Belgrade Meeting its Riverfront

A strategic spatial plan that articulates and consolidates the city of Belgrade and its Riverfront through a typological design based on a theory of levels and elements of existential space

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Graduation project Msc Urbanism
to my parents
Belgrade meeting its riverfront

A strategic spatial plan that articulates and consolidates the city of Belgrade and its Riverfront through a typological design based on a theory of levels and elements of existential space

Thesis Report

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The following graduation report represents the project ‘Belgrade Meeting its Riverfront’ developed as part of graduation project of the master-track in Urbanism of the MSc in Architecture, Urbanism and Building Sciences programme of Delft University of Technology. This graduation project was developed within the last year of the programme (2012) with the collaboration of the Complex Cities graduation studio, which deals with understanding the spatial organization of cities today through the integration and comprehension of different approaches towards the built environment.

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In this introduction, I will provide a summary of the problem analysis methodology I employed in tackling this thesis assignment. This problem analysis methodology was utilized as a means to define potential avenues of approach towards the realization of project solution spaces. As such, we argue that the approach adopted during the project development phase remains highly relevant towards identifying the principle problems confronting urban areas, issues that originate in their distant past and carrying right on into their future. This Introduction will therefore examine our main thesis, its underlying research questions, as well as our aim and relevance of the issues being examined. Our principle aim will then shape the project scheme and its approach.
1. Introduction

1.1. Context

1.2. Diagnosis + Problem statement

1.4. Research Questions and Project Aim

1.5. Relevance
1.1. Context

Belgrade is located on the confluence of two rivers: the Sava and the Danube. On the banks of these rivers the northern Pannonian Basin meets the gently rolling hills that mark the beginning of the Balkan Peninsula lying to the South. While such a scenic location could have constituted a unique asset offering a net advantage in economic areas such as tourism, Belgrade’s location likewise offered obvious strategic advantages in the various geopolitical struggles which have been the curse of the region throughout history. Le Corbusier characterized Belgrade as the ugliest city on the most beautiful spot in the world (Pavic, 2006) and Milorad Pavic, a Serbian author, described it in same vein as the most beautiful city on one of history’s most unfortunate locations (Pavic, 2006). These two opposite positions not only encapsulate a paradox in Belgrade’s development as a whole, but also a paradox that typifies the relationship the city has developed with its rivers. While Belgrade’s natural river banks are among the most beautiful areas in the city, their development has been neglected throughout history for geopolitical and strategic reasons.

Today, the city of Belgrade, a former socialist, public-owned territory, comes under the pressure of pervasive international, market-driven developments. Belgrade waterfront is simultaneously a highly underdeveloped and highly attractive location. As such, these areas are especially vulnerable to various forms of unconstrained generic development arising from the (oftentimes chaotic) transition from a socialist to a modern market-driven economy. This project addresses this threat by investigating alternate ways of waterfront development towards the development of spaces designed for use by people. This project employs strategic design towards the development and assessment of courses of action for waterfront development premised on existing user-group populations. The theoretical framework employed proceeds from concepts of place and existential space. Our proposed design is shaped by the analysis of morphological patterns of inhabitation in the city of Belgrade and current patterns of use of the waterfront.

The previously mentioned underdevelopment of the waterfront manifests itself through the presence of a mix of industrial sites, brownfields and inactive green spaces that have served to effect a cleavage between the city and its rivers.

Historical review

Before World War Two

Due to its strategic geopolitical importance, the city of Belgrade has suffered from a highly turbulent, dynamic and often violent past. Already in Antiquity, the city marked a border area between different tribes that later evolved into a border between mutually hostile empires. From the split of the Roman Empire into Western and Eastern halves in the 4th Century BC (not AD?), the city has consistently found itself on the demarcation line of various empires: namely the Byzantine Empire and the Avars in the 4th Century, the Bulgarian and Hungarian empires in the 9th Century, as well as the Serbian Kingdom and Hungarian Empire in the 12th Century. Furthermore, in the 14th Century, Belgrade fell under Ottoman rule, leading to the creation of a particularly turbulent frontier and point of friction between the Muslim Ottoman and Catholic Hapsburg Empires. Finally, in the 19th Century, Belgrade reverted to the control of Serbia, a perennial thorn in the side of the Austro-Hungarian Empire. Belgrade remained in this unenviable strategic position until the formation of the Kingdom of Croats, Serbs and Slovenes (later known as Yugoslavia), created in 1918 in the aftermath of the First World War.

With its placement at the fringes of the Ottoman and Austro-Hungarian Empires, the city quickly acquired a reputation as “the gateway to the East”. In the course of its long history, Belgrade changed hands many times and suffered the destructive externalities of numerous armed conflicts. Under such conditions, rivers and waterfronts were perceived as forming an integral part of the city’s defenses and, as such, where never considered to form a constituent element of the city’s character worthy of development. The urban form of Belgrade and the culture of its inhabitants evolved in complete separation from its waterfront, as evidenced by two geographical points – Zemun and Old Belgrade. Old Belgrade (which contains the city’s fortified citadel) grew in a diametrically opposed direction to the waterfront into the hilly area lying to the South-East. At the close of WWI, Belgrade ceased being a partitioned city and assumed the role of capital city and centre of power of a new federated nation: Yugoslavia, the Kingdom of the Southern Slavs.

Second World War and Aftermath

During the Second World War, Belgrade was an occupied city, with the remainder of Yugoslavia being partitioned into puppet regimes under the tutelage of Nazi Germany and Fascist Italy. After Liberation, the city assumed a new political role as the centre of the Yugoslav federation under the prevailing socialist ideology of Titoism. Under such an ideology, the priority for urban development shifted towards the provision of public housing for new inhabitants as well as towards the physical expression of the new ideological dogma. At the same time, urban city planning was confronted with reconstruction issues aimed at mitigating the heavy collateral damage sustained as a result of the war. This constraint involved efforts to redress acute shortages in housing destined to accommodate a large
population of internally displaced persons.

Although the river ceased to be an international border whose development could now be subject to central planning, the priority of effort of city planning remained firmly focused on the edification of the new capital of the Yugoslav socialist state. Under these circumstances, there was little time or resources left to attribute to the development of the city’s waterfront. In fact, heavy industrial development, as well as rail and road infrastructure evolved along a riverfront lacking any sense of connection with the city’s identity. The strong infrastructural and industrial belt that evolved along the waterfront illustrates the dangers inherent in any development that proceeds from a “tabula rasa”.

**Contemporary Period**

Today, Belgrade is the capital of the Republic of Serbia, located at the center of South-Eastern Europe. Serbia is bordered by Hungary in the North, Romania and Bulgaria in the East, Macedonia, Kosovo and Montenegro in the South, and by Bosnia and Croatia in the West. As a landlocked country in an ethnically diverse and highly fragmented political neighborhood, Serbia places a high value on the natural borders provided by its two major rivers. The Sava River flows through Croatia and Slovenia, while the Danube belongs to the larger system of the Danube-Rhine-Maine Canal that connects the Black Sea to the North Sea. This navigable river system links
1.2. Diagnosis + Problem Statement

Belgrade is a city with a very turbulent and dynamic past. Its geopolitical position highly influenced its historical development. The city was demolished plenty of times during the history (red-bordered grey rectangles in the timeline: figure 1) and its rulers changed equally frequent (cyan rectangles in the timeline). In this way, due to a specific geopolitical position, the city history came out very inconstant.

Serbia to Bulgaria and Romania in the East and Hungary, Slovakia, Austria, Germany and The Netherlands in the West, maintaining the city's status as a geographical gateway of appreciable importance.

Ongoing Stagnation

Although the rivers in Belgrade are now perceived to be of strategic importance in an international context, their banks lining the city of Belgrade remain largely undeveloped to this very day. The riverfront is currently dominated by industrial brownfield sites, inactive green areas and zones of heavy transportation infrastructure. While some recreational areas and quays were developed in recent decades, such development has been haphazard and fragmented. The municipality of Belgrade recognizes the underdevelopment of the Belgrade waterfront and considers it to be one of the primary problems currently afflicting the city. The official report: “City of Belgrade - Development Strategy 2011” identifies brown fields lying along the waterfront as prime areas for reuse or redevelopment.

Risks from Waterfront Underdevelopment

In its report, the city of Belgrade does not only point to an overabundance of underused space but also decries the fact that the Belgrade riverfront has been ignored as a means towards contributing to the city’s overall identity. The idea of employing the Belgrade waterfront as a vehicle for develop-
ment is likely to prove quite challenging. Cities located on scenic river locations, over time, usually tend to develop an image and culture strongly connected with their waterfronts, resulting in attractive and inviting spaces that are harmoniously used by the city inhabitants. As previously discussed, further to Belgrade's historical legacy issues, priority was given to other developmental issues over that of waterfront development. The development of the city of Belgrade has for various reasons neglected its waterfront, thus foregoing the historical, cultural, natural or heritage assets a major river system brings with it. The connection between the river and the city of Belgrade is most tenuous, not only due to the fact that the river banks are under-used spaces, but also since there is little or no sense of ownership or stewardship: the city simply feels to have no connection to its waterfront.

**Spatial and Physical Manifestation**

The aforementioned lack of connection can be spatially described. Discontinuity manifests itself in terms of historical development, unstable political climate, city form, planning and territory. Lack of connection between the city and the river manifests itself primarily through the establishment of industrial sites along the riverfront. Infrastructure, industrial areas and plain green zones dominate the waterfront, contributing to a sense of alienation. Lack of articulation between the city and the river can be found in terms of fragmentation as well.
On the city scale, three main fractures are recognizable: Old Belgrade (compact “Old City”), New Belgrade (Modernist city) and 3rd Belgrade (rural city). All three fractures appear on different sides of the river where the river acts as a separator and dividing line. In the end, this weak relation between the city and the river manifests itself through urban asymmetry where the identity of the river cannot compete with the highly developed identity of the city.

Risks accruing from this kind of underdeveloped structure are significant due to the generic, market-driven developments that are taking place throughout the entire city.

This is illustrated by the fact that the city of Belgrade is going through a transition from the top-down development of socialist, publicly-owned property to a pervasive international market-driven development. This transition could especially affect the waterfront due to its underdeveloped physical features and lack of identity. The Belgrade waterfront, with its significant amount of vacant areas and brownfield sites, is especially vulnerable to being developed as a flagship of the market-driven “Big Box” retail and corporate office tower type of development. Developed under such a formula, Belgrade waterfront may become even more contextually disconnected from the city as well as incoherent with its present social, historical and cultural values. To illustrate this point, I would point to the example of a new project that the city of Belgrade devised for the Belgrade harbor, the only privatized area on
Figure 10. City established on the water. Source: author own

Figure 12. Distribution of industry along the river. Source: author own

Figure 13. Distribution of green areas along the river. Source: author own

Figure 14. Distribution of infrastructure along the river. Source: author own
the waterfront. The project is known as “City on the Water”, designed by the Daniel Liebeskind design studio. Although the project is not conceptually flawed in and of itself, it nevertheless suffers from limitations of scope in that it does not deal with an overall strategy for the development of the Belgrade waterfront.

**Design, based on spatial analysis**

The potential relation between the city of Belgrade and its rivers is demonstrated by means of a strategic design that is based on a deeper understanding of spatial requirements of different typologies of inhabitation, a spatial profiling of riverfront users, and programming in accordance with existing development trends in Belgrade (problems, challenges and opportunities). The design will help to understand a solution that the river may provide in this complexion in spatial and cultural sense since it played an important role in many development processes of the city.

**Design, based on analyzing the current use of the river**

Although the Belgrade riverfront is fragmented, the river does see some use by its inhabitants. The areas that are actively used by citizens of Belgrade are existing sport complexes, recreational areas, entertainment facilities, parks and quays. Especially during summer months, pedestrian
Figure 18. Kovaljevski’s illustrative vision of New Belgrade based on traditional values, 1923. Source: Blagojevic, 2007.

Figure 19. Werner March’s plan for monumental Olympic Stadium in Belgrade, 1939. Source: Blagojevic, 2007.


Figure 21. Belgrade plan during and after Ottoman rule. Source:
Urban Planning of Belgrade was highly influenced by politics and ideologies. Each of the plans is showing planning "from the start" only according to political or ideological course and neglecting the city itself.
areas of the riverfront are very active and vibrant. Therefore, connection between people and the river is not lacking; the physical connection between the urban tissue and the river banks, that would provide an access and activity to the river for people, is the lacking one. Belgrade inhabitants used to enjoy river in history, today and new plans should provide more places on the river for people. This connection with the Riverfront already exists and it is related with users of places. This connection has to be used as an essential for any kind of physical or symbolic connection.

**Theoretical framework**

In this project the discovery of identity is related to theoretical notions on place and none place. The description of places is informed by an understanding of groups of inhabitants in Belgrade, the way they use the city and the spatial conditions that their practices require. In this manner, the riverfront can become part of the city manifesting the city with its spatial organization on the riverside. As follows, riverside is developed as a whole and fragments are designed as part of this bigger picture. Belgrade riverfront is an ambivalent city element gathering highly active and vital zones, as well as completely abandoned and inactive areas. This composition of various urban dynamics relates to my personal interest in understanding of space phenomena and therefore place and non-place theories, placelessness and the phenomena of genius loci. Belgrade Riverfront development relates to space theory highly because it has a big amount of (non)-places due to its specific historical development. As a result the riverfront, previously described as city’s biggest advantage, today gathers together wastelands. Therefore, I recognized that the spatial values on the riverfront could be discovered within genius loci theoretical framework that is also a matter of personal interest. On one hand this theoretical framework takes in account city within the levels of existential space addressing therefore its living environments on different scales. On the other hand this approach is in search for the meaning of place and that is the element that riverfront of Belgrade tends to lack or oversights. All mentioned theoretical notions will be more thoroughly explained in the chapter of methodology.

**Two centers**

Two centers, Zemun and Old Belgrade, used to develop separately until the XX century when those two places became united within the new capital of Yugoslavia. This set up affected the riverfront that started developing actively only at the beginning of the XX century with the accent on the period after the WW2. It is quite clear that the riverfront couldn’t follow and compete to the highly developed and spatially pronounced identity and vitality of two historical cities. In this way the river had a significant predisposition to develop an urban asymmetry in comparison to historical centers. This asymmetry reflects not only in terms of identity and vitality but also in terms that the city never evolved into a city on the water. Sometimes it seems like the city of Belgrade was too long in retreat from its waterline to develop as the city on the water. This project aims to understand this relation and try to evoke it.

The Rivers of Belgrade used to play a border role between two strongly emplaced cities that belonged to different empires. Those two cities are the old city of Belgrade and Zemun forming a bipolar urban structure. When this dual disposition was united in a capital of Yugoslavia focus oddly moved from two main cores towards the in-between area – CIAM based new center for the new country - New Belgrade. It is a paradox how the river was left out from the further developments, even though it had a potential to play an important role in generating of this new “divided” city. Reflecting to the past, this disposition remained to certain extend with the development of the New Belgrade that may be understood as a supplement to a divided city supporting the void from the past with its rigid and distinctive urban morphology. At the same time the New Belgrade housing provision didn’t provide the living units fast enough in comparison to the amount of people coming to find home in the new capital. This resulted with the new typology arousing in the city of Belgrade – informal single house developments that the city tolerated due to its inability to provide the solution.

**International network**

The rivers place the city of Belgrade in the network of capital cities on the Danube and Sava rivers with Budapest (1.73 million inhabitants, capital of Hungary), Bratislava (431.000 inhabitants, capital of Slovakia) and Vienna (1.7 million inhabitants, capital of Austria) on Danube; Zagreb (792.000 inhabitants, capital of Croatia) and Ljubljana (270.000 inhabitants, capital of Slovenia) being the most important ones.

**New Belgrade**

The paradox of the development of New Belgrade is that it was developed in marshlands that were a void between the two cities with no accenting on the rivers that were the fringe of those marshlands itself. While all this urban processes were taking place, the riverfront remained a borderline that demonstrated urban asymmetry in comparison with the city vitality and identity. The problem is that the city inner urbanity was and is developed separately from the riverfront from its very beginning. This project returns
Figure 24. Three city fragments: Old Belgrade, New Belgrade and 3rd Belgrade. Source: author's own.

Figure 25. Typological spatial manifestation of three city fragments: 3rd Belgrade, Old Belgrade, New Belgrade. Source: author's own.
to the beginning and learns from the city and its inhabitants in order to describe and discover the role of the river as the strong part of the city entity.

When it comes to political climate and governance, discontinuity in Politics and territory changes. The political course of Serbia was always very turbulent. Constant changing of dynasties, assassinations of rulers, changing of the political courses and inconstant form of the governance, affected the city of Belgrade heavily. Those effects are not only manifesting in the politics itself but as well in uncontrolled demography changes, migrations caused by the war, economic insecurity and changeability of the territory. All those consequences affect city development and they all have origin in the discontinuity of the politics.

WAR Discontinuity in city form manifests trough war demolishments where project usually decline in quality and general urban quality declines. Also, due to instable economic situation, due to bad maintain, quality of city form declines.

Problem Statement

Underdevelopment of Belgrade Riverfront is one of the contemporary problems city is facing. On one hand, riverfront offers highly used parks, quays, recreational and sport areas. On the other hand, riverside collects considerable amount of inactive industry, brownfields and plain green areas.

Additionally, the city of Belgrade is going through a transition from a socialist public-owned territory to an internationally present market-driven development. Socialist period left behind a lot of public-owned land that is threaten in those contemporary conditions. The Belgrade Riverfront, with the considerable amount of unbuild areas and brownfield sites, is especially at risk to be developed as flagship or market-driven office area. Developed as such, Belgrade Riverfront may become even more contextually disconnected from the city as well as incoherent with its social, historical and cultural values.

