part of Kosovo. The relief of the terrain is diverse and highly segmented, especially in the north, northeast and southeast, dominated by the hilly and mountainous nature of urban and municipal territory, which combined with the lowland areas of the city outlines its specific and dynamic silhouette. In the flatter part of the municipality, which lies to the west and southwest of the city and goes into the Kosovo Field, the terrain is quite flat with smooth gradients and altitude of 535 to 580 m above sea level. The highest peak in Kosovo is the Gjeravica, standing at 2,656 m above sea level, while the lowest altituted is that of the river White Drin, at 122 meters above sea level. The relative elevation of the municipal region is between 600 to 800 meters above sea level, which determines the existing hilly landscape. It includes the mostly flat urban landscape of the city and the surrounding villages with their agricultural and forestry activities. North, northeast, east and southeast, the marginally urbanized hilly landscape includes vast forests, rivers and lake basins. The predominant forest vegetation is oak, beech, pine and other species of trees and shrubs, while black earth soils predominate in the flat part of the municipality of Prishtina.

The general conclusions from these data reveal that there are all the necessary natural resources for the development of intensive farming and animal husbandry, obviously by protecting the environment and utilizing the prevailing force of easterly winds and the significant volume of sunshine as alternative energy sources.

³ Snow, Marko. The origin of the country's name Pristina. In: Bokshi, Besim, Eqrem Basha, Mehmet Kraja (red.) Albanian philological studies. Pristina: Kosovo Academy of Sciences and Arts, 2008, p. 277-281. ISBN 978-9951-413-68-8

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Record high °C (°F)	15.8 (60.4)	20.2 (68.4)	26.0 (78.8)	29.0 (84.2)	32.3 (90.1)	36.3 (97.3)	39.2 (102.6)	36.8 (98.2)	34.4 (93.9)	29.3 (84.7)	22.0 (71.6)	15.6 (60.1)	39.2 (102.6)
Average high °C (°F)	2.4 (36.3)	5.5 (41.9)	10.5 (50.9)	15.7 (60.3)	20.7 (69.3)	23.9 (75.0)	26.4 (79.5)	26.7 (80.1)	23.1 (73.6)	17.1 (62.8)	10.1 (50.2)	4.1 (39.4)	15.5 (59.9)
Daily mean °C (°F)	-1.3 (29.7)	1.1 (34.0)	5.0 (41.0)	9.9 (49.8)	14.7 (58.5)	17.8 (64.0)	19.7 (67.5)	19.5 (67.1)	15.9 (60.6)	10.6 (51.1)	5.1 (41.2)	0.4 (32.7)	9.8 (49.6)
Average low °C (°F)	-4.9 (23.2)	-2.8 (27.0)	0.2 (32.4)	4.2 (39.6)	8.5 (47.3)	11.4 (52.5)	12.5 (54.5)	12.3 (54.1)	9.4 (48.9)	5.0 (41.0)	0.9 (33.6)	-3.1 (26.4)	4.4 (39.9)
Record low °C (°F)	-27.2 (-17.0)	-24.5 (-12.1)	-14.2 (6.4)	-5.3 (22.5)	-1.8 (28.8)	0.5 (32.9)	3.9 (39.0)	4.4 (39.9)	-4.0 (24.8)	-8.0 (17.6)	-17.6 (0.3)	-20.6 (-5.1)	-27.2 (-17.0)
Average precipitation mm (inches)	38.9 (1.53)	36.1 (1.42)	38.8 (1.53)	48.8 (1.92)	68.2 (2.69)	60.3 (2.37)	51.6 (2.03)	44.0 (1.73)	42.1 (1.66)	45.4 (1.79)	68.2 (2.69)	55.5 (2.19)	597.9 (23.54)
Average precipitation days (≥ 0.1 mm)	13.6	12.3	11.4	12.1	12.8	11.9	8.3	7.9	7.5	8.6	12.3	14.5	133.2
Average snowy days	10.2	8.3	6.2	1.5	0.0	0.0	0.0	0.0	0.0	0.5	3.4	8.1	38.2
Average relative humidity (%)	83	77	70	65	67	67	63	62	68	74	80	83	71
Mean monthly sunshine hours	70.8	96.0	143.0	184.0	227.9	246.3	299.3	289.6	225.8	173.5	96.9	70.2	2,123.3

Fig. 2 Annual and average annual climatic data: month, highest monthly temperature; average monthly high temperature; average daily temperature; lowest monthly temperature; average monthly rainfall mm/m²; average daily rainfall mm/m²; average daily rainfall mm/m²; relative monthly humidity; average monthly sunshine

2.2.2. General analysis of socio-economic development

According to official data, Kosovo is one of the poorest economies in Europe, with the GDP standing at €1,565 per person in 20014. The largest market for the country is Macedonia, with 220 million Euros in imports and 9 million Euros in exports, followed by Serbia with 111 million in imports and 5 million in exports, Germany and Turkey.⁴

The mineral resources available to Kosovo, lead-zinc, gold, copper and other ores, significantly affect the development of the mining industry and related industries. The presence of substantial forests encourages logging and wood processing activities, which together with well-developed agriculture and livestock contribute to increasing the gross domestic product, and through it the standard of living, which contributes to the rapidly developing field of services and tourism.

Education is well structured as primary, secondary, secondary specialized and higher education in the three degrees - bachelor, master, doctor.

⁴ In Kosovo in 2011, more than 35,000 families with 182,000 family members were included in the social assistance scheme.

School locations are evenly and equally situated in the city and surrounding villages in the municipality.

Childcare facilities and social infrastructure are well localized in accordance with the needs.

2.2.3. General analysis of municipal utilities and transport-traffic infrastructure

The main municipal utilities, electricity, water and sanitation, function relatively well, but shortages and poor quality services do also exist.

The generation of electric power from the city's thermal power plant, is supplemented by transmission and supply of electricity from neighboring municipalities. The electric power networks are high, medium and low voltage, including transnational networks, and they are well located and operate seamlessly with the existing substations and transformer network.

The Prishtina Airport is located 16 km from the city and is connected to Fushe Kosove and Lipjan. The railway station⁵ is located 6 km from the city, in Fushe Kosove. The bus station is located at the western gate of the city. This detachment of the airport, railway and bus stations necessitates rapid interlinks, which for cities with between 200,000 and 400,000 inhabitants are best provided through tram or trolley bus transport with modern, comfortable and rapid vehicles, as the most economical and energy efficient. In this regard, the construction of a new bus station next to the train station will increase the effectiveness and matching of time tables and movement of passenger, and of all mass public transportation.

2.2.4. General analysis of cultural heritage

Cultural and historic heritage in the city and adjoining municipal area of Prishtina is extremely rich. There are many buildings of cultural and religious

⁵ European Commission - Damage Assessment, Kosovo / International Management Group: Railway Assessment.IMG Kosovo, January 2000.

sites, some of which are classics of architecture and tradition and preserve the historical memory of the city, which places them in the rich and diverse cultural historical heritage of the country, region and city.

The sites with the most tangible presence in the city are: National University Library; City Library with its 13 branches, Institute for Protection of Monuments of Culture; Prishtina Museum; City Archives; House of Culture and its subsidiaries in the region; Cultural Center for Children; Radio; Public and Private television; Philharmonic Orchestra; mosques, churches and others.

2.3. General analysis of the demographic development of Kosovo and Prishtina

The graph of growth the population of Kosovo between 1921 and 2015 shows a gradual upward growth of the nearly 500,000 inhabitants in 1921 to about 2 million in 1991, later decreasing to 1.7 million in 2011, and again increasing to 1,884,981 inhabitants in 2015. The average growth rate in the country today is around 0.64%, with births at 179/1000 inhabitants and mortality 17/1000 inhabitants, while the data account for the number of residents turned immigrants in recent decades.⁶

Ethnic group	1948 census		1953 census		1961 census		1971 census		1981 census		1991 census		2011 census	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Albanians	498,244	68.5	524,559	64.9	646,605	67.1	916,168	73.7	1,226,736	77.4	1,596,072	81.6	1,616,869	92.9
Serbs	171,911	23.6	189,869	23.5	227,016	23.5	228,264	18.4	209,498	13.2	194,190	9.9	25,532	1.5
Muslims	9,679	1.3	6,241	0.8	8,026	0.8	26,357	2.1	58,562	3.7	66,189	3.4		
Bosniaks													27,533	1.6
Gorani													10,265	0.6
Montenegrins	28,050	3.9	31,343	3.9	37,588	3.9	31,555	2.5	27,028	1.7	20,365	1.1		
Croats	5,290	0.7	6,201	0.8	7,251	0.8	8,264	0.7	8,718	0.6	8,062	0.4		
Yugoslavs					5,206	0.5	920	0.1	2,676	0.2	3,457	0.2		
Romani	11,230	1.5	11,904	1.5	3,202	0.3	14,593	1.2	34,126	2.2	45,760	2.3	8,824	0.5
Ashkali													15,436	0.9
Egyptians													11,524	0.6
Turks	1,315	0.2	34,583	4.3	25,764	2.7	12,244	1.0	12,513	0.8	10,445	0.5	18,738	1.1
Macedonians	526	0.1	972	0.1	1,142	0.1	1,048	0.1	1,056	0.1				
Others or unspecified	1,577	0.2	2,469	0.3	2,188	0.2	4,280	0.3	3,454	0.2	11,656	0.6	3,264	0.6
Total	727,820		808,141		963,988		1,243,693		1,584,441		1,956,196		1,739,825	

Fig. 3 Increase of the population of the Republic of Kosovo (number and percentage) by separate ethnic groups⁷

⁶ Rekos 2011, Prishtina.

⁷ "ECMI: Minority figures in Kosovo census to be used with reservations". Infoecmi.eu. Archived from the original on 28 May 2017. Retrieved 29 August 2017.

The analysis of the territorial expansion of the city by number of inhabitants, density, shape and direction of development shows the following: In 1937, the city is compact with the beginnings of development in the southeastern direction towards Germia park and the mountains. In 1953, the intensity of construction increases in the central parts and the guidelines for the development of directions north - northwest and south are drawn. In 1964, Prishtina doubled its population and territory as compact shapes and plots in the direction north - northeast and south. From 1962 to 1999, its population grew to 250,000 inhabitants, completing its compact form developed in plots the direction northeast - southwest; the intensity of construction in the central parts of the city increased - medium height and high rise residential buildings, gradually leading to lower, individual home quarters in the adjacent newly developed territories.⁸

⁸ The concept of the document approved with the model of the PPU drafting process was intended to lay the foundations for the beginning of the planning and continuous regulation of the Pristina space. Prishtina's planning has been included with the spatial plans of the highest order, Spatial Plan of KSAK in 1978 and the Regional Spatial Plan of Kosovo, for which although it has been drafted, the decision of the Municipal Assembly of Prishtina was not taken its approval, page 30.

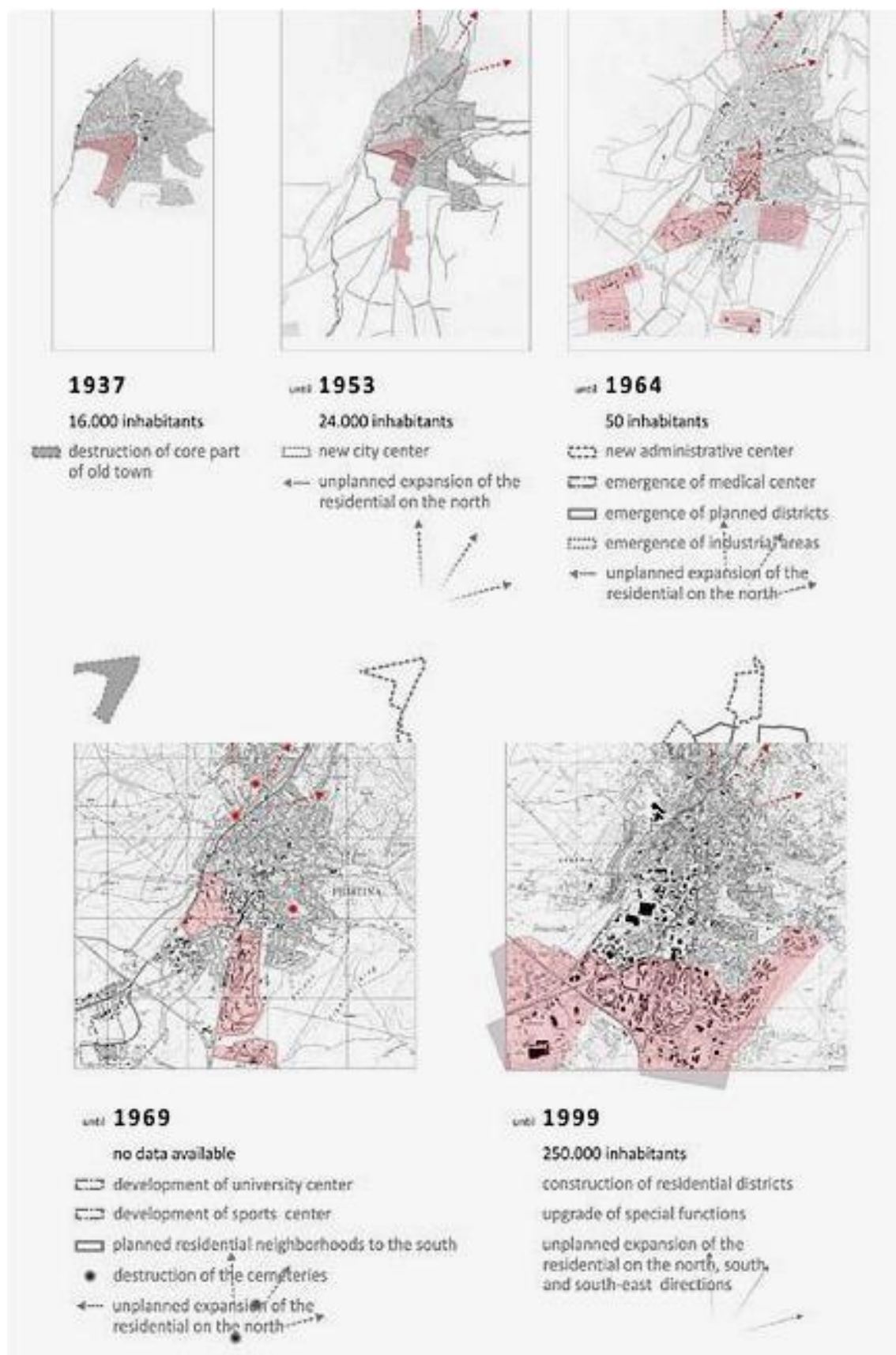


Fig. 4 Territorial growth of the city of Pristina in 1937, 1953, 1969, 1999.⁹

⁹ https://en.wikipedia.org/wiki/File:Demographics_of_Pristina_Region.jpg

Municipality ♦	Population (2011) ♦	Area (km²) ♦	Density (km²) ♦	Settlements ♦
Pristina	198,897	572	347.7	41
Podujevo	88,499	632	133.5	76
Glogovac	58,531	290	201.8	37
Lipljan	57,605	422	136.5	70
Kosovo Polje	34,827	83	419.6	15
Obilić	21,549	105	205.2	19
Gračanica	10,675	131	81.5	16
Novo Brdo	6,729	204	33.0	24
Pristina District	477,312	2,470	193.2	298

Fig. 5 Prishtina Municipality – Prishtina, Podujeva, Drenas, Lipjan, Fushe Kosove, Obiliq, Gračanica, Novoherdo, number of population around 2011; areas - km²; density of population – p/km²; regional urbanized locations.

