Public space as a cohesive force: the landscape intervention in post-conflict city, Mostar

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I would first like to thank my two mentors Eric and Arie, who gave me full help during the whole year. I still remembered my feeling before my first meeting with Eric in December last year. It was a hard time for me when I felt confused about the direction of the project and also the pressure from the P2. But I felt the situation gradually became clear after talking with him. He listened very patiently to my somewhat messy thoughts and helped me analyze and determine my direction to go for, which is very crucial and laid a solid foundation for my future projects. Arie is also always generous to give me a lot of helpful suggestions and encourages me to know relative theories and studies, especially in the early process when I always need help. And our conversation is always relaxed and happy. Without the professional guidance of my mentors and their passionate participation, my project would not go so smoothly.

I would also like to express my very profound gratitude to my parents, my family, and friends. Even if we live in different parts of the world and do not contact frequently, they can always make me feel their strong support. Whenever I get stuck in study or feel stressful and downcast mentally or get sick physically, they always make me feel at ease and have the courage to continue facing unknown possibilities in the future. It is these two years of experience living in a foreign country that made me more clear about my love for my hometown, family, and friends. I am more active in giving back my love while accepting love from those lovely people.

Shiqi Peng
Abstract

Bosnia and Herzegovina suffered a lot from the civil war, and among all the cities, Mostar is the longest and most tragic place. It is also a divided city today in both physical and mental aspects. Along with the reduction of public space and the decline in quality, people lost their places of public life, consequently, causing the mental division between people and the loss of city collective memory. This project would focus on the city of Mostar as a post-conflict area and aims to mitigate the mental division of the city and bring back people and collective memory by redesigning and improving public spaces. The historical and current condition in the city would be analysed to provide a comprehensive understanding of the working site. Memoryscape and placemaking for peace making would then work as the method to lead the intervention of this project, mainly focus on: 1) Traditional and new activities that keep attracting people; 2) Public landscape that involves the history elements reflecting to the city history and collective memory; 3) In a long run, the continual public space network would gather and lead people to step over the mental border line.

Keywords: public space, history and collective memory, divided city, mental division
Introduction

Looking back at history, wars and conflicts seem to characterize the majority of the 20th Century, which was the deadliest century ever recorded. With a death toll of 187 million in just 100 years, the aggressive violence of the 20th century killed millions and devastated tens of cities around the world (Salem, 2018).

Though we already reached the stage of general peace in contemporary society, there are still areas under conflicts (Fig.1) because of weapons development, drug, territorial dispute, economic, religious, gender and ethnic differences during the past decades. Rather than beginning and ending cleanly, conflicts are inherited and either perpetuated or transformed by successive generations (Youth, Continuity and Change, 2012). Today, many areas still suffer from the effects left by post-conflict situation or even being in the war.

Yugoslavia has mixed of ethnic groups and religions, with Orthodox Christianity, Catholicism and Islam being the main religions. As International Criminal Tribunal for the former Yugoslavia (2017) announced:

Coinciding with the collapse of communism and resurgent nationalism during the late 1980s and early 1990s, Yugoslavia experienced a period of intense political and economic crisis. There was a proliferation of political parties who, on one side, advocated the outright independence of republics and, on the other, urged greater powers for certain republic within the federation. Political leaders used nationalist rhetoric and fuel fear and mistrust among ethnic groups.

As the largest local war in Europe after the Second World War, the Yugoslav wars lasted from 1991 to 1999 inside the former Yugoslavia (Fig.2), finally leading to the breakup of the country.

Fig.1 World conflict map2012, map source: author, data from: Aviation Week

Fig.2 Former Yugoslavia, map source: author

Problem Statement
Bosnia and Herzegovina (BiH) suffered a lot from the civil war and as a result, the ethnic makeup in the country changed a lot, people from different ethnicities were forced to leave their homes to find a new place or became homeless. Among all the cities, Mostar was the longest and most tragic place in the civil war. During the war, 90% of the centre was shelled and 1/3 of the buildings were destroyed (LOCAL DEMOCRACY AGENCIES Mostar, 2018), till now, 25 years after the war, the work of reconstruction is still going on. But it is nowadays famous for the Old Bridge in the old city center. In 2003 a reunification started with both national and international actors. The idea was to restore the bridges to stimulate the multiculturalism and reconciliation. A few other locally supported projects have been coaxed in similarly reconciliatory and multicultural language, including a proposed new Velež Mountain and Cultural Centre and a monument of Chinese film star Bruce Lee (LOCAL DEMOCRACY AGENCIES Mostar, 2018). However, the public life in reality is not as good as the told story. The reconstruction of The Old Bridge (Fig. 3) and other bridges did not really lead to connect people, as people still stay in their ethnic side boundary.

Many reconstruction works had been done during the past 20 years, while there is an obvious tendency that the work of reconstruction of the Old Bridge (Fig. 3) is still going on. But it is nowadays famous for the Old Bridge in the old city center.

Hence, the general problem this project dealing with is the poor quality of existing public spaces in Mostar, and other bridges did not really lead to connect people, as people still stay in their ethnic side boundary.

Comparison between the ruins of the Old Bridge and the restored bridge shows the difference in the quality of the work done. The area around the Old Bridge had become a place of memories and mourning. After the war, BiH was declared a multinational state formed of three constituent people: Bosnian Muslim/Bosniac, Bosnian Croat and Bosnian Serb. As a first step, the municipality of Mostar was re-organised into six sub-districts (three Bosnians and three Croats) and a central area (Fig. 1). Now, Mostar is still going on. But it is nowadays famous for the Old Bridge in the old city center.

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Objective

This project seeks to mitigate the mental division of the city and promote the construction of a cohesive society by redesigning and improving public spaces as landscape intervention. Through the designed process, the public spaces in Mostar would 1) gradually invite everyone in the city to share a open and friendly context, including squares, parks, streets, riverbanks and markets, etc; 2) create a memoryscape about city history and collective memory to re-stimulate the connection between people and city.

Research Question

How can the historical and social value of public spaces in Mostar be enhanced by landscape interventions to mitigate the mental division between people?

Sub-research Question

(Understanding question) How to conceptualize public spaces in Mostar for this project?

(Understanding question) How to understand the mental division through public space analysis?

(Design question) How to make use of the remaining historic heritage elements to bring history and memory to the public space?

(Reflection question) How could the designed public space contribute to a more cohesive society? How can it contribute to tackle the existing mental divisions in the city?
In this part, it described the problem field and specially analysis the aspect that the author would like to respond the challenges. As a post-conflict area, the challenges Mostar facing nowadays and possible causes are explained, following with main objective and the research questions. Then the report would describe the possible values of the project result that would contribute to the social and scientific aspects of discipline of Landscape Architecture. Finally, the methodology this project based on and theories it applied would be explained and related to the strategy, which build the overall framework of the project. The theory background in this part would also answer the sub-question1 (Understanding question): How to define public space in Mostar in this project?

In this part, the research question2 (Understanding question)—How to understand the mental divided current situation through public space analysis?—would be answered through analysis of the city Mostar from historical and current aspects to have a deeper understanding of memory and heritage, division condition and where are potentials. Further researchs on working site would analysis the specific challenges and potential different working points have. This part provides diverse and reliable evidences to the further design, making the challenges and working direction more clear.

Design proposal lead by strategies and principles would act on different spatial and time scales. Visions and detailed designs would show how the landscape interventions work as whole system but also specific sites targeted. This part would answer question3 (Design question): How to make use of remaining history heritage element to involve history and memory in the public space?

In the final part, the report again briefly answers all sub-questions as a conclusion and make a reflection on 1).The relationship between research and design: Whether the design answer the research question? 2). Whether the design share the big goal of the graduation lab? 3). Whether the design is practical and reliable? Problems encountered during the design process?
Scope

Though the public space design in a post-conflict background would be a specific situation compared to general public space design, it could also be regarded as a generalized approach among those post-conflict divided areas. Mostar is one of the typical divided areas in the world, as an obvious division border left by the war separate the city into different part based on different forces in the war, the ethinics in this case. The division problem Mostar facing today is also the one the other divided areas have and the reconstruction work inevitably should re-think and lead the new public life people have in the regenerated city. Sharing the post-conflict background with some other areas, this project might provide some practical aspects on understanding the division problem and on the public space reconstruction work.

Social&Science Relevance

Social relevance

Still, in 21 century, there are many countries suffer from the conflict left by the war, which already arouse the international attention. More or less the destruction of material and immaterial public and cultural life would bring trauma to the public and cause the loss of the media connecting individuals and the public and city. Thus during the reconstruction work, special attention should also be paid on the aspect of public life and city identity, which are easily lack emphasised but being closely related to the psychological reconstruction.

