

Graduation booklet - Gaila Costantini

*Intermediate landscapes:
public spaces of experimentation.*

Unsa University campus, Sarajevo.

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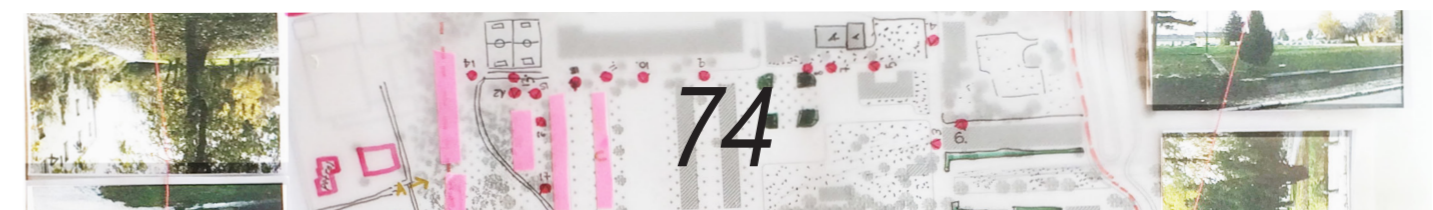
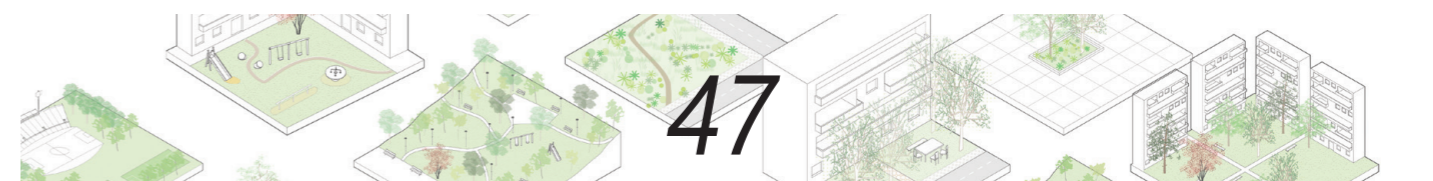
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// 01 Fascination: the starting point.

Being humans territorial animals for definitions, they will always embark themselves into disputes. Disputes over land, primary resources or a mere ideal characterize world history, shaping our territories. According to the philosopher, sociologist and historian Michel Foucault¹ the power relations that make up our world are established through war at a given historical moment. Therefore, as long as the human specie will be alive, wars will be fought, by governments and by people and post-war landscape will be left behind. Nowadays we are overwhelmed by images of conflicts of different natures from all over the world. When conflicts occurs only behind the screen of our living room Tv, the idea is easily avoided, it's far, it's undefined, tragic of course, but seemingly does not influence out daily routine. But when, intentionally or not a contact between the two realities occurs the emotional involvement sparkles.

This is what happened to me, and when my interests (and love) for the Balkans and their culture begun. As a child I grew up on the border territories between Italy and Slovenia where I experienced a mix of dialects, languages and cultures. While my childhood years were happily rolling by, tension in the former Yugoslavia was escalating, leading to the Yugoslavian wars. Only few kilometres away, the Slovenian Independence War was being fought, a small hint of what was soon to come, a tragedy that would storm the Balkans for the next 10 years. The Yugoslavian wars brought with them more than 200.000 casualties and 4,000,000 displaced people² in the worst burst of violence in Europe after WWII.

Leaving close to the border and attending a Slovene school I remember "new" kids joining my school. They were mainly Bosnians that fled their country with (or without) their close family. I was aware something bad was going on, I heard a lot of talking about the war but,

due to my young age, I did not understand the dimension, the gravity nor the proximity of these events. The idea of a war was to me something absurd, that had no exact shape nor size and I can confidently say that my only contribution had been borrowing my toys.

After 20 years now, I understand that this indirect experience of the war had somehow remained in the back of my mind and shaped my interest as a landscape architect. Especially during the last two years of my master studies, I often found myself reflecting on the consequences that the different type of conflicts bring with them, both on the territories and on the people.