Prishtina occupies an area of 523 km², its land covers an area of 20,358 hectares, 14,000 hectares of arable land and 30,000 hectares of forests.

Fig. 6 in tabular form provides available demographic characteristics of the population of Prishtina and adjacent rural areas in numbers, gender and age groups. The comparative analysis of tabular data with European data, shows that the population of Kosovo is the youngest in Europe, and this fact guarantees its natural growth and natural growth, if the following decades of development will be peaceful, conflict-free, and if the economic and business environment become attractive for international capital and investment.

Pristina	Population			Infants 0 Age	Children 1-7 Age	Children 7-14 Age	Youth 15-27 Age	Working age population 15-64 Age			65+ Age
	Total	Male	Female					Total	Male	Female	
Total ^[7]	198,897	99,361	99,536	3,529	19,727	28,147	45,793	134,336	66,111	68,225	13,158
Urban	161,751	80,419	81,332	2,820	15,666	22,248	37,032	110,099	53,837	56,262	10,918
Rural	37,46	18,942	18,204	709	4,061	5,899	8,761	24,237	12,274	11,963	2,240

Fig. 6 Population of Prishtina Municipality, city and surrounding villages by number, gender and age group

On figures 7, 8, 9 are tabulated data on urban population by ethnicity¹⁰, formal citizenship and religious identity. They show that: nearly 95% of the population are Albanians, composed of an equal number of men and women; 98 percent are citizens of Kosovo; 95% of the population are muslim.

Pristina	Total	Ethnicity (2011 Census)										
		Albanian	Turks	Ashkali	Serbs	Bosnian	Gorani	Rom	Egyptian	Others	Prefer not to Answer	Not Available
Total ^[17]	198,897	194,452	2,156	557	430	400	205	56	8	334	79	220
Male	99,361	97,347	1,060	281	204	107	99	31	3	110	37	82
Female	99,536	97,105	1,096	276	226	293	106	25	5	224	42	138

Fig. 7 Population of Prishtina by number, gender and ethnicity - Albanians, Turks, Serbs, Bosniaks, Romani, other, unspecified

Pristina	Total	Country of citizenship										
		Kosovo	Serbia	Albania	Macedonians	Montenegro	Turkey	Germany	United States	Bosnia and Herzegovina	Croatia	Other Country
Total ^[17]	198,897	196,155	609	147	131	28	162	58	48	19	10	1,530
Male	99,361	98,019	308	57	62	13	94	25	28	3	3	749
Female	99,536	98,136	301	90	69	15	68	33	20	16	7	781

Fig. 8. Formal citizenship - number, gender and place: Kosovo, Serbia, Albania, Macedonia, Montenegro, Turkey, Germany, USA, Bosnia and Herzegovina, Croatia, other countries

Pristina	Total	Religion						
		Islamic	Orthodox	Catholic	Other	No Religion	Prefer not to answer	Not Available
Total ^[17]	198,897	193,474	480	1,170	344	660	2,388	381
Male	99,361	96,375	221	558	181	334	1,168	164
Female	99,536	96,739	259	612	163	326	1,220	217

Fig. 9. Religions in numbers and gender - Muslims, Orthodox, Catholic, other religions, atheists, indefinite, undiscovered

¹⁰ "Results of the 2011 census"(PDF) (in Albanian). 31 March 2012. Retrieved 25 August2014.

2.4. General analysis of spatial-temporal development of Prishtina

The comparative analysis of spatial-temporal development of Prishtina indicates the following conclusions:

- In 1937, the city had 16,000 inhabitants, low-rise buildings, clearly delineated compact form, with the initial formation of urbanization in the direction northeast - southwest.
- In 1953 the population was 24,000 residents, with low-rise buildings in the periphery and mid-rise in the city center, with compact form, while the urbanization development changes slightly from that of 1937, in the direction north - south.
- In 1964, the urban population doubled to 50,000 inhabitants. The number of building floors increases, while the compact expansion of city plots continues in the direction northeast - southwest.
- In 1969, the city continues to grow following development trends; higher buildings are constructed in the central part of the city, sealing its compact form.
- In 1999 the population of Prishtina is 250,000 inhabitants, the old town is growing in compact manner towards its periphery, and the number of floors is similar to European cities at the time - low-rise buildings in the peripheral neighborhoods, mid-rise in the central core and mixed, concentrated mid-rise and high-rise constructions in their contact zones.

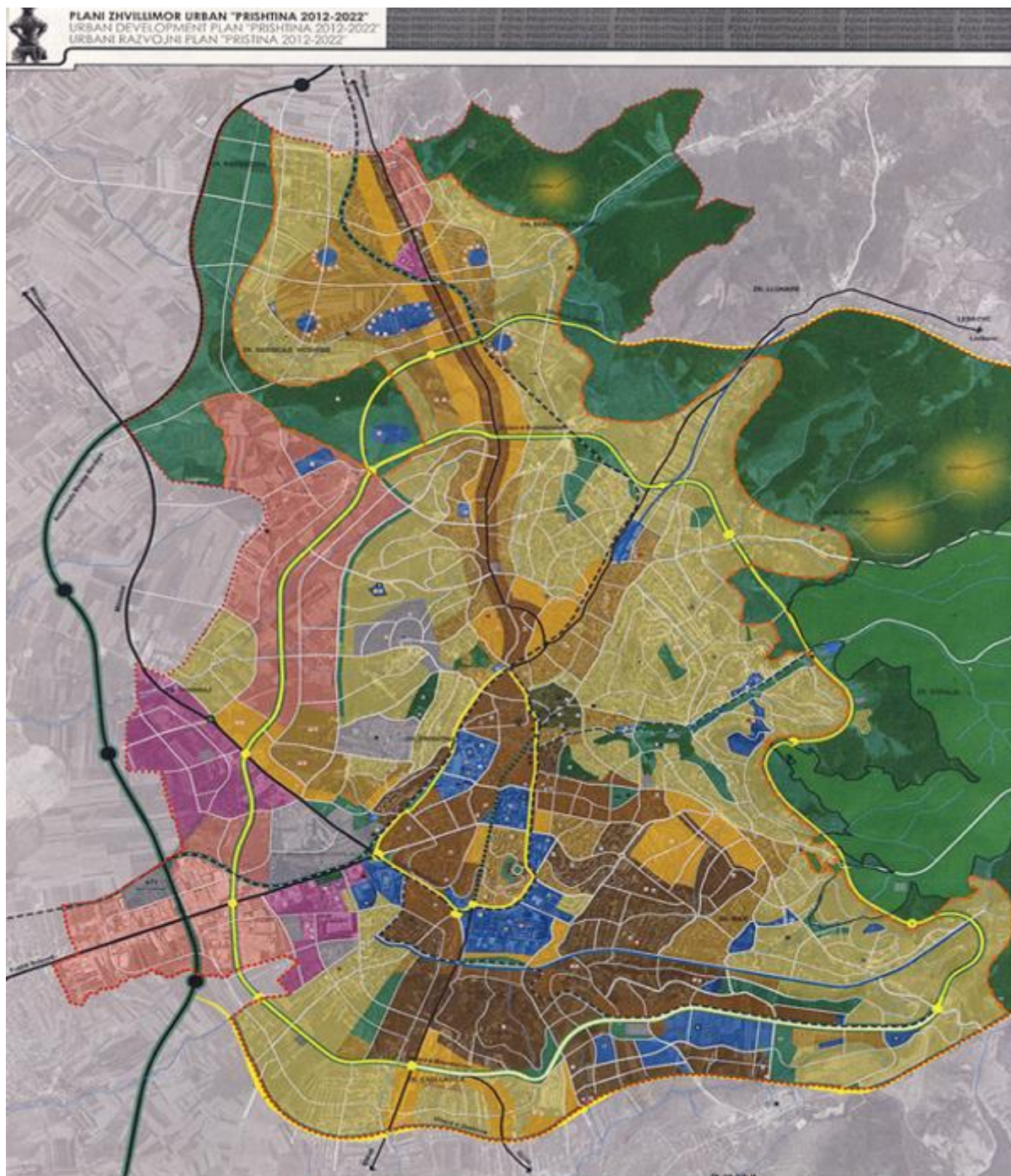


Fig. 10. Prishtina Urbanization Master Plan

In the first years of the twenty-first century the Prishtina strategic development plan 2004 - 2020 was drafted. This new plan developed the general guidelines and the architectural master plan of 1987 with a focus on transport and communication infrastructure and inner city streets' rings, clear and distinct urban structure and with the appropriate citywide zoning of the major functional systems, communications, living, public services, work and recreation.¹¹

¹¹ Prishtina Urban Planning Plan-PPU-2000, Prishtina.

development plans of the municipality and city, provide the quality textual and graphic basis, on which, in 2013, the "Prishtina Urban Development Plan 2012" was developed.¹³



¹³ Prishtina Urban Planning Plan-PPU-2000, Prishtina.



Fig. 14 Prishtina City center



Fig. 15. Prishtina City center

Google Satellite pictures¹⁴ seen in Fig. 14 and Fig. 15 illustrate the construction of spaces and volumes in the central parts of Prishtina along the main street that overlaps the main road M - 9, Boulevard "Mother Theresa" and the collecting streets "Luan Haradinaj" and "Garibaldi." They give an idea of the location of the main city square with the government and administration center of Kosovo; Hotel Prishtina; public and residential structures and buildings; service facilities; structure of the road network with parkings; landscaping and green system; the density and the number of floors of constructions; overloaded and chaotic setup and degraded exterior environment; architecture, color and aesthetics of the central zone.

¹⁴ <https://www.google.com/maps/@42.6663748,21.123708,14148m/data=!3m1!1e3>

2.5. Strategies and guidelines for the development of Prishtina

The spatial and temporal development of the city of Prishtina in accordance with the development plan of 2013 is based on the following seven strategies.

- Polycentric development of the city;
- Qualitative development of the natural environment and expression of culture in its identity;
- Full, multifunctional development of the city;
- Qualitative development of the natural environment and expression of culture in its identity;
- Full, multifunctional development of the city;
- A city in which all citizens' needs are met;
- Improving the quality of living in the adjacent municipal rural areas;
- Scientific and research activity regarding new global challenges: building innovative technology parks and incubation research centers; full interaction of manufacturing enterprises and universities; strengthening and improving international relationships and partnerships; increase role and importance of telecommunications in everyday life and future development of the city, as well as their renewal and improvement.

Module 3. Analysis and diagnosis of the conditions of the residential environment in Prishtina

3.1. Architectural planning analysis

The development of the residential habitat and neighborhoods in the city of Prishtina in the late 19th century and early twentieth century, followed a similar tradition in size and significance with other regional small and medium-sized towns: one-story single-family residential construction with relatively large yards that form neighborhoods of varying configuration.

Gradually, in the last decade of the 19th century and early 20th century, construction of medium height buildings with typical Western European architecture in the city center, owned by wealthy citizens of Prishtina, was initiated. The peripheral neighborhoods of the city follow the trend of low-rise buildings. In the period after the Balkan Wars and World War One, which brought death and destruction, the need arose for restoration, and the new construction process of the construction of medium height buildings in central areas is accelerated. Such constructions appear in the contact zone with the suburbs of the city.

Shown in Fig. 16 is a general view of Prishtina¹⁵ that illustrates the above summary: the city's central parts are characterized by well maintained and partly renovated mid-rise constructions, developed in junction with the sports complex and high-rise buildings of national and municipal management, including the representative missions of the UN, EU, embassies and legations: the adjacent residential contact areas are to a large extent developed with high and mid-rise residential complexes with prominent buildings and facilities for public services, focused primarily on the adjacent main streets; peripheral urban areas are characterized by overloaded, and in some cases unplanned and chaotic low-rise buildings.

¹⁵

https://www.google.com/search?q=prishtina+foto&source=lnms&tbn=isch&sa=X&ved=0ahUKEwjH0qHX8MDiAhVlz6YKHc-4BhMQ_AUIDigB&biw=1904&bih=904#imgsrc=OXETyrL6odc4lM:



Fig. 16. General view of Prishtina

Shown in Fig. 17 and Fig. 18 are general views of Prishtina in winter,¹⁶ which illustrate more emphatically the displayed classification. The snow cover clearly reveals the: graded road network that highlights individual neighborhoods; the formation and configuration of residential structures, groups and buildings; the main street with the two city squares and tall government buildings; central sports complex with the stadium, the covered hall and composite buildings and sites, media complex and tall government building;

¹⁶

https://www.google.com/search?q=prishtina+gjate+dimrit&source=lnms&tbm=isch&sa=X&ved=0ahUKEwi9meOo8cDiAhUJCZoKHeKICUoQ_AUIDigB&biw=1904&bih=904#imgrc=FxMbB9squNFu7M:

quality of the environment such as density and intensity of development, floors, parks, vacant areas, etc.