However the division problem on mental level would be more obscure and complicated when compared with physical division. Based on this post-conflict background, this mental division is often relevant to sensitive domains such as ethinics, religions, war memory and so on. Taking this aspect into consideration, the public space would be taken as the relatively moderate entry point and act as a catalyst to bridge people and city. The cohesive society future that this project hope to achieve in the end would also provide help to the reconstruction work in other divided areas towards a desirable future.

Science relevance

The study of the working area as divided city would respond to the challenge of widely understanding the division situation of the post conflict city. The way of research and intervention of this project might add the knowledge of how to cope with public space reconstruction in a divided background. Since every divided area has its own character, this project approach would be impossible to fit every other. But two point could be shared from a general aspect to do the landscape intervention:

1. How to study the history narrative and current situation of an area and extract the relationship between them;
2. How to transfer between the value (publical, cultural and historical) the design want to bring and the public demands from the local.

03 Methodology Framework
Methodology

Research by design

Landscape Architecture as an academic discipline focuses on providing approaches to spatial concerns in urban environments, which also intersect with multiple academic disciplines like ecology, social science, economy, etc. Therefore, landscape architecture embraces approaches such as ‘evidence-based’ design (Nijhuis & Bobbink, 2012). These approaches are based on research results from other disciplines and offer thorough legitimation of design decisions (Brown & Corry, 2011; Deming & Swaffield, 2011) in site-specific designs. It is just because of those based on research results that make the design evaluable, predictable, practical and reliable.

With the development in discipline of Landscape Architecture, there are increased efforts to reflect the role of research in design processes (Lenzholzer, Nijhuis, & Cortesão, 2018): research for design - research informs design to improve the quality of the designed artifact and to increase its reliability.

Research Methods

Research methods in this project are based on some of the research methods introduced in ‘How to study public life’ (Gehl, 2013) and some public survey methods.

Literature review

Literature review constitutes an important part of the research and is used to answer all the sub-research questions. Here, the theory about place making & peacemaking, about post-conflict area transformation and about the topic of public space would be studied.

Media production

Important information resource, including digital videos and photos from archives, officially announced news and planning and handbooks. For example, history videos and photos are useful for the study of the past and comparison with current situations. In this project, these methods would be largely used as there are not enough already organized information about post Mostar and lack of means to record during the war time.

Case study

Plan analysis of existing precedents is a useful way to identify design directives, as results of design (realized plans) are an important source of knowledge and evidence of which planning and design principles function well or not. This type of knowledge can serve as the basis for future designs (Nijhuis & Bobbink, 2012). For example, in this project, other previous studies in post-conflict areas are good results to provide guidance. Cases in Berlin, Beirat and former Yugoslavian countries can offer relative logic in research, attitudes towards design.

Mapping

Mapping is a widely used tool in analysis as it consists of the process of searching, screening and representation of information; it is the effective and concise way of information visualisation. It includes description, modelling, classification, interpretation, evaluation and diagnosis, engaged action and so on. Here, mapping is mainly used to represent the physical characteristics of the urban area in the past and currently, furthering lead to the conclusive representation.

Photographing

Photographing is an important and effective way to study public life. It is a way to directly reflect people’s behavior in the environment. Through photographing, the real daily life of people in Mostar is recorded.

Interview

Interviews are commonly used in researches in order to have a better understanding of the opinions from the public and find their demands. Especially in this case, in a divided city, the published materials mostly represent the official standpoint, while the inner feeling and opinions from the residents are actually more important for the grounded public space design and the goal of an inclusive society.

Observation

Individual experiences and feelings are also important for the research part. Personal observations show how individual perceive a certain space and can be used to evaluate the space that can help understanding public behaviors.

Online survey

Online survey is an option for interviews; it benefits from the universality, convenience and high efficiency of internet, can quickly get responses from large amount of experiment subjects.
As shown in Fig.12, the research and design part in this report follow the RTD process. In different stages of the project, the actions of research and design are repeated: research supports design and in turn design evaluation and reflection lead to the next round of research (Fig.13).

Generally, there are two parts of research in this project. The first part of research, consisting of methodology framework and theoretical framework, works as the theoretical foundation of the design part. The methodology framework clarifies the supportive relationship between research and design during the whole process. The theory background indicates relative directions to focus based on existing theories under the same post-conflict background. The second part of research includes site relative division problem analysis, history analysis and current condition analysis. This part helps to have a better and deeper understanding of the challenge and working objects, exploring a promising working area and also strategies. All the potentials coming from conclusions and the strategies work as the toolbox to guide and support the follow design part.
Theoretical Background

Memoryscape

Archaeologist Bill White, III (n.d.) wrote in his digital historical website, landscapes exist not only in the present. They are also part of our memories. Memoryscapes are the way human beings remember the landscapes in which they live. It is the places you can “see” when you close your eyes. For social scientists, memoryscapes are important because they help us understand the ways people know the places where they live, work, and play. Why social scientists want to know what other people are thinking and why they have those thoughts.

According to the objective and research question, this project aims to regard public space as design object. It looks backward to explore public space historical value that can bring back memory and also looks forward to explore the social value that can gather people again. Based on this aspect, related theories about the public space are chosen to explore the project.

Heritage

As written in ‘CULTURAL HERITAGE IN SMART CITY ENVIRONMENTS’ (Angelidoua, Karachalioua, Angelidoua, & Stylianidisa, 2017): Tangible cultural heritage: a movable cultural heritage (paintings, sculptures, coins, manuscripts); b. movable cultural heritage (monuments, archaeological sites, and so on).

Intangible cultural heritage: a. oral traditions, performing arts, social practices, rituals and festive events; b. knowledge and practices concerning nature and the universe; c. knowledge and skills to produce traditional crafts.

Both tangible and intangible cultural heritages are of great importance, in this project it is more about buildings and traditional activities.

Memory and Heritage in divided city

In the piecing together of post-war cities, there are two kinds of reconstructing. Urban design specialist Mitchell Sipus argues that reconstruction of cities in the aftermath of war happens on the physical level, but also on the ontological level (Salem, 2018). Repair of urban physical infrastrures are built on the ground, but is the invisible dimension and memory of war that can fully eradicate the traces of what came before, either in the landscape itself or in the memories of its residents (Jorda, 2006). Even when the traces of war are not physically visible, they still continue their influence on the way people think and behave.

Thus post-conflict development should pay great attention to the invisible but inherent force and foster collective memory attached to the outer environment. This project is of special significance to the places where people desire to return and re-cultivate their sense of belonging. Creating spaces showing what left or echoing the original structure with evoking the collective memory of residents and their active participation, could be one way forward.
and groups in order to achieve a peaceful coexistence in a region. It inspires people to dialogue between different people. It welcomes and encourages “Others” to find a place where they feel welcome and supported. It is not only a means to peacemaking through community participation and mutual trust.

Like placemaking, peacemaking is more than an idea—transformation and connection between these two ideas forms a shared space and also strengthens the connection between community members. The concepts behind placemaking originated in the 1960s, when writers like Jane Jacobs and William H. Whyte offered groundbreaking ideas about designing cities that catered to people, not just to cars and shopping centers. Their work focused on the importance of lively neighborhoods and inviting public spaces. Jacobs (1961) introduced the idea of “eyes on the street” and emphasized the benefits of lively street life. Whyte (1980) emphasized essential elements for creating great public spaces.

Peacemaking as a global topic has attracted increasing attention in the domains of politics, trade, education, and so on. On the way pursuing for peace, there are countless materials about the public space criteria based on different site and scale. They are focused on easily detectable physical criteria or more abstract emotional feelings. According to the historical and educational value of the冲突-related space, how to tackle with them can reflect the attitude dealing with the past, respecting, learning and healing from the past. Built specifically to recognize, remember and understand the roots of political violence, and healing from the past. These are places of sociability, entertainment, transport, leisure and commerce, as well as culture in the broadest sense (Pimlott, 2015).

The definition of public space might be different based on the development and change of space use (public/private) and territory (open space/with roof/inner space). For this project I would focuses on spaces from general sociability and culture aspect of public space use (public/private) and territory (open space/with roof/inner space). For this project I would focuses on spaces from general sociability and culture aspect of public space use (public/private) and territory (open space/with roof/inner space). Public space is a socially-constructed territory or terrain that represents, shapes, controls, manages or guides social interactions and is distinguishable from both private space and public space. In a historical perspective, the use of public space is no longer merely motivated by necessity but also more, as in the broadest sense (Pimlott, 2015).