As an illustration of this kind of development I would like to give an example of a new project that the city of Belgrade bought for the Belgrade harbor that is the only privatized area placed on the Riverfront. The project I am referring to is called “City on the Water” and it is signed by the Daniel Libeskind design studio. I would like to accent that the project for itself doesn’t have to be necessarily understood as bad, but what I would like to infer is that the proposal is not appropriate for the Belgrade city reality and its ongoing challenges.

Belgrade riverfront is an ambivalent city element gathering together highly active and vital zones, as well as completely abandoned and inactive areas. This composition of various urban dynamics relates to my personal interest in understanding of space phenomena and therefore place and non-place theories, placelessness and the phenomena of genius loci. Belgrade Riverfront development relates to space theory highly because it has a big amount of (non)-places due to its specific historical development. The riverfront used to be the border line between two empires for the most of its history. As such it was basically marshland fringe and defense line. Afterwards, heavy industry took place filling the area with contemporary function disregarding the fact that the riverside didn’t have identity developed. Also, the real meaning of the riverfront for the city and vice versa was neglected. As a result the riverfront, previously described as city's biggest advantage, today gathers together wastelands. Therefore, I recognized that the spatial values on the riverfront could be discovered within genius loci theoretical framework that is also a matter of personal interest. On one hand this theoretical framework takes in account city within the levels of existencial space addressing therefore its living environments on different scales. On the other hand this approach is in search for the meaning of place and that is the element that riverfront of Belgrade tends to lack or oversights.

Rivers of Belgrade used to play a border role between two strongly emplaced cities that belonged to different empires. Those two cities are the old city of Belgrade and Zemun forming a bipolar urban structure. When this dual disposition was united in a capital of Yugoslavia focus oddly moved from two main cores towards the in-between area – CIAM based new center for the new country - New Belgrade. It is a paradox how the river was left out from the further developments, even though it had a potential to play an important role in generating of this new “divided” city. Reflecting to the past, this disposition remained to certain extend with the development of the New Belgrade that may be understood as a supplement to a divided city supporting the void from the past with its rigid and distinctive urban morphology. At the same time the New Belgrade housing provision didn’t provide the living units fast enough in comparison to the amount of people coming to find home in the new capital. This resulted with the new typology arousing in the city of Belgrade – informal single house developments that the city tolerated due to its inability to provide the solution.

The paradox of the development of New Belgrade is that it was developed in marshlands that were a void between the two cities with no accenting on the rivers that were the fringe of those marshlands itself.

While all this urban processes were taking place, the river-
front remained a borderline that demonstrated urban asymmetry in comparison with the city vitality and identity. The problem is that the city inner urbanity was and is developed separately from the riverfront from its very beginning. This project returns to the beginning and learns from the city and its inhabitants in order to describe and discover the role of the river as the strong part of the city entity.

This project aims to understand the solution that the river may provide in this complexion in spatial and cultural sense since it played an important role in many development processes of the city. Those processes are explained within the diagnosis chapter where it is noticeable how important the river role is and could be in sense of dealing with discontinuity, disconnection, fragmentation and asymmetry. The project ‘Belgrade meeting its Riverfront recognizes the city of Belgrade as the city on the rivers that needs to be discovered with respect towards its disregarded values and city’s urban heritage."

Main Research Question:

What set of spatial and theoretical approaches can be used in order to cohesively connect the city of Belgrade with its rivers while respecting its development patterns and spatial practices and contemporary reality that was highly influenced by historical, social, (geo)political and cultural influences?

Sub-research questions:

1. Which development patterns and spatial practices can be recognized within the urban tissue of Belgrade in relation to historical, (geo)political, typological, social and cultural aspects?

   • How can historical development patterns, trends and typologies be grouped so that they describe inhabitants that share the same city reality, spatial requirements and culture of living?

   • What is the tool suitable for spatial translation of the complex set of values describing types of city inhabitation?

2. How is Riverfront used?

   • How is the riverfront used in relation with previously defined groups of inhabitation within the city of Belgrade?

   • What are the spatial sharing potentials between groups of inhabitants along the river?

Main Project Aim:

To articulate the city of Belgrade and its Rivers with respect towards existing disregarded values (cultural values, heritage values, social values and historical values) through a strategic design based on a deeper understanding of spatial requirements of different typologies of inhabitation, spatial profiling of riverfront users and programing in accordance with the city trends (problems, challenges and opportunities).

The aim of the project has several dimensions that are asking for specific tools and approaches to be developed for its realization. In order to complete the aim, project makes use of:

• analytical framework to describe the problem, understand the city and set up the project objectives

• empirical framework that describes experimental and intuitive perceiving of the city

• theoretical framework in order to spatially translate and understand the development patterns of the city that have a potential to be successfully applied on the riverfront.

All mentioned frameworks that describe different links in the aim realization will be more thoroughly explained in the chapter of Methodology. The role of each methodological framework will be explained in sense of the tools used and products obtained. The roles of each framework will be connected with the final products showing their contribution to the realization of the project aim. The aim of my project is to review potentialities for developments that relates the riverfront to groups of inhabitants that are living in Belgrade today and do use the river banks already. It aims to discover the hidden character (identity?) of the river and proposes its development in accordance to values derived from understanding of the city and its inhabitants. In this way, the proposed future developments on the riverfront represent a critique towards ongoing trends in the city, most specifically development that responds to general markets demands and tends to ignore the specific conditions that stem from the past. The city still needs to learn from its past and cohesively relate to its heritage to its current identity. This step of consolidation between the city’s history and present situation keeps missing and I recognize that new developments cannot take place before this step is taken. This project proposes a way how this step can be taken through a connection between the city and the riverfront that builds up on insights into how the city has been used earlier and how the river is already used today. After the city is articulated with its own history, it can continue its development in accordance with contemporary trends. The project ‘Belgrade meeting its Riverfront’ recognizes the city of Belgrade as the city on the rivers that needs to be discovered with respect towards its disregarded values and city’s urban heritage.
PLACE MAKING

City placed on a confluence of two rivers has a spatial connection with this landscape element that becomes unbreakable part of its identity, especially because of its granted nature. In case of the City of Belgrade, connection between river and the city is not strong due to the fact that city and its riverfront developed separately. This brings us to the importance of the city-river relation. In the official report: “City of Belgrade - Development Strategy 2011" City of Belgrade emphasized the role of the river in sense of city identity as a whole. It is stated how brownfields dominate on the riverfront and that riverfront, especially in the central zone has to be re-used or re-developed. The problem with this document would be that it is not dealing with the problem of the waterfront as a whole, but it deals with the issues on the river with the focus on fragments and not at all on the overall strategy for the waterfront.

This project conceives that identity-discovering in this case should be based on place-making and place-discovering. This place-making will be informed by understanding of the city as a whole and notions of place according to understanding of its inhabitants. In this manner, the riverfront can become part of the city manifesting the city with its spatial organization on the riverside. As follows, riverside is developed as a whole and fragments are designed as part of this bigger picture.

TRANSITION PHASE

As already explained before, Serbia is going through a transition phase in terms of politics, market and economy. This transition from public-owned land towards contemporary market driven developments could especially affect the riverside due to its underdeveloped physical features and identity.

Therefore, this project aims to discover the hidden character of the river in relation with the city and propose its development in accordance to values derived from understanding of the city and its inhabitants. In this way, the project represents a critique towards ongoing development trends in the city and proposed future developments on the riverfront.

The city still needs to learn from its past and cohesively relate to its heritage and reality. This step of consolidation between the city and its history and identity keeps missing and I recognize that new developments cannot take place before this step is taken.

This project proposes a way how this step can be taken through a symbolic connection between the city and the riverfront. After the city is articulated with its own history, it can continue its development in accordance with contemporary trends.

COMMUNITY RELEVANCE

Although the Belgrade riverfront is fragmented with no coherence between its fragments, river is used and visited by its inhabitants. The areas that are actively used by citizens of Belgrade are existing sport complexes, recreation places, entertainment buildings, parks and quays. Especially during summer months, pedestrian parts of the riverfront is very active and vibrant. Therefore, connection between people and the river is not lacking; the physical connection between urban tissue and the coast, that would provide an access and activity to the river for people, is the lacking one. Belgrade inhabitants used to enjoy river in history, today and new plans should provide more places on the river for people. This connection with the Riverfront already exists and it is related with users of places. This connection has to be used as an essential for any kind of physical or symbolic connection.
Figure 26. Swimmers at Sava River. Source: http://www.skyscrapercity.com/showthread.php?t=406398&pp=1&page=15180

Figure 27. Masterplan for the harbor as a privatized locality on the Belgrade riverside. Source: http://www.1984-productions.com/blog/wp-content/uploads/2010/01/Port-of-Belgrade.jpg
In this chapter the guidelines of the theoretical framework will be introduced. At this point of explanation of the project, the actual use of theoretical framework won’t be the main topic, but its general introduction. Its broad use and implementation will be explained in the Methodology chapter. The actual utilization of the theoretical framework will be demonstrated in the rest of the paper (Learning from the city + Learning from the river + the Vision and design).

Theoretical framework is based on the understanding of notions of place and its manifestation within the existential space. Therefore, the formal explanation will consist out of the general comprehension of space and place (Genius Loci). Afterwards, related to this subject, existential space theory will be explained through its levels and elements.

The reasoning behind the use of this theoretical framework in this particular project is informed on one hand by the analysis of the riverfront area and on the other hand by the main aim of this project.

// The analysis of the riverfront showed that the riverfront gathers together the considerable amount of dynamically empty spots, inactive green and industrial areas, brownfields and infrastructure. Also, since the riverfront had been a borderline of marshlands for the most of its existence, the river didn’t develop simultaneously with the city developing the urban asymmetry compared with the city vitality and identity. Due to those reasons the idea was to observe the river from its basic aspect – the aspect of space. This project is in search for the notion of place within this setup on the Belgrade Riverfront.

// The aim of the project informed the use of the theoretical framework in sense that it reflects on the city and its properties.

In this way I will give an overview of theoretical logic behind this project and terminology (legend) that will be used in the
2. Theoretical Framework

- Genius Loci
- Reasoning and implementation
- Levels of Existential Space
- Elements of Place
2. 1. Genius Loci

Within this chapter I will provide a synopsis of reviewed theories concerning understanding of space and place. Afterwards it will be explained how I made use of these different theoretical ideas in my project, as well as their correlation.

I will start this chapter with explanation my use of the term Genius Loci. Genius Loci stands for the meaning embedded within "the spirit of place". "Genius Loci" is as well the name of the book by Norberg-Schulz, but in this project Genius Loci doesn't mean only the notions stated there. The story is more extended collecting various theories that deal with this subject.

The following lines will provide an introduction to the topic, different points of view and knowledge used in this project. Later on, the use of theoretical framework in more spatial and concrete terms will be explained.

Notions of Place

In philosophy place is perceived to be a fundamental condition for human existence. Aristotle distinguished several classes in his second classificatory system that consists out of the "highest kinds", also known as "categories". There are 10 equally high kinds that organize ordinary things in more general classes. One of these 10 kinds is "Where" referring to "place" as relation to and position in environment. (Studtmann, 2007.) Therefore, place as one of the highest Aristotle's kinds has undeniable importance. E Relph (2008) even calls place a "fundamental aspect of man's existence in the world" and "source of security and identity of individuals." (ibidem, p. 6) After emphasizing the important role of the place, he elaborates on his concern related to place disappearing: "It is important that the means of experiencing, creating and maintaining significant places are not lost. Moreover there are many signs that these very means are disappearing and that 'placelessness' - the weakening of distinct and diverse experiences and identities of places - is now dominant force." (E Relph, 2008., p. 6) A tension between, from a theoretical point of view perceived, significance of place and how we deal with distinct places in professional practice is more than obvious. Since the notion of place is basically a part of the human living, it is not observed anymore as a separate category that needs special attention in the organization of space. In fact, place is so tightly connected to human existence that it develops together with it, absorbing all the advantages and disadvantages on its way, unrecognized. As a result of this diminishing attention to distinct places with an own identity, spatial environments lose their quality of being coordinate systems for the spatial practices of individual human beings, cultural, ethnic and political groups.

"The ideas 'space' and 'place' require each other for definition. From the security and stability of place we are aware of the openness, freedom, and threat of space, and vice versa." (Tuan, 2001., p. 6) Therefore, the place needs space and space needs place to be understood, explained and observed. In this review, each author’s theory will be presented through explanation of relationship between manifestation of place and space. Once this relation is defined, it will be used to clarify the main idea and nature of place and space itself.

In order to understand current acknowledgements on reality of space and place, genesis of place meaning should be explained. Through following the development of the perception of place though out time, the reduction of its meaning will be explained.

Casey (1997) roughly distinguishes three periods of place-meaning expressed through relation between space and place. The first period is related to Philoporus in the 6th century, fourteenth century theology and seventeenth century physics. In this period of time, place has been assimilated with space. Later on, place was considered to be a "mere modification of space" (Casey, 1997, p. x). Place, other than space was perceived to be a "site" for building. In the third period, that relates to 18th and 19th century, place was reduced to locations between which physical object occur.

According to the mentioned periods, a decline of the meaning of place is noticeable. Today’s notices on development of place and space, confirm this constant tendency in decrement. Casey (1997) calls this trend place disappearing. At the same time, Mark Augé (1995) talks about non-place appearing and E Relph (2008) relates to placelessness. The question that arises is: Why substance of place reduces through time?

One explanation is provided by Casey: “Just because place is so much with us, and we with it, it has been taken for granted, deemed not worthy of separate treatment. Also taken for granted is the fact that we are emplaced beings to begin with, that place is an a priori of our existence on earth.” (Casey, 1997, p. x) Therefore, the location as the most basic category becomes neglected.

Another explanation defined by E Relph (2008) underlines constantly increasing mobility, that he defines as “mass movement” (ibidem, p. 90), that according to him encourages non-place making. In the same manner, Todd Snow (1967) compares
“the old road” that used to be an extension of place and encouraged communication, with the “new road” that is an extension of a vehicle and that doesn’t enable social interaction.

Additionally, related to the “mass movement” (ibidem) is the “mass culture” (E Relph, 2008, p. 92). This type of culture is characterized by uniformed needs and tastes. In this way placelessness occur due to lack of individuality and production for the average/default human. Relph (2008) puts tourism, disneyfication, museumisation and futurisation in the category of mass culture that creates placelessness. In the end, he even mentions technique and planning as self-conscious inauthentic placelessness makers where place is being reduced to a simple location.

Taking emplacement for granted, increased mobility, dominance of mass culture with help of mass media and technique-based planning are some of the numerous reasons for place disappearing. The following chapters will try to give a more detailed insight on more causes and consequences of non-places.

Place and Non-Place: Identity.

In order to define place and non-place, Augé describes their relation: “If a place can be defined as relational, historical and concerned with identity, then a space that cannot be defined as relational, or historical, or concerned with identity will be non-place.” (Augé, 1995, p. 78) It is noticeable that in place and non-place-relation, identity, relational and historical aspects dominate. The overall concept can be linked to the explanation of places as centres of value as suggested by Tuan (2001). Tuan describes places as consequently, non-places, as locations that lacks value or cannot be understood as a node in a system of values.

Augé also introduces the term “character” as one of the properties of places. He emphasizes the importance of character to the point of comparing lack of characterization with non-symbolized surface of the planet. When it comes to character, Augé (1995) talks about non-place that lacks one. Furthermore, he describes non-place as non-symbolized, which leads him to contrasting symbolized space of place and non-symbolized space of non-place.

This confrontation, again, leads to opposed natures of place and non-place. Augé (1995) points out that places and non-places are two polarities. Their unifying element is space where they are both emplaced in.

Place and Space: Movement

Another relation among place and space is related to movement. Augé introduces an illustration of this relation. He presents it through the eyes of a traveller: “Space, as frequentation of places rather than place, stems in effect from a double movement: the traveller’s movement, but also a parallel movement of the landscapes which he catches only in partial glimpses, a series of snapshots piled hurriedly into his memory and, literally, recomposed in the account he gives of them…” (Augé, 1995, p. 86)

In the same manner, but from different background, Tuan (2001) says that space, other than place, has the potentiality of movement and that movements through space are directed by objects and places. He defines space as network of places.

Both of those observations relate ability of movement in space and the movement itself to place. Therefore, this interpretation gives dynamic/movement-based dimension to space and place relation.

Non-Place and an Individual

According to Augé (1995), non-place has two realities: the first one would describe non-place as space formed in relation to certain ends (such as traffic, transit, commerce, leisure); the other reality describes non-place as relation that individuals have with spaces. Therefore, non-place can be both: space and relation.

Non-place as space brings us to very concrete examples of precise spatial structures that have increased possibility to lack character, identity or value. Examples are highways, airports, transits, different infrastructure lines, city garages, bank-machines etc.

Non-place as a relation, that involves our individuality, can have different roots. Something that Augé (1995) calls “the first journey” (Augé, 1995., p. 84) can be connected with our “primal experience of differentiation” (ibidem) that refers to our childhood. Therefore, our childhood partly or mostly “generates” our individual perception of place as a place or non-place. Relaying on this point, we might assume that what is for one person place, for another person may be non-place. This conclusion gives rather vague and personalized definition of non-place. Then again, it is possible to recognize spots that define modern way of living and that promote “shared identity” (Augé, 1995., p. 100) and that “fabricate average man” (ibidem). Those localities are often made for average men and as such could be related to each individual to some extent.
Summing up already mentioned character and value of place, then movement as a base of space as an “animation” of places and at the end previously mentioned individual dimension, leads us to the image of traveller that brings all those three aspects together. Those three can be organized as sequence (voyage)-route-traveller. Position of an individual in all those relations is quite complex and bring us to everyday reality (voyage)-route-traveller. Position of an individual in all those aspects together. Those three can be organized as sequence (voyage)-route-traveller. Position of an individual in all those aspects together. Those three can be organized as sequence (voyage)-route-traveller.