Fig. 17. Winter in Prishtina¹⁷



Fig. 18. Winter in Prishtina¹⁸

¹⁷ Foto from google

¹⁸ Foto from google

3.2. General analysis of the state and public works development of parks and green spaces in housing complexes and neighborhoods.

The principles, approaches and conditions for the development of the residential environment and green¹⁹ system are based on the global goal of sustainable development, adopted by the member states of the UN, with its three aspects: economic, social and environmental. In the context of the residential environment this means guaranteed development and management of a harmonious and healthy environment of buildings and parks, capable of lasting socio-economic and moral and physical functioning with minimal negative impact on the surrounding environment.

Fig. 19 shows part of the Prishtina city²⁰ park in late autumn. It shows the deliberate cultivation of space and the master's original interference in meshing of conifers, deciduous trees, low vegetation and grass cover, which carry the scent of the park arrangement supplemented by the elliptical pathway with high lighting, which step by step reveals different background images of the park.



Fig. 19. City park

¹⁹ Стойчев, Л., Паркова и ландшафтна архитектура, С. Техника, 1985.

²⁰

https://www.google.com/search?q=parku+i+qytetit+prishtine&source=lnms&tbm=isch&sa=X&ved=0ahUKEwi evJ6R28HiAhWP2qQKHfP6CDAQ_AUIECgB&biw=1904&bih=904#imgsrc=ZwQquZShoW15dM:

Fig. 20 shows the green part of the central city square²¹ by "Grand Hotel Prishtina," which is a masterful expression in gardening art as a combination and sequence of alternating large-sized conifers, deciduous trees and low vegetation, high and low lighting, parked vehicles delineating the pedestrian zone and the flow of building structures into the square space.



Fig. 20. Central City Square²²



Fig. 21. Central City Square

²¹ Foto by Armend Fazliu, May 2019.

²² Foto by Armend Fazliu, December 2018.

Fig. 22 shows a view of the Mother Theresa boulevard in the winter. It shows and proves the need for large-sized trees along the street network and surrounding environment as part of the green system, which is part of the iconic urban environment and atmosphere and carries the tradition of seasonal flair and perceptions.



Fig. 22 View of Mother Theresa Boulevard in winter²³

All of the above present the need for renovation and further development of the green system in Prishtina, by renovating and supplementing its functions, reconstructing existing park facilities, installations and park furniture and deploying new ones, targeting high, wide-ranging and multiple standards for sport, recreation and entertainment.

²³ Foto by Armend Fazliu, December 2018.

3.3. Typology of residential structures, inter-block spaces and apartments in high-demand in the real estate market

All of these features and professional details clash with the imposed speed of design, low prices and low control, which reduce project benchmarks, while the entrepreneurial dictate and speculation in the housing market reminds us again and again of our mission as architects who respect the architecture as a form of art and are in endless pursuit of exquisite perfection.

The conducted detailed analysis of the residential environment in Prishtina and the conclusions drawn in individual strands of narrative, impose the following generalizations.

Immediate measures are needed to solve problems related to the development of the residential environment and its erosion, degradation and destruction through: complete and full refurbishment, renovation and further development of the existing unfinished and newly planned residential environment; ensure the planned rehabilitation, reconstruction and aesthetics of buildings and adjacent inter-block green environment; enrichment of green environment with playgrounds, sports fields, places for quiet relaxation, new large-sized trees, water areas, flower beds, service facilities for park users, local residents and guests: renovation of existing park equipment and completion of new; reconstruction and renovation of high, secondary and low street and park lighting with emphasis on targeted lighting of cultural monuments, sculptures, exquisite design, etc.; ensure cleanliness in the residential complex and neighborhood through waste collection at local sites and landfills for separate disposal and collection; provide new underground and above ground stops and parking spaces; provide modern information boards at public transport stops and at locations in the neighborhood for news, communication, safety; clear establishment and legal implementation of the rights and obligations of the municipality, owners and users on the buildings and inter-block spaces; provide video surveillance at key locations in the neighborhood with a view to

preventing possible crimes of any kind and character; provide permanent specialized and common control over the state of the housing environment by the municipality, residents, civic associations and specialized bodies; ensure control over stray animals and their population in order to protect the health and life of the residents and guests of the neighborhood; establish new forms of dialog, debate and decision-making including municipalities, developers, residents and civil associations.

Significant attention in the development and renovation of building structures and inter-block spaces in housing complexes and neighborhoods should be paid to the cultural identity, as accumulation of history, archeology, culture, environmental stability, history of construction, architectural and urban planning and aesthetic qualities of the urban environment, management experience, civic participation and democratic decision-making for planning changes.

Equally important is the issue of: increasing the energy efficiency of buildings and the residential environment; providing environmental stability and equilibrium; preventing and combating natural disasters and industrial accidents; valorisation of cultural heritage and implementation of appropriate cultural and historical routes and paths; development of international and domestic tourism through new forms of attractive events to foreign and domestic consumer flow, investment, implementation and capital: promoting youth initiatives and innovation in science and production.²⁴

²⁴ Xu Feng, Zhang Guo-qiang, Xie Ming-jie. An Integrated Design Method and Process Targeting Building Energy Efficiency [J]. Journal of Architecture, 2013 (11). Journal of Shenyang Jianzhu University (Social Science Edition), 2013, 11

Module 4. Guidelines on sustainable development of Prishtina

4.1. Alternative scenarios for sustainable regional and urban development. Macro-spatial and applied urban development model

Based on the conducted situational analysis of the socio-economic and spatial development of the city of Prishtina and the adjacent municipal region, the future of independent Kosovo and ongoing geopolitical and geostrategic processes in the world, Europe and the Balkans, three alternative scenarios for the regional and urban development of Prishtina are outlined.

A. Little to no socio-economic growth and destructive urban and regional development scenario.

Although this scenario is pessimistic, it is quite realistic amid the global economic recession and stagnation, war in the Middle East, religious strife and climate change, increased migration flows from Arab, African and Asian population and intraregional and urban problems of Kosovo and Prishtina. It will have its negative impact on the economy, natural, regional and urban technical infrastructure, namely: low and near zero growth of the regional gross domestic product and the economy; reduced investment interest, which will reduce the pace of construction of buildings, technical infrastructure and production facilities; social deficits and lower standard of living. Positive changes in external geopolitical conditions, the extended and open transnational labor and commodities market and the possibly accelerated EU membership will lead to the desired economic growth, technological innovation, increased investment interest and attractiveness to work and live in the city and region that will increase intensity of construction processes, renewed urban density and high-rise building and actively absorb the western peripheral areas.



Fig. 23. Montgomery Business Development Corporation (MBDC)



Fig. 24. Montgomery Business Development Corporation (MBDC)²⁵

²⁵ Montgomery Business Development Corporation (MBDC),
https://mcatlas.org/Development_Info/default.aspx?apno=120140250

B. Moderately realistic socio-economic growth and optimal urban and regional development scenario.

This scenario is aimed at optimizing the socio-economic growth, higher regional GDP, reconstruction, building and technological upgrading of regional and urban environments, suppling the technical infrastructure and environmental protection. It is associated with favorable developments in the geopolitical and geostrategic processes, reboot and growth of the global and European economy to minimize migration pressure, stabilization of internal socio-economic conditions, religious relationships and standard of living. All this will lead to moderate socio-economic and spatial-temporal growth of the city and the region, namely: quantitative and qualitative development of construction; increased number of floors, density and intensity of development in the central and contact zones of the city; low-utilization of peripheral zones; mid-rise constructions along the main, incoming and outgoing, west-southwest traffic arteries of the highly urbanized axis Belgrade - Mitrovica - Obiliq - Prishtina - Fushe Kosove - Prizren - Tirana. Of utmost importance is the need of redevelopment, technological renovation and completion of the production environment and technical infrastructure, and the protection of the natural and anthropogenic environment, which will guarantee ecological stability. An important prerequisite for this development is the increased attractiveness for investment of foreign and domestic capital and business support of international development funds, the state, the World Bank and the European Union.

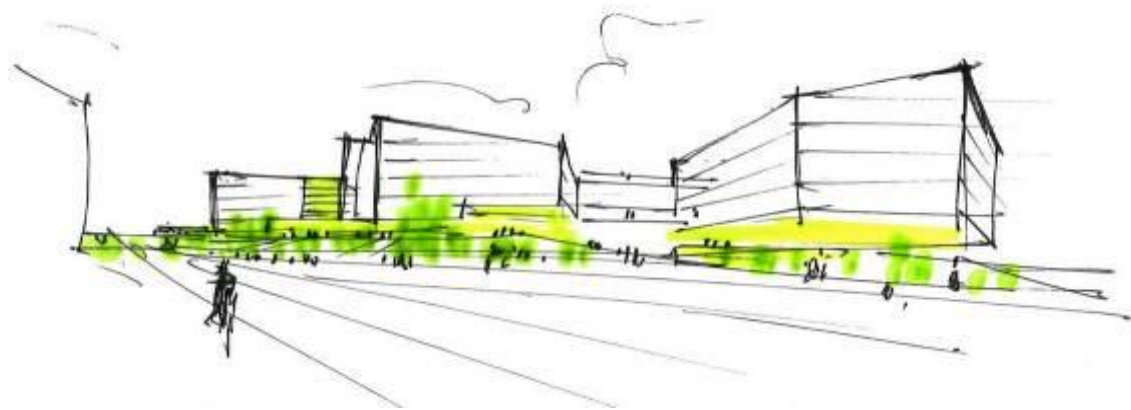




Fig. 25. Google maps property image with sketch overlay



Fig. 26. Landscape concept²⁶

²⁶ Mikiten Architecture | 2415 Fifth Street, Berkeley, CA 94710 | 510-540-7111, Erick Mikiten, AIA Architect, LEED-AP www.MikitenArch.com