Definition of Public Space

In the broadest terms a public space is a socially-constructed territory or terrain that represents, shapes, controls, manages or guides social interactions and is distinguishable from both private space and public space. In a historical perspective, the use of public space is no longer motivated by necessity but also more, as in the broadest sense (Gehl, & Gemzoe, 2006).

Vegetable gardens or both, residents transform decaying urban spaces into ornamental gardens (or vegetable gardens or both, residents transform decaying urban spaces into ornamental gardens), or vegetable gardens or both, residents transform decaying urban spaces into ornamental gardens. By converting decaying urban spaces into ornamental or vegetable gardens, residents transform decaying urban spaces into ornamental or vegetable gardens. Place making re-cultivate community spatial and social life. Whyte (1980) emphasized essential elements for creating great public spaces.

Project For Public Spaces (PPS) (2007) defined place making as both an overarching idea and a hands-on approach for improving a neighborhood, city, or region. It inspires people to dialogue between different people. It not only a means to peacemaking through community participation and mutual trust.

Based on the lens of peacemaking theory, here in a post-conflict area, place making work could focus on the following aspects.

1. Place making re-cultivate community spatial and cultural space.

Spatial intervention in a community scale would directly influence the atmosphere and reflect on local behavior. What Oliver (2003) believes that community gardens can change the cultural environment and result in social participation and sense of belonging.

By contrasting existing urban spaces or ornamental or vegetable gardens, residents transform decaying urban spaces into ornamental or vegetable gardens. Whyte offered groundbreaking ideas about designing cities that catered to people, not just to cars and shopping centers. Their work focused on the importance of lively neighborhoods and inviting public spaces. Jacobs (1961) introduced the concept of post-conflict peacemaking in the Agenda for Peace. Like placemaking, peacemaking is more than an idea—it’s a process that aims to change people’s attitudes and behavior, and to transform dynamics between individuals and groups in order to achieve a peaceful coexistence in a specific place (Project For Public Spaces, 2007).
polarization and public transport and visible link for people to recognise the places. Easily accessing is the basic precondition for great public space.

Comfort & Image
A great public space should also pay attention to the comfortable physical and mental environment. A clear image would help people to better remember and form memory in mind.

Users & Activities
Different activities can attract different group of people, and activity is also the core people consider to go and return to a place. Whether activities are attractive and whether they can meet the public need would decide the success of the place.

Sociability
Besides the necessary activities people spontaneously experience in the place, the sociability of a place can influence the public activities that promote the communication and connection between people.

Focus on this project in Mostar, public spaces should be first evaluated from a bigger scale, including continuity of spaces Access & Linkages and diversity and attractiveness of Uses & Activities. Further, if the design goes deep into the detail, other criterias above could help.

Importance of public space
History importance
The City is characterized by the breakdown and reinvention of public spaces. For the City is historically typical natural growing and self-organization development (Siláči & Vuković, 2017). But the formation of the city and its public spaces is associated: Urban development determines the distribution and form of public spaces, such as the influence of historic events and celebrities would directly or indirectly result in the formation of gathering spaces; On the other hand, the use of the public spaces would in turn influence the development and form of urban space.

Social importance
UN-Habitat has studied the contribution of streets as public spaces on the prosperity of cities, which finds a correlation between expansive street grids and prosperity as well as developing a public space toolkit. Presence in public space correlates strongly with participation in urban life, and with a city’s sustainability and prosperity (Whyte, 1980).

Case Study Berlin Wall
The Berlin Wall, built to separate East and West Berlin, fell at the end of the Cold War in 1989. It not only divided the city for 28 years, but also the way of life for millions both inside and outside the wall. Cases about Berlin Wall are generally focus on the representation of former border of East and West Germany had a far more sinister purpose. They would be smoothed out regularly so that it was easy for border guards to see the footprints of any citizens trying to flee from east to west. Now a Dutch landscape architect hopes to see those sands shifting again -- but for different reasons altogether. Her goal is to respect the history of the areas and preserve any remnants of the former border area while generally beautifying the land, replanting and landscaping, as well as facilitating additional opportunities for such pastimes as cycling, walking and other sports.

Her plan would see the barren strips of sand moved at regular intervals in order to encourage new plant life to take root as well as the ongoing formation of the “mega-dunes” that are already evolving naturally in the German woods. At one stage there were 302 watch towers on the border; today only five still exist. Van den Berg would like to see those sands shifting again -- but for different reasons altogether. Her goal is to respect the history of the areas and preserve any remnants of the former border area while generally beautifying the land, replanting and landscaping, as well as facilitating additional opportunities for such pastimes as cycling, walking and other sports.

The five remaining towers, and any others that can be resurrected, turned into small, secret gardens. Twenty years ago, those innocent-looking strips of sand and gravel on the former border of East and West Germany had a far more sinister purpose. They would be smoothed out regularly so that it was easy for border guards to see the footprints of any citizens trying to flee from east to west. Now a Dutch landscape architect hopes to see those sands shifting again -- but for different reasons altogether. Her goal is to respect the history of the areas and preserve any remnants of the former border area while generally beautifying the land, replanting and landscaping, as well as facilitating additional opportunities for such pastimes as cycling, walking and other sports.

Landscaping the Death Strip as Giant Garden(Schaer, 2009)
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Sarajevo Boulevard

Reactivating Sarajevo

Similar with what happened in Mostar, the case "THE OLYMPIC BULEVAR" (Lien, Rafiq, & Walker, 2014) from Sarajevo focused on analysing the historic cultural and green infrastructural axes as the main new organizational forces that are to drive a transformation of the built environment of contemporary Sarajevo. The successful period of Sarajevo’s past offers potential room to open up new shared spaces where residents can co-exist in an environment that shifts the focus away from representation of nationality, religion or ethnicity.

Activities as an engine for movement through space: "The Olympic Boulevard" aims at giving people a reason to physically engage with the entity on the other side of the border. A proposed sports complex will make up the western starting point, giving great potential to encourage more interaction through an expended selection of activities. The Bus Station currently lacks supporting amenities like cafes, restaurants or small shops that can enhance the activation space around the station. The design also increased urban connectivity: "The Olympic Boulevard" is concerned with increasing the physical mobility between two stations.

Fig.22 Proposed Olympic boulevard masterplan (left)

Fig.23 Activity analysis and development along the boulevard (right)

Beirut Green Line

Towards a socially sustainable urban strategy for Beirut City

The project "IN-BETWEEN REALITIES" (Sukkarieh, 2015) describes, conceptualizes and explains the division in post-war Beirut, Lebanon based on religious distribution. In this project, the author first try to understand the logic behind the division situation, then by analysing three different kind of spaces in the city (perceived, conceived and lived spaces), new potentials are explored to contribute to the future development of the city. For the three kinds of spaces, related research are made on 1) how would different religious backgrounds influence the forming of city images and acquired social memories? 2) how urban interventions enhance the relation between places and images and stimulate the forming of collective memory.

The Green line (former front line) separated the mainly Muslim factions in the West Beirut from the Christian East Beirut during the war, and nowadays remains a fragile geographical spot where lush green belt emerged from the abandoned area with large amount of demolished constructions and messy groves.

Fig.24 Open space analysis

Fig.25 Dwellers’ movement analysis

Fig.26 Beirut Green Line

Fig.27 Beirut Green Line

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The Green line (former front line) separated the mainly Muslim factions in West Beirut from the Christian East Beirut during the war, and nowadays remains a fragile geographical spot where lush green belt emerged from the abandoned area with large amount of demolished constructions and messy groves.

Towards a socially sustainable urban strategy for Beirut City

The project "IN-BETWEEN REALITIES" (Sukkarieh, 2015) describes, conceptualizes and explains the division in post-war Beirut, Lebanon based on religious distribution. In this project, the author first try to understand the logic behind the division situation, then by analysing three different kind of spaces in the city (perceived, conceived and lived spaces), new potentials are explored to contribute to the future development of the city. For the three kinds of spaces, related research are made on 1) how would different religious backgrounds influence the forming of city images and acquired social memories? 2) how urban interventions enhance the relation between places and images and stimulate the forming of collective memory.
Conclusion

Three cases above are all chosen from the typical divided city, one of them already finished the transformation after the war, while other two are still on their way finding the proper strategy to cope with multi-challenges. Following are the points I learned from them:

1. Collective memory

People have different social memory based on their different ethnic, religious, political parties and living background. In order to achieve the inclusive society, the memory that can shared by general public group should be more focus on, especially the one of the prosperous period in the past.