Also, difference between visitor and resident of one place is considerable. Difference reflects in personal engagement, in the way how we deal with perceptions, how we relate etc. For Tuan (1990), visitor and native focus on different aspects of the environment. He explains how in past, due to a small number, significance of a visitor wasn’t that great, but that with increase of mobility, role of a visitor (accent is on a tourist) becomes rather considerable. This is again bringing us to the mobility as one of main triggers of non-place that doesn’t involve social contact and reduces individual dimension.

Moreover, this leads us to traveller once more: “The traveller’s space may thus be the archetype of non-place.” (Augé, 1995, p. 86) This position is explained in two ways: traveller in movement, and static visitor. On one side traveller during the journey is described as an observer of animation of places, still at certain places he is “spectator that doesn’t pay that much attention on spectacle” (Augé, 1995, p. 86). Tourist photos that are all about our visitor and show his image in the world have another name that can be Tahiti, New York etc. (Augé, 1995) On contrary, Tuan (1990) puts the accent on some of the advantages of a visitor: encountering with something new may trigger our visitor to express himself, also he mentions outsider’s enthusiasm and fresh perspective that can give visitor valid judgement. Then again, visitors point of view is mainly aesthetic based on appearance, while native’s observations are much more profound based on values and complex attitude. Even though those two positions seem opposed, they are not mutually exclusive. In fact, joined in one perception they form more complete observation.

What is phenomenological geography and how it relates to place? E Relph (2008) states how geography shouldn’t be understood only as a "branch of knowledge with geographical reality" (ibidem, p. 5) as a blank geographical space waiting to be filled in. He sees geographical reality primarily as a place that someone is in, and a memory of former concepts of location, landforms etc. For Relph (2008), place can be considered an essential feature of the phenomenological foundations of geography.

Therefore, besides its objective-geographical-space based on a rather precise and empirical knowledge, phenomenological geography includes meaning, relations and understanding of places that are emplaced on this more scientific side of geography.

E Relph (2008) developed exploratory classification of space as a tool for explaining relation between place and space. In this chapter, classification of space will be presented and this classification will provide insight to place meaning and relation between place and space.

In general, E Relph (2008) says how space supplies context for place, but that places are the ones that give meaning to space.

Therefore, following classification will present different types of context (spaces) and then it will provide an insight to role that place plays in that context (space) and meaning that place gives to certain type of space (context):

**- Pragmatic space or primitive space**

"is developed unselfconsciously, beginning in infancy, as a space of instinctive behavior. This context (space) can be compared to animal life through which animals survive and function, but have no abstract images. Place is not easily distinguished from space in this context. Space in this pragmatic framework would be a “continuous series of egocentric places.” (E Relph, 2008., p. 8) According to this, pragmatic space would be the most basic type of space that fulfills human's basic needs.

**- Perceptual space**

In contrast to primitive space, perceptual space accents personal dimension where each individual observes and interprets space according to self-awareness. This kind of space emphasises individual’s experiences and intentions since it has content and meaning. (Relph, 2008) “Through particular encounters and experiences perceptual space is richly differentiated into places, or centres of special personal significance.” (ibidem, p. 10) One of the important layers of person’s individual, that influences later perception and therefore perceptual space would be childhood. “Childhood places frequently take on great significance and are remembered with reverence.” (ibidem, p. 11)

**- Existential space**

is a space that we experience as individuals but as a part of some bigger cultural group. In this way, our individual perception and interpretation of space overlaps with a more common set of meanings, experiences etc. (E Relph, 2008) “Places constitute significant centres of experience within the context of lived-space of the everyday social world.” (E Relph, 2008., p. 22
When Norberg-Schulz (1971) talks about existential space, he defines it through levels. According to him, levels have hierarchical character where the most comprehensive one is level of geography and landscape, while the opposite would be level of home and furniture. E Relph (2008) illustrated this hierarchy (Figure 1), where it is noticeable that every level has horizontal communication within itself. Also, vertical communication between levels exists in sense of logic and scale. According to Norberg-Schulz (1971), structure of existential space is based on combination on those two types of interaction and communication. This scheme of existential space involves both individual side (home) and much more general side (landscape, geography). Due to this fact, this levelling approach may be the way of understanding both sides and their interaction.

- **Architectural space and planning space**

  is based on an attempt of making spaces. (Norberg-Schulz, 1971) The difference is that architectural level aims towards encouragement of individual experience, while planning level concentrates more on function and two-dimensional map space. (E Relph, 2008.) According to Relph(2008) the same is with place: on architectural level accent is on capturing the ‘multi-meaning’ that should provide sense of identity and reality of the place. On the other hand, on the planning level, the place means a “little more than location where specified interactions occur” (ibidem, p. 24)

- **Cognitive space**

  identifies space as an object of possible theory developments. (E Relph, 2008) Understanding of place varies from theory to theory, from philosophy to philosophy.

- **Abstract space**

  is based on a more imaginative position towards space. In this observation, space doesn't have to be realistic and based on empirical observation. (E Relph, 2008) On contrary, space can be presented very conceptually, sometimes showing just the idea, relation or approach even in schematic way. “Places are points, symbols constituting just one element within the overall system of abstract elements.” (E Relph, 2008., p. 26)

  To sum up, perceptual space is described as an ability of a human that from basic “organic involvement” moves to a “sophisticated abstraction and self-consciousness” (ibidem, p. 10). This doesn't mean that pragmatic place is not a part of it. In fact, due to its basic dimension, pragmatic space is involved in our existence without us really distinguishing it since it is understood as default category. This leads us that spaces from this classification of E Relph do not exist separately, but in complex combinations. Then again it is questionable how those interact and function as a part of a greater system.

After reviewing various positions based on few academic backgrounds, different observations on space and (non-)place can be provided. Even though the reviewed theories do not focus on the same aspects of placelessness, some main characteristics of place and space can be recognized.

- **Placelessness**

  If Relph’s perception towards placelessness is compared to the idea of Augé’s theory of non-place, we can notice significant difference in approach, but rather similar conclusions. Probably due to geographic background, Relph concentrates more on location as a static category with a human emplaced in it. For instance, he names inauthenticity as one placeless maker. He names kitsch, tourism, planning based on technique, mass communication, mass media, mass communication etc. as expressions of inauthentic approach towards place.

  On the other hand, in Augé’s theory of ‘non-place’, human and his sensations are placed in the focus of attention. Also, place is presented as a rather dynamic category that is experienced by movement and which contains movement itself.

  Augé’s concept lacks stronger spatial dimension while it is abundant in human relation and individual perception of place. On the other hand, Relph defines precise places as different locations that have more or less attributes of placelessness. Since conclusions of both authors relate, combination of their approaches gives a clearer and more complete picture of what (non-)place is.

**Conclusions and relation with the project**

To start with, space is always a more abstract and broader category than place. Space is “bigger” in scale and as such, provides a general context for place(s) to happen. Secondly, place is a more specific concept with concentrated “value” (Tuan, 2001., p. 18) and identity. Simplified, space can be characterized as a framework and place as content. Also, most of the authors emphasize the importance of childhood for later observation of places. Even though this depends on the individuality of each person, from the urbanism perspective, it is important to understand the culture of living and general habits that might shape an understanding of place.

In accordance with this, the Belgrade Riverfront will be observed as space where the project will aim to provide places for its inhabitants. In order to design places for inhabitants, the city will be analyzed and so the values, that the places collect, will be spatially described. In this way, the project will demonstrate an utopian vision on Belgrade meeting its Riverfront with in the place-making framework.
It is interesting how observers (such as Augé and Relph) that concentrate on non-place, criticize placelessness even though most it is part of our daily reality. As such, critiques on non-place are mainly reduced on acknowledging, but not on solving. Actually, a lot of placelessness is useful (and sometimes necessary) in a modern way of life. Therefore, there should be a difference between two types of non-place according to the limitations of our impact. In the first group would be the non-places that became integral part of everyday life (from mobility structures to bank machines). In the second group I would put places systematically made by the system (government, planners, economists etc.) such as huge urban developments or objects out of human scale. The first group is not that changeable because it became a part of life as a habit. For those places strategies of content-adding may be developed. The second group is changeable since it is much more detached from human choice and habit. As planners, architects or urbanists we may try to rely less on “technique” (E Relph, 2008, p. 87) and be aware of “authentic” (E Relph, 2008, p. 78) way of dealing with place-making.

In this manner, the project aims to criticize the planning attitude in Belgrade that could easily reflect on the riverfront as well. Designing in front of you is free from all the mentioned factors that often prevent places to arouse. This approach makes the project extreme and visionary place-making experiment.

In addition, observers (such as Tuan and Norberg-Schulz) that deal mainly with the phenomenon of place itself, explain its meaning no matter if that place is “place” or “non-place”. Those authors are more concentrated on “non-place” as place. Norberg-Schulz (1980) even states how important it is to emphasize that all places have character since character is a basic attribute of the world. He even criticizes the fact that theory lost connection with “real-life” and proposes that place should be a compromise between modes of construction and the relation with their surroundings.

Even Augé (1995) talks about inconsistency of placelessness; he acknowledges a paradox where a foreigner lost in some country can feel at home exactly in anonymity of non-places such as a motorway or a big store.

In the end, the story of non-places cannot be studied in radical terms or controlled. “Places and non-places intertwine and tangle together. The possibility of non-place is never absent from any place.” (Augé, 1995, p. 107)

In accordance to overlapping between place and non-place phenomena, where there is no strict line differentiating one from the other, this project will deal with place and place-making. The accent will be on preventing the placelessness arising as a consequence of planning, economy and governance in transition.

Urbanist, architect, designer or planner, they all should be aware of the non-place phenomenon, its manifestation, generation and impact. For this purpose, general classification of placelessness can be used. Manifestations of placelessness are summarized by Relph (2008):

"A. Other-directedness in places
- Landscape made for tourists
- Entertainment districts
- Commercial strips
- Synthetic or pseudo-places
- Futurist places
B. Uniformity and standardization in places
- Instant new towns and suburbs
- Industrial commercial developments
- New roads, airports etc.
- International styles in design and architecture
C. Formlessness and lack of human scale and order in places
- Subtopias
- Gigantism (skyscrapers, megalopolis)
- Individual features unrelated to cultural or physical setting
D. Place destruction (Abbau)
- Impersonal destruction in war (e.g. Hiroshima, villages in Vietnam)
- Destruction by excavation, burial
- Destruction by expropriation and redevelopment by outsiders (e.g. urban expansion)
E. Impermanence and instability of places
- Places going continuous redevelopment (e.g. many central business districts)
- Abandoned places"

(E Relph, 2008, p. 118-119.)
2.2. Reasoning and Implementation

The knowledge that I used the most in this project is related with levels of existential space and elements of place.

Existential Space

This project makes use of existential space due to the fact that it focuses on the city inhabitation and lived city space.

Importance of settlements within the existential space is evident. Starting from the notion of home that is its original constituent that represents a basic place of our existence. It is important to define the settlement in relation with the context that it is emplaced in. "Space was not there from the beginning, as we assume with the Euclidian concept. Space in the human sense has evolved. As a concept related to human perception and culture, it was originally closely related to dwelling and settlement and subsequently developed by extension of the spatial perception of man." (Nold, 1992, p. 4)

It is important to state that this project aims to translate some historical, anthropological and ethnological values through its spatial manifestation. More specifically, the project observes lived development patterns of the city, explaining them by means of the theory of existential space.

Levels of existential space are important because they allow multi-scalar understanding of settlement behavior. This provides an integral analyzing that can differentiate the most important scales for specific groups. On those scales groups of inhabitation demonstrate their nature more clear.

Elements of place

In order to describe the meaning of place in the context of the city, I use "elements of place" introduced by Norberg-Schulz. In this way I want to describe which spatial elements are meaningful for different groups of inhabitants the city of Belgrade. In this way, it becomes possible to summarize notions of place within the city of Belgrade through their spatial expression.

Placelessness awareness relevance

The country and its capital are going through a transition phase from the public-owned land policy to market-driven contemporary developments. This situation puts the river in a particularly threatened position because the river represents the least developed zone with the biggest potential.

Therefore, the special attention will be paid on development of the river towards the place-making through the deeper understanding of places within the city. In this way, a visionary plan will be proposed that builds the Belgrade riverside as a place.
2.3. Levels of Existential Space

EXISTENTIAL SPACE

From the classification of types of space contexts represented in the previous chapter, this project focuses on the existential space. Reason for this is the main accent that project puts on the city inhabitant and his lived urban environment. The approach is based on bringing the connection and articulation between the city of Belgrade and its Riverfront where the city of Belgrade is perceived as the complex existential system. This existential system assembles set of influences that affect everyday life on both horizontal and vertical relations within the levels of existential space.

When Norberg-Schulz (1971) talks about existential space, he defines it through levels. According to him, levels have hierarchic character where the most comprehensive one is level of geography and landscape, while the opposite would be level of home and furniture. E Relph (2008) illustrated this hierarchy, where it is noticeable that every level has horizontal communication within itself. Also, vertical communication between levels exists in sense of logic and scale. According to Norberg-Schulz (1971), structure of existential space is based on combination on those two types of interaction and communication. This scheme of existential space involves both individual side (home) and much more general side (landscape, geography). Due to this fact, this levelling approach may be the way of understanding both sides and their interaction. Leveling is important in terms of the understanding that some levels are more prominent for one type of users in comparison with another users. For example, nomad people don’t have the urban level that developed, while modern man lacks the understanding of the landscape level. (Norberg-Schulz, 1971)

HOME

Home is the first (original) center and place of an individual’s existence. Norberg-Schulz (1971, p.31) quotes Heidegger: “to dwell does not only mean ‘to be on earth’ but also ‘to be under the heavens’.”

It is interesting to mention the dream that Carl Gustav Jung had and that he decided to share with Freud because at the time they used to analyze each other’s dreams for sake of psychoanalysis that they both believed in. The dream is about Jung who is in an unknown house that he feels it is his. He is moving along the staircase all the way down to the basement. During his climbing down the ambiances change from the regular house atmosphere towards the sculls in the basement of the house. The dream was interpreted in the following way: Jung perceived the unfamiliar house as his own because it represented himself in the broadest sense. The climbing down represented his journey towards discovery of his unconscious.

Personally, I found this story important and related to the way how Norberg-Schulz (1971) describes house as a provision of a place on earth, while person’s “vertical” is always with him. In this way house takes an importance of the essential place of human existence.

Also, it is important that the home doesn’t always have to be an individual house. It can have a public character that represent the extension of the private world. As an example, I would imagine that Belgrade Fortress could be perceived as home of the city.

In the project, I was dealing with the home predominantly in terms of house that provides us with a feeling of “being situated” (Norberg-Schulz, 1971). I observed home as “a unit” that provides us with a feeling of belonging and security. The reason for dealing with this “unit” is the fact that it represents the basic cell of the settlement. The Settlement is one of the key topics of this thesis because through the settlement and its nature I aim to understand at least a segment of existential space of the city of Belgrade.

NEIGHBORHOOD AND CITY

According to Norberg-Schulz (1971), neighborhood and the city represent the urban level of existential space. This level implies interactions and activities within a man-made environment.

REGION, NATION AND GEOGRAPHY

Level of Geography has cognitive character. “It is ‘thought’ rather than ‘lived’” (Norberg-Schulz, 1971, p. 28) This level provides an identity to geographic entities such as “Europe”, “country” or “region"
Figure 28. Levels of existential space, source: (E Relph, 2008) based on (Norberg Schulz, 1971)
This project aims to articulate and consolidate the city of Belgrade and its riverfront through a deeper understanding of its inhabitants. This aims towards a river that is a part of urban life of the city of Belgrade.

In order to spatially translate meanings of city’s existential space, this project will use three elements of place as criteria: center, path and domain. Within this chapter I will explain the meaning behind those spatial elements in more general terms. Furthermore, in following chapters, those elements will be elaborated in terms of use in the project. This part should provide a key for project understanding later on. Therefore, the explanations from this chapter are supposed to provide a project legend that will make further analysis comprehensive and readable.

By describing those three elements as project tools I aim to make it possible to explain spatial practices in the city. In this manner, this toolbox (based on the theoretical framework) represents a bridge between the analytical and empirical framework and the final products of the project.

In order to make the three terms useful for some more concrete use, I will explain them in less abstract way as well. This kind of more tangible definition will be used in order to explain living environments in the city. In this way, I will describe which spatial elements are of meaning for different groups of inhabitants in the city of Belgrade.

**CENTER**

What is the center (or a place)?

By the term ‘center’, this project addresses the meaning of proximity, concentration and initiation. Within the center, something takes place. This something can be translated as concentration of function or activity.

Firstly, I would like to explain existence as a ‘subjective’ and ‘external’ center. Norberg-Schulz (1971) explains subjectively centered existence as the basic and original one since the human perceives the world naturally from his own self-centralized position. The original spatial manifestation of the subjective center is home. The reason for this is that in the early childhood person gets to know only one center which gathers all the activity at one spot, while it is the only familiar one that overlaps with human’s self-centered world. Later on, as the person gets to know more places that gather activity, the term of the externalized center comes to picture. The externalized centers work as reference places in our grasped cognitive space and the number of our external centers grows with us.

“A ‘place’ is therefore round.” (Norberg-Schulz, 1971, p.20). “In itself, every existence appears round”. (Jaspers, 1947, in Norberg-Schulz, 1971, p.20) “The round form consists out of two elements: the center and the surrounding ring.” (Norberg-Schulz, 1971, p.20) This means that the center is something that consists out of certain concentration and substance and the ring around it shows its potentials to “communicate” and therefore its openness towards the outside world. This implies that place has the inside/outside dimension.

Center always represents a point of reference in the user’s mind map. For the daily urban dynamics, the center has a meaning of a meeting place, a place of work, place of study, place where certain activity takes place. Therefore, center changes through scale and in accordance to the type of settlement that we are elaborating.