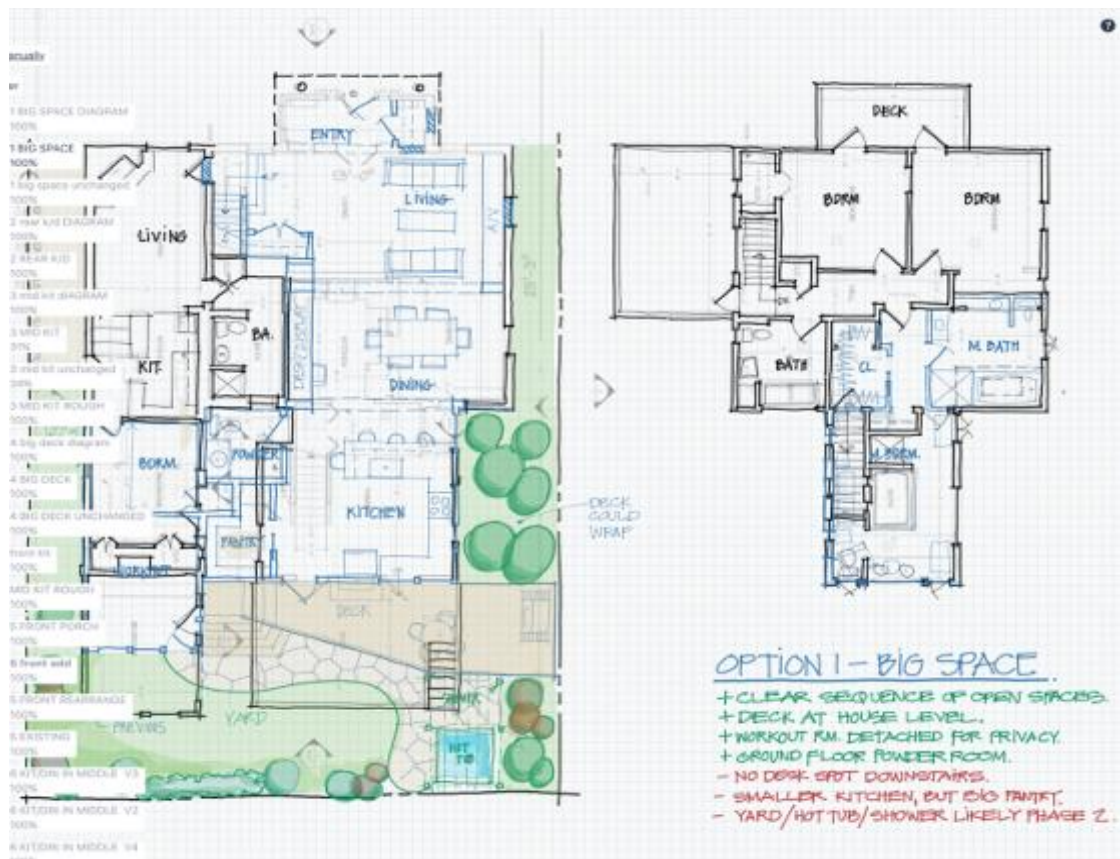


Fig. 27. Option 1 With Flow

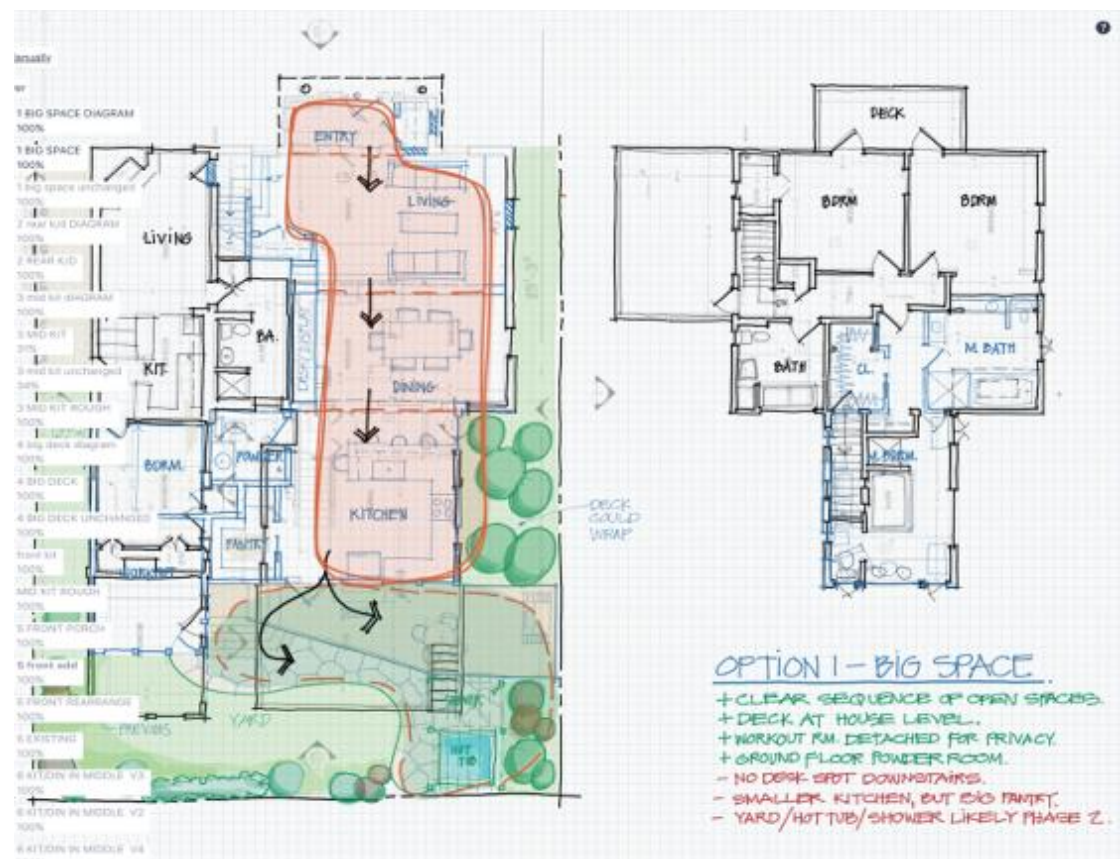


Fig. 28. Option 2 With Flow

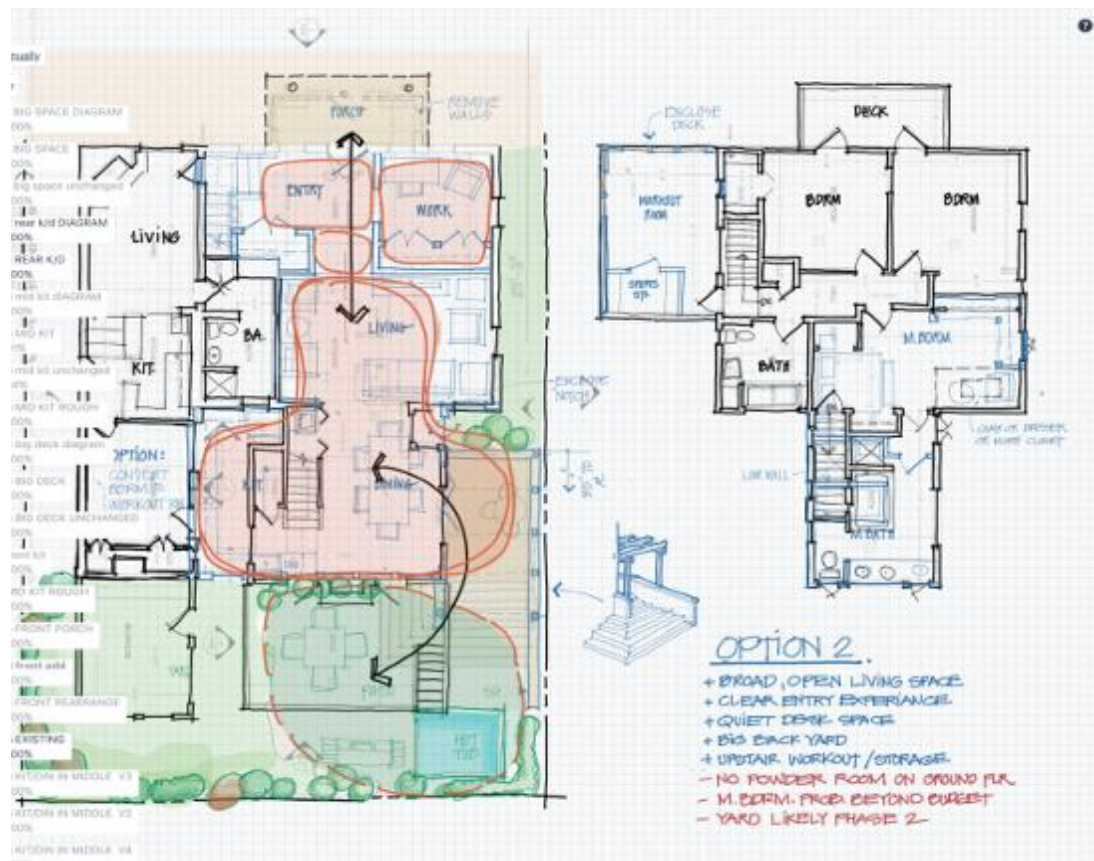


Fig. 29. Option 3 With Flow

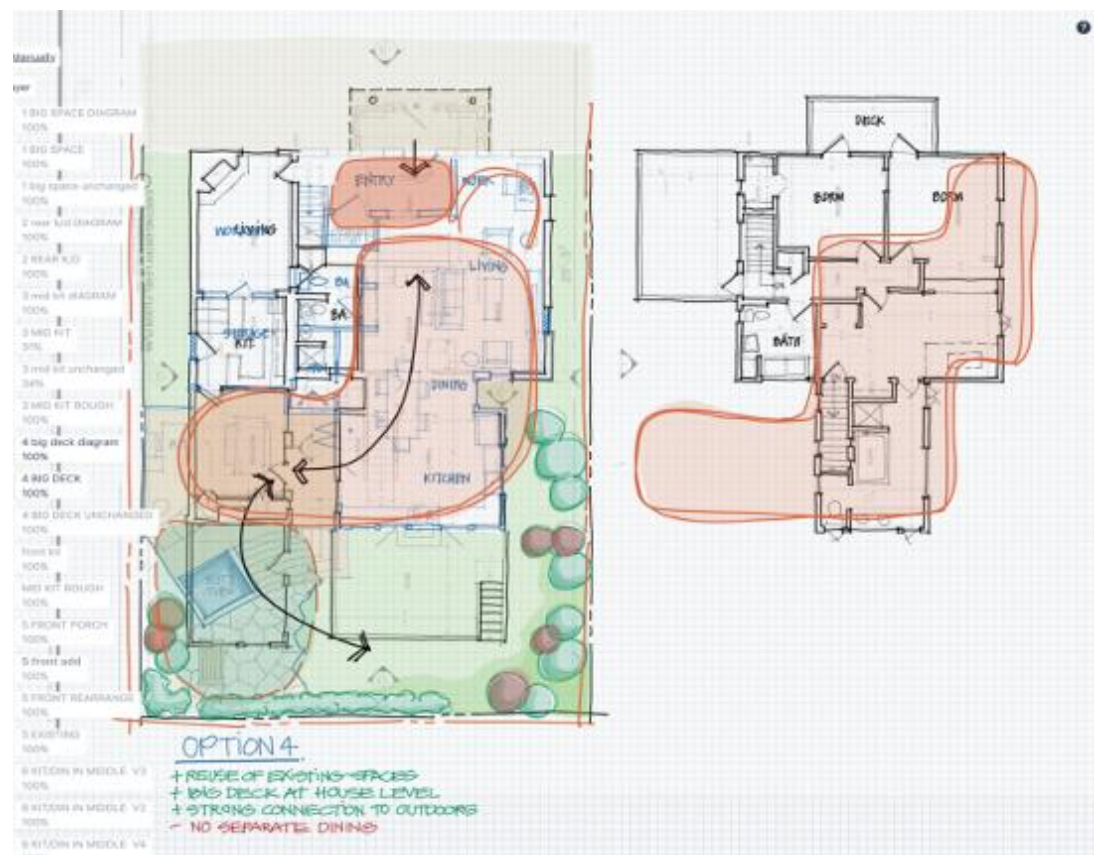


Fig. 30. Option 4 With Flow

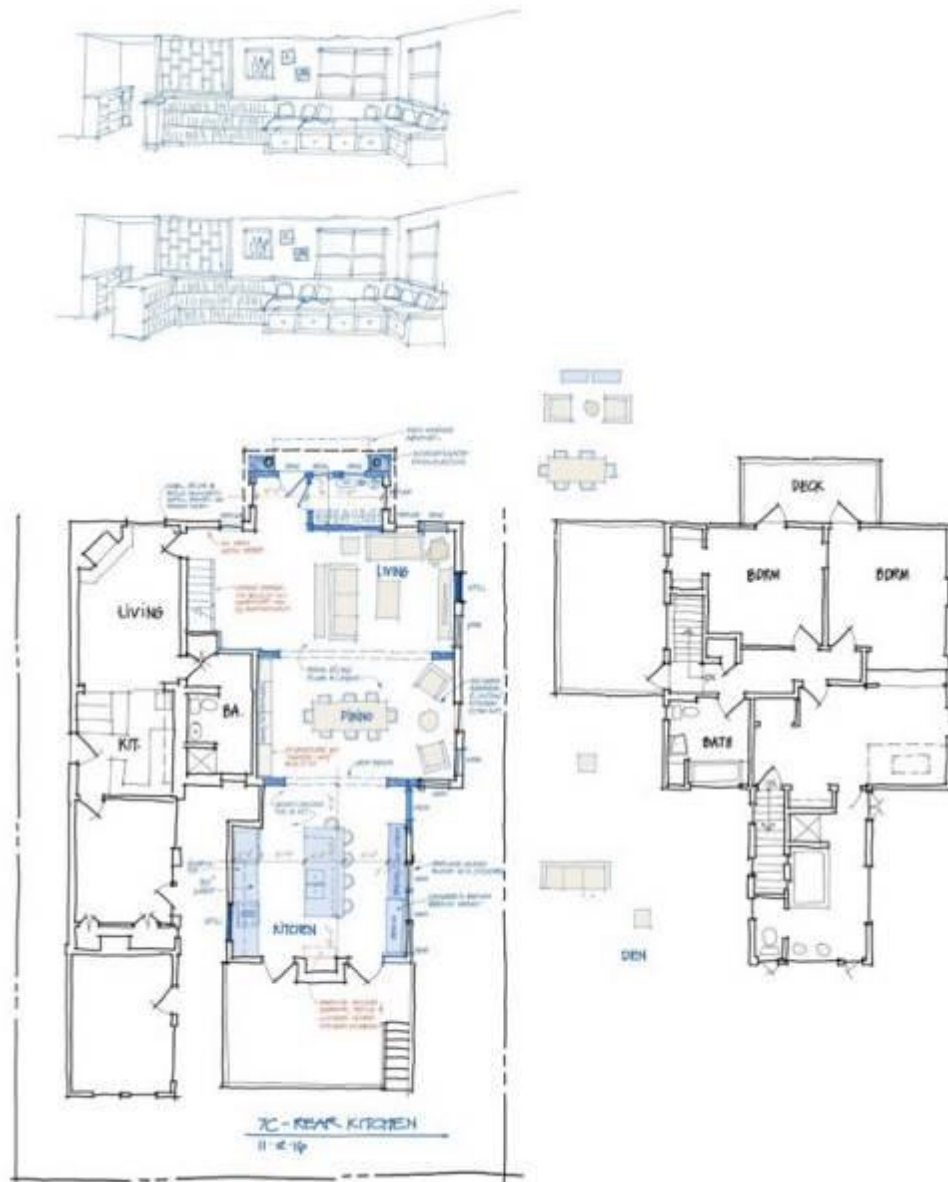


Fig. 31. Kitchen Detail

C. Highly sustainable socio-economic growth and enhanced spatial temporal development of the region scenario.

The scenario is focused on sustainable, accelerated, high-paced socio-economic growth, high-tech, energy-efficient, environmentally sound and culturally identical spatial-temporal development of the region. This dictates the need for improvement and further development of regional and urban systems, environment and structure, urban network and settlements with technical infrastructure; increase the attractiveness of the city and the region for capital investments; overcome low cross-border interest and transfer; increase standard of living, high energy efficiency, environmental protection, rehabilitation and development of the environment, ecosystems, cultural heritage and identity. All this leads to an optimistic version of the highly sought after sustainable socio-economic growth and spatial-temporal growth of the city and the region as follows: accelerated quantitative and qualitative development of construction; increased number of floors, density and intensity of development in the central and contact zones of the city; low single-family and mid-rise contact development of urban periphery; reconstruction and completion of urban engineering networks and technical infrastructure; provide convenient, speedy and diverse mass public transportation and bike lanes; accelerated construction of national opera, congress and cultural center and other public buildings with national, regional and citywide importance; technological renovation and completion of the production environment; multifunctional regional development.