2. Visual memory

As many traces of the memories have gradually been erased by the expansion of urban fabric due to reconstruction work and urban development, history related memory should be visualized through symbolic using of history element. This is not to reduce memory to what is geographically visible, but to use the visibility as one way of accessing public imaginations. It is an attempt to read conflict, agency and power as spatial, discursive practices (Kappler, 2017).

3. Place making

The place should always respond to the district needs and adaptable to surrounding further development.

4. Importance of border line

Border line is where the conflict happened, but also where diverse groups of people mix. If people stay away from them, much of the future potential of cities is lost (Youth, Continuity and Change, 2012). Public space could be added to the border line as the supporting facilities for the existing public infrastructures on the border line, and increase physical mobility between two sides.

Based on previous studies, the public space has such a potential in connecting people, evoking past memory and creating new memory. I envision a place where allows people to interact with their environment, the left heritage, and of course each other, creating new memories to coexist with past memory and experiences. The public spaces with great potential would be taken as entry points to stimulate public gathering, activities and memories for re-bridging the connection.
The history of Mostar can be briefly introduced as following:

Before 1468
A settlement established as an urban structure in the 15th century on the crossing of a river and a land road was originally located in a valley of the Neretva River. The name of Mostar was first mentioned in a document dating from 1474, refers to the wooden bridge (former old bridge).

1468-1878 Ottoman period
During 15th and 16th centuries, the town of Mostar developed following the Ottoman character as a crafts and commercial centre combines with mahala housing complex. Since then Mostar has been long known for its old Turkish houses and the Old Bridge which the original wooden bridge was rebuilt in stone in 1557 and quickly became a wonder in its own time and the city’s symbol.

1878-1918 Austria-Hungary period
Austria-Hungary took control over BiH in 1878 and governed the country till 1918 when the World War I broke out and ended up as the country of Yugoslavia. During the late nineteenth century, the process of economic and social transformation has introduced in BiH, which dethroned agricultural society, as it had existed for thousands of years, and replaced it with the urban, industrialized, technocratic society.

1918-1992 Yugoslavia
After World War II, the city turned into a major industrial and tourist center and prospered economically during the time of the Socialist Federal Republic of Yugoslavia. The socialist era boosted development of the city’s industrial base which offered employment to a wide sector of the city’s women of all ethnic backgrounds, and encouraged the immigration of rural residents into the city.

1992-1996 Civil War
Throughout late 1992, tensions between Croats and Bosniaks increased in Mostar. In early 1993 the Croat–Bosniak War escalated and by mid-April 1993 Mostar had become a divided city with the western part dominated by JHVJ forces and the eastern part where the Army of the Republic of Bosnia and Herzegovina (ARBiH) was largely concentrated. Fighting broke out in May when both sides of the city came under intense artillery fire. Ended with the Dayton Agreement in 1995, around 2,000 people died in Mostar during the war.

1996-2004 Reconstruction
Beginning in 1996, cooperation of the local government in Mostar, with the local Institute for the Protection of Monuments, the “Stari Mostar” Foundation, the World Bank, UNESCO, the Research Centre for Islamic History, Art and Culture (IRCICA) Istanbul, the Aga Khan Trust for Culture, the World Monuments Fund, universities worldwide, and many other professional partners have generated a reliable professional network and a sound agenda for revitalization of the historic core.
The essence of centuries-long cultural continuity is represented by the universal synthesis of life phenomena: the bridge and its fortresses, religious edifices, residential zones (mahalas), arable lands, houses, bazaar, in its public life in the streets and river (World Heritage Committee, 2005). It is just because of this laurant history process, physical fabric together with memory keep becoming palimpsest in this city.

15th-19th century

The urban development from 15th century to 19th century are mainly along the Neretva river and Radobolja river (Fig.31). During this period, the development speed is relatively slow due to poor productivity and technology, thus the urban range still largely be limited to the topography and nature resource distribution. At the beginning of its foundation, the location of Mostar is at the valley area along Neretva River between Hill Hum and Velež Mountain foot (Fig.30). It is the result of comprehensive consideration of flood risk, rainfall risk, military protection, agriculture, water source, weather and trade route. During this period, built environment in Mostar is in the pattern of “mahala”, the traditional housing complex.

20th-21th century

During this period, the development mainly focus on the large area on west bank (Fig.31). With the rapid development in technology, city can no more rely on agricultural production, more space in the west plain turn into urban area. Since the first railway which later turned into boulevard was built in the west, during this period, the later road system and city pattern were also influenced by the introduction of railway. It as an opportunity started the development of that area.
Social life is relatively prosperous in the former Yugoslavia, with modern and perfect facilities, diverse recreational and public spaces, high accessibility to the river bank, rich riverbank activities, and wide central activity areas on both sides of the river. After the war, some public spaces and public buildings are occupied or destroyed, such as the functional change from recreational green space to cemetery, resulting in limited social center on two sides. Besides, river bank has also been occupied by construction development, private use or wildly plants and bushes lacking maintenance. The vitality centers in both side decrease their active range, and there are less connection between them, gradually become separate system.

As everything that was viewed as "meaningless and less important" was left untouched during the reconstruction after the war, general open spaces and non-religious, non-public functioned buildings are still stayed in ruins or of poor quality, which gives the potential to new improved public spaces.

Buildings and spaces with important historical significance should be valued because they are the places where historical events occurred and where people gathered in the past. From spatial aspect, they are important nodes/landmarks in the system of public space. From social psychological aspect, they are carriers on which public memory formed.

If one is seriously damaged and there is no special public significance, it can be transformed into a new functional space servicing the surroundings.
Nowhere is the importance of appropriate development more evident than in the historic neighbourhoods (Fig.36) that form the very heart of the old town, these old neighbourhoods reflect the character of the city formed during the Ottoman period, and remain an inseparable part of Mostar’s historic image (Palić, & Siravo, 2004).

**Reconstruction of Old Bridge**

1) To quarry stone from the same mountain as centuries ago (local stone tenelija in Mukosa quarry).
2) Rebuilt using the same technique as then. Some old pieces of the original bridge now lie at the public beach and serve as places to sit (Beijaert & Mačkić, 2014).
3) Bridge ruins/stones lay out on the bank of the river, they appear to blend in with the landscape rather than call attention to themselves.

The presence of these stones (Fig.37) is not to force them onto the memory-industry, but to be used as a space (platform) for contemplation on the issues of memory and forgetting through built form, and in this specific case an unintentional memorial. Through their presence and representation, these stones have an inherent value for understanding the temporality of memory (Krishnamurthy, 2012).

**Government’s attitude towards heritage in reconstruction work**

In the reconstruction work of Mostar, besides necessary public infrastructure and buildings, obviously, the government paid special attention to the places and constructions with both functional and historical value. The Old Bridge would be the most remarkable and representative one. Over the centuries the Old Bridge has taken on the role of a familiar landmark and a physical biography both for the city and the people (Krishnamurthy, 2012). More or less, there are extra profit brought by the reconstruction of the Old Bridge, including but not limited to:

1) connection of pedestrian network
2) tourism economic profit
3) historical value as world heritage
4) symbolic meaning of peace, as a way of conveying spirit

Despite some disputes on whether the Old Bridge really meet these value, the government still has a great interest on pursuing multi-profits mentioned here. Thus the design work on the heritages and public spaces would be more supportive by government if also show concerns on these values and profits.

**Memory Carriers Analysis**

The memory exists in the carriers like place, activity and symbolic elements. By analysing key words of the memory in these three carriers, the memory chart (Fig.38) is made to show the distribution and transformation of memory along different history periods. Large amount of print, electronic and media materials are referenced first to select memory key words and then to mark them on the map (Fig.38, Fig.40, Fig.41).

From the memory chart, the appearance, disappearance and transformation of a kind of memory and the time help better understanding the importance of that kind of memory and the specification of a certain period or time nodes. By comparing the marked maps, there is a obvious look that those memories mostly distribute along the rivetbank, boulevard and promenade where hold stronger potential when talking about memory in the design part.