On the city scale, daily commuting patterns of the city could generally describe the city hubs that collect a considerable amount of user reference points. For instance commercial and office space areas collect a considerable amount of working places. All those clusters of activity (work, study, leisure opportunities) are linked with a huge number of individuals that perceive this place as their externalized center.

It is clear that the cognitive spatial reference points tend to be very individual. Since I am dealing with the scale of the city and the riverside, I focused on the clusters of centers that attract huge numbers of daily city migrants. In this way I can understand the centers for the groups of inhabitants according to place of work and study. In fact, this project makes an approximation of what certain groups of users could perceive as their centrality on the city scale.
Figure 29. Illustration of the center, source (Norberg Schulz, 1971)

Figure 30. Illustration of the externalized centers, source (Norberg Schulz, 1971)

Figure 31. Illustration of the statement that the existence appears round, source (Norberg Schulz, 1971)
What is the path (or a direction)?

By the term 'path', this project addresses the meaning of continuity. This continuity gives a meaning to the path. More precisely, the path is constituted by a sequence that establishes a story line. Continuity of elements along the path collects a contextually or spatially related places describing an urban atmosphere. This means that through a path element, we can describe a segment of urban life through a continuity of significant places on observed scale.

Path as connecting and relating element

Path as a connecting element - Basically, path can be perceived as a connection between two destinations in space - spot A and spot B.

Path as a relating element - Path has a power to open or introduce a chapter in space. This can be an opening or an entrance to the area through a square, change of building morphology or some other accent. This accent breaks continuity of one story line and introduces a new spatial episode. In this way, path indicates the potential of one entity in space to relate with its surroundings. Also, the path can indicate the nature of the relation according to how drastically or conflictly the story line changes. Therefore, according to the behavior of the path, we can draw conclusions about how complementary certain spatial relations are.

In sense of relations, path can give a feeling of approaching or leaving. This aspect addresses the sense of direction in space providing orientation in terms of mobility. For example, as the story line along the path changes, our sense of position in relation to two reference points or entities changes as well. If we are leaving the city center towards the periphery, the morphological change gives us a feeling of direction and therefore orientation.

Path as morphology

In terms of morphology, path can be described through urban form enclosing it or through the form of the network that the observed path belongs to.

Path in relation to urban form enclosing it - The urban form can give a specific character to a path. In this way, urban form has a power to control the openness and intimacy levels of the environment. If buildings have some constant aspect appearing in their morphology then this element provides certain con-
Figure 32. Illustration of the path, source (Norberg Schulz, 1971)

Figure 33. Illustration of the path as communicative opening (entering), element source (Norberg Schulz, 1971)
DOMAIN

What is the domain (or an area)?

By the term ‘domain’, this project addresses the meaning of enclosure. Our domain is an area where we have feeling of belonging due to a characteristic spatial and cultural set up. When placed within its domain, a person has a feeling of being “inside”. Being “inside” means to be emplaced within a familiar zone that provides safety and feeling of comfort. Norberg-Schulz (1971, p.21) explains how “The known domains are surrounded by a relatively unknown world…” This means that inside its domain, a person feels like a part of an environment more than in other areas.

Understanding of a domain varies through scales and types of users. For an inhabitant, the neighborhood can represent a domain. At the same time, the domain for a tourist could be the entire city due to a week bond that he has with places in the city.

“The domain can therefore be defined as a relatively unstructured “ground” on which places and paths appear as more pronounced figures. The domain has a certain unifying function in existential space.” (Norberg-Schulz, 1971) This unifying is related to clustering of characteristic urban activity, building typology, users and their backgrounds.

Furthermore, a domain reflects an urban image and identity. Real understanding of user’s domain means grasping its existential space pattern - living environment. Through a deeper analysis it is possible to distinguish settlements that share same history, building typology, user’s background and inhabiting culture. In this way, it is possible to characterize city-domains that potentially provide enclosure to specific groups of city inhabitants. This would provide a possibility to spatially describe settlers profiles and understand living environments in the city. Understanding the city inhabitant would mean understanding city’s existential space.

Also, “In a certain sense the domains are ‘places’, because they are defined by closure or by proximity and similarity of the constituent elements. But the distinction between ‘place’ and ‘domain’ is useful, as our environmental image obviously comprises areas to which we do not belong and which do not function as goals.” Place is a matter of reference in space, our goal location and an externalized center and as such it can be part of a domain that can represent only an area that accommodates mentioned center but it doesn’t act as a place itself.

In terms of the use in the project, the domain represents a set of paths and places that compose a familiar and therefore “secure” area. This kind of area provides already described enclosure due to its recognizable and distinctive urban properties. Under urban properties I consider a composition of urban typology, principles of space use, historical and cultural background and the development pattern logic.

Logic and Implementation

One of the characteristics of this project is that it aims to articulate city and its rivers through a deeper understanding of its types of inhabitation that could take place on the riverfront in sense of various activities. Reasoning behind the use of described theory is based on the need to understand the spatial requirements of different groups of settlements and match them with the same understanding of the riverfront.

The aim is to understand what happens when two domains meet on different levels of existential space. Within this framework, the role of the river is highlighted, because it represents a space of importance for the entire city where all the inhabitants should find place. In fact, the project is trying to describe how different types of settlements (and therefore different types of existence) in the city of Belgrade collide and overlap showing their potentials and restraints of coexistence. Groups of inhabitation have many dimensions besides the spatial factor: Groups of inhabitation gather various social, cultural, political and historical reflections.

This set of values is spatially expressed through city settlements representing their domain, path and center.

This means that the groups of settlements in this project are typologies that reflect meaning that describes them and the city where they are emplaced. Therefore, this project is about describing the city and the river by means of same set of tools. Those meanings could be spatially expressed within the framework of elements of place that carry spatial meaning as well as typologies (groups) of this project.
Figure 34. Illustration of the domain, source (Norberg Schulz, 1977)
This chapter will give an overview of project methodology through explaining methodological frameworks and typological approach that is the main guideline of the thesis concept.

Within this chapter, I will explain analytical, theoretical and empirical framework through tools that I used in order to get results (products) from them.

Furthermore, in accordance with mentioned frameworks, it will be explained how I came up with typological approach as a describing and designing tool.

Finally, I will provide an overview of my entire concept that is based on learning from both: river and the city. Through this concept, I will explain the consolidation between the two in terms of methods and approaches.
3. Methodology

- Analytical, Empirical and Theoretical Framework
- Typological Approach
- Learning from the City and River
3. 1. Analytical, Empirical and Theoretical Framework

Analytical Framework

On one hand, analytical framework plays a problem-defining role in the project. This role relates to the original set of analysis that summarize diagnosis and problem direction of the thesis. On the other hand, analytical framework followed all the other processes comparatively. Some of these processes are definition of typologies, strategy sharpening and design supporting. Thanks to this, further steps in problem solving were strengthened.

More precisely, means used in analytical framework are various sequential analysis concerning historical background, political climate, social processes, (geo)political conditions etc. As follows, conclusive development patterns were recognized. Those patterns assemble together historical and typological conditions that reflect spatial and chronological outcomes of city history, (geo)politics and culture. Those outcomes can be spatially defined within the specific areas of the city. For instance, two old city cores were developed simultaneously during the history and they share the same urban expression. In the same manner, the CIAM’s modernist city of New Belgrade and the satellite towns on the periphery were developed at about the same time. In this case, the difference in spatial expression makes the distinction between those two city development patterns.

Also, analysis of urban form in relation with the inhabitants took place, leading towards discovering of the groups of inhabitation. In this case, the urban form can be described as a junction between the typology and urban use logic.

In order to understand what kind of challenges the city and its citizens are facing, city trends were analyzed as well. This perspective gave an overview on where and why certain trends cluster within the city. Trend describes a certain city reality and its positioning in the city provides a spatial dimension of the process. In this way, it was possible to spatially describe users that share a certain city reality recognized through trends. For instance, implosive sprawl takes place in inner-city, explosive sprawl takes place on the outskirts of the city and contemporary market-driven developments take place within the New Belgrade CIAM city.

Therefore, the products collected predominantly from analytical framework are diagnosis, city trends, urban environments notions and commuting patterns of Belgrade conglomerate.

Theoretical Framework

Theoretical framework has a dual role in this project. One side is a spatial translation of the existential city phenomena into the spatial manifestation within the meaning of center, path and domain. In this way, theoretical framework is a mediator between the spatial expression and the meaning derived from the previously explained city analysis.

Also, I wanted to understand the city as a whole through its living environments in order to be able to express it on the river. This expression would be an attempt to cohesively and coherently with its inhabitants, establish the city on water. Since my aim was highly related with the living environments and dynamics of the city, the existential space theory played an important role. Also, my goal was related to the meaning of the place that is developed in settlement types. In order to investigate this dimension, the project was dealing with various notions of place. Finally, elements of place (center, path and domain) were selected for tools for spatial translation of place.

Therefore, products developed from theoretical framework are tools related to elements of place and levels of existential space. Those tools are used for spatial translation and comprehensive analysis of inhabitation patterns of the existential space within the city of Belgrade.

Empirical Framework

Empirical framework made an impact on the project during the whole project forming process and especially in final designing phase.

Due to the fact that I’ve lived in the city of Belgrade the most of my life, consciously or subconsciously, I involved my own experience and knowledge in this project. During the project development I experimented and challenged my preconceived knowledge. This set of notions that I already had helped me to direct my investigations. Also, I questioned and tested my knowledge through a set of analysis.

Besides experience, spatial observation and site research permitted me to collect assemblage of notions on urban form, people behavior, river use and nature of activities. Those notions were related with investigation along the riverfront.

Previously explained application of empirical framework is related more with personal engagement in research. Now I will explain more scientific tools that applied in order to make use of empirical research. Firstly, I made series of interviews investigating the river use. Then, I filtered gathered information from analysis, interviews and theory through a radar chart (spider chart). Making of spider-chart helped me draw the conclusions especially useful for more detailed spatial investigations and design.

Framework Junctions

I would like to emphasise the most important products that
Overview of project methodology
3. 2. Typological Approach

What is the typology for this project?

In order to explain the analyzing, spatial strategic use and designing through typological approach, the logic behind it needs to be clarified.

I would like to start with the explanation of what this project implies under the term typology. The typology in this project represents a reflection of historical, cultural, political and morphological values and meanings within certain spatial setup. More precisely, the typology is a spatial expression of urban life and its significances within the specific urban life of the city. This means that the typological approach of this project represents a way of thinking that tries to grasp the characteristic city features where the type represent a piece of the city form that carries a message about the city urban life, identity historical and political heritage.

Ideally, typology would be a spatial manifestation of city history, culture, social and identity values.

How is type strategic and therefore how it contributes to strategic spatial plan?

Within the definition of types, (previously explained) various aspects of city identity were grasped. Therefore, operating with types that have such an actuality implies an important urban impacts are meaningful for the city. In fact, those impacts aim to influence the city as a whole collecting the main outlines of its past, present and possible past. All this aspects should make the use of typologies in spatial plan and design strategic.
Definition of Types derived from Analytical Framework

URBAN TRANSFORMATIONS

LEGEND
- Satellite settlements
- Recent informal suburbs
- Modern city
- Old city suburbs
- Historical city
- Riverside area

Source: (Topalovic, 2011)

DEVELOPMENT PATTERNS

LEGEND
- before WW2
- after WW2 type 1
- after WW2 type 2

Source: author own based on (Topalovic, 2011) and (Korica, 1988)

DEVELOPMENT PATTERNS

LEGEND
- Implosive sprawl
- Market-driven developments
- Explosive sprawl

Source: author own based on (Zorjai, n.d.) and (Topalovic, 2011)
3.3. Learning from the City and the River

Learning from the City

Types of Development (Groups) - In this chapter of the project I will address four groups that I recognized within the Belgrade urban and behavioral patterns. Those groups represent 4 extreme types of settlements in the city of Belgrade. I would like to emphasize that it is not possible to reduce the city complexity in the 4 inhabitation groups and that I tried to demonstrate how those predominant urban typologies respond to the city urban dynamics. This "classification" contributes to the main goal of the project that aims to connect and articulate the city and its riverfront. Therefore, I took a position of understanding the city in order to investigate how it can contribute to the river development. In fact, the idea was to understand the potentials within the spatial requirements of the city that correspond to the river spatial requirements. In this sense I analyzed the city and the river, in a way separately, keeping in mind the aim to connect and articulate them.

Criteria behind the group definition are multiple. This approach ended with the definition of groups not only in accordance with its typo-morphological character, but also in relation to its historical, cultural, social and political dimension. This is the reason why some groups in the classification gather together few urban typologies.

This leads us to explanation what is the meaning of the term type in this project. Typology is supposed to reflect a set of values and meanings that are derived from its historical, social, cultural and political that manifest in certain spatial expression.

The value of group definition in this project is strategic because it understands the way how the city works in terms of value and space and then applies this knowledge on the river. In order to do this, typological profiling was made as an implementation method that was developed parallel to the whole project process.

Morphological dimension:
From certain experience and knowledge about the cities it is possible to recognize specific development patterns within the city of Belgrade.

Historical, cultural, political and social dimension:
Differentiation of groups started from understanding of the historical development of the city. These historical criteria brought me to realizing of the city urban typologies that may not be the same in terms of urban form, but that those groups of settlements share similar living conditions, spatial requirements, city challenges and heritage.

To sum up, the groups are defined according to following criteria:
- city urban transformations (based on mapped information from Belgrade: Formal-Informal)
- development patterns (historical dimension + urban space typology)
- trends (implosive sprawl, explosive sprawl, market-driven contemporary development trends)

Theoretical dimension as an unifier:
Terms of center, path and domain offer a theoretical meaning behind its morphological character.

In very general terms, most of the other typologies of inhabitation in Belgrade represent certain mix of the 4 main types that I recognized. Therefore, a recommendation for any kind of deeper development and understanding of the city would be to develop those in-between types of settlements as well. This kind of analysis would contribute to a further individualization of inhabitants of the city. At the level that this project is dealing with the groups, emphasis is on the understanding of 4 groups of settlements that conclude with specific spatial requirements of users.

Trends, challenges and opportunities - are expected to give an overview of the relevant ongoing processes in the city. This should increase the relevance and importance of the research and the project.

Learning from the River

Morphological analysis - One of the ways how the river was investigated is through space and form. This set of analysis aims to provide an overview of spatial entities along the riverfront that can be translated through the means of the theoretical framework.

Interviews - In order to understand the use of the river and user preferences, series of interviews were made.

Questionnaire sample (Figure 1) shows the questions and the form of the survey. Hereby, I will explain the logic behind the questions, emphasizing the ones that were used for this level of project development.

The first group of questions was about the main data of the examinee such as gender, age and marital status. This set of gathered data aimed to give a profile overview of the river-users. It is important to mentioned that this results weren't rel-
relevant for the current stage of the project but that those could obtain more relevance in combination with detailed research on the city level with the same criteria. This means that if the average age within the neighborhoods is known, it would be possible to compare it to the age group that belongs to this group and draw probably useful conclusions.

The second question aimed to relate the user with the living area and urban typology. In fact, this question is the most important because it allows the relation between the living urban environment and the visited domain at the riverfront.

The third question asked about the preferred facilities and activities that are found and that are lacking on the riverfront.

The elaborated conclusions from this part of research are

<table>
<thead>
<tr>
<th>M / F</th>
<th>//10-20 //20-30 //30-40 //40-50 //50-60 //&lt;60</th>
</tr>
</thead>
<tbody>
<tr>
<td>single</td>
<td>married //empty nest //family several generations</td>
</tr>
</tbody>
</table>

Interview place

favorite places on the river

From which part of the city are you? (+ what building type?)
//house // apartment building //compact block //baraks //other

What do you find or do not find on the riverfront for yourself? (functions/activities on the river?)

Where do you work or study and do you have a need to cross bridges?

What is river for you? What is river for Belgrade?
This chapter will provide an overview of typologies derived from the city analysis. Those types of city development patterns should represent Belgrade's urban life and environments. The idea is to understand those environments in order to explore the needs and spatial requirements of the city. In this way, it will become more clear what the spatial needs of the city would be, according to inhabitants' living environments.

It is important to mention that the division of the city in 4 major groups represents a demonstration of the principle and approach. This project has potential to become much more accurate and detailed in terms of a finer range of groups in accordance with a wider range of criteria and tools used for analysis.

At this point of project development, criteria for mapping the groups was based on understanding of city transformations, city trends and historical development patterns. In this way, I aimed to grasp clusters of settlers that share same city reality. In order to express those spatial practices into terms of form I used theory based elements of place - center, path and domain.

Within this chapter I will introduce criteria (transformations, trends and historical development patterns) for group establishment and groups themselves (G1 - Local nomads, G2 - Newcomers, G3 - New Belgrader, G4 - Old Belgrader).
4. Learning from the City

Criteria for group establishment and analysis

G1 - Local Nomads

G2 - Newcomers

G3 - New Belgrader

G4 - Old Belgrader
4.1. Criteria for group establishment and analysis

**CRITERIA FOR GROUP ESTABLISHMENT**

//City Transformations

In those terms, recent informal suburbs and satellite settlement are explained through the group G2. This project combines those two transformation aspects because they represent people that share the same newcomer identity and spatial manifestation. Those people came for different reasons (growing capital of former Yugoslavia, then war refugees and finally contemporary trend of people moving from rural areas to cities), but they manifest in the same way within the urban fabric and have a common social and cultural image.

Furthermore, Modern city mostly represents something that this project calls G3. The difference is that this map includes industrial zones under the term “Modern city”. G3 group excludes industry because this project deals with settlers and their domain in sense of existential space and therefore “lived environment”. Industrial zone in those terms could represent an externalized center, but due to its mono-functional economic purpose it is not included in my classification if it is not a part of the lived environment (like in the “Železnik” settlement).