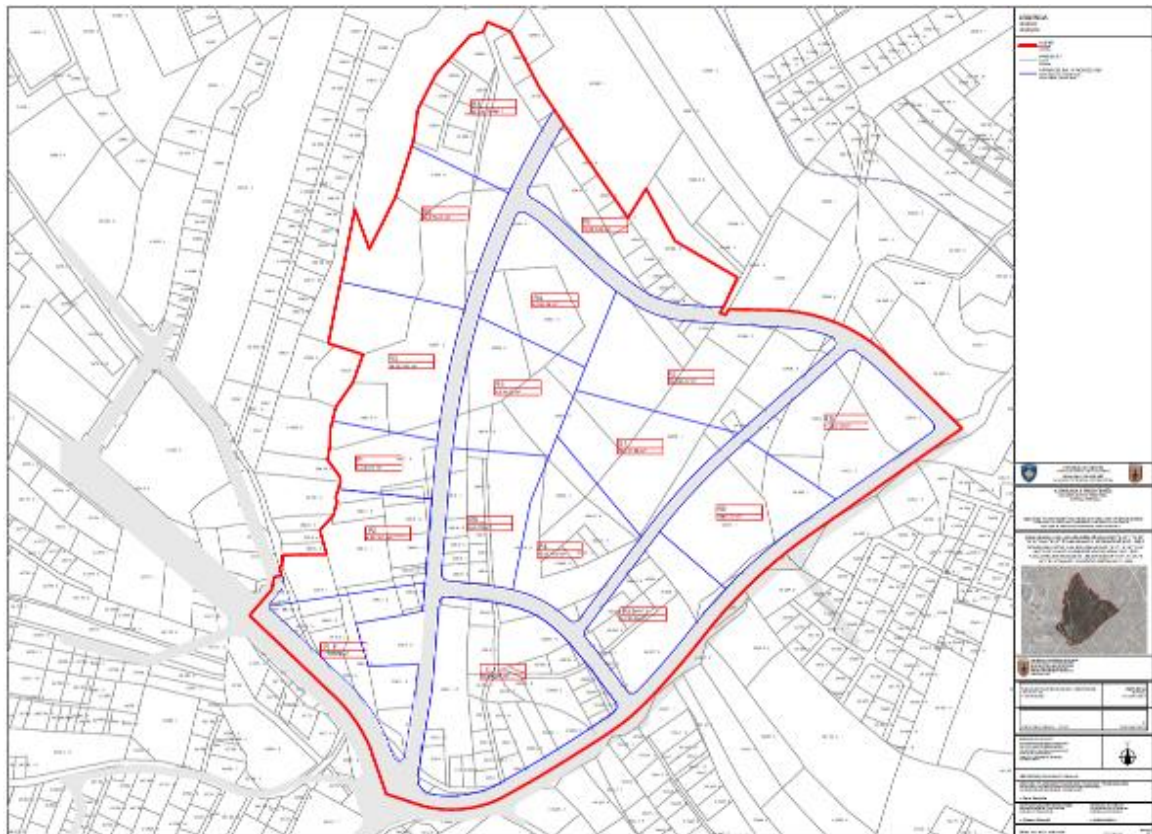
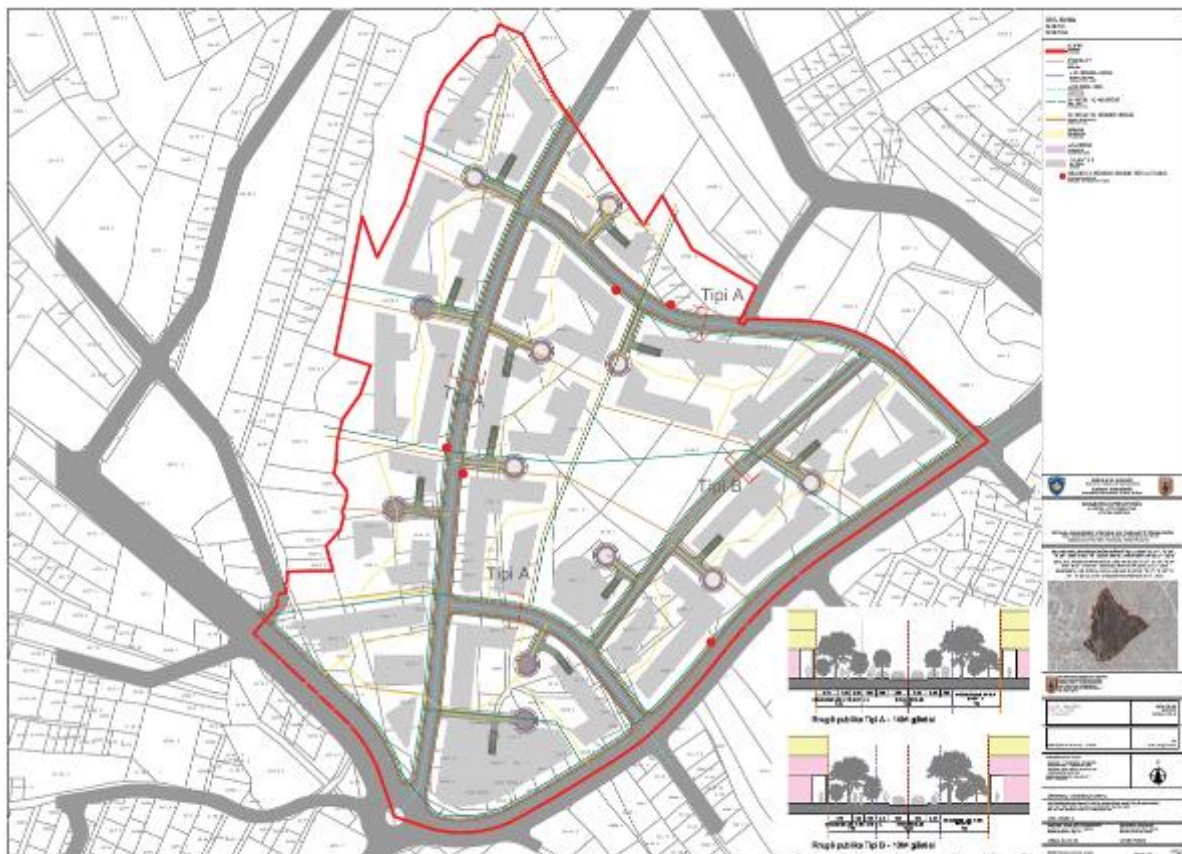


Fig. 32. Proposed plot and shelves. ²⁷

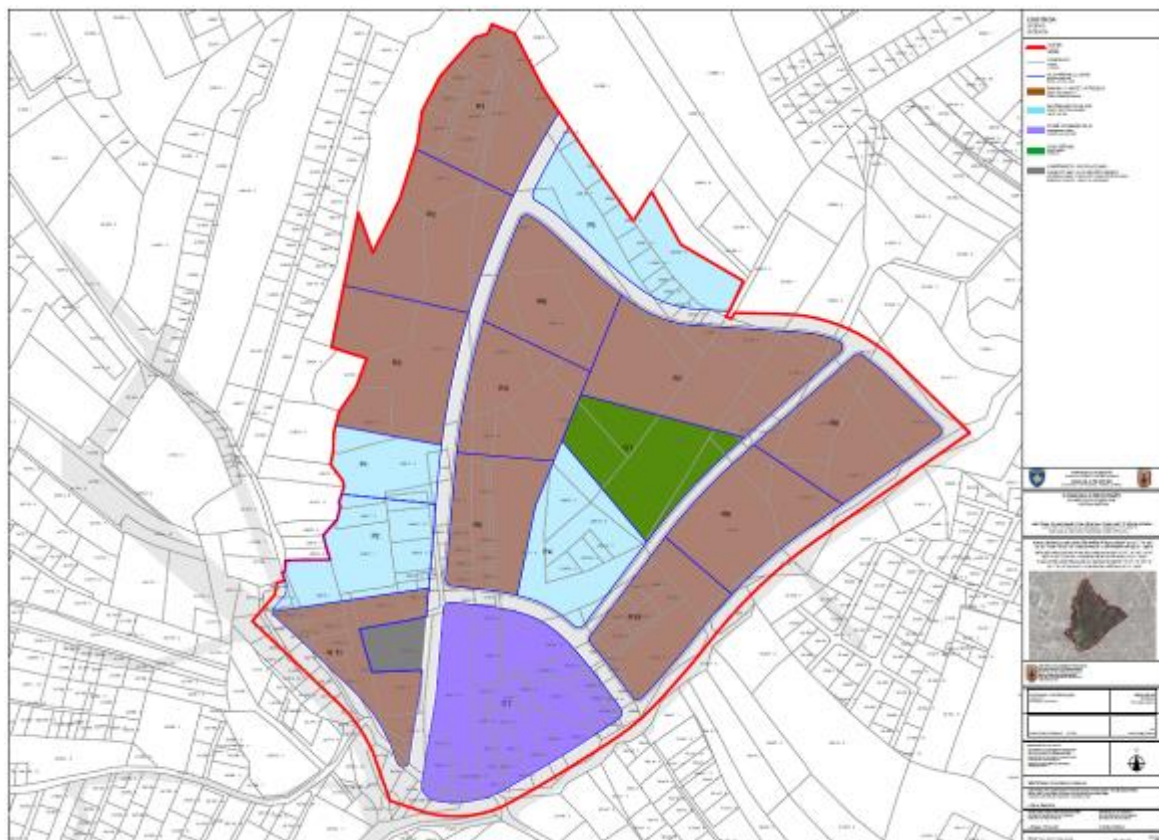


Fig. 33. Regulatory provisions²⁷

²⁷ Directorate of strategic planning and sustainable development, May 2017, Pristina.



*Fig. 34. Street network*²⁷



*Fig. 35. Land use*²⁷

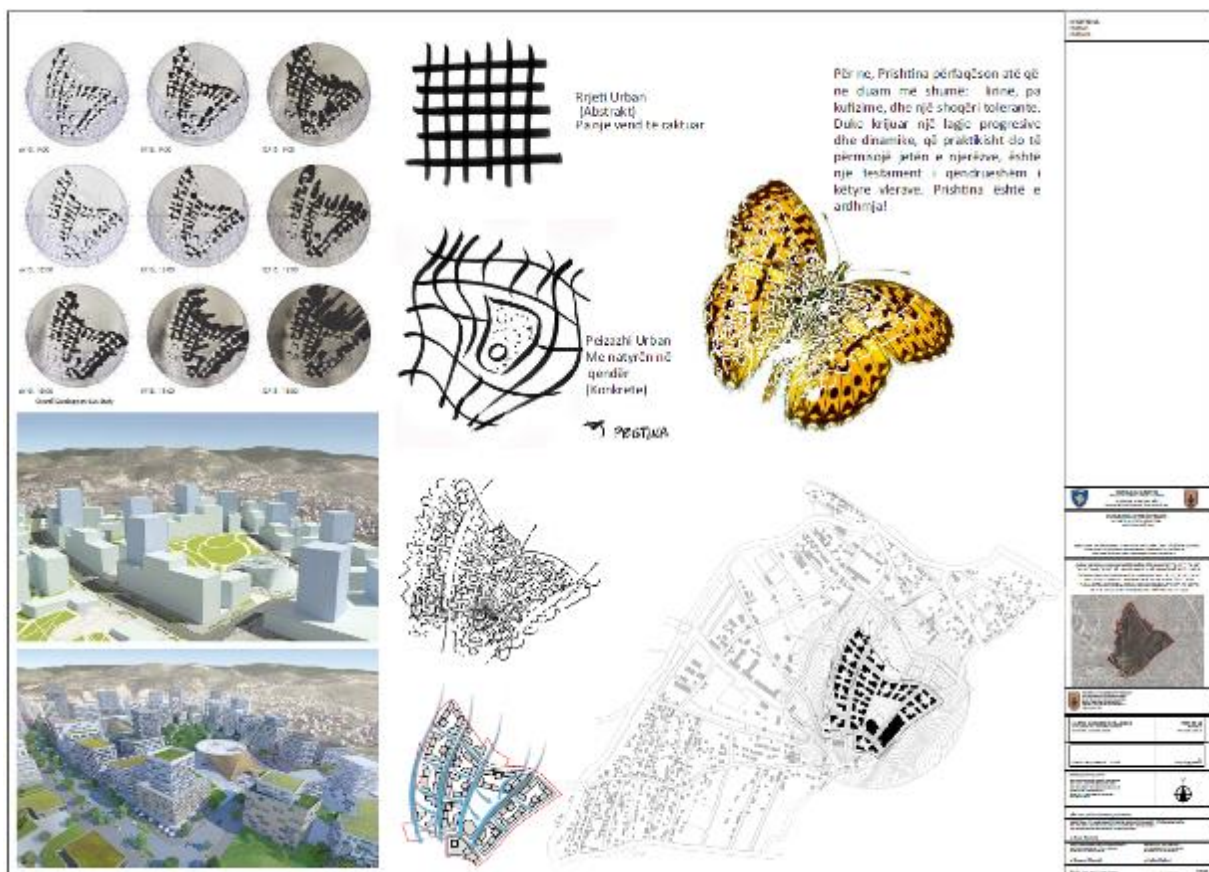


Fig. 36. Map of the developed framework²⁷



Fig. 37. Map of the development framework.²⁸

²⁸ Detailed regulatory plan for urban blocks "b 17", "b 18", "b 19" and "b 20" of mati 1 neighbourhood pristina 2017 - 2025

4.2. Priorities of citywide sustainable development²⁹

- "Balkan centers as crossroads" Strategy

From the time of the Roman Empire, Kosovo was of strategic importance on the main crossroads of tribes and legions along the north - south and east - west directions. This trend is reinforced in subsequent eras of the Crusades, the Ottoman conquests, Balkan and World Wars, and it is particularly relevant today. The basis of intersection of the two streams is the city of Prishtina, which distributes traffic in the directions: Nis - Prishtina - Tirana; Belgrade - Prishtina - Skopje; Prishtina - Montenegro. They turn the city and Fushe Kosove into a major distributor of raw materials, resources, information, passenger and transport flows. This ensures increased importance and development of the airport complex, international freight by road and rail, gas and power distribution centers, communication and information, logistics centers and free zones, business, banking and other service centers.



Fig. 38. Map of the development framework

²⁹ Zhang Wei, Wang Chuan. Discussion on Integrated Design of Buildings under the Concept of Sustainable Development

- "Innovative Economy" Strategy³⁰

Modern, state-of-the-art technologies dictate radical changes in the production sphere. They are based in global digitization, genetic engineering, laser processing, robotics and others that lead to uniqueness and compactness of production systems, modules and products. The flexibility of these systems is determined by the implemented technologies and opportunities for restructuring processes in accordance with the needs of internal and external markets and related marketing, quick information, orientation and reorganization of the unit by closing some and opening new processes. Examples of line of sequential production modular systems are: SMEs in the food processing industry; light industry based on local raw materials: extraction and processing of ores, minerals, and building materials; production of specific non-food products; logistics, transport, storage and repair.



Fig. 39. Transport Safety and Security.

³⁰ Directorate of strategic planning and sustainable development, May 2017, Pristina.