While actually the restoration of the collective memory is not simply attached to the places and objects (buildings, squares, landmarks, etc), but also attached to the relationships between them, it is about how people understand the objects and the environment by, for example, spatial connection, routes and movement (DeWolf, Girani, Sinatra, & Sirkis, 2014). Kevin Lynch (1960) mentioned the theory of urban legibility that a vivid and integrated physical setting, capable of producing a sharp image, plays a social role as well, it can furnish the raw material for the symbols and collective memories of group communication. Thus the restoration of memory here also ask for the attention on original relationships between these memory carriers, like spatial pattern, eye-level image and people movement.
Fig. 39: Memory about place. Figure source: author. Data from: photos by author, [http://www.cidom.org/](http://www.cidom.org/)

Fig. 40: Memory about activity. Figure source: author. Data from: photos by author, [http://www.cidom.org/](http://www.cidom.org/)
Division Situation Analysis

Even in the early time, Mostar people from different religions and ethnics mixed together in mahalas, then with the newly development of west Mostar, residents in the city had further mixture. Mostar used to be the paragon of tolerance and was known as the city with the most mixed marriage. During the war, people of minority ethnic on both bank were forced to move to the other side to stay with their ethnic. After the war, the segregation in ethnics are obvious.

Today, Mostar’s elite high school site on the former frontline. Students from both sides of the war have the opportunity attending high school together, sharing some classrooms, but never be together. The final four of the timeline show, Mostar is occupied by the United World College as an international school.
**The New York Times**

**In a Divided Bosnia, Segregated Schools Persist**

26 Jul 2018

**Fig.43** News about Mostar segregation (top)

figure source: https://www.bbc.com/news/world/europe-49930361

**Fig.44** Local thought about division (bottom)

figure source: author


**Fig.45** Local attitude towards memory, heritage and public space

figure source: author


Memory and form: An exploration of the Stari Most, Mostar (BIH) (Krishnamurthy, 2012).

Is Mostar still a divided city?

As soon as I leave home I think of pre-war Mostar, see my garden used to be filled with roses, and see a place for garbage.

Today they want to make a symbol of moral bridge. I don't know why. Old bridge has no purpose, by itself connecting two parts. People are jumping in one of the windows, taking photos etc., losing sights of its X. I changed.

There is no shared public space where people of different ethnic groups can come together, the only place where students of different activities come across each other is the market.

How often do you think back on pre-war Mostar?

At All The Time

C2

Do not answer

How often do you use the public space?

At No parking

C3

At myenger walks disposal

C2

Do you stay in the same city at all times?

C2

Do you play games or music?

C2

Do you feel at those public spaces?

At Not comfortable

C2

At myenger walks disposal

C2

Difficult maintenance of cleanliness

C2

Do you think that heritage can serve as a bridge to make the society work again?

Yes, it is, heritage can be a bridge, and should serve to bring people together. Other parts of the heritage are most divided by Bosnian Croats.

Past night. There is no such program about being divided, but some tourists see some monuments and explore some areas and so forth. But it is such a thing that is going to get better.

I am going to Mostar for a week and next year and put it in the plan. I am sorry to see someone's hair cry and cut off their hair (because of hate or love), but I am not one of them. AUTHOR'S NOTE. No, I don't have a map.
The central neutral zone

The idea first came out in 1996 that dividing a Central Zone as a jointly administered municipality, the only politically shared space in the city, hoping the Central Zone could foster positive communication between the two sides and provide a physical starting point for a reunited city. After long intense discussion about the area of this neutral zone and buildings included in, finally the Rome Agreement is signed that the Central Zone should be seen as a jointly controlled territory and a shared space by two sides. Thus this zone is of great importance as the potential space to pursue for an equal, shared and cohesive area encouraging reunion.
The separate municipal systems on both sides also contribute to the segregation situation, not only do they have separate schools and religious buildings but also respective water supply, electrical and medical systems. This division-support municipal policy would just make people increasingly getting used to the division situation.
By a series of current condition mappings, the distribution of hot gathering place currently (Fig.55) and in the past (Fig.56) could be summarised. Following are some conclusions from those mapping.

Vitality change
Public Space in the past has higher continuity between two sides and higher vitality along the whole river bank. Nowadays, the public center in east bank is still the Brace Fejica Street, while public center in the west bank has lower vitality along the boulevard.

Lower continuity
Physical configuration of the street network can directly control the accessibility and guide people flow in the city. Continue public spaces can work as another layer of network to lead to the inclusive public areas in the city, also has the power to integrate or segregate.

Different vitality in two side
The city center in East has smaller scale, but do because of this, it takes better advantages of mixed-use spaces and functions, a street with shops, markets, cafes and small squares will be active throughout the day, including the late evening hours. While in west public center, single-use urban spaces are only active at certain hours of the day.

Use of ruins
In the south part of the river bank, some activities start on the base of the leftover from the war, showing the trend to create new places and activities with physical environment change.
The boulevard and the river bank are two obviously recognized physical border lines. Even though there is no strict involvement relationship between physical division and mental division breaking the physical border do have effective help to mitigate mental division as an early step. Although these two border lines are different in many aspects, they actually hold double potential and can work together as one reunion, which also follows the original idea of establishing the central neutral zone as the shared space and physical starting point of reunion.

Two different border lines:
- use time: difference in seasonal use
- activity: boulevard is more for events like collective activity; river bank more for private use
- fabric and atmosphere: difference in urban/man-made and nature fabric and atmosphere

Two similar border lines:
- important role in city structure: they acted as backbones in different periods of the urban development, together form the strong structure in the middle of the city.
- as border lines: both experienced the transformation of turning from gathering lines to physical division lines and to mental division lines.
- carriers of memory: layers of events and memories deposited on them.

Two potential lines as one reunion:
- break the border: both of these two lines were hot gathering spot in the past but witnessed their decline after the civil war. Breaking the border is for people to get out of one's religious and ethnic territory and enter in the border of other.
- collection of collective memory: many carriers (various spaces, activities, constructions and debris) of collective memory area on these two lines, making it a more practical site to bring back memory.

Potential

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Because of the restriction on geographical condition and different develop area in different periods, layers of urban fabric had been erased or overlayed during the long history and finally present the pattern it has now. As mentioned before in the potential part, the two border lines this project working on are of different environment atmosphere. This point is also supported by the pattern difference. Taking the Noli (1984) map as an example, analysis of urban pattern in the working area is made, based on the previous theory study about public, semi-public and private spaces. In this map (Fig 61), public space refers to naturally formed or man-made spaces with some frequency of use that is accessible to everyone; semi-public space refers to space gathering people but belonged to private stakeholders, usually ask for an amount of expenditure, like outside coffee seats; private space refers to spaces owned by or only accessible to a certain group of people, like private garden or fenced community sportground.

Besides the pattern map, landuse map (Fig.62) is also made. Then by combining this two maps, three types of patterns (Fig.64) can be abstracted to describe the urban fabric in the working area and also the whole city:

1) mahala pattern- a evolution from traditional mahala housing complex, mixture of residentil, public serving, religious and recreational function. This pattern mainly distributes in the east bank and partly west.

2) river bank housing pattern- a typical housing pattern along the two sides of the river from early century, showing the transition from private space to public space, from indoor to outdoor.

3) morden block pattern- a newly developed pattern during the last century only distributes in the west side. This pattern consists of large single-fuction blocks dividing by traffic roads.

This analysis helps to better consider the overall atmosphere and scale of designs on two different pattern border lines, as boulevard for pattern3 and river bank for pattern2.

Attitude towards Monument & Memorial

While most survivors and observers agree that memorials should be created at the sites of mass atrocities, there is much discussion on the purpose they should serve. Should memorials be for sake of the victims? Or should they be used to educate visitors and foster reconciliation with the surrounding communities? (Irwin & Šarić, 2016)

This is the question the post-conflict areas need to reflect. Here, the attitude of government and locals towards monument and memorials is analysed based on the fact in Mostar and some previous studies made by Center for Nonviolent Action (2016) in the region of BiH.

Omaska survivor Pervanic said that in recent years there have been an increasing number of smaller memorials created by Bosniaks in Prijedor, but that many of them are religious in nature and use divisive language (Irwin & Šarić, 2016). The truth itself that different religions and ethnics build the monuments but tell the story in their own different way is also an act forcing division. It is stressed that the messages we create by building these memorials are so important, while memorials are almost always politicised in Bosnia, which doesn't have to be (Irwin & Šarić, 2010).

Like The Cross (Fig.58) built in 2000 in Mostar on Hum Hill and the high bell tower church in the west side, both of them actually show an implicit but inevitable control of the whole city, since they can be seen in every corner of the city.