Area defined as “Historical city” and “Old city suburbs” stands for G4 group within this project. The reason for this is the same space use logic, urban morphology and center proximity. Parts of “Old city suburbs” that are smaller part of satel-
lite towns or informal extensions are considered to belong to G2 settlements because through time they became part of this bigger cluster space logic functioning and relating to its environment as part of it.

If we observe the map of Belgrade urban transformation we can easily distinguish periods of development like on the tree cross-section.

//Historical Development Patterns

When it comes to historical development of the city, I recognized two main phases: period before WW2 and period after WW2. Before WW2 city developed mainly two centers: Zemun
and Old Belgrade Centrality. After the WW2 significant development of satellite towns, modern extensions, and modernist city took place. The first phase is same in terms of urban typology and historical period. Therefore, according to this criteria, two old centers are recognized as distinctive development pattern. When it comes to the period after WW2, two very distinctive urban typologies were developing. Although those two urban types do belong to same historical period, they manifest very differently in terms of spatial organization, space logic and inhabiting nature. In this manner, they represent different spatial practices. Therefore, I separate those two in different development patterns.

In this way, from two main historical phases, I recognized three types of development patterns.

### City Trends, Challenges and opportunities

#### Population Trends

**General demographic trends**

The city of Belgrade is facing continuous population growth since the very beginning of the XX century when it became a center. Nowadays, population grows by migration while natural growth is negative. In average the population is growing.

**Change of the family composition**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>MOTIVS</th>
<th>USERS</th>
<th>REASONS</th>
</tr>
</thead>
</table>
| Settlements on the periphery (from 1960-still taking place) | Basic existential needs | Industrial workers  
War refugees (from 1990) | Lack of equipped construction land  
Public apartments were built by companies for their own employers |
| Adaptations and reconstructions (from 1960-still taking place) | Additional living space or additional income by renting | Families in the old single houses from the period before the war (renting to students and season workers) | Reconstruction never took place because land was originally planned for mass urbanization and neighborhoods for demolishment  
At the time there were no tax regulations for renting |
| Luxurious houses (from 1990 – partly stopped) | Luxurious individual housing  
Assuring capital  
Sometimes creation of closed exclusive neighborhoods | Wealthy and powerful individuals often close to political regime | Lack of planned and equipped land for exclusive housing |
| Temporary buildings (kiosk) (from 1990 – stopped and demolished) | Office/commerce space | Regular people, small private entrepreneurs, predominantly shops | High prices of the office space  
rent with a limited amount of provided spaces  
Convenient legal protocols related to the kiosk typology |
| Disregarded parameters (from 1990 – still taking place) | Office and living space in the central zones of the city  
increasing the profit | Private building and construction companies, mostly powerful | Very expensive construction land in the city and a lack of unbuilt equipped plots  
Complicated, expensive and slow procedures for obtaining building permits |
| Extensions (from 1995 – still growing) | Housing in the center of the city near to the services and facilities  
Assuring private capital  
Providing building service benefits for existing inhabitants that therefore approve extensions on their buildings | Middle class families  
Developers and sometimes wealthy individuals | Country stopped building apartments  
Very high prices of apartments in the central zones of the city  
Lack of facilities and services in other parts of the city |
The statistics on family composition are showing that the average number of persons per households is slowly decreasing. From the average of 3.2 persons per household in 1961 it reached the number of 2.8 persons per household today.

It is important to mention that in the informal settlements this number tends to go above the average (3.2-3.3) while in the old city areas this number tends to be smaller.

**Trends of urban growth**

1. **Informal Construction**

   Informal construction that this project deals with is explosive sprawl that takes place on the periphery and “implosive sprawl” that takes place in city centers.

   Explosive sprawl in the city of Belgrade manifests through the informal construction of the satellite towns. In perspective, those satellite towns limit and/or block future growth of the city.

   “Implosive sprawl” in the city of Belgrade takes place in older centers. It manifests through illegal extensions on the buildings. This type of construction puts more pressure on local infrastructure and connectivity.
Reasons behind informal growth:
- Unbalanced regional economic growth and development and migration of population to towns that intensify crisis in housing
- Political determination for collective dwelling in towns and cities
- Neglected individual housing, reconstruction and renewal of the existing housing stock,
- Unfavorable financial policy and support for individual housing,
- Ineffective legislation and city administration

- Lack of available sites and parcels for individual housing with basic utilities provision,
- Postponement of demolition of illegally constructed houses at the beginning of construction
- Social situation considering law-obedience during wartime period in the neighboring countries, etc.
(Zegarac, 1999, p.366)

2. Market-driven developments

New Belgrade zone has the biggest amount of office and commercial space construction due to its good location. Those developments predominantly do not respect the architectural
value of environments and planning regulations.

**CRITERIA FOR GROUP ANALYSIS**

**Commuting Patterns**

In order to understand daily activity and city centralities, I did analysis of commuting patterns among Belgrade municipalities. I analyzed a study that observed commuters that are workers and students.

In project, commuting of workers was taken as a reference. In a way, working population represents a bigger group of people on the city scale and it is therefore more relevant as a sample.

Those commuting patterns were used for two things:

1/ Describing the center for different groups of settlers (Learning from the city - G1, G2, G3, G4). This description can illustrate a group centrality on a general level because it is dealing with just a part of population in just one type of activity. In order to make this center definition more precise, more people with more activities should be taken into account. In this thesis, the focus is on demonstration of the principle through one of the possible user centers (externalized center where working activity takes place).

2/ Understanding sharing potentials among groups of users according to where activity takes place. This means that I made a set of analysis that aim to grasp what place or area different groups of users see as a center.

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**Table 2 – Absorbent and dispersive daily movements of pupils and students among the urban municipalities within the urban core of Belgrade in 2002**

<table>
<thead>
<tr>
<th>Absorbent movements</th>
<th>Dispersive movements</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vo</td>
<td>Vr</td>
</tr>
<tr>
<td>Vozdovac</td>
<td>685</td>
<td>709</td>
</tr>
<tr>
<td>Vracar</td>
<td>1151</td>
<td>512</td>
</tr>
<tr>
<td>Zvezdara</td>
<td>451</td>
<td>132</td>
</tr>
<tr>
<td>Zemun</td>
<td>339</td>
<td>198</td>
</tr>
<tr>
<td>New Belgrade</td>
<td>1553</td>
<td>1341</td>
</tr>
<tr>
<td>Palilula</td>
<td>216</td>
<td>27</td>
</tr>
<tr>
<td>Rakovica</td>
<td>1759</td>
<td>925</td>
</tr>
<tr>
<td>Savski Venac</td>
<td>2006</td>
<td>1195</td>
</tr>
<tr>
<td>Stari Grad</td>
<td>307</td>
<td>154</td>
</tr>
<tr>
<td>Cukarica</td>
<td>149</td>
<td>19</td>
</tr>
<tr>
<td>Unknown</td>
<td>8,616</td>
<td>5,212</td>
</tr>
</tbody>
</table>

Source: Special statistical results processing of the 2002 population census, Statistical Office of the Republic of Serbia, Belgrade

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Figure 40. Absorbent and dispersive daily movements of pupils and students among the urban municipalities within the urban core of Belgrade in 2002. Source: (Stamenkovic and Gataric, 2009, p.67)

Figure 41. Illustrative maps of labor commuting patterns within the municipalities of the city of Belgrade. Source: author’s own based on data from (Stamenkovic and Gataric, 2009, p.67)
4.2. G1 - Local Nomads

Figure 42. Map of Roma Settlements and Housing Typologies in Belgrade. Source: author own, based on data from (Jaksic, 2005)
Figure 43. DVD cover of Emir Kusturica’s movie: Time of the Gypsies, Source: http://www.abload.de/img/mxlkg8oi6e.jpg

Življenje ciganov, razpeto med resničnostjo in pravljico.
a. Who are they? When and why did they come from?

Origins of Roma population in Europe remained uncertain until the second half of XIX century. Nowadays, it is known that this ethnic group comes from India. Migration flows of Roma were directed towards Byzantine Empire reaching North Balkan Peninsula towards Central Europe. Before reaching Europe, Roma people were inhabiting Persia, Armenia and Greece. (Jaksic, 2005) Through these constant migrations this group developed an image of nomadic population with uncertain historical movement patterns.

It is noticeable how Roma population has a very high ability to adopt religion, language, names and customs of the region they inhabit. Even though this group appears very adoptable, it is still highly distinctive in all of the countries that it inhabits. In fact, it is unknown how those people managed to keep same image and culture no matter in which country they live. This shows how strong background identity this group has regardless of the religion, language and customs that they might adopt in accordance with the territory where they settle.

The first written notions about Roma people in Serbia date back to the year 1467. In this period they lived in southern cities of Serbian territory today. In Belgrade, Roma population appeared in the year 1536. Some writings from XVII century
describe Roma people as blacksmiths and musicians. (Jaksic, 2005)

According to the regulation masterplan of Belgrade from 1867, Roma people lived inside the city. Those locations today belong to the old city inner area and Roma people moved out of the city inhabiting some satellite towns or modern extensions of Belgrade. Even though they predominantly moved from the old city center, they still heavily gravitate towards it due to the biggest activity and flows that this area has. (Jaksic, 2005)

It is noticeable that this group of inhabitants belongs to the city in its specific way that needs to be emphasized so that this belonging to the city really manifests. This project aims to address the issue of constant relocating and belonging of this group within the city by finding them a place on the river that meets their spatial requirements.

**b. What are relevant figures and illustrations explaining their story? What are ongoing trends within this inhabitation group?**

The city of Belgrade has the highest number of Roma settlements in Serbia (around 102 bigger settlements) shows that the city needs to understand this group as an integral part of the city life.
In Serbia most of the settlements have up to 200 inhabitants. This means that this group forms smaller fragments within the city tissue. Due to this fact the group is in relation with various types of other settlements. Knowing this, it becomes possible to analyze how Roma settlements interact with different types of urban environments in the city. For example, Roma settlements on the territory of New Belgrade are slums, while on territory of satellite towns they are houses and barracks. Those notions illustrate potentials of cohabitation between Roma group and other inhabitants.

When the settlement doesn’t fit in its environment, city relocates those neighborhoods with no understanding for their spatial requirements and needs. (see figure 23, 24). The city decides to move the group and provides them temporary containers for living. The group is positioned without a real accepting and understanding of the nature of inhabitation. As a consequence, slums start appearing all over the city forming a strong cultural wall with the existing neighborhoods. Example for this is moving of “Gazela Neighborhood” that due to its illegal and non-hygienic condition was relocated. Afterwards, parts of this big slum took place on various localities in the New Belgrade that collide in a problematic way with existing urban tissue.

This situation makes already existing antagonism even big-
Figure 51. Scene from the Emir Kusturica’s movie: Time of the Gypsies. Source: http://i40.tinypic.com/2zqdr9.png
ger, marginalizing this group even further. This doesn’t benefit neither to Roma people neither to surrounding neighborhoods. This project will deal with this necessity on the level of recognized spatial needs and requirements that will be demonstrated through design. Of course, in order to improve living conditions of this population, besides design and spatial understanding, policies and programs have to take place as well.

c. What is house and what is the neighborhood? How do they live?

On the city level this group appears as island inside the urban tissue of the city. This kind of island can often be described as an “ethnic island” (Macura, 2009, p.11). Those ethnic islands form a specific chaotic type of urban tissue that forms a cultural wall around its domain. In fact, this project recognizes Roma settlements as domain for themselves. Those settlements are usually small and dispersed all over the city of Belgrade.

When it comes to the neighborhood level, Roma settlements are formed through processes of fragmentation and merging. Merging manifests through adding houses or additional rooms to the existing house, while fragmentation manifests through cutting of plots in smaller pieces. Both processes re-
sult with high density. Those processes of fragmentation and addition illustrate well the way how they perceive private and shared space. There is a very small difference between public and private space because the whole mahala functions as a shared area with private homes. This urban system is constantly changing the private and shared areas in self-organizing way through already mentioned processes of addition and fragmentation. This perception of space use is as well differentiating those neighborhoods from their surroundings.

Since the Roma neighborhoods are distributed all over the city territory, it is possible to see how they react and collide with other types of urban tissues or even groups that this project recognized.

G3 - The fact is that the New Belgrade has only Roma slums on its territory that are often relocated and displaced without an efficient strategy and program. Also, Roma settlements were never planned on the territory of the New Belgrade and as such never found place in this domain. The conclusion is that Roma settlements don’t function successfully in relation with modernist city. For the New Belgrade this is true with one exception: Old Fair Settlement (“Naselje Sajmište”).

This is the only settlement on the territory of New Belgrade...
that has Roma population remain in more or less acceptable conditions. If we understand this settlement in terms of a domain, it meets the need of a certain isolation. Bordered with an industrial zone on two sides, former camp on the third side, and the river on the fourth side it is very well sheltered and isolated and very close to the city life. Since this project is in search for the articulation between the city and the riverside, this settlement is specifically interesting.

The other settlement positioned on the riverside is “Deponija Settlement” on the Danube bridge. This neighborhood is a slum detached from the rest of the city. This brings us to a conclusion that complete detachment from other types of urban tissue is not beneficial for Roma Group either.

Both “Sajmiste” and “Deponija” are isolated but they function very different in terms of quality of life. The reason for this is the different nature of “isolation” that those two sites provide. While “Sajmiste” provides enclosure and shelter providing a connection with city life, “Deponija” settlement cuts this group of locating it in the middle of an industrial zone and brownfields. On one hand, this project criticizes this position as a negative isolation example. On the other hand, the choice of this location by Roma settlers should be respected.
as well. Therefore, rather than relocating or reinventing a new location, this design aims to make most of this location emphasizing qualities and spatial requirements that it already has and adding urban life and context that it lacks.

The best urban typologies of Roma Settlements are found as extensions of satellite towns or as partly or fully planned neighborhoods. Those settlements tend to be much better in sense of urban form, living conditions and cultural image in the city. Those settlements are partly detached from the satellite town that they follow, but they are demonstrating the good influence that comes from the G2 type of settlement.

Also, good conditions are found within the old city of Belgrade in a specific typology called "Partaja". Partajes were originally planned for Roma inhabitation as a very characteristic typology that has several buildings on a plot. In this organization it happens that one building has living function, the other building is reserved for facilities and one works as a toilet. This typology is today placed in the older core of the city and usually replaced with new developments with higher density and profit. Therefore, the original form of this urban typology is not found that often. Besides this change this typology functioned well meeting the needs of the mentioned group.
G1 Domain

As it was previously described, network of Roma settlements is recognized as domain of this group on the city scale. This group of inhabitants have the highest level of dispersion on the city level. This is the reason why it comes to interaction with all the other types of settlements in Belgrade. Domain functions as a culturally, morphologically and usually ethnically distinctive zone. As such it forms a sort of a cultural wall towards surrounding neighborhoods behaving as a cluster. This wall has a sheltering and enclosing character rather than separating one. This wall comes from the fact that Roma ethnic group is not well integrated within the city of Belgrade and as such asks for certain isolation, but a paradox is that it gravitates towards the central zones in the city. This is why this isolation has to include some involvement in city life as well. This is something that could be characterized as balanced or required isolation that provides needed living conditions.

G1 Center

Norberg-Schulz (1971) explains how nomadic people don’t have center or place highlighted. For those groups of people, path is much more expressed. Centers are along the path as spots of the biggest urban activity, usually placed on other groups’ paths/passing by zones.
or transport hubs. Therefore, this group makes their place not necessarily in accordance with main well known centers/places, but in a relation with paths and flows of people.

This setup allows this group to do their daily activities such as trading, selling, begging and collecting disposed materials from the city.

In this way, this group can be characterized as self-centered and that center as such cannot be completely grasped. Conclusion would be that the strategic positioning of a path element in relation with the settlement domain plays the mayor role in designing places for this group on the city scale.

**G1 Path**

Path element is much more emphasized in Local Nomads group. To start with, settlements are usually formed next to the strong infrastructure lines (bridges and roads) and knots. Examples of this are Deponija next to the Pancevacki Bridge, Sajmiste between the Gazela Bridge and Brankov Bridge. Relocated neighborhoods illustrating this point are Gazela Settlement that used to be next to the Gazela Bridge and Jatagan Mala settlement that used to be next to a strong infrastructure line that turned today in Mostar infrastructure hub (Mostarska Petlja). Those paths have dual meaning for this group: on one hand they represent a direct connection with the path
that leads to centers of highest city activity.

On the other hand, it provides a border/wall/shelter from/to surrounding neighborhoods that usually do not position themselves next to the infrastructure knots. Those locations are not that attractive for other inhabitants of the city because those do not meet their spatial and comfort requirements. Therefore, path can be described as a pronounced border of an already existing cultural wall that those ethnic islands have. This border is not completely isolating, but rather embracing the groups spatial settling setup.

Also, infrastructure line plays an important role in the nomadic culture enrooted in this group’s behavior. Sometimes path can even have a meaning of place for this group especially if it is positioned at the higher frequency of people passing along the line. For other groups those path-places can be just passing through roads that connect two centers in their existential space. This brings me to conclusion that all the paths of the city are potential places for GI-Local Nomads group and that all the paths of the city could provide a description of their movement.

e. Positioning

Positioning this group along the river represents a demonstration of recognized areas that meet their spatial requirements and that are spaces that those users would most likely like. By liking I consider the recognition of their domain where
they feel enclosed, emplaced and within the known zone. This position provides a feeling of belonging and therefore a strong impression of being inside.

I did analysis of center, path and domain in order to research the nature of those three elements of place within the observed behavioral patterns of G1. Then, in favor of this understanding, morphological analysis were made so that the previously analyzed elements of place become spatially pronounced.

This brought me to recognition of spatial elements that describe this group's domain. The domain becomes the most important to be spatially described because this group is predominantly self-organized in terms of the path and center on the city level.