- "Agricultural development" Strategy

Changes in market relationships, ownership of land and means of production, and the new agro-biotechnology impose their priorities. It is associated with local villages and adjacent agricultural areas, forests and meadows. It focuses on private property/initiatives in the creation of cooperatives and farms, closed agricultural cycle from raw material to finished product, high standard of living, infrastructure and services that form a new type of settlement by combining the positive attributes of town and country. The closed technological has three varieties: crops - sowing, harvesting, handling and processing into finished products and derivatives, storage, marketing and trade; livestock - fertility, husbandry, growth, daily treatment and processing of milk, meat and derivatives in the final finished product, storage, marketing, trade; greenhouse and outdoor vegetables - planting, growing, harvesting, handling and processing into natural and canned products, marketing, storage and trade.

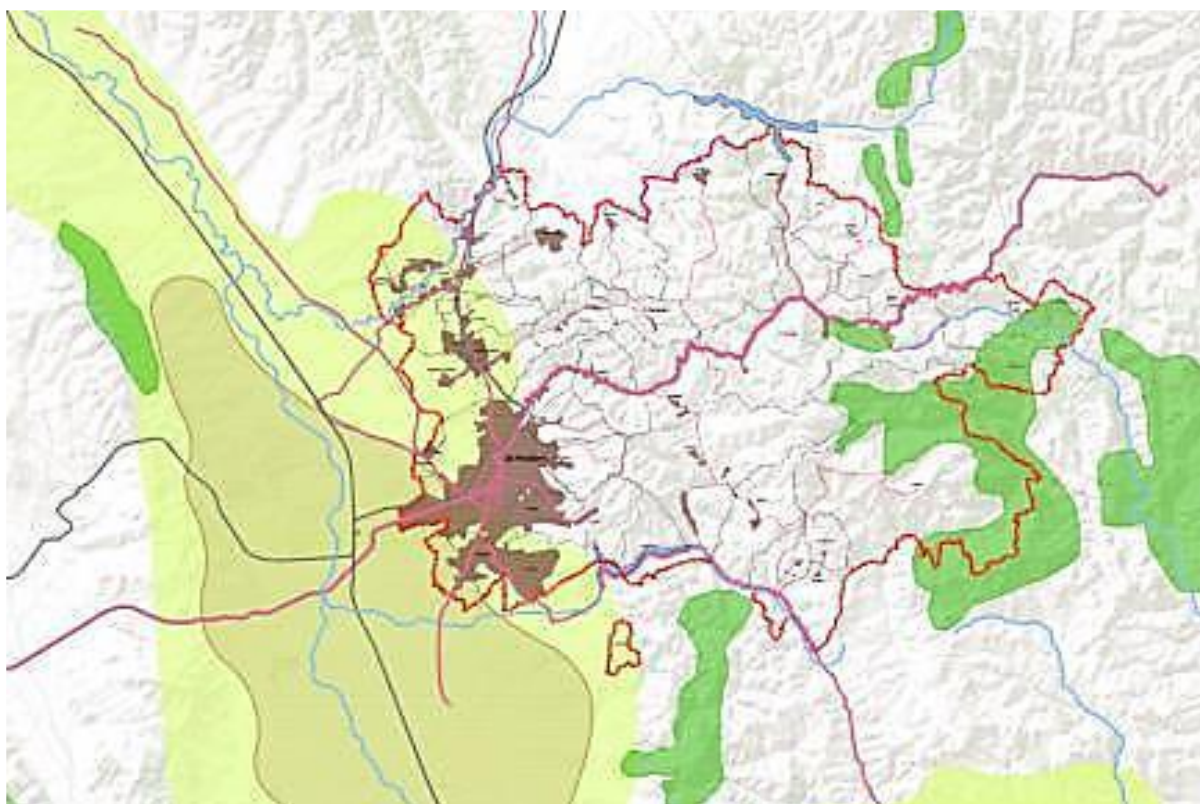


Fig. 40. Land use³¹

³¹ Municipal Development Plan, 2012-2022, Pristina

- "Intellectual development and innovative technologies" Strategy

Modern scientific and technological processes and markets are highly dependent on demand, production and supply of intellectual and high-tech products. Their production requires continuous qualification of highly educated and trained personnel, highly skilled and educated scientists, researchers and specialists, suitable university, industrial and citywide environment. For Prishtina, this means focusing on the development of university facilities, development of scientific and technological centers, applied research, experimental and innovative industries, create innovative products, systems and transfer, electronic information and exchange, intellectual evolution. All this is reflected in the establishment of the necessary:

- Research Park - near the university or at an attractive natural site - Park Germia, cooperation of the researchers with start-ups and companies focused on prototyping new products, their experimentation and production.



Fig. 41. Seattle University is one of a growing number of institutions offering summer online courses to residential students.

- Basic innovation center, analogous to American and British incubation centers, to develop innovative products by start-ups and companies. Prishtina needs two or three such centers.



Fig. 42. Accelerators & incubators



Fig. 43. Incubation Residency



Fig. 44. Innovation Centre Kosovo



Fig. 45. Innovation Centre Kosovo³²

³² <https://ickosovo.com>, Rexhep Mala Str. 28A 10000 Prishtina Kosovo +383 (0)38 77 11 80 info@ickosovo.com

- Technology Park - essentially a new form of industrial location. Municipal and city government provide attractive site at an attractive location and active cooperation with universities and research personnel and laboratories for enterprises and firms working in the field of new technologies.



Fig. 46. Australian Technology Park, Eveleigh³³

These strategies should be complemented by statistics on economic development of the EU in 2015, focused on the development of: Industry - 19.3%; administration, health, education and social activities 19.1%; trade, services and tourism 18.9%; real estate 11.2 %.

³³ <http://wilken.com.au/portfolio/australian-technology-park-eveleigh/>

4.3. Valorisation of cultural, historical and natural heritage for tourism and to support the cultural and historical identity of Prishtina

The ancient history of Kosovo and Prishtina is the basis of numerous archaeological remains, architectural, historical and religious monuments, sculptural monuments, commemorative sculptures and other artifacts and findings.

Museum of Kosovo³⁴

Adapted into the museum of Kosovo, the house of Jashar Pasha is located in the historic old town. It was built by Austro-Hungary in 1885 - 1886, and it served the needs of the Turkish army. There are still some buildings and the old clock tower in the courtyard. It has four floors - ground floor, two main floors of the same disposition and attic. The enfilade staircase leads to the first "bel étage" through the main entrance. Clearly eclectic, it partially carries the nature of European buildings from this era. Built of marble, stone, brick and wood.³⁵



Fig. 47. Museum of Kosovo

³⁴ Document, Report on the work of the Museum sent to the Ministry of Education of the Republic of Serbia (Facsimile of the statistical list of the establishment of the Kosovo Museum), State Archive of Kosovo (ASHK), Prishtina

³⁵ Vasilije Kozarac, Muzeumi i Kosovës-Metohisë, “Glasnik Muzeja Kosova i Metohije”, Prishtina, 1956.

"Jashar Pasha" Mosque³⁶

The Jashar Pasha Mosque is an integral part of the architectural ensemble of the Museum of Kosovo, Clock Tower, Bazaar Mosque and archaeological park. Its construction began in the 15th century and was completed in the 19th century. It is built of stone on a square base of 10.5 meters to 10.5 meters, with a minaret and a small courtyard. The interior includes mahvil, mimber dhe mihrab, is illuminated by rhythmically arranged windows, painted walls with simple floral ornaments, stone, sacred carpet, wood and other objects.

It has artistic, architectural, historical and social value for citizens of Prishtina and is one of the most significant buildings in its cultural and historical landscape.

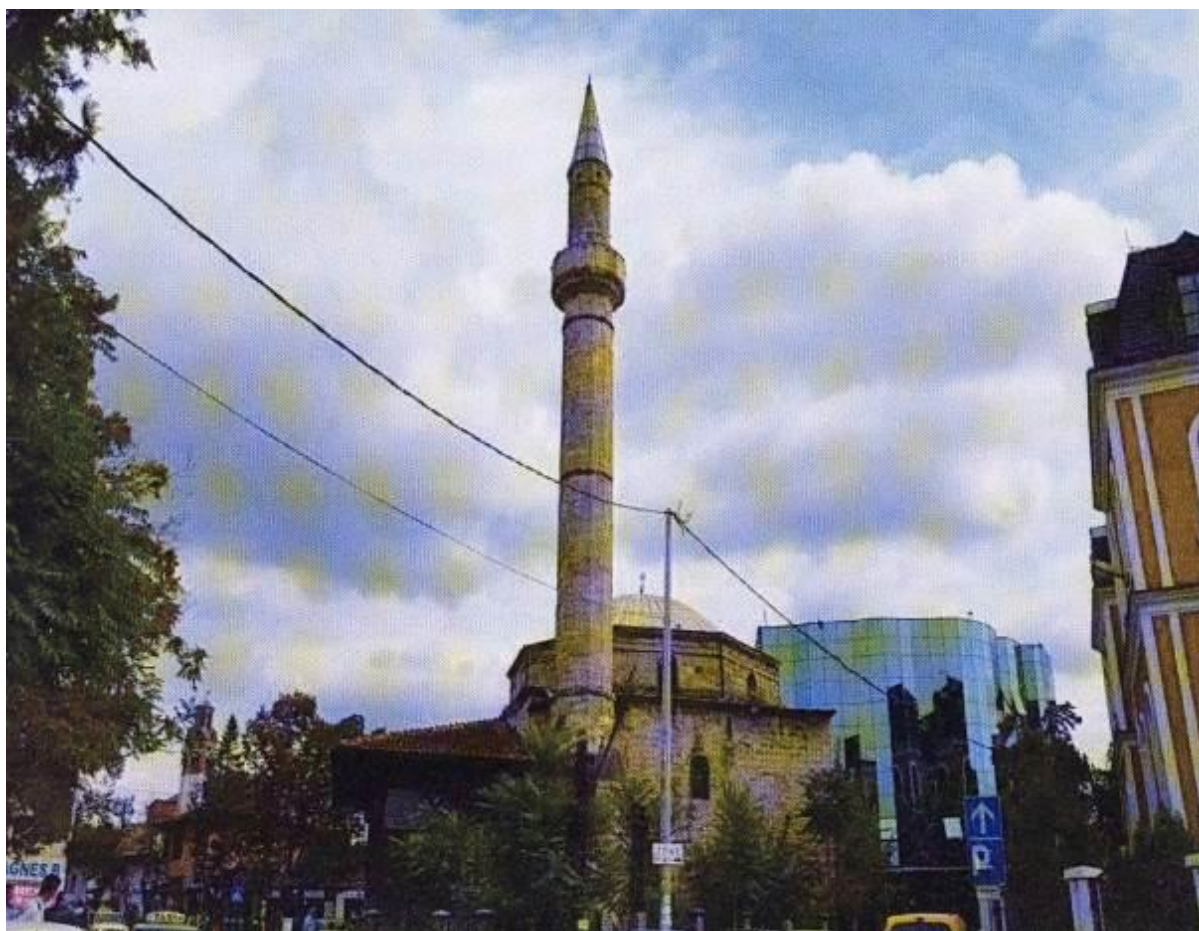


Fig. 48. "Jashar Pasha" Mosque

³⁶ F. Drançolli, Xhamia e Jashar Pashës, Oferta suksesi Prishtinë 2003, 34. European Commission - Council of Europe Joint Programme: Integrated Rehabilitation Project Plan / Survey of the Architectural and Archaeological Heritage (IRPP/SAAH) – Kosovo/UNMIK – May 2004

Bazaar Mosque³⁷

The Bazaar Mosque or "mosque of the Rock" is part of the central architectural ensemble built in the early 15th century by Sultan Bayazid to commemorate the victory of Sultan Murat in the battle of 1389. It is built of stone on a square base of 12.7 m of 12.70 m, and over the square has an octagonal floor superstructure with eight window openings which extends in a dome minaret of stone with specific sculptural elements and sharp stone polygonal tip. The interior is similar to the Jashar Pasha Mosque in terms of plan, materials and wall decoration.



Fig. 49. "Bazaar Mosque"³⁸

³⁷ "Çarshi Mosque - Guri i Gurit (Prishtina)". Kosovo Cultural Heritage Database. Ministry of Culture, Youth and Sports. Received on July 6, 2016.

³⁸ Foto by Armend Fazliu

Clocktower³⁹

The clock tower was built in the 19th century on the site of an old clock tower. It has a height of 26 meters, has a hexagonal stone base up to 16.5 meters, continued with brick and finishing with a wooden roof, studded with lead. It has a bell with Romanian descent from 1764 donated by the Captain Moldovani. The original clockwork ran until the 70^s of the last century, and since 2002 a digital clock is in its place. The clock is reached via a spiral, stone staircase with a thickness of 3 cm, which turn into wooden planks in the brick part of the tower, which according to the literature shows that the tower was finished later.