Pervanic said that memorials should be “living monuments” which educate people about what happened there. The purpose of monument and memorial establishment is to cherish the memory, but it should be more the future-towards warning and vista.
Fig. 61: Urban fabric map source: author

Fig. 62: Land use map source: author

Fig. 63: Pattern distribution map source: author

Pattern 1: Mahala
Pattern 2: River bank housing
Pattern 3: Modern block
Pattern 4: Housing
Pattern 5: Public housing

Fig. 64: Pattern conclusion figure source: author
Nevertheless, other factors confirm that the meet of two different backgrounds should be treated very carefully either as monument or as memorial. Liska cemetery (Fig. 59) is the only mixed-religious cemetery in the city till today located near boulevard in the west, all belong to Mostarians who were killed in 1992 during the confrontation with the JNA and Serbs. But then when Bosnian and Croatian fight, things changed. In Feb 1997, a group of about 100 Bosnian crossed the boulevard and entered Liska cemetery to visit Muslim graves on the occasion of a festive day. In the end 2 police from Croatian side did a violence that in the group one person was killed and at least twenty people were wounded. In 2013, a bomb blast destroyed a monument (Fig. 60) to fallen soldiers of Bosnia’s Muslim-dominated wartime army on the boulevard. It was just one year after it established, and next to it is a memorial in honor of Croat veterans of the conflict which was built in the same year.

**Living monument**

All these information provides the public demand on monument and memorial, but it should be treated in a not aggressive way nor conflicting language, maybe the “living monument” could be a gentle and neutral way acting as a backward and forward leading force, a monument for memory of the past life of the public.

The living monument does not simply show the fact of war result nor any specific event/deceased targeted, it should be open enough for everyone to have dialogue with it. In this project, the monument is better related to the collective and personal memory and by recalling and rethinking of the past, living monument is proposed to motivate dialogue in the present and arouse ideal future.

*Fig. 65 Monument in city*  
*Source: Mortal Cities: Forgotten Monuments (Mackic, 2016)*

*Fig. 66 Boulevard panorama*  
*Source: author*
As concluded in the previous text, the importance of boulevard lies in: 1) importance in urban pattern: It is the skeleton of modern development in the western part of the city; 2) importance as former gathering line and now border line: It experienced the transformation of pre-war gathering line to front line during the war and mental border line after the war, thus it is crucial to achieve the backward transformation to gathering line again; 3) importance in carrying collective memory: With the development and break out of the war, the city experienced prosperity and decline, carrying the multiple feelings of joy, fear and sadness.

This part starts with the analysis of current condition (Fig.66, Fig.67), trying to explore the spatial potential.

The Need of mixed functions and audiences
Most of what we take in visually is at eye-level, and in relation to buildings, it is primarily the ground-floor level that catches our eye (Gehl, 2013). Therefore, which space people want to enter in and what activity would happen is also related to this eye-level facade. Inspired by the introduced research on active or passive facade in ‘How to study public life’, here the transition of land use and building function on the ground level is analysed along the west boulevard and the whole-day active pedestrian street on the east bank (from the Old Bridge northward to Titov Bridge) (Fig.68).

Compared to the boulevard in west, pedestrian street in east is obviously a whole-day hot gathering place for people from that side. One reason for the prevalence on the pedestrian is the mixture of building function and space use. Most of the residential building has their facade as public function, and the street also inlove the space like small squares and outside coffee seats. While maybe because of the blocks on boulevard are usually single functioned. Jacobs (1992) points out to the advantages of mixed-use spaces and functions in a city, by comparing purely residential areas to those where the ground floors of residential buildings are used as shops. While single-use urban spaces are only active at certain hours of the day (in residential areas: mornings, after-work hours, and early evenings), a street with shops will be active throughout the day, including the late evening hours.

Another reason is that fence are placed properly around private space to provide the sense of transparency, while some of the places in boulevard are enclosed by wall. Besides, the one in east is car-free pedestrian, where only belong to people themselves. Fred Kent had the saying that if you plan cities for cars and traffic, you get cars and traffic; if you plan for people and places, you get people and places (Kent, 2005). Lack of active public spaces and attractive environment make the boulevard only a quick passing road.

As a conclusion, the building function and space use on boulevard should be more diverse and mixed. The spaces should be designed for a better experience for people. Conflict in Cities and the Contested State (2012) wrote in their website that people’s motivations for sharing space can be spontaneous and sharing can take place at many levels including shopping, the accessing of services such as education and health care, and cultural events and entertainment. Thus mixture of functions can provide more opportunities to meet people’s different demands. Combined with current landuse of Boulevard (Fig.67), abandoned areas, parking lots, existing public spaces and ruined constructions are the potential areas.
Fig. 69: History change of Boulevard
figure source: author

Fig. 70: History change of Boulevard typical buildings
figure source: author data from: http://www.cidom.org/
History change

History change of the boulevard (Fig.69) showed the change of boulevard pattern and the review of past images.

1990: Narrow gauge railway CIRO was built in the early 20th century to connect Sarajevo and Konavle, and Mostar is an important station on this line. The construction of this great railway is undoubtedly the beginning of the boulevard story. The newly built buildings along the boulevard in this period are railway related public buildings, big hotels and new style apartments and houses.

1970: The city got a new railway on the east side, and CIRO lost it function. With the industrial development of the city, the boulevard witnessed its second prosperity, large amount of new public buildings, gardens, parks, squares and sportgrounds made it the most popular street in the city.

currently: most of the buildings on the boulevard were damaged to varying degrees during the war. The reconstruction work is still going on but many abandoned public spaces had turned into parking lots and the boulevard now is just a quick-passing traffic road.

Even though the once significant railway track left nothing on the boulevard right now, the street pattern (Fig.71) was still somehow transferred based on the original pattern. It might also be regarded as a way to leave traces.

Recently a group of institutions including Tourist organization, “Herzegovina Bike” Association, Municipalities, Tourist board, and Dubrovnik Neretva County Regional Development Agency already worked together for an idea that to revitalize this line as a bicycle route in order to preserve this railway line as a historical heritage and to develop new tourism service (Fig.74). By doing this, the trail will connect all attractive historically important building and landscape scenes together.
This project propose to transform the current boulevard into a pedestrian boulevard with public traffic line from the Franciscan church crossing upwards till the old train station crossing (Fig. 75).

The possibility of this transformation:
1) Based on the landuse map, it is mainly residential areas, education areas and public spaces along this road, thus has a less demand in motor vehicle use.
2) The city scale is relative small, the city is suitable to build public traffic system. The construction of public traffic line on this boulevard is a stepstone for the improvement of the urban public transportation system in the future.
3) The single vehicle line is mainly for public traffic like bus, but it might also be used by private motor vehicles in rush hours to share traffic pressure from other roads if it is necessary.

The benefits this transformation can bring:
1) It better connect the public spaces along the boulevard. There would be pedestrian streets on both west and east bank, connected by two pedestrian bridges and a vehicle-pedestrian mixed bridge. A more pedestrian-friendly walking system would be formed in the center of the city.
2) Following the "CIRO bicycle route" project, this transformation would creat a fluent bikeway towards the old train station.
3) The boulevard would be again seen as the backbone in the west bank urban structure to re-play its historical, cultural and social role.

Based on original track pattern and current pattern, the proposed street pattern extends the middle green belt to both sides of the road to creat the area for pedestrian passing and public use (Fig. 76). Current sidewalk on the west side would be turned into a bikeway, and extra room would be taken from the green area on side (A-A) the square (B-B) as a new sidewalk.
River bank

As concluded in the previous text, the importance of river bank lies in: 1) in urban pattern: It is the root of city development, it is the soul of the city, all bridges on it form the symbol of the city; 2) importance as former gathering line and now border line: Like boulevard, it also transferred from gathering line to border line, waiting for turning back; 3) importance in carrying collective memory: This is especially for the memory during the civil war cause all bridges were destoried and people used temporary bridges to cross the river and hide in the caves along bank.

Seasonal Use

Different from the boulevard, the use of river bank is largely influenced by seasonal change. Many places on the bank are not accessible during Autumn and Winter due to the rise of water level (Fig.77), water related activities also stop for the unsuitable weather.

The tradition of diving (Fig.78) from bridges into Neretva River dates back to 1566. The first recorded is from 1664, and the competition started in 1968. Even after the war when the Old Bridge was still demolished and before there was a stand-in bridge, there was a springboard from which people could dive into the river. But this activity would only be active for 5 months in summer.

Because of the special Karst landscape, river bank is characterized by caves, sinkholes and underground streams. Those caves (Fig.79) are also used by people in low water level time and as short time shelter during the war time to hide from sniper shot.

Temporary bridge

During the war time, all the bridges in Mostar on Neretve were damaged in different time. There were 6 temporary bridges built in war in total, two of them were on the basement of ruined bridges (Fig.80), and the rest were newly built. They served for the transportation of food, wounded people, military equipment and escaping people.