Morphological elements that spatially define the domain are bridges, infrastructure lines, Industrial zones, moderately active or inactive green areas, Abandoned Sites, height differences or parking. It is certain that those elements represent just partly G1-domain-describing forms and that this project aims to demonstrate the principle of implementation on this level of research.

As it follows, previously described defining elements were found on the river and G1 domains were positioned in consonance with those spatial notions. Some of those settlements already existed while some are new. Therefore, this project preserves existing domains and implements new ones.
4.3. G2 - Newcomers

Figure 65. Map of Peripheral Settlements that have the highest amount of informal developments in Belgrade. Source: author own, based on data from: (Topalovic, 2011)
Figure 66. View of Kaludjenica - one of the informal settlements http://changingrooms.teh.net/blog/wp-content/uploads/2010/04/cmgl857.ok.jpg
a. Who are they? When and why did they come from?

Belgrade periphery is composed out of numerous rural-type villages that have dual urban character. On one hand, those satellite towns are slightly disconnected from the city due to their often unplanned formation and specific typology that acts as a cluster. On the other hand, those clusters belong to the city in terms of administrative city territory and commuting patterns. In conjunction with this, project aims to accept and demonstrate existence of this living environment within the riverfront. The reason for this approach is a long period of neglecting and disregarding of Belgrade newcomers from both planners and inhabitants.

In order to understand generating processes and consequences, I will explain dominant reasons and periods of peripheral growth in the city of Belgrade. In this way, it will become clear who and why populates Belgrade peripheral and mostly informal towns. Therefore, it will become understandable what kind of background, values, settling and living traditions G2 - group of informal settlers may share.

It is possible to distinguish three dominant periods that triggered migrations that brought and that are still bringing settlers on the periphery of Belgrade.

It all started after the WW2 when the city was investing heavily into rebuilding. (Korica, 1989) At the same time, city was
a capital of a new country - Yugoslavia. This meant industrial growth that was followed by significant population growth. Since the city was rebuilding and recovering from war and building housing for new inhabitants of this growing capital, housing provision couldn’t follow the population growth. At this period newcomers started developing informal peripheral settlements. This was tolerated and overlooked due to the fact that planning authorities and government couldn’t provide a suitable solution at that point. At this period those settlements developed around factories and planned areas in the zone. Example is the city of Železnik that was formed around the machine-building industry that started building immediately after the war. The city around it with the technical school was forming as well. It is difficult to separately explain city building and industrialization processes because those two have causal-consequential relation creating a simultaneous actions.

Second sequence of events that triggered the growth of G2 settlements was the Yugoslavian war in the ‘90s. War events caused a huge amount of war refugees and migrants to come to Serbia. As the capital of the country, the city of Belgrade again received a big amount of migrants. Once again, towns on the periphery were booming: old ones were growing and new ones were generating. Good example illustrating this trend is the settlement of Kaludjerica that had the first big population
growth noted from 1909 inhabitants in 1971 to 12435 inhabitants in 1981. The second big growth can be related to war migrations and it shows the growth from 12435 inhabitants in 1981 to 22248 inhabitants in 2002.

The difference between the first growing trends after WW2 is related to certain industrial development of the city, while the growth caused by war migrations was bringing new inhabitants that the city had to take care of without the previously prepared plan. The city of Belgrade wasn’t prepared (economically and planning-wise) to receive a new wave of newcomers and once more informal construction was overlooked.

Finally, contemporary trend of population movement from rural zones to the cities happens in Serbia as well. Due to the strong mono-centric urban model of the country, Belgrade is the most attractive location to move to because it offers much better opportunities.

Additionally to this, recently Serbia had another war-conflict Kosovo War when the city of Belgrade was bombed in 1999. This conflict was followed by a controversial Kosovo disunion in February 2008. This conflict is currently under UN administration and this situation keeps bringing new migrants.

All those periods overlapped and happened simultaneously with other challenges that city and the country were facing. Due to this fact it is not possible to precisely track formation processes. In any case, this review aims to provide a prolific study of a group of Belgrade inhabitants that share similar mi-
grating trends and background elements that manifest in a set of same spatial development patterns and space-use. Also, the set of similar events triggered the moving of this people and it was followed by the same housing typology in Belgrade. This leads to a conclusion that G2 inhabitants share same or similar spatial requirements that are related with the way how do those people settle. This should be specifically readable due to the fact that they predominantly form their living space themselves. In this way, it is possible to analyze their spatial needs in terms of living environment that is formed by the user himself.

Nevertheless, it is difficult to describe this group of inhabitants more precise. "The size and structure of this population, its income profile and political orientation, or size and structure of its flats all remain unknown." (Topalovic et al., 2012, p. 93). In this sense, understanding of spatial requirements and cultural background of this group becomes even more important.

b. What are relevant figures and illustrations explaining their story? What are ongoing trends within this inhabitation group?

"The ‘wild city’ has no statistics; its vague indicators persistently underscore a trend towards increasing wildness." (Topalovic et al., 2012, p. 93) The same academic work annotates the progress of this development pattern through time. Some reports show how in 1970 there was around 60 000 illegal houses in Belgrade. In next 10 years (1980) the number was doubled.
In 1998, 120,000 buildings were registered as illegal, while it was assumed that the real number was around 200,000.

c. What is house and what is the neighborhood? How do they live?

G2 neighborhoods are organized in clusters. The cluster is defined by a specific rural-like typology that forms a soft urban edge towards the landscape. Actually, these types of settlements often form plots that are a modification of agricultural land composed out of agricultural plots. Along the continuous lines - roads, rows of houses take place. On the higher scale those rows form a distinctive assemblage that can be easily recognized as a morphological type.

In terms of function, those neighborhoods are often monofunctional housing areas with smaller local commercial activities. Although, some of those settlements could be formed around some industrial activity that gives them a working centrality, mostly they are predominantly characterized by housing function.

Homes are single houses that accommodate usually families. In the context of the city of Belgrade, those living units can be characterized in two ways. On one hand, those houses represent a way of life that those settlers brought with them from their original, often rural, background. As such those houses represent space and system that has means to accept bigger, often multi-generation, family in terms of space and vol-

Figure 73. Typical house project. Source: (Topalovic, 2012, p. 116)

Figure 74. Street and neighborhood morphology. Source: Author own
ues. This is supported by the fact that G2 settlement have the higher average number of persons per household compared to the city average. (city average is 2.8 persons per household, while analyzed settlements on the periphery have between 3.2-3.3 persons per household). On the other hand, according to general beliefs, living in a house in the city provides a higher level of comfort and in a way leaves an impression of irrational development due to a low density and proximity to the city. This position could become a problem when it comes to the future city growth. Although both of those notions are valid, in case of the city of Belgrade, those settlements represent much more to be reduced by basic urban analyzing. Those settlements represent a specialized piece of national and city history that as such has to be embraced as the city reality. This consolidation with the historical events would make the city meet itself and this project aims to provide this effect through the recognition of this group and its symbolic and by placing it along the riverfront.

It is important to mention the building quality of those houses in order to illustrate the role of professionals in those developments. Each of those houses is usually built according to regulations because projects are provided through a ‘catalog’ of already calculated approved documentation. Those kinds of plans are much cheaper than original designs and much more acceptable by this target group. Due to this trend in project provision by professionals, this typology has little diversity and...
it consists out of typical (often red brick) houses.

Even though certain amount of informal construction within the city of Belgrade could be related with opportunistic aims that involve building of villas, this thesis will concentrate on the majority that builds the house in order to settle. Sometimes those homes could appear ascetically reduced due to the specific ornamentation that leaves ungracious impression, but this is as well not the main focus of this project.

d. Elements of place from G2 perspective

**G2 DOMAIN**

G2 domain is represented through the spatial spreading of the settlements. Those domains are organized in a necklace or reassembling clusters of urban tissue. In this way, on the city scale, they form a network that forms a low density belt around the city. This whole image of clustered urban environments that are combined in network makes a recognizable image. This image is a spatial manifestation of previously described complexion. In a way, the domain map aims to show the spatial manifestation of already explained set of characteristics.

As well as G1, G2 settlements leave an impression of an island due to their distinctive morphology that collects people that share similar values, historical background and the image of the newcomer. This set of shared values expresses in the housing and neighborhood typology. The hypothesis is that in the city of Belgrade this type of living has an image of a new
citizen that as the time passes by becomes more and more a part of the city life. Therefore, the group of living is not just a typology in terms of morphology. Typology represents just a spatial expression of a multi-layered story about this group of inhabitants.

Therefore, the G2 domain map shows how previously explained city reality of newcomers manifests on the city scale in the city of Belgrade. The map aims to grasp a spatial expression and distribution of this historical and cultural aspect that represents a record on how the people that were and that are excluded from the city planning manifest within the city urban life.

G2 PATH

Meaning of G2 path is different on the level of the city and on the level of the neighborhood.

On the level of the city, path represents connection between two points in the city - home and externalized center that represents a place of activity (for this stage place of work was evaluated as an example where something takes place predominantly for this group). Path can always be characterized like this but in case of this group it has a specific meaning. Since this group is positioned at the outskirts of the city and the centers of activity are mainly placed within the city center this path runs through a great variety of city morphological features. If we return to comparison of Belgrade and the tree...
cross section, it becomes clear that the G2 path runs through all development layers (in terms of tree cross section "annual rings") experiencing various spatial identities. This provides the G2 path with specific morphological character that can be observed as a sequence of development patterns through time.

**G2 CENTER**

G2 center of activity is predominantly based within the G4 zone - more precisely the older centers of the city. On one hand, the reason for this is the dominance of housing function within the G2 domain and therefore the lack of a city scale centrality (while the individual center on the neighborhood scale is very strong and it is represented through home). On the other hand, it is possible to make a relation within the G4 center and G2 domain due to the fact that G3 group offers strong city scale centers but it is not a leading center for G2 group.

**e. Positioning**

A study about (in)formality within the city of Belgrade states how “the city is exploring the possibilities for converting its once wild, informal structures to the legitimacy of another, “new normality.”” (Topalovic et al., 2012) This can be interpreted in a way that the city needs to find a way to consolidate and accept this new typology that rises in Belgrade. The positioning of this living environment along the river, that is a constituent
of the city identity, has a symbolic review of this matter. On one hand, it represents mindful and indicative action that explores the possible place for a part of the city identity and history on its rivers. On the other hand, this project aims to identify spaces on the river that group G2 may like and therefore make places for people.

Recognized spatial elements that describe G2 domain are hooking on the strong infrastructure line that connects this habitation island with the city places. Characteristic element is a prominent “entrance” into the cluster that looks like a gate towards the community. In my interpretation, this kind of entrance sets a degree of interaction of this group with surroundings. According to this relation, it is possible to apprehend how this environment relates to other inhabitation patterns and therefore understand its possible role within the city. This role will be explained within design that explores how groups of inhabitation could work together.

The biggest problem is that G2 settlements as a type do not face the riverfront in their original observed state. This is an obstacle in terms of designing the riverfront where this group is emplaced. It needs to be discovered what this group perceives as a riverfront first and then in relation to this riverfront will be designed. Conclusions crucial for this part of the project are obtained from the interviews and those will be explained in Design chapter.
4.4. G3 - “New Belgrader”

Figure 81. The map showing G3 settlements distribution in the city of Belgrade. Source: author own, based on information from (Korica, 1989)
Figure 82. New Belgrade in construction - from tabula rasa to a new city - Fontana Area. Source: http://www.facebook.com/photo.php?fbid=493880336942&set=a.265074260942.85677.265072550942&type=3&theater
a. Who are they? When and why did they come from?

In this chapter, G3 group will be explained. I will mostly refer to the New Belgrade as a well elaborated case of modernist city in Belgrade. The idea is to explain the dealing with lived space, its logic and identity of one epoch.

In order to explain the identity of New Belgrade I will go through the topic of "Building Process", "Social Equality and housing unit" and "Political Direction and Urban Planning" that marked essentially this development. I will explain it like this because the city developed from a sandy marshland with "tabula rasa" character to a big new city development. This new city generated a specific living environment highly influenced by political climate, contribution of people and ideological convictions. People were brought to this standardized apartments from various living contexts from the entire former Yugoslavia.

This is the reason why I will partly explain who the "New Belgrader" is through the formation process of the area. In this manner, I will give an observation on how this living space typology influenced the identity and habitation of its inhabitants.

Building Process

"This is the story of the nameless heroes, and the time in which the ideology was more important building material than brick and concrete..." (Скупштина зграде бр.48 2008) This is how a blog writer, that is a settler of New Belgrade himself,
describes the building of New Belgrade that was supported by huge labor actions where workers from all Yugoslavian countries were at one point divided in 370 youth brigades that actively contributed to the rising of a new city.

This means that at one point in time this city, with the accent on New Belgrade, was a new center of collective belief embedded in political ideology.

**Political Direction and Urban Planning**

Although style dominant in New Belgrade was a mixture of Soviet and CIAM’s positions, none of those approaches in urbanism were entirely escorted. The thing is that both, formalism of Soviet monumental urbanism and Urbanism based on functionalism of Athens Charter were filtered through political, economic, social and cultural dimension of Yugoslav socialist ideology. Therefore, none of the approaches was brought entirely to the complete meaning. (Blagojevic, 2007) This adapted ideas from both styles resulting with a specific national style that made New Belgrade, in a way, self-referent case.

More and more Belgrade was taking course of CIAM (International Congresses of Modern Architecture) and its Athens Charter. Reason for this is very causal: many urbanists and architects from Yugoslavia worked with Le Corbusier in this period. They learned and accepted this new planning and brought it to Belgrade. In fact, in 1928 Belgrade accepted potu-
lates of Athens Charter: leaving estheticism and academicism behind and accepting rationalization and standardization together with functional organizing based on housing, working and recreation.

Also, following the postulates of Athens Charter meant a specific political course between East (Soviet architecture) and West (the Third Reich architecture) that Yugoslavia took. Seems like the political direction was equalized with urban planning regulations.

**Social Equality and housing unit**

Hereby I am explaining politics, planning methods and builders of New Belgrade because I believe those are original elements that constituted its identity. My hypothesis is that New Belgrade formed a culture and way of living through those three aspects.

For example, apartment surface in relation to the number of persons per household was regulated and it varied from time to time between 9-15 m² per person. The living area for a family was specified in accordance with the ideology of social equality. I believe that this modularly standardized profiling shaped the way how the living unit is perceived. The effects of this phenomena can be felt nowadays as well.

Within blocks 1 and 2, Petricic established standard of comfort on: 15m² of surface per person and it was expected that 3 persons will live in apartments. Therefore, average surface
of each apartment was 45 m² which was better than existing standard of around 10 m². (Blagojevic, 2007)

According to mentioned aspects, I will try to give my understanding of "New Belgrader".

b. What are relevant figures and illustrations explaining their story? What are ongoing trends within this inhabitation group?

Originally, New Belgrade zone was planned as an entity for itself with a specific urban expression and planning. There are two main contemporary problems that this zone is encountering: mega block free areas and incompleteness of the original plan.

New Belgrade neighborhoods were planned as opened blocks with huge public garden space. Today, due to poor regulations, those areas are developed as any other building plots. "... the current building and urban planning practice does not take into account any of these facts, or historical development of New Belgrade, or basic principles of its formation either. Restaurants, hotels, shopping and entertainment represent important habits of mankind and activities in a consumer society, resulting in spatial concepts and structures which announce the today's commercial vernacular which is becoming ever more present and dominant element of urban landscape." (Maric et al., 2008, p. 51) In this way, the lack of respect towards urban and architectural principles damages the New Belgrade "Central Zone". Reason for this is the fact that
this area is placed on a very prominent location that attracts market-driven developments due to a high level of mobility and very clear connectivity.

Also, the big problem is the fact that New Belgrade "Central Zone" was never entirely finished. (Maric et al., 2008) Such a rigid structure doesn't have enough flexibility to accept new construction while keeping its original quality and values. The unfinished blocks in this area were very problematic to be designed in order to complement the initial plan of the "Central Zone". This is especially difficult due to fact that the un-built blocks are treated (by the city masterplan 2021) in the same way as any other unbuild land within the Belgrade territory. (Maric et al., 2008)

c. What is house and what is the neighborhood? How do they live?

Due to implementation of Athens Charter position in Socialist ideology some contrasting results occurred.

Firstly, in order to achieve social equality between people, with nationalized property, apartments built in New Belgrade were approximately same size (around 52 m²) while plans proposed approximately 107 m² of green common park area per inhabitant within the neighborhoods. This model of acting shows nicely how overlapped two systems were. On one side very socialist equality with emphasized control of what was understood as a luxury, and on the other side very human and
exuberant environmental policy based on Le Corbusier’s Le Ville Radieus.

It is important to explain the social structure of new inhabitants, their life before and after they settled in New Belgrade as well as some consequences on the system and on the people. Since Belgrade, as a developing capital, was a small Balkan city, it follows that other cities and towns in surroundings were mostly rural and village types of settlements. As previously mentioned, power started accumulating in Belgrade and plenty of new inhabitants, mostly from rural places, started settling.

People that were supposed to become “New Belgraders”, originally belonged to different age and national groups, came from different villages with characteristic landscaping and traditions, brought its own culture of living and habits.

On the other hand, modernism housing was very standardized: it had approximately same apartment surface, it had standardized organization of functions based on a kitchen as a central happening in the flat, fixed number of rooms for each typology and same types of functions. (in accordance with Belgrade school of housing)

Variety of people came. Problem was that all this diversity couldn’t fit in same type of urban life in “New Belgrade apartment”. This is illustrated through the fact that families gradually changed organization of rooms in flats.