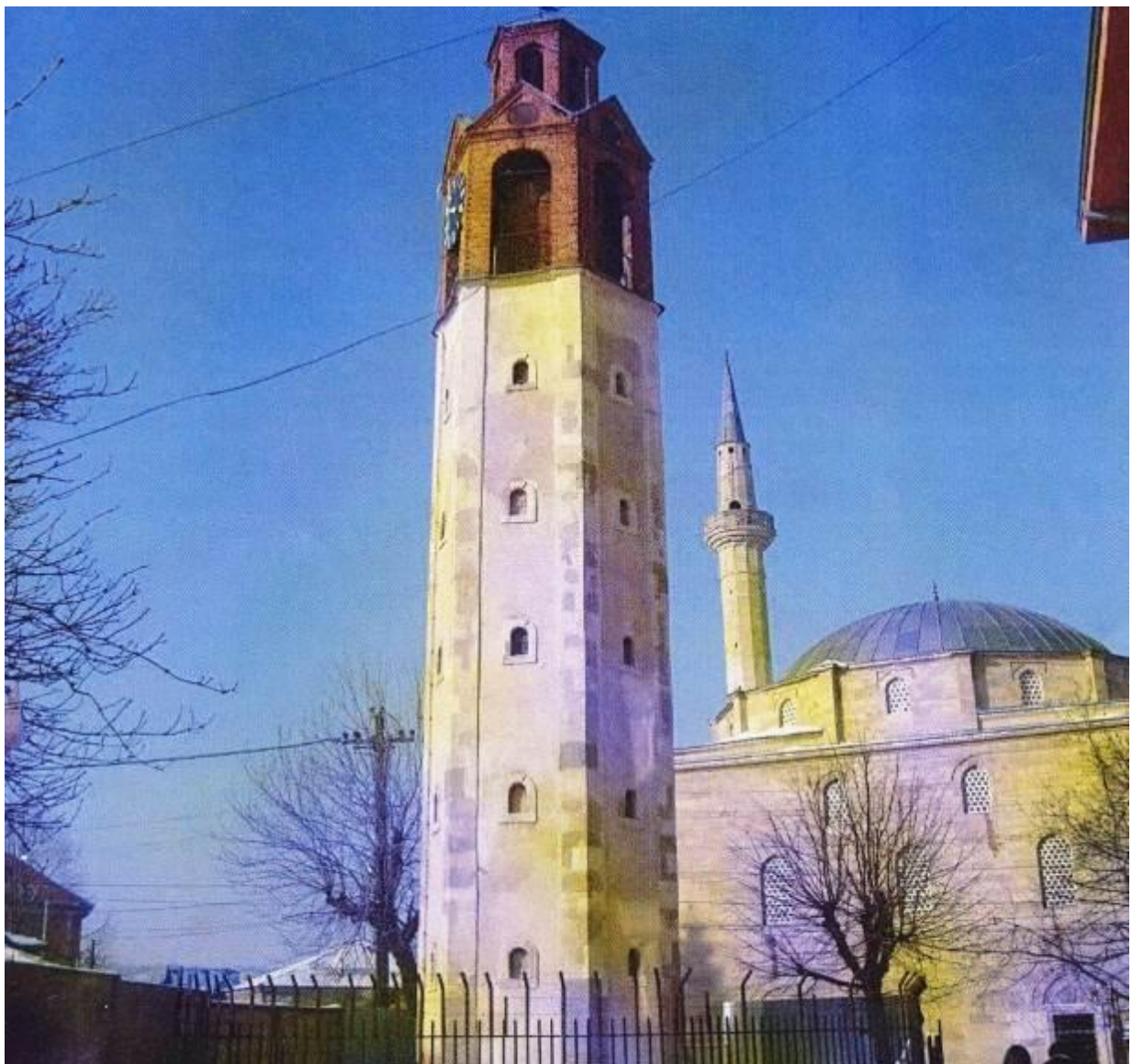


Fig. 50. Clock Tower - Prishtina⁴⁰

³⁹ https://sq.wikipedia.org/wiki/Skeda:Sahat_Kulla-Prishtine.JPG

⁴⁰ Foto by Armend Fazliu

Sultan Mehmed Fatih II Mosque⁴¹

The King Mosque or Grand Mosque was built in 1461 by order of Sultan Mehmed Fatih II. During the Austro-Turkish wars in the late 17th century it became a Catholic Church, turned again into a mosque. It has a square base of 14.14 meters by 14.14 meters, octagonal ceiling superstructure and one of the largest domes of this era with a diameter of 13.50 meters. The external walls are made of stone, while the internal ones are made of brick with a thickness of about 1.80 meters. The minaret is built of stone with a height of 38:20 meters and small staircase window openings, sculpted balcony and galvanized peak, as is the galvanized coating of the dome. It has an exceptional architectural value for Prishtina and Kosovo. The planned distribution, interior, materials and wall color and decoration are similar to other mosques in the region.

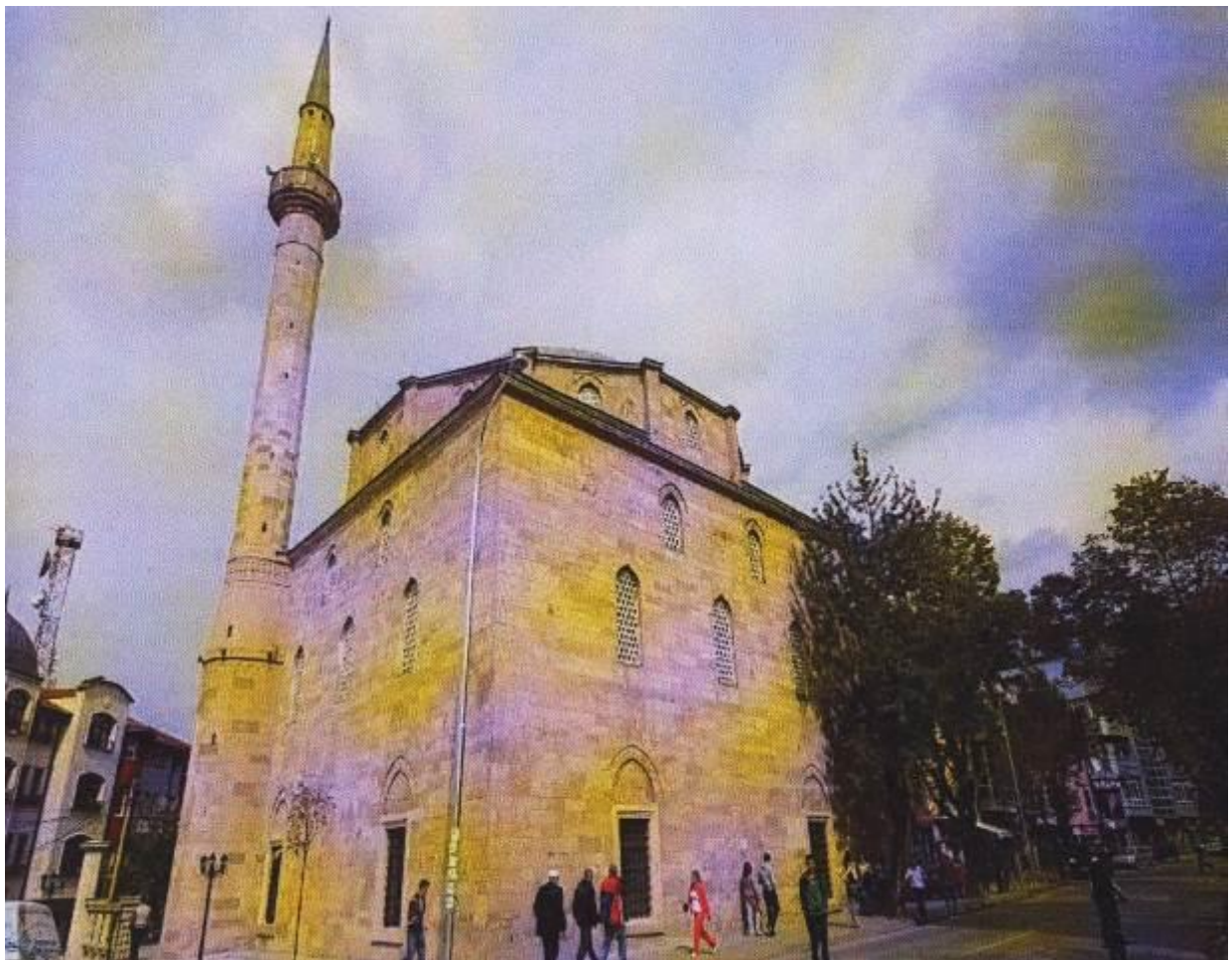


Fig. 51. Sultan Mehmed Fatih II Mosque⁴²

⁴¹ "King's Mosque". dtk.rks-gov.net. Ministry of Culture of Kosovo. Retrieved 2015-11-30.

⁴² Foto by Armend Fazliu

Ethnological museum Prishtina⁴³

The Ethnological Museum is located in the northeast corner of the old town center close to the Turkish bath and Mehmed Fatih II mosque. It is based in the residential Emin Zhiku ensemble - family property built in the early 19th century. It consists of two large courtyards, the first with stone building, smith and stables, and the second with stone building and guest house. The main building is covered with stone tiles, its windows are wooden, wooden, fully-glazed alcove and whitewashed facade. The yards are surrounded by high stone walls with a thickness of 55 cm and are richly landscaped.



Fig. 52. district "Emin Zhiku" Ethnographic Museum - Central building



Fig. 53. Ethnographic Museum⁴⁴, the oldest building in the city bazaar

⁴³ https://dtk.rks-gov.net/tkk_objekti.aspx?id=8509

⁴⁴ Foto by Armend Fazliu

Gracanica Monastery⁴⁵

The Gracanica Monastery is located on the left bank of the river Gracanka south of Prishtina. It is dedicated to the Virgin Mary and built in the 14th century. The monastery church was built on the foundations of an early Christian basilica from the 6th century. It has a rectangular shape based on the square hall with four hexagonal corner towers with galvanized dome. Single and triple arches with transparent openings and doors are part of the exceptionally plastic facade architecture and sculptural detail. Famous Thessaloníki artists are the authors of the magnificent interior mural of 1321. Unfortunately, the monastery suffered serious damage during the last century and after World War II it was renovated by nuns. Since 2006 it was declared a World Heritage Site by UNESCO as a medieval monument in Kosovo.



*Fig. 54. Gracanica Monastery*⁴⁶

⁴⁵ https://dtk.rks-gov.net/tkk_objekti.aspx?id=8509

⁴⁶ Foto from Internet,

Mother Theresa Cathedral⁴⁷

The Roman Catholic cathedral is dedicated to the holy Mother Theresa. Its planning began in 2007, and the initial construction continued until August 26, 2010, when it was inaugurated in honor of the centenary of the birth of Mother Theresa. The cathedral is one of the tallest buildings in Prishtina, which provoked Muslim polemic against the small number of Catholics living in the Prishtina region.



Fig. 55. Mother Theresa Cathedral

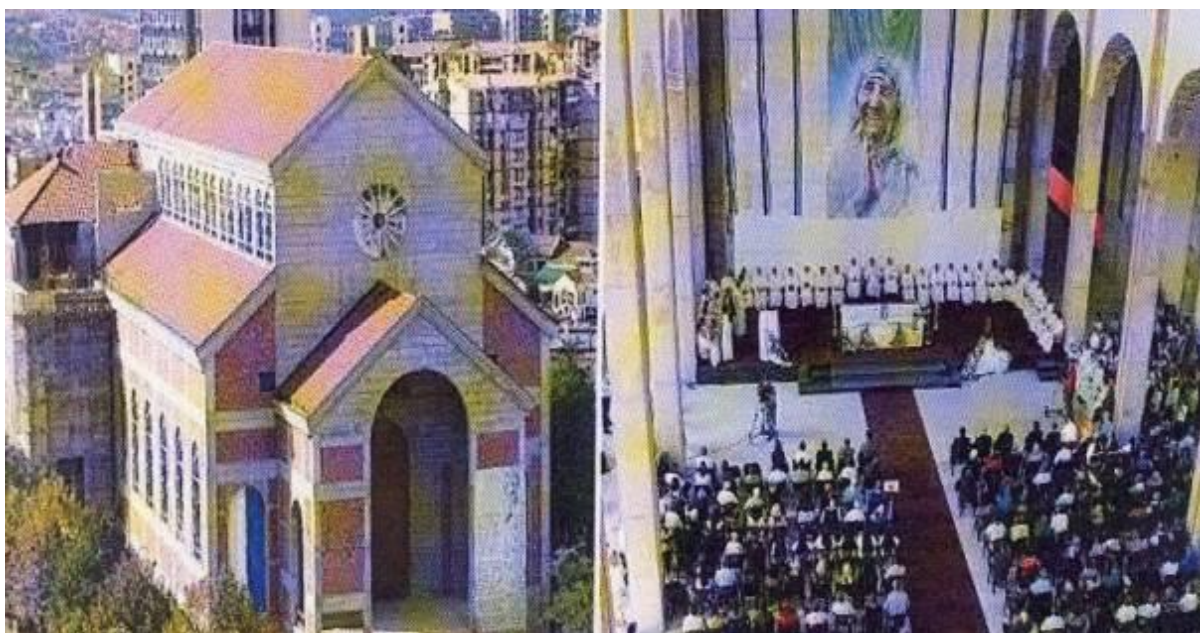


Fig. 56. Cathedral entrance and interior

⁴⁷ Petrit Collaku (26 May 2011). "Kosovo Muslims Resent the New Mother Teresa Statue". Balkan Insight. Received on 5 September 2016.

Methodological guidelines for planning activities related to the valorisation of cultural and natural heritage targeted for tourism

To achieve the objectives it is indispensable to: secure resources; introduce strategy and methodology for planning, design, implementation, management and control; introduce complex architectural, landscape and tourism model; project and risk management and control; monitor implementation.

Indicators for achieved results are: number of exhibited, rehabilitated and protected cultural and natural values: annual, weekly and daily visits to the sites and newly rehabilitated tourist routes to cultural and historical sites and natural attractions: size, quality and significance of discovered, restored, preserved and exhibited cultural and historical sites; rehabilitated, stabilized, and in some cases landscaped landmarks and scenery.

The consistent implementation of the planned actions is described by the following modules:

Operating module 1. Information and communication

It includes the following activities: development of project site; development of the necessary materials; conducting an information campaign at local, regional, national and transnational level.

Operating module 2. Management and Coordination

It includes the following activities: training, research, development and management of the working draft; selection of partners from the municipality, neighboring regions or countries; assessing the attractiveness of the project, wide advertising and publicity to attract national and transnational capital investments.

Operating module 3. Implementation and operation

It includes the following activities: reconstruction, restoration, conservation, adaptation and display of existing cultural and historical sites; introduction of substructure of new archaeological sites, restoration, conservation, exhibition and protection from climate change and human encroachment; strengthening, rehabilitation, stabilization and protection of natural sites and phenomena from climate change and human encroachment; providing equal and easily accessible route of movement in tourist locations for groups and individual travelers, disabled, handicapped and elderly with mobility difficulties; control of efficient operation in the presence of massive building or facility for tourist purposes.

Operating module 4. Analysis, synthesis, assessment and mapping

It includes the following activities: analysis, synthesis, assessment and mapping of the natural, cultural, material, human and financial resources; analysis, synthesis, assessment and mapping of the landscape and its natural and anthropogenic elements; analysis, synthesis, evaluation and mapping of ecosystem services; analysis, synthesis, evaluation and mapping of cultural heritage; analysis, synthesis, evaluation and mapping of tourism pressures, ecological capacity and load of tourist locations, objects, installations, routes, trails and paths.