During the war, the army from different sides both occupied high-rise buildings as sniper towers, thus any open spaces near the sniper towers would be taken. The river, river bank and bridges, which were lively public spaces before the war, all turned into horrible area that should escape from: people used to enjoy their life and scenery but turned to quickly pass those fragile temporary bridges. Private gardens along the river bank also turned into risk area, people sought for open spaces surrounded by building blocks to grow their food to survive, which is known as kitchen garden.

As mentioned in the previous text, the river bank area and bridges are quick passing area during the war. After the war, bank area are gradually reused by public and private. Ruins are left on the bank and vegetation occupied the bank, but by using remaining temporary bridge basements as new activity spaces, people are hoping and trying to reuse the bank area. The public should also realize the historical value of those remains and bring them back to people's view, otherwise they would be covered by vegetation in the future and erased from the public memory.
Fig. 82: River bank activity and visual element map source: author

Fig. 83: River bank accessibility map source: author

- sparse vegetation
- seasonal accessible
- entry path
- dense vegetation
- whole year accessible
- river bank platform
- swimming stair
- drain
- slope
- leftover basement
- infrastructure
- sight view platform
- ruined construction
- swimming
- fishing
- sunbath/leisure
- barbecue
- sports
- performance
- kayaking
- sight
- seasonal sight
River bank analysis conclusion

Combining the accessibility, activities and elements mappings, active places along the river bank can be classified into highly active group (whole-year active and with more kind of different activities and important elements) and active group (only seasonal accessible with limited activities and lack elements). Based on the analysis, river bank is currently partly active, there are some active spots distribute along the river. In order to enhance the vitality, two aspects are focused on:

1) more activities and spaces that can adapt to the seasonal water level change, bring new river landscape to the Autumn and Winter Mostar;
2) emphasizing the symbolic attraction of visual element as they mark the activity and collective memory.

Among all active spots, having bigger accessible space, most activities and diverse visual elements, the south part of river bank, Donja area, would be taken as detail designed site.

Current accessibility and activities along the river bank are shown on left (Fig. 82, Fig. 83). Besides, there are also many visual elements on the bank. Those elements are activity related (like diving platform) or memory related (like temporary basement). Even though not everywhere on the river bank is accessible, there are platforms along the streets providing places to have a view of the river, bridges also share the same function as platforms. From those platforms, activities and visual elements would act as symbols to attract people moving from one spot to another.
(Mental aspect) The public landscape would involve the narrative reflecting to the city history and public memory to help public rebuild the connection and memory of the city. The way showing the narrative need be easy to understand, by which people can quickly evoke the memory and history and further bring some thinking.

(Use aspect) Traditional and new activities will keep attracting people and as these experiences are repeated, public spaces become vessels to carry positive communal meanings, the connections between individuals begin to be rebuilt again (Carr, Francen, Rivlin, & Stone, 1993).

(Physical aspect) Public spaces should be easy to get to each other, locals should have abundant and accessible public spaces to go to. In a long run, the continuously connected public space network would gather and lead people to step over the mental division line.
Here, a more detailed chart shows the spatial instruments that developed from the 3 aspects principles. Strategies, principles and spatial instruments form the toolbox of this project.
Vision

Fig. 87 presents the general application of principles on different proposed spots. It can be used as a guide to understand the interventions in the city. It also shows the priority among all interventions as most spots on two border lines should be constructed in first step. Some of the interventions are applied with same principles, then spots constructed in 5 years are regarded as the test points and example for the other spots.

According to the conclusion drawn from the current condition analysis, high quality public spaces are very rare in the city (Fig. 88). Some projects are planned by the government and already under construction (Fig. 89), together with which, this project try to contribute to the current public space network from mental, use and physical aspects.

Besides, as shown in Fig. 89 and Fig. 87, there would be two most important public spaces groups located in the city: the Spanish square and old station area group, and the Old Bridge area group. They are important in both urban structure and social aspect, they are located on two backbones of the city and own most and intensive high quality public spaces.

Fig. 87 Anticipated public space network in the future
Map source: author

Fig. 88 General city morphology
Map source: author

Fig. 89 Proposed interventions by project and government on current public space network
Map source: author

- construction of shopping mall under construction
- construction of stadium under construction
- reconstruction of Open NAM under construction
- proposed interventions
- government planned hotel industry (under)
- government planned railway
- government planned sport boulign
- government planned commercial boulign
- groups of public spaces that share same atmosphere
- and are functional related
- current public gathering
Based on the proposed strategies and principles, both the current transport network (Fig. 90) and the public space network (Fig. 87) would be improved. The transport network would be more pedestrian friendly and guide people to the central area of the city. In the pedestrian network, there are three north-south backbones: the boulevard; river/river bank; the Old Bridge pedestrian street on east bank, connected by three pedestrian bridges and four vehicle-pedestrian mixed bridges. Public spaces are distributed along the transport network and centralized distributed along the pedestrian network.

In the following part, three points are chosen from different public spaces groups as examples: one on boulevard, one on river bank and one in between. They are also chosen by different urban pattern: morden pattern, river bank pattern and mahala pattern. These drawings would present how would principles be applied to the ground. Different principles are chosen from the toolbox under three aspects based on site conditions to form different programs for each sites. Together with the spatial instruments to explain, the drawings depict the spatial transformation and its proposed influence to surroundings. These are the middle scale proposals between the large area vision and detail designs on sites.
Example point 1: parking area

The original structure of the beam is kept for visual and hanging plants. Material-like brick recycled from demolished buildings are reused for pavement of the path.

Example point 2: neutral area

Use of material

Interact with ruins

Memory gardening

More public space

Demolished ruins

Currently, there are some pavilions on the sidewalk selling goods. The ruined construction would provide a place for a small market.

Sports space

It is now a strip-shaped parking lot, but it is better used as public space to attract more people to the river bank and across the bridge.

Use of material

Young generation target

Higher accessibility

More public space
Room with vegetations to create public and private seating place.

Platforms on different height and direction provide the place to have a sight view of the old bridge area panorama.

The ruined building is repaired and a new construction is added to the roof part. This building contains a big open space that can be used as exhibition or perform area.

interact with ruins
more public space
complete missing piece

Fig. 94 Example point 3: Old Bridge river bank area figure source: author

Fig. 95 Temporary bridge change process figure source: author; Photography Jakub Hadžić
The remaining basements of the temporary bridges and large area of flat and open river bank characterise the Donja area river bank. Fig. 95 shows the bridge story during and after the war. As war-related heritages, those remaining basements can speak as a symbolic language to tell that historical period. Here, one of the earliest and best kept bridge basement is reused to rebuild the Bridge Kamenica.

The newly built bridge can not only improve the accessibility between two banks as part of the proposed pedestrian network, but also speak as a monument to reflect the past and future. Two sides of the bridge are fenced by fluctuant wooden boards, which would bring different atmosphere:

1) entrance part is fenced by boards higher than eye-level, reflecting the war atmosphere when people had to escape through the temporary bridges decorated by cloth to hide from snipers.
2) middle part is fenced by low boards that allow people to enjoy the panorama of riverscape, reflecting the subsequent peace atmosphere and ideal active river bank.

More possible paths are explored to enter river bank area, and other ruined constructions would also be used to creat public space and place for domestic water purification.
grid boardwalk along the river bank, providing comfortable walking experience and also allowing vegetation grow through it.

boardwalk along the slope river bank, providing new accessible paths to the site and platform on lower level.

The temporary bridge in the past would be rebuilt again to connect two islands of the land.

Fig. 95 Temporary bridge change process
Figure source: author, Photography Jakub Hadžić
Detail Design-The boulevard
Fig. A Pedestrian boulevard impression
Figure source: author
1. Hotel
The hotel is restored from ruined building and transformed into a hotel, aiming to serve cyclists from the CMD track, providing a place to stay near the old station.

2. Youth center theater
The theater is restored from the remaining part of ruined Hotel Wegg, just besides the Youth Center, is designed as an indoor theater attached to the Youth Center.

3. Old train station museum
The remaining building is restored and designed as a museum about the history of CMD railways.

4. Museum gallery
The gallery follows the original plan of train station buildings, providing a long corridor for different exhibits and also place for exhibitions.

5. Memory planting lab
The planting lab is a reconstructed building of Hotel Wegg, connecting with the Youth Center theater; it is designed as a place to plant people’s own medical-use plants.

6. Debris garden
Ruined constructions are kept in this park forming different rooms together with planting beds. One of the ruined buildings is accessible and provides a high platform for views.

7. Theater square spring
A small square on the boulevard providing space to rent.

8. Boulevar playground
Playgrounds with sand area and entertainment equipments for kids.

9. Boulevard open grassland
Open grassland in the middle of the boulevard with terraces that people can lay down.

10. Hospital garden
Transformed from the parking lot of hospital, the garden is used as a public rest area with an attached house. The old parking area is moved to another area nearby.