Also, use of apartment as living space and green surfaces and gardens as public space was new for inhabitants who

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**Figure 101. Dispersion of G3 DOMAIN in the city of Belgrade, Source: author own**
came from rural areas. Difference between public and private space was often misunderstood. Henry Lefebvre explained this tendency of people to change, organize and personalize space where they spend time with hypothesis: “...every society - and thus every mode of production... - produces space, its own space...” (Lefebre, 1974, p. 31)

I will show a principle, on the neighborhood, through example of block 21. The first block built in this New Belgrade “Central Zone” was block 21. Detailed plan for this block was made in 1960 and authors are different for different buildings. It was composed from middle meander (that had total length of 980 m and height of 5 floors), two stripe-shaped buildings (with length of 286 m and height of 11 floors) and composition of (6 towers that had height of 25 floors). Those big buildings provided space for 10 000 people with density of 416 inhabitants per hectare. This housing block was always characterized positively due to its esthetics, but then again it lacked human scale. Case studies made by Perovic (see Figure 94.) are showing how monumental in size, blocks in central zone actually are. These incredible dimensions of blocks have many reasons: Yugoslavian idea of making a new iconic capital, tabula rasa approach that architects and urbanists had on locality of New Belgrade where blocks were self-referent in size, influenced by ideology and doctrine that was followed. Those are just some of the reasons for this mega-block based new development.

Figure 102. Dispersion of G3 PATH in the city of Belgrade. Source: author own
d. Elements of place from G3 perspective

Domain

Domain of G3 is positioned within the New Belgrade area, and as a modern extension of the old city suburbs. Even though those two typologies behave differently in relation with different urban environments, they have the same spatial principles of functioning.

Main characteristics of this domain are big plots with spacious public spaces. In terms of buildings, G3 domain has a distinctive modernist style that lacks human scale to a greater or lesser extent. There is a difference between part of G3 domain that belongs for New Belgrade zone and the part that belongs to modern extensions of the old city suburbs. New Belgrade is much more compact and strong in terms of occupying urban space, while modern extensions are more or less adapted to the old city grid. Modern extensions are more integrated in city urbanity due to the better adjustment with the strongly established older city part. New Belgrade is much more self-sufficient and independent entity in terms of urban form and shared values.

Path

Path plays two mayor roles. It can be a strong infrastructure that “plugs in” to the rest of the city, it can also represent connecting of a housing block on the strong infrastructure line.
In terms of urban environments, G3 path provides a specific opened wide streets to which a set of housing blocks are attached.

Center

G3 zone represents a balanced sample of urban absorption and dispersion. It has a strong commercial centrality predominantly in the New Belgrade center zone that provides a lot of work opportunities. Also, due to the considerable amount of housing (especially in New Belgrade Blocks and Modern Extensions), it represents a great source of daily city migrants.

In this way, G3 center is dual: it can be highly externalized and highly self-centered at the same time.

e. Positioning

When describing or positioning G3 domain, it is important to emphasize that this project is not trying to reinvent or imitate the modernist city. This typology belongs to a characteristic architectural style that is a matter of a past epoch. Therefore, this project will deal with current trends and challenges that are taking place within the location that is based on G3 spatial logic, searching for solutions on the riverfront.

Current trend taking place in New Belgrade are numerous market-driven developments that include various commercial and office spaces and housing blocks. In a way, city is expressing the need for such an activity in this zone due to its spatial
organization, infrastructure connectivity and housing that provides urban vitality. I recognize the need for such a location in order to keep the remaining qualities within the New Belgrade zone.

"In any case, big areas, despite not being integrated in the urban tissue, are a privilege of the New Belgrade's inhabitants, because they are realized as the very space of air, sun and greenery, which is conceived by original Athens Charter as a contribution to improving the dwelling conditions in the city" (Maric et al., 2008, p. 51) This quote illustrates some of the qualities, besides the monumental architectural ones, that should be perceived.

Due to those facts, another location should be taken for city contemporary needs in accordance with G3 spatial requirements. This location should fulfill two purposes: provide plots for contemporary developments (that are proven to work successfully within G3 principles) and move the focus from the New Belgrade locality. In this way New Belgrade will stop being a contemporary architectural laboratory.

Main elements describing G3 domain are: regularity in street organization, good connectivity, wide boulevards enclosing spacious plots. In accordance with this, Ada Huja location was recognized to be the location that meets needed spatial requirements.
4. 5. G3 - “Old Belgrader”

Figure 106. The map showing G2 settlements distribution in the city of Belgrade. Source: author own, based on information from: (Korica, 1989)
Figure 107. Knez Mihajlova Street in 1925. Source: http://unkool.files.wordpress.com/2011/01/1925beograd.jpg
a. Who are they? When and why did they come from?

Old Belgrader is a resident that inherits spatial expression and logic that formed through centuries. Acknowledged spatial logic imposes a set of historical and cultural principles that manifest in G4 urban form. Those inhabitants share the same spatial logic that carries a mark from various epochs since period BC.

It is not possible to describe the origin of inhabitants or a precise logic of space-formation. Values that those people share are a matter of historical and heritage inception. Living in this type of environment provides a certain image to inhabitant that could be a matter of family tradition, prestige or a personal preference.

It is important to understand that this part of the city went through various phases of demolishing and rebuilding. Due to this dynamic history, city lost many original buildings, but at the same time rebuilding strengthened its space logic and identity.

This project sees Old Zemun and Old Belgrade entities as they belong to same spatial practices. To start with, those two centers belong to same historical periods. Actually, they de-
Figure 111. Buying Newspaper on Republic Square. Source: http://secanja.com/wp-content/uploads/2012/04/kiosk-Trg-republike.jpg

Figure 112. Walk next to the Hotel Moscow. Source: http://www.vojvodinacafe.rs/galerija/files/15/4/9/9/hotel_moskva_thumb.jpg

Figure 113. Terzije Square 1946. Source: http://www.skyscrapercity.com/showthread.php?t=406398&page=55

Figure 114. Knez Mihajlova Street. Source: http://unkool.files.wordpress.com/2010/04/knez-mihajlova.jpg

Figure 115. Urban space in Belgrade center. Source: http://www.skyscrapercity.com/showthread.php?t=406398&page=118
Figure 116. Austrian conquest of Belgrade 1717 by Eugene of Savoy, during the Austro-Turkish War of 1716-18. Source: http://upload.wikimedia.org/wikipedia/commons/e/e4/Belagerung_belgrad_1717.jpg

Figure 117. La Fortezza e la Città di Belgrado: Gump, Johan Baptist's plan from 1688. Perspective images are showing the view of the fort from the river and from the city. Those two impressions are illustrating the difference in terms of openness and vitality. Source: http://scc.digital.nb.rs/document/KR-II-600
veloped separately as parts of different empires. As a consequence, when the two centers became a part of one city, they constituted a bipolar urban structure composed out of two places with the marshland void in between (this void will be filled with New Belgrade later on).

Also, the same trends are taking part in both centers: illegal building extensions.

Those two areas are not completely same, but they share related space logic, program and living environments. In fact, the biggest difference is lack of balance between two centers because Belgrade Old center has a dominance in terms of public domain, investments and centralities. This inequality put Zemun in the position of secondary importance. Therefore, the Belgrade historical center developed more. This is also the reason why Zemun collects bigger amount of rural architecture.
Despite this fact, this project aims to observe those two clusters of users as one spatial practice within the city. This approach puts inhabitants from both centralities on the same level in sense of shared values, trends, and urban typologies. Therefore, both entities have the same potential to develop.

b. What are relevant figures and illustrations explaining their story? What are ongoing trends within this inhabitation group?

Currently, G4 development pattern deals with a considerable amount of illegal construction. Typically in terms of illegal extensions, that have opportunistic aims. (Zerjav, 2005)

This type of building construction damages architectural value of authentic urban environments. Also, illegal extensions create specific urban fragmentation that makes city more dense, usually not taking in account construction capacity of the building.

c. What is house and what is the neighborhood? How do they live?

In order to explain living environment in terms of house (home) and neighborhood, I will demonstrate living culture
through one typical apartment unit: “Salon appartment”. I would like to emphasize that this is not the only living typology within G4 settlements, but that it represents a sample. This sample is not an archetype, but rather an example that should give a general idea on old Belgrade home, rather than provide a spatial typology.

This means that people in the old center could live in a house or an apartment that belongs to a newer period. The point is to provide an insight on one of the typical living units so that the reader gets a basic impression of Old Belgrader’s home.

I took an example of the "Salon apartment" located in Milesevska Street. Those apartments are very characteristic due to their floorplan organization. This apartment type is called "Salon" because the big showroom opens the house. In this space, guests used to be received, or it was a dining room. Besides this main room, this apartment has two bedrooms, one maid-room that is connected with kitchen and storage-room.

What I wanted to illustrate with this housing example is the fact that G4 inhabitants share very strong living heritage that was formed by cultural and social transformations that city went through. This example imposes that our Old Belgrader is
a carrier of city tradition that influences his daily life.

Due to the great diversity of housing typologies, the neighborhood level plays the more important role. On the neighborhood scale buildings are organized in compact blocks. Those compact blocks adopt very well newer typologies in the spatial setup. In this way even newer buildings are strongly embedded within the spatial system. This system consists out of enclosed consistent space flow between the buildings. Within especially emphasized squares, it is possible to truly acknowledge this spatial organization. In order to describe this matter, I will explain one system of squares that demonstrates the principle well.

This system of squares consists out of the Republic square, Terazije Plateau, Terazije Square, Flower Square and Dimitrije Tucovic Square (Djokic, 2005). Also, facades play an important leading and enclosing role. This sequential nodality supported by facades as leading elements shows the main G4 space arrangement principles.
Even though, this is an emphasized and distinctive example it shows very clearly the logic behind spatial requirements of Old Belgrader. Therefore, the same or similar logic can be found on a smaller scale. For instance, a smaller neighborhood market can be considered a square that has the same node-role in the urban arrangement on a local neighborhood scale. This potential square can have a higher value for a user, in immediate proximity, that a bigger city-scale square. Therefore, the example of Terazije system of squares is not a matter of scale but it is a matter of principle.

d. Elements of place from G4 perspective

**DOMAIN**

G4 domain is the most assembled development pattern. It consists out of two big clusters - Belgrade and Zemun. This domain is highly combinable with other development patterns, but due to its authenticity that was developed through history, it is predominantly a separate and unrepeatable entity.
PATH

This area represents an original city zone that collects a variety of program that makes the area quite self-sufficient. This implies that it doesn't necessarily need path explanation in terms of communicating element. Rather than that, the path describes inner relations within the group itself. This is mostly emphasized by the fact that the center is within the domain itself. This means that the path plays a significant role on the neighborhood level as well as a connection with the center. Therefore, this project analyses the path predominantly on the neighborhood level.

The path on the neighborhood level represents a sequence of previously described places-squares. In terms of urban morphology, Old Belgrader's path can be described as continuity of facades - building fronts that lead us coherently towards city places.
Center for this group is strongly positioned within the group's domain. According to the commuting patterns, this urban environment is the biggest absorbent on the city scale. As well, zoomed in on the level of the group, it demonstrates the same trend. If we compare the center of a Newcomer (G2) and center of a New Belgrader it is noticeable how G2 has highly externalized center while G4 is strongly subjectively centered. This group of settlers commutes the least which shows its self-dispersive behavior. At the same time, this group is the biggest absorbent on the city scale. As such it can be described as the accumulator of city centralities - city nucleus.

e. Positioning

The positioning of G4 group is based on understanding and implementing of the spatial logic rather than on imitation of any kind.
Figure 133. Comparison of scale between the Terazije square (positioned within the old center) and Federal Executive Council plot (positioned within the New Belgrade Central Zone) Source: (Perovic, 2008)

Figure 134. System of Squares recognized in New Belgrade that is recognizes a area that meets the spatial requirements of G4. Source: author own, based on http://www.walkmaps.com/upload/images/360/kalemegdan.html

Figure 135. Terazije as G4 system of squares and New Belgrade park as system of squares that belongs to G3 domain. Source: author own, middle image is based on (Djokic, 2004)

Figure 136. Terazije system of squares with inverted version that can represent model for New Belgrade G4 urban corridor. Source: author own

Figure 137. New Belgrade park analysis - system of squares that belongs to G3 domain. Source: author own, sections are based on (Fabian Kiepenheuer, Lukas Wolfensberger, 2008)
From "Terazije" example, I isolated the basic principle that describes spatial requirements of the settler within this area.

It is noticeable how green surfaces and parks look like they are intervening into the urban tissue. In fact, parks and building blocks are spatially alternating with the dominance of urbanized space.

In case of the recognized system of nodes at New Belgrade the situation is opposite. The green space is dominant and additional intervention would be made out of intervening of more urban tissue.

Therefore, the squares-nodes already exist, but the leading elements between are not pronounced enough. Green spaces and parks do enclose paths, but not strong enough. This element will be added with respect to existing identity of this place.
The vision on the city scale represents a consolidation and symbolic articulation between the river and city (Belgrade inhabitants).

The project aims to find a place for each Belgrade settler in order to strengthen or create a spatial relations between the city and the river.

Belgrade Riverfront represents very valuable space. Its meaning overcomes economic or political interests. In this way, this vision aims to show how the river could have such an importance that it could consolidate Belgrade inhabitants with their past and present and therefore prepare them for future. Actually, I believe that the river has enough significance that it can "display" the city reconciling it with itself (its history, tradition, social and cultural values).

The hypothesis is that the city cannot follow the contemporary trends before this strong spatial and historical gap between the city and the river exists.

This plan aims to make places that will have a potential to support future developments. In that case, those future developments will be made primarily for people and then for economic and political growth.
I recognized two main treats in case of building on Belgrade riverfront.

Firstly, chaotic development in a political system that is going through a transition phase from public-owned land to a contemporary market driven developments. Secondly, such a huge area has much more risk in terms of a new development that produces only urban innovation. In this project, River-zone arrangement is based on recognized spatial requirements of inhabitants. In this way the potential for place-making is higher.

Also, positioning of inhabitation groups was based on spatial requirements recognized for each group individually. In this way, each group has a potential to develop well for itself. The challenge that arises is related to relations between those group positions.

Since this kind of urban combination doesn’t exist, some choices concerning shared and exclusive spaces have to be clear. It is questionable if the groups functions as an isolated system that has a strong boundary towards another type of inhabitation or they are highly related and communicative.

Elaboration of those challenges will take place in Design part where I will work on the finer grain of previously established group positioning along the riverside.
5. Learning from the River

5.1. Conclusions from the Interviews

5.2. Elements of Place on the River
5.1. Conclusions from the Interviews

The Series of Interviews are part of the empirical framework of this project grasping the user profile on different active locations at Belgrade Riverfront. Through those questionnaires, I gave an answer to a research question related with the river use: “How is the riverfront used in relation with previously defined groups of inhabitation within the city of Belgrade?” Additionally, in conclusions of this chapter, I answered the other research question related with the river use: “What are the spatial sharing potentials between groups of inhabitants along the river?” The role of interviews in project methodology, as well as the questionnaire sample can be found within the chapter: Methodology - Learning from the City and the River.

I did surveys along the 4 active locations along the river. Those locations were picked in accordance with visitation. Therefore, the active and visited areas were chosen: riverfront of Zemun (13), New Belgrade central zone (11), New Belgrade Blocks (6) and the Fortress-Old city area (13). In total, I did 43 usable interviews. I am aware that this number represents just a small sample that as such can have misleading indicators, but the main idea of this survey was a demonstration of a logic and a course. In some further steps, more interviews can be done for more precise figures.

The general aim of the research through the interviews was understanding of preferences and use of the riverfront by various Belgrade inhabitants. This was achieved through several phases that guided me from general notions to more specific conclusions regarding the use of the riverfront. Following chapter will be explained through these phases and it will show this empirical research from the general comprehension to more particular conclusions. Furthermore, each phase of interview’s evaluation increases in detail and therefore becomes more useful for the design as more defined spatial demonstration.

PHASE 1

The first step was about providing an overview of user groups according to their age, marital status, housing typology, city area they live in, likes and dislikes regarding the riverfront. The concentration was on gaining the broad knowledge concerning the river use. This phase had an experimental value challenging some previous predictions or convictions about the river use. In this way, new ideas aroused in terms of facilities lacking, appreciated sport activities, highly used kids’ playgrounds etc. Even though those findings are very valuable, they were too specific for the strategic plan on the city scale. Therefore, the obtained information had to be filtered in order to become useful for the project stage. This was done by mapping of the interviews in the phase 2.

PHASE 2

Second phase aimed to grasp the results of the interviews that are relevant for the city scale. Therefore, the main criteria was about the understanding where the users come from and from what kind of urban environment. In this way, the result processing kept the experimental dimension because it was not predictable how useful and clear the maps could be.

The intention was to map interviews in order to understand the spatial distribution of the users within the city as a whole.

For example, the Zemun riverside is highly used by people from satellite towns that are not in immediate proximity or relation with this old center. Notions like this permitted me to continue with the further research on the relation between the different areas of the river and the users that come from various city areas. The next step was the phase 3 that was dealing with this relation through the previously established groups of inhabitation (G1, G2, G3 and G4) that share the similar city reality, urban character and the logic of space use.

PHASE 3

This step was focused on relating the previously mapped interviews with the groups of inhabitation. The idea was to apply the notions from the established groups and their theoretical spatial translation to the survey findings. The set of maps provided in this chapter is showing the maps from this phase due to its relevance for the strategy and design.

The first research question on river use (“How is the riverfront used in relation with previously defined groups of inhabitation within the city of Belgrade?”) is tackled within this phase. The conclusions derived were used for challenging and supporting of the placing of groups along the Riverfront according to the “Learning from the city” spatial plan. Therefore, this phase contributed to the overall strategy on the city level.

The main objective of the mapping at this stage was to position the users of the riverfront in relation with the existing domains on the river. It was important to determine the belonging of examinees to the group of inhabitation as well as the belonging of the visited domain according to the defined groups. It became possible to suggest which domains different groups prefer to use at the riverfront. Also, it became clear that some domains are more isolated and closed than others. For example, the G3 domain placed in the immediate proximity to the New Belgrade blocks attracts only G3 visitors, which marks it as a highly closed and the least communicative domain at the Belgrade Riverfront.
Although this set of conclusions provides an insight on spatial preferences of user groups and their possible needs in terms of enclosure, there are still potential conclusions to be made. Furthermore, spatial potentials for sharing spaces among the different groups will be explained as the part of phase 4.