Module 5. Priority directions in the revitalization of the residential environment in Prishtina

5.1. Priorities in the revitalization of housing projects and neighborhoods

Priorities of paramount importance in the realization of high-quality and sustainable living environment are: reconstruction, rehabilitation and new construction of buildings, building structures, inter-block environment in housing projects and neighborhoods; energy policy and energy efficiency of residential environment; housing policy and management of the residential environment; eco-stability, aesthetics and cultural specificity of identical housing projects and neighborhoods; methodological benchmarks synthesized in the study, planning, design and implementation of residential environment.⁴⁸



Fig. 57. East Baltimore Urban Mixed-use District

⁴⁸ <http://www.sasaki.com/project/164/east-baltimore-urban-mixeduse-district/>

Energy efficiency is a general result of any action leading to a reduction in the cost of energy resources and energy, technological improvements in production, transport and energy appliances use and consumption, aimed at reducing energy losses and save energy while ensuring environmental protection, environmental stability, high standard and comfort of living.



Fig. 58. Cortex Innovation Community Master Plan⁴⁹

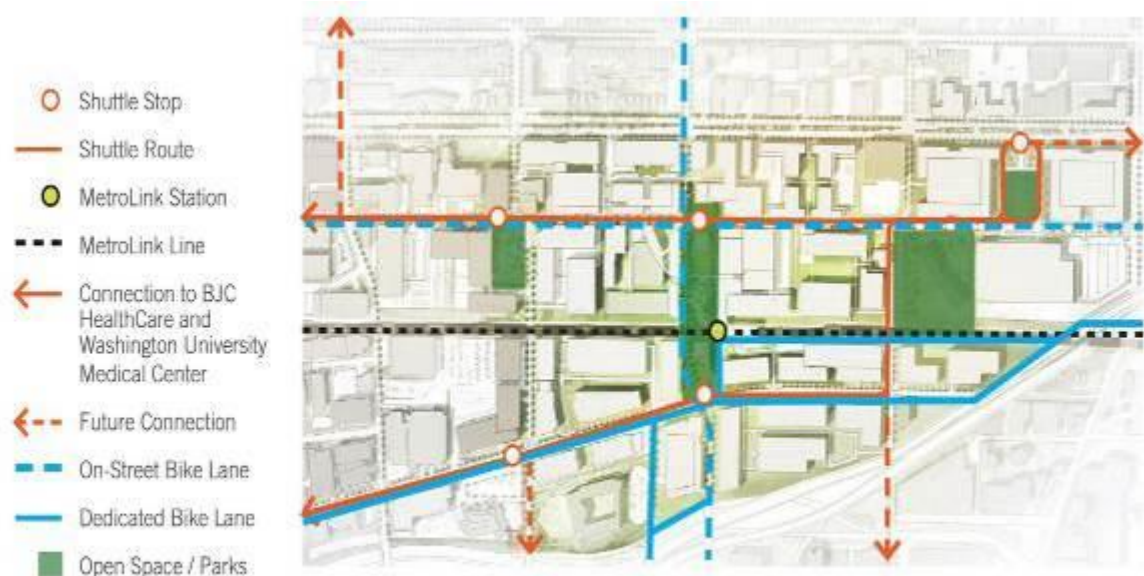


Fig. 59. Cortex Innovation Community Master Plan

⁴⁹ <https://asg-architects.com/portfolio/cortex/>

Residential energy efficiency relies on: reducing energy consumption of traditional energy sources; increase use of alternative energy sources in their active and passive composition; technologically improved performance of supply networks and end-user installations; introduction of innovative products that lead to significant energy savings in each separate dwelling..



Fig. 60. Mixed-Use Development⁵⁰



Fig. 61. New Affordable Housing Development Breaks Ground in Midtown Long Beach

The energy efficiency of inter-block spaces is closely linked with: the energy efficiency of buildings and building structures, as their external extension; composition and functional zoning; climate and terrain elevation; composition, type and dimensions of the trees, greenery and water areas; sunlight, wind, precipitation macro and micro-climate; different landscape composition, architectural image and design; insulation, soundproofing, landfill, etc.

⁵⁰ <https://urbanize.la/post/mixed-use-development-under-construction-next-csun>

According to the surveyed location, size, nature and quality of the building group and green environment, standard of construction, saturation and satisfaction with health, education and utilities, sports and recreation objects and facilities, the building structure that frames the neighborhood and servicing technical infrastructure with the conducted diagnosis and prognosis, outline several priorities that ensure high quality and sustainable future, namely:

- Initial state of the environment;
- Revitalization, complementarity and high-category enrichment of living environment;
- Technology transfer;
- Risk Management;
- Management of constituent processes in the renovation of the residential environment, its maintenance, operation and potential recapitalization after the final construction is completed;
- Sustainable "micropolis."

5.2. Energy policy and energy efficiency of residential environment

In the context of current developments⁵¹ and ongoing processes in the world, Europe and Kosovo, it should be targeted at solving these primary tasks:

- Create flawless functioning information system on available resources, extraction, production and consumption of energy, domestic and international energy market.
- Strengthen and restore ties with traditional partners and create new ones with gas countries and companies.
- Storage and protection of national energy reserve as a means of avoiding crises in energy production and external supply, possible speculation and price breakthrough in the energy market, etc.

⁵¹ Фридман, Й., Научные методы в архитектура, М. Стройиздат, 1986.

- Reducing external energy dependency by creating new local traditional and alternative energy sources.
- Energy savings through the introduction of new technologies, closing energy-intensive facilities, transportation and manufacturing systems, implementation of energy efficiency, urban, architectural and construction projects, reducing energy losses from energy transmission, lighting, heating, household appliances, etc.
- Introduction of high-tech security systems in order to reduce the risk factor for human health and the environment.
- Promoting local regional, urban and local energy production to reduce dependence on its over-centralized production and distribution.
- Optimizing the efficiency of secondary waste energy and introduction of new financial, tax and tariff policy promoting regional energy extraction, production and distribution.
- Promotion of alternative energy and renewable energy with minimum environmental pollution through so-called non-waste technologies.
- Optimization of the format, structure, functions and intensity of development of the city in order to save energy and symbiosis with the surrounding natural environment.
- Optimization of road and rail communications, energy and regional urban network commissioning of highly efficient vehicles.
- Optimization of spatial and building functional integration and intensity of development with emphasis on shape, density and building height, climate, sunshine, aeration, shading, landscaping and trees, building materials, energy output, energy efficient technical equipment.⁵²

⁵² Ташев, П., София – архитектурно-градоустройство развитие, С., Техника, 1972.

5.3. Housing Policy

The housing policy formulates its tasks in concurrence with economic potential and related financial, technical, material and labor resources. The housing policies of European countries emphasize the accepted concept of dwelling: extended access to public and commercial services; expanded opportunities for recreation in the interior and exterior of the dwelling; socializing with neighbors; high standard of the adjacent environment; security and safety for the older generation and children. A quarter of investment in these countries is in the field of housing, which contributes to accelerated economic development, employment and business activity.



Fig. 62. Passive House⁵³

⁵³ <https://www.vhfa.org/news/blog/maloney-properties-sponsors-statewide-housing-conference?page=117>

Module 6. Conclusion

In the modest opinion of the author, they can be summarized as follows:

- Relevant selection of the topic, structurally related to the revitalization of the residential environment with sustainable development of the city and its systems. The presented scientific and theoretical formulations supplement terminology concepts with research tools.
- The collected and summarized sources on the situation analysis of the socio-economic and spatial-temporal development of the city of Prishtina. Critically assessment of the state of the city with its problems and identified strategic guidelines for its sustainable development.
- Thorough, traditional, comparative, procedural and adaptive analysis and diagnosis of the condition of the residential environment in Prishtina.
- The presented architectural and urban problems of building structures and spaces between residential projects and neighborhoods.
- The presented typology of the neighborhood and building structures, inter-block spaces of the most popular and attractive apartments in the market.
- The developed guidelines for sustainable development Prishtina focus on: alternative scenarios for sustainable regional and urban development; macro-spatial and applied development model; citywide development priorities and basic strategies in socio-economic development and improvement of cultural identity; valorisation of cultural and natural heritage for tourism; concrete proposals for polycentric development of the city to the adjacent bands and zones; complementing public transport with trams and trolley; developing underground-overground parking and garages; saturation of residential areas with facilities for services and catering; construction of building substations for hot water heating; construction of new public buildings, etc.
- The developed and synthesized guidelines for the revitalization of the residential environment in Prishtina: priorities in the revitalization of housing

projects and neighborhoods; energy policy and energy efficiency; housing policy.

Applicability of results of study

- The conducted study complements the knowledge of the city Prishtina. It can be used as supplementary teaching material in the training of students in architecture, urbanism, geography, economics and other disciplines, as well as for the qualifications of graduating colleagues.
- This study may be used as a basis for future scientific research on other towns and regions in Kosovo, and in contact fields of knowledge.
- Its results may be used in future project developments for the city of Prishtina and the surrounding region.
- Its setups can be experiment in separate parts of housing projects and peripheral neighborhoods.

Recommendations to the concerned ministries and departments

PhD thesis and the results therein to the attention of:

- Concerned ministries on macro and micro issues of sustainable development strategic guidelines in socio-economic development, energy efficiency, ecological stability, energy and housing policies.
- The municipal government of Prishtina on macro and micro issues of sustainable socio-economic and spatial-temporal development of the city and the region, as well as revitalization of the residential environment.

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List of illustrations

FIG. 1. Geographic map of the Republic of Kosovo

FIG. 2. Annual and average annual climatic data: months, highest monthly temperature; average monthly high temperature; average daily temperature; lowest monthly temperature; average monthly rainfall mm / m²; average daily rainfall mm / m²; average daily rainfall mm / m²; relative monthly humidity; average monthly sunshine

FIG. 3. Population growth in the Republic of Kosovo (number and percentage) by distinct ethnic groups

FIG. 4. The territorial growth of Pristina in 1937, 1953, 1969, 1999.

FIG. 5. Pristina Municipality - Pristina, Poduevo, Glogovac, Lipljan, Kosovo Field, Obelic, Gracanica, Novo Brdo, population as of 2011; range - km²; population density - h / km²; regional urbanized locations - no.

FIG. 6. Population of Pristina municipality, city and surrounding villages by number, sex and age group.

FIG. 7. Pristina Population by Number, Sex and Ethnicity - Albanians, Turks, Serbs, Bosnians, Romanians, others, unspecified

FIG. 8. Official citizenship - number, sex and place: Kosovo, Serbia, Albania, Macedonia, Montenegro, Turkey, Germany, USA, Bosnia and Herzegovina, Croatia, other countries.

FIG. 9. Religions by number and gender - Muslims, Orthodox, Catholics, other religions, atheists, undefined, undetected.

FIG. 10. Master Plan for Urbanization in Pristina.

FIG. 11. Pristina Strategic Development Plan.

FIG. 12. Pristina Satellite Image: Central City and Basic, Structurally Determining Urban Elements.

FIG. 13. Pristina General Plan.

FIG. 14. Pristina City Center.

FIG. 15. Pristina City Center.

FIG. 16. General view of Pristina.

FIG. 17. Winter in Pristina.

FIG. 18. Winter in Pristina.

FIG. 19. City park.

FIG. 20. Central Town Square.

FIG. 21. Central Town Square, December.

FIG. 22. View of Maria Teresa Boulevard in winter.

FIG. 23. Montgomery Business Development Corporation (MBDC).

FIG. 24. Montgomery Business Development Corporation (MBDC).

FIG. 25. Google Maps image property with sketch.

FIG. 26. Landscape concept.

FIG. 27. Option 1 From the stream.

FIG. 28. Option 2 From the stream.

FIG. 29. Option 3 From the stream.

FIG. 30. Option 4 From the stream.

FIG. 31. Kitchen detail.

FIG. 32. Proposed plot and shelves.

FIG. 33. Regulatory provisions.

FIG. 34. Street network.

FIG. 35. Land use.

FIG. 36. Map of the framework for development.

FIG. 37. Map of the framework for development.

FIG. 38. Transport safety and security.

FIG. 39. Mining and quarrying.

FIG. 40. Land Use.

FIG. 41. The University of Seattle is one of a growing number of institutions offering summer online courses to students.

FIG. 42. Accelerators and incubators.

FIG. 43. Incubation resident.

FIG. 44. Kosovo Innovation Center.

FIG. 45. Kosovo Innovation Center.

FIG. 46. Australian Technology Park, Eveleigh.

FIG. 47. Museum of Kosovo.

FIG. 48. The Yashar Pasha Mosque.

FIG. 49. Mosque Bazaar.

FIG. 50. Clock Tower - Pristina.

FIG. 51. "King Mosque" by Sultan Mehmed Fatih II.

FIG. 52. Emin Jiku JK Ethnographic Museum - Central Building.

FIG. 53. Ethnographic Museum, the oldest building on the city market.

FIG. 54. Gracanica Monastery.

FIG. 55. Mother Teresa Cathedral.

FIG. 56. Cathedral entrance and interior.

FIG. 57. Baltimore City mixed use area.

FIG. 58. Cortex Community Innovation Master Plan.

FIG. 59. Cortex Community Innovation Master Plan.

FIG. 60. Development of mixed use.

FIG. 61. A new affordable residential building is breaking ground in Midtown Long Beach.

FIG. 62. Passive house.

Post-doctoral dissertations on the topic:

International Journal of Scientific and Engineering Research (IJSER)

“The living environment of urbanism in Kosovo”

Paper Published in IJSER Volume 9, Issue4, April 2018 Edition (ISSN 2229-5518).

International Journal of Scientific and Engineering Research (IJSER)

“Construction of central urban parts in major cities and historical context”

Paper Published in IJSER Volume 9, Issue12, December 2018 Edition (ISSN 2229-5518).

International Conference “**CHANGING CITIES: Challenges, Predictions, Perspectives**” Sofia, 18th, 19th and 20th October 2018 in New Bulgarian University (NBU) CITIES OF THE FUTURE “Smart Cities and urban development. Information and Communication Revolution and Artificial Intelligence in favour of changing cities”