11. Ruined building cafe/theater
Ruined buildings transformed into indoor public spaces without roof.

12. Square
Transformed from a parking lot, the square follows the pattern of parking lot.

13. Garden
Transformed from a ruined area, occupied by vegetation.

14. Playground
Transformed from a parking lot, the old parking area is moved to newly placed area nearby.

15. Church public square
Transformed from the parking lot of church, the square is designed as a public open space.

16. Boulevard sculpture
At the beginning part of the boulevard, sculpture of CMD railway is placed to introduce the history of the boulevard.
Fig. 101 Old pattern transformation
figure source: author

Fig. 102 planting scheme and pavement pattern on boulevard
figure source: author
Based on the analysis of urban pattern, this big area consists of two different patterns: modern pattern on the west side and mahala pattern on the east side divided by the street in between. Thus following this pattern atmosphere, the west side is designed as big open square including the theater and museum, the east side is designed as garden area divided into different rooms by remaining constructions, reflecting the old mahala gardens. The area in between is for quick transport, including the bikeway connected to old CIRO route.

Even though the area is designed into different patterns, great sense of transparency is created for transition between different atmospheres and for demand of quickly passing. Instead of blocking the transport area in between, the museum and planting lab provide various accesses to go through and see through by opening the ground level and using transparent materials.
Fig. 105 Old Station museum
Figure source: field

Fig. 106 Old station square eyelevel impression
Figure source: field

- wooden seats
- museum glass roof
- bike route
- steps
- grassland
Old Train Station Museum

The building is restored and keeps the original structure of the Old Train Station. As an important stop on the new CIBO cycling route, the station is proposed to be transformed into the museum of this railway. The building partly keeps the natural growing vegetations as a memory and the transition of indoors and nature. The museum consists of a series of continual rooms as the exhibition area and a long hall in middle as the nature area (Fig. 104). As the roof of the station was destroyed during the war, the building now use a glass roof to cover the exhibition area.

An extra gallery is attached to the station following the original pattern of station building groups.

Memory Planting Lab

The building is reconstructed to follow the original pattern and reform the profile and facade of this old building (Hotel Wregg), whose remaining part is proposed to be the indoor theater of the Youth Center. Thus this building also has an entrance connecting with the theater. All facade is transparent using glass or steel structure and has multiple entrances, people can easily go through or see through this building.

The planting experience is both for encouraging people from different backgrounds to participate in the design of landscape and establishing a historical memory monument by abstract symbolic language. People are invited to pick the seeds and grow their own flowers in the planting beds. All species are indigenous species used for emotion treatment from the old time. Each species represents an emotion based on the medical function of that species and all species are obviously different in figure. By planting the specific species in different beds, people also plant their precious memory in a specific period as different beds represent for different great history periods. When the planting beds are filled with flowers, each flowers reflect an indivial memory and the overall flower landscape reflect the collective memory.

Fig. 111 Old station interior hall impression
figure source: author

Fig. 112 Memory planting lab impression
figure source: author
This new cultural and recreational center also consider the proper combination of public space for inhabitants and economic institutions run by organizations or individuals. The mixturre of different functions can invite various stakeholders to activate this area and support the sustainability of economy.

1. Youth Center: A hot place mainly for young generations. The stakeholders run cafe and pub in the Center, but also cooperate with other organizations to hold a variety of outdoor and indoor performances.

2. Hotel: A hotel mainly serve visitors travel along the CIRO railway, a best place to stay and know more history about the CIRO. The hotel and its affiliated garden are restored from the ruined constructions following the original pattern. The stakeholder can cooperate with the Old Train Station Museum in the future to stimulate the tourism.

3. Memory Planting Lab: A planting lab that invite the public to experience the medical-used flower planting and record the collective memory in the past. The stakeholder would provide relative flower knowledge and planting guide to the public and also help them to harvest and make their own product of flowers.

4. Old Train Station Museum: A museum that educate the history of CIRO railway. The stakeholder is in charge of the exihibition in museum and also help hold extra exhibitions in the outdoor gallery.

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Reflection

1. The relationship between research and design: Whether the design answer the research questions?

2. Whether the design share the big goal of the graduation lab?

3. Whether the design is practical and reliable?

1. The relationship between research and design: Whether the design answer the research question?

Based on "Research by design" process, the research and design parts do not always have clear hierarchy but support of and get feedback from each other. Generally there are two parts of research in this project. The first part is research, consisting of methodology framework and theoretical framework, works as the theoretical foundation of the design part. The methodology framework clarify the supportive relationship between research and design during the whole process. The theory background indicates relative directions to focus based on existing theories under the same post-conflict background. The second part of research includes site relative division problem analysis, history analysis and current condition analysis. This part helps to a better and deeper understanding of the challenges and working objects, exploring a promising working area and also strategies. All the potentials come from conclusions and the strategies work as the toolbox to guide and support the follow design part.

The main research question is: How can the historical and social value of public spaces in Mostar be enhanced by landscape interventions to mitigate the mental division between people? In this project, public spaces in working area are distributed. This pedestrian network will guide and support the follow design part.

1. The relationship between research and design: Whether the design answer the research questions?

The lab focuses on the river in relation to the city, starting from the war because the war was violent and extraordinary spatial condition that significantly changed Neretva, Mostar, human existence and overall narrative about the city. In the research and design process, the lab will observe Neretva as the living archieve of Mostar that can be used as a counter project to the processes of official creation of monuments and spatial narratives that are relating prewar, war and post-war Mostar, and as an entry into a design assignment that in itself will add to the living archieve.

This project share the perspective that regarding Neretva as a living archive, and extant the target area from river to a border area include boulevard. In this project, places, activities and remaining ruined constructions are seen as the carriers of memory,. With the appearance and disappearance of these carriers in the city, the city itself is an archive collect not only objects but also layers of stories and collective memories attached to the environment along the long history. The design intervention would make this living archive more active to the public and invite the public keeping adding their contributions to the archive.

2. Whether the design share the big goal of the graduation lab?

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3. Whether the design is practical and reliable?

Problems encountered during the design process?

1) The biggest intervention is the transform of pedestrian network construction. While looking towards the traffic network in the future, this intervention has a positive significance for the public transport network construction.

2) As for the memory planting, it is still controversial to be a practical proposal due to maintenance and florescence.

The original idea is to invite people to plant specific flower species along the boulevard to represent their personal memories, and the blossom scene would show a collective memory landscape. Finally due to different challeges, this memory landscape would be narrowed in a reconstructed building at a most popular site on the boulevard. Different native flower species are choosen by their therapeutic value in dealing with different emotions. The prospect to show the collective memory when flowers bloom would not be shown in a best way because of different floroscence, but as a way to create new public space and invite people to interact with the new landscape, this small memory planting landscape can play the role as memory moment to gather people.

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1. How to conceptualize public spaces in Mostar for this project?

As explained in the theoretical background part, the public space in this project refers to the places where people can spontaneously come and experience public and individual activities in their daily life, including open spaces in a brand sense and also semi-public spaces under roof like coffee seats along the street. Specially in this site, the Neretva River and bridges are also seen as public spaces as they are also public gathering spots.

2. How to understand the mental division through public space analysis?

The mental division is presented in the ethnic distribution and public service system distribution. Bosnians and Croats are distributed in the east and west banks and have respective public service institutions. But the mental division can also be shown in the use of public spaces. Compared with the past, people are less actively gather on the boulevard, which was the front line during the civil war. From mental aspect, recalling city history and collective memory can tie the public again with their city and further bring them some thoughts about the current division and probable future.

3. How to make use of the remaining historic heritage elements to bring history and memory to the public space?

From physical aspect, transport network and public space network in the city are improved and more continuous. From mental aspect, recalling city history and collective memory can tie the public again with their city and further bring them some thoughts about the current division and probable future.

4. How could the designed public space contribute to a more cohesive society? How can it contribute to tackle the existing mental divisions in the city?

According to the strategies, the objective is achieved by three aspects. From physical aspect, transport network and public space network in the city are improved and more continuous. Public spaces would guide the people flow to meet. This is also the most basic aspect of this project. From use aspect, the cleaning and reusing of the ruined area make people reduce the fear memory arising from the ruined ground scenery but regard the ruins and heritages as new active public spaces. From mental aspect, recalling city history and collective memory can tie the public again with their city and further bring them some thoughts about the current division and probable future.

Conclusion-Answer of sub-research questions

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