**PHASE 4**

Phase 4 focuses on conclusions that can give directions for more detailed design. This phase answers the second research question related to river use: “What are the spatial sharing potentials between groups of inhabitants along the river?”

The idea is to understand possibilities and potentials for shared spaces among the groups. Reason for doing this is previous placement of groups according to their individual spatial requirements that resulted with self-contained dispersion of groups along the river. In a way, this is coherent with the main approach of the project that respects spatial requirements of the groups. In spite of that, the strategic spatial plan based on the placement of various groups can still be improved by understanding of their communication and sharing potentials.

Tool that was used to measure the shearing spatial potentials is spider chart (the first in the spider chart series). For this spider chart evaluated categories were relation between each of 4 groups. This makes 12 evaluation categories: G1G2, G1G3, G1G4, G2G1, G2G3, G2G4, G3G1, G3G2, G3G4, G4G1, G4G2, G4G3. The first “G” represents the visitor and the second “G” represents the visited domain. Grading ranges from 0-3 where 0 is an equivalent for 0% of visitors, grade 1 is equivalent for 1-25% of visitors, grade 2 is an equivalent for 25%-50% of visitors and grade 3 represents more than 50% of visits.
PHASE 3 - Zemun Riverbank - G4 Domain

Zemun Riverfront belongs to the G4 domain of the old city center Zemun. The structure of visitors of this riverside consists of predominantly G2 visitors with 54%, then G4 visitors with 30% and finally G3 with 15%.

This makes the riverfront of Zemun the most diverse and the most communicative domain on the riverfront. This shows that G4 domain (specifically) has the biggest radius of influence on the city scale.
Old Belgrade Center with the city fortress Riverside belongs to G4 domain as well. In this case, the biggest number of visitors comes from the same domain - 85%. Then the visitors from the G3 and G2 come with just 7.5%.

This shows the domain G4 doesn’t have to be that communicative. If we take in account that this specific G4 domain has one of the biggest attractions on the city level - The Belgrade Fortress that attracts all the groups of the city, it is possible to notice the potential.

On one hand Center of Zemun brings out the communicative and diverse character of G4. On the other hand, Old Belgrade center has the biggest and the most important city place-center. The idea is to make use of both characters by linking them overcoming the divided city image bringing out the potentials of G4 domain.

Both G4 domains attract a considerable amount of G1 popu-
PHASE 3 - New Belgrade Riverbank -
G3 Domain

Hereby I will explain the use of G3 domain that is an extension of New Belgrade “Central Zone”. Although this part of the riverside is used predominantly by G3 group (64%), it also attracts a high number of users that belong to G4 group (28%).

G2 group is not as present (7% of visits), while G1 visitors are minimal even though their settlements can be found in immediate proximity. This absence of G1 users - local nomads, could be explained by poor integration of those inhabitants within the domain of G3.

This part of G3 riverside is predominantly used by G3 settlers, but it still has much higher communicative potential than its modernist extension “New Belgrade Blocks”. The reason for this is that it is positioned on a continuous quay that runs from Zemun to the end of New Belgrade pedestrian zone. This constant connection provides sequential access to this area.

Also, the position of this riverside is interesting because it represents an inbetween zone among two G4 strips: Zemun and Old Belgrade.
PHASE 3 - New Belgrade Blocks - G3 Domain

The other part of the riverside that belongs to G3 domain is an extension of “New Belgrade Blocks” on Sava River.

This area has more or less same profile and water-land connection as previously explained extension of New Belgrade “Central Zone”. The difference is that it attracts only G3 visitors according to the survey respondents.

Although it is not that communicative, this zone functions really well within its setup. It is place where families spend time, elder people play chess or have a pleasant walk.

This area is quite local, intimate and enclosing. This character is not the matter of typology, but it is a matter of people that share same values that are taking place within this part of the riverbank due to the feeling of belonging of the user. This project respects and aims to preserve sites that are proven to function good and that already meet preferences of certain inhabitation group.
Ada Ciganlija is an island on the Sava River. It is highly visited by all types of visitors, especially during summer months. Except for floating houses, entertainment buildings and basic facilities, it is place of natural value.

This island is often characterized as Belgrade oasis. Since it attracts all groups of inhabitants, for this project it is a center of the city.
Figure 141. Zemun old city and Zemun quay impressions. Source: author’s own.
Elements of Place on the River - PATHS
Figure 142. New Belgrade quay impressions. Source: author’s own
Elements of Place on the River - PATHS

Old Fair Tower. source: author's own
Old Fair - Former WW2 camp impressions. Source: Aleksandra Zeezly Tosovic
Figure 144. New Belgrade Blocks impressions. Source: author’s own
Elements of Place on the River - PATHS
Figure 145. Old Belgrade Center impressions. Source: author’s own
Elements of Place on the River - PATH DISCONTINUITIES

1 Zemun old city

Source: Author’s own, based on http://www.bing.com/maps/

2 Fort next to the Sport center

Source: Author’s own, based on http://www.bing.com/maps/

3 Sajmiste towards Industrial zone

Source: Author’s own, based on http://www.bing.com/maps/

4 Old Belgrade towards Sava Amphitheater

Source: Author’s own, based on http://www.bing.com/maps/
Demonstrated point
Elements of Place on the River - PATH DISCONTINUITIES

1 Hotel Yugoslavia towards New Belgrade

Source: Author’s own, based on http://www.bing.com/maps/

1 New Belgrade corner

Source: Author’s own, based on http://www.bing.com/maps/

1 Sava Amphitheater towards Belgrade Fair

Source: Author's own, based on http://www.bing.com/maps/

1 Fort Area

Source: Author’s own, based on http://www.bing.com/maps/
Elements of Place on the River - CENTERS

1 Hotel Yugoslavia

Source: Author’s own, based on http://www.bing.com/maps/

2 Old Train Station in Zemun

Source: Author’s own, based on http://www.bing.com/maps/

3 Lido Beach

Source: Author’s own, based on http://www.bing.com/maps/

4 Eternal Flame

Source: Author’s own, based on http://www.bing.com/maps/
Demonstrated point
1 Museum of Contemporary Art

Source: Author’s own, based on http://www.bing.com/maps/

2 Old Fairground

Source: Author’s own, based on http://www.bing.com/maps/

3 Belgrade Fair

Source: Author’s own, based on http://www.bing.com/maps/

4 Train Station

Source: Author’s own, based on http://www.bing.com/maps/
1 Fortress
Source: Author's own, based on http://www.bing.com/maps/

2 Nebojsa Tower
Source: Author's own, based on http://www.bing.com/maps/

3 Sport Center 25 May
Source: Author's own, based on http://www.bing.com/maps/

4 Carting
Source: Author's own, based on http://www.bing.com/maps/

5 Ada Ciganlija Island
Source: Author's own, based on http://www.novosti.rs/upload/images/2010/12dec/0612j/ada2.j
Demonstrated point
Figure 146. Existing Domains along Belgrade Riverfront. Source: author’s own.
Figure 147. Proposed Domains along Belgrade Riverfront. Source: author's own.
After describing the center, path and domain for the groups of settlements, they were positioned along the river in accordance with their spatial requirements. Those groups of settlements were placed according to their own recognized needs, but not precisely according to the relations between them. The topic of shared space among groups will be elaborated in the following chapter resulting with design.

Also, the question of the river role in the vision arouses. The following chapter will deal with this question two investigating how the river role could be perceived in relation with the city (groups of inhabitation).

Therefore, the more detailed design will be informed by two main criteria:

//potentials for shared spaces among the groups
6. Design

6.1. Spatial Sharing Potentials among the Groups

6.2. Design
PHASE 4 - Design Conclusions from the Interviews - Sharing Potentials of the Groups

Red Spider logic

According to data obtained from surveys, I evaluated matching between visitors and visited domain. In fact, according to number of visitors from different inhabitation groups, I draw set of conclusions related to preference of the user regarding certain area.

In this way, I was able to understand types of river domains that specific groups like and perceive as their part of the coast.

This lead me to conclusions related to compatibility between different groups within other group’s territory. Also, this gave me an overview on domain-sharing potentials among inhabitation groups.

Red Spider conclusions and design

Due to the fact that Local Nomads have no visitors along their riverside, this type of settlement, along the riverfront, will be characterized as a new city-fort. Also, since Old Belgrader domain is recognized as the most communicative area that attracts the greatest variety of visitors, the old city fort needs to open.

Additionally, since the Old Belgrader’s waterfront attracts Newcomers, it is possible to set a hypothesis that G2 waterfront can be characterized through old belgrader’s waterfront spatial requirements.
Spatial Sharing Potentials of Groups

**Figure 152.** Spider evaluating sharing potentials based on results from interviews (DOMAIN). Source: author’s own

**Domain Sharing Potentials - Interviews**

0: 0% of visitors  
1: 1%-25% of visitors  
2: 25%-50% of visitors  
3: 50%-100% of visitors

**Data not applicable:**

G2 as a domain on the river doesn’t exist. Therefore, this evaluation measured just G2 visits towards domains of other groups.

**Conclusions**

[Diagram images and text related to old and new forts, introducing the Belgrader coast]
In accordance with city commuting patterns, I analyzed how inhabitants possibly perceive the center. In relation to number of workers from different inhabitation groups, I draw set of conclusions on users' relation to center on the city scale.

In this way, I was able to understand what kind of an area is a center for users that come from previously described groups of inhabitants.

The original study of city commuters is based on administrative units of the city. In order to translate those administrative units into groups of inhabitants, I did an approximation on presence of inhabitants from different settlements in certain municipalities. In case of Vozdovac municipality, in the table it is possible to see Vodovac G4, Vozdovac G3 and Vozdovac G2 due to fact that this administrative unit occupies space from city center to the city periphery.

### Blue Spider conclusions and design

According to commuting patterns, dominant centers are placed within Old Belgrader domain. This domain collects a set of centralities that attract inhabitants from all user groups.

The river in this case plays an important role because it runs from the outskirts towards the center of the city. For that reason, I proposed a “bus-line” from peripheral points at the river where the ring-road crosses the river. This bus-line can collect visitors from all inhabitation types.
Spatial Sharing Potentials of Groups

Center Sharing Potentials - Commuting Patterns - Place of Work

1. 1% - 5%
2. 5% - 10%
3. 20% - 30%

Data not applicable:

G1 as nomadic group has no center but it is selfcentered

Conclusions

According to commuting patterns, dominant centers are placed within Old Belgrader domain. The river in this case plays an important role because it runs from the outskirts towards the center of the city.

According to commuting patterns, Old Belgrader zone is at the same time the biggest absorbent and the lowest dispersive domain. As such it self relates and therefore two centers have to be connected. This intervention will affect divided city character.

WATER-BUS CONNECTING ALL THE GROUPS WITH THE STRONGEST CENTER

OLD BELGRADER CORRIDOR CONSOLIDATING STRONGEST ATTRACTIONS

e.g.

G2G4 - Sharing potential of Newcomers within the center of Old Belgrader

Figure 156. Spider evaluating sharing potentials based on results from commuting patterns (CENTER). Source: author’s own
Orange Spider logic

Third spider aims to describe morphological relations between groups of inhabitants according to existing city paths that formed during the city growth.

In this way path measures quality of spatial relationships among groups. Therefore, it is possible to determine cohabitation potentials along the riverfront.

Types of path-connections were established according to morphological analyses and condition of living environments. This showed how close and how good connections between different groups are.

I set three levels of path quality: 1. Island that represents the worst relation where one group is completely excluded in relation with another inhabitation group 2. Transition stands for the relation that is not direct but rather a road between point A and point B 3. Extension 1 is found between two entities that are in immediate proximity but without a strong bond and 4. Extension 2 represents a connection between two groups that overlap through cohabitation.

Orange Spider conclusions and design

On one hand, analysis are pointing out the favorable connections that should be emphasized (such as relation between G1 and G4 as well as G1 and G2). On the other hand, analysis are pointing out unsuccessful connections such as the relation between G3 and G1.
Spatial Sharing Potentials of Groups

Figure 163. Spider evaluating sharing potentials based on results from path morphology (PATH). Source: author’s own

G1G2 - path as morphological relation between Local nomads and Newcomers
G1G3 - path as morphological relation between Local nomads and New Belgrader
G1G4 - path as morphological relation between Local nomads and Old Belgrader
G2G3 - path as morphological relation between Newcomers and New Belgrader
G2G4 - path as morphological relation between Newcomers and Old Belgrader
G3G4 - path as morphological relation between New Belgrader and Old Belgrader

e.g.

G2G4 - path as a morphological relation between Newcomers and Old Belgrader

Path Sharing Potentials - Morphology

0: island
1: transition through another group domain
2: extension 1 - separated entities
3: extension 2 - related entities

Conclusions

Figure 163. Spider evaluating sharing potentials based on results from path morphology (PATH). Source: author’s own
Masterplan Morphological Scheme

Morphological Scheme provides an overview of previously emplaced types of inhabitation along the river. Through this map, basic morphological characteristics are recognizable.

Masterplan Logic Scheme

Logic Scheme shows conclusions from three spiders distributed over the riverside in accordance to previously positioned groups of inhabitation. Within this map, I showed relations and connections between groups explaining how they relate or how they don’t connect.
Figure 165. Sharing potentials based on results from spider charts. Source: author’s own

Legend

- Red Spider: Conclusions
- Blue Spider: Conclusions
- Orange Spider: Conclusions
- Old City Fort
- New City Fort
- Introducing Old Belgrade Coast
- Waterbus connecting all the sections with the Strongest Center
- Old Belgrade Corridor connecting strongest attractors
- Extension 1
- Extension 2
- Island
- Transition
Figure 166. Masterplan Segment. Source: author’s own
7. Evaluation and Reflections

7.1. Reflections and Recommendations

7.2. Evaluation
7.1. Reflections and Recommendations

RECOMMENDATIONS

//Theory

Due to a complex nature of space and place and its relation to human, this project is grasping just a part of it. Even though this thesis project observes and aims to demonstrate a phenomenology of space and place, many improvements are possible. I recognize that there is still a lot of space for development in terms of composing a more individualized perception of the user.

This can be done through obtaining a more detailed data about the city. Also, a more theoretical approaches on the place-making matter can be reviewed. At this point, I am predominantly dealing with a set of consistent and complementing theories that could be evolved a step further by challenging them with opposed approaches toward the same field.

For example, Otto Friedrich Bollnow (the author of “Mensch und Raum”) has quite challenging positions compared to Norberg-Schulz. My idea is that through challenging, approach can become stronger and more inventive with upgrading result.

//Center

The element of place - CENTER is in this project measured in accordance with the commuting patterns of workers among the municipalities. This measurement can be much sharper and more determined if there were more criteria involved. For example, commuting patterns of students and pupils, commuting patterns of sport related activities etc.

//Methodology

The problem with gathering data for the project affected the original idea behind methodology in sense of accuracy. In order to translate the available data sets in the framework of the typologies that I developed, I had to deal with some approximations that describe the principle more precise that the actual facts. Of course, conclusions derived from statistical data (such as data on commuting patterns) are based on real values from Serbian statistical database. However, I needed to reduce or rationalize how I interpret the data so that it becomes possible to express relevant values for the groups of settlements. Due to this reason I needed to deal with approximation in order to show the approach more clearly. If the data was more detailed and complete, the results would be more accurate, but the principle and logic would remain the same.

//Types of Settlements

As stated before, this project aimed to demonstrate the city life through understanding settlement groups. Those groups were defined through morphological analysis and literature reviews. According to conclusions derived from those studies, groups were recognized in relation to several dominant criteria: historical development and urban typologies, trends occurring within specific areas and city transformations. According to these criteria, I recognized 4 dominant groups of settlements. Those groups cannot grasp absolutely the city urban dynamics, but the idea is illustration of approach through described dominant types.

In order to make this project more complete, more criteria should be established and therefore more groups in between could be recognized. Due to the lack of data on densities, land use, land value etc, concept development stayed on the current level. If more information was available, a finer scale of inhabitation types could be developed.

Nevertheless, at this stage, main goal was a demonstration of the conception of how the city can meet its river in respect towards historical and cultural values shared among its settlers as a response towards ongoing market-driven developments, economic and political change.

//Studio Reflections

The development of this project counted with the collaboration of the Complex Cities graduation studio. This studio allowed me to explore and analyze different scales and involve several variables within a typo-morphological approach towards the urban tissue of Belgrade. In addition, I appreciated the most learning about project methodology while at the same time applying it to the project. Especially important part was incorporation of theoretical framework as part of the proposal that enriched the entire typological approach.

Although this international experience constituted an enrichment process, I believe also some uniformity within the proposals is needed to be able to have a referent on the development of the project and progress of the student. Moreover, the timeframe established for the development of the graduation project does not necessarily implies the complete culmination of the projects therefore additional attention should be put to narrow down the scope and end results of the thesis from the initial stage.
7. 2. Evaluation

**Evaluation - a critical review**

This project is not denying the need for economic prosperity and development of commercial and office space within the city. Nevertheless, the project is pointing out strategic spots for this types of developments. Chosen spots are strategic because they correspond to spatial and environmental needs of the city and its inhabitants rather than to investors. At the same time, some other riverside areas that are already inhabited and are functioning quite. Those are going to be preserved in stead of generically built.

On one hand, this project represents a critique and a response on current city plan. On the other hand, the project understands the city needs for investments, but it does give a priority to inhabitant rather than to those market oriented rationalized positions.

Therefore, this project is a political reflection that as such aims to open a discussion regarding current urban planning, political climate and economy that affects Belgrade. Project accents this position through its entire study process that is highly related to political and cultural impacts on city form and its settlers.
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