Looking back now, when I naively chose Sarajevo as the site of my research and intervention, I had no clear idea of what I was looking at. I was questioning the role of a landscape architect in post-war scenarios and how we could intervene in a scarred territory. I knew the complex set of events that occurred there during the Bosnian war and the particular kind of conflict that the city faces, a Siege, that has in itself a strong spatial connotation. What I had not considered was the fact that almost 25 years had passed and the city was moving on, in its own way.

Early in my research I had to face several unexpected notions that diverted my focus and led me through a path of discovery of a city with a rich historical and social background extending far beyond the " recent" war. I can confidently say I had the luck of having the possibility to get to know Sarajevo. Through literature, poems and visits I explored one of the most fascinating and rich city I have ever encountered.

Even if the outcome of this research has nothing to do with my initial intention, I would not change a single step of this path , and I hope my work can give a small insight and understanding of the " uniqueness" of this city.

1. Michel Foucault was a French philosopher, historian, social theorist and literary critic. His theories tackle the relationship between power and knowledge, and how they are used as a form of social control. He always presented his work as a critical history of modernity.

2. There are vast discrepancies in the casualty figures cited by different sides of the war and international sources. I am here reporting the most commonly mentioned figure and an estimation of The International Center for Transitional Justice. *source:* <https://www.ictj.org/sites/default/files/ICTJ-FormerYugoslavia-Justice-Facts-2009-English.pdf>

// 01.2 Premises and research questions.

When approaching and designing into an area with a violent past of inter-ethnic tension there are several issues to be tackled that do not only relate to the practical sphere but also to the moral one. As designers we're called to take up a very specific position regarding the memory of a traumatic past. Even though in Sarajevo 25 years passed by from the 1992-1996 Siege of the city, but tensions between the different ethnic and religious groups remain really present.

Moreover the city itself is scattered with official and non - official memorials. Monuments, graffiti and the numerous cemeteries always at sight act as a constant reminder of a traumatic past. Moreover the city of Sarajevo is itself divided into two entities: the Federation of Bosnia and Herzegovina and the Serbian Republic by a "line", called the Entity line that act as a geographical reminder of the social division.

Walking around the city the different historical influences are clearly marked in the urban tissue, both in the built environment and the public space. This includes also a series of ruins dating from different historical times but especially from the Bosnian war. Some of these ruined buildings are deliberately kept, as a reminder, some of them are not renewed due to lack of funds or blurry rights of property.

Can these spaces with their complex layering of stories and meanings represent the starting point for an intervention aiming at the future of the city, its healing and moving on, but in the respect and observation of the traumatic events?

How does a designer need to approach a specific site, showing clear scars of a war and that has a strong (and often negative) image in the common memories of a society?

What needs to be remembered, what needs to be forgotten?

Is it appropriate a re-use of the existing damaged ruins as simple objects, almost monument or is it better to propose a new active use of the building?

Which one is the role of nature and vegetation in these ruined abandoned sites?

In order to address such specific and delicate issues it is fundamental to have a deep understanding and knowledge about the city we are intervening in, Sarajevo, its historical and cultural practices and influences. Therefore my whole research and design has a great component of site-specificity, that I retain fundamental for every landscape architectonic project.

The concept of the genius loci, the spirit of a place derives from an ancient and widespread belief that particular bits of the world are occupied by gods, or spirits who have to be propitiated. It is indeed, essential for every landscape designer, that is dealing with life and natural processes in its daily practice, to understand the specific context, blend with it and design in a "collaborative" coherent way.

If a certain trace of the past is still present today there must be a reason and this reason has to be understood in order to coherently plan a future development.

If we see landscape objects as an outcome and part of a complex system, (viewing the territory as a palimpsest bearing the traces of different pasts) we are also able to see how they are not self-standing, but inter-related and layered in the past. History can therefore become a tool of understanding, of creating knowledge - not merely nostalgically looking at the past- but new meaningful relationships for landscape architecture can emerge out of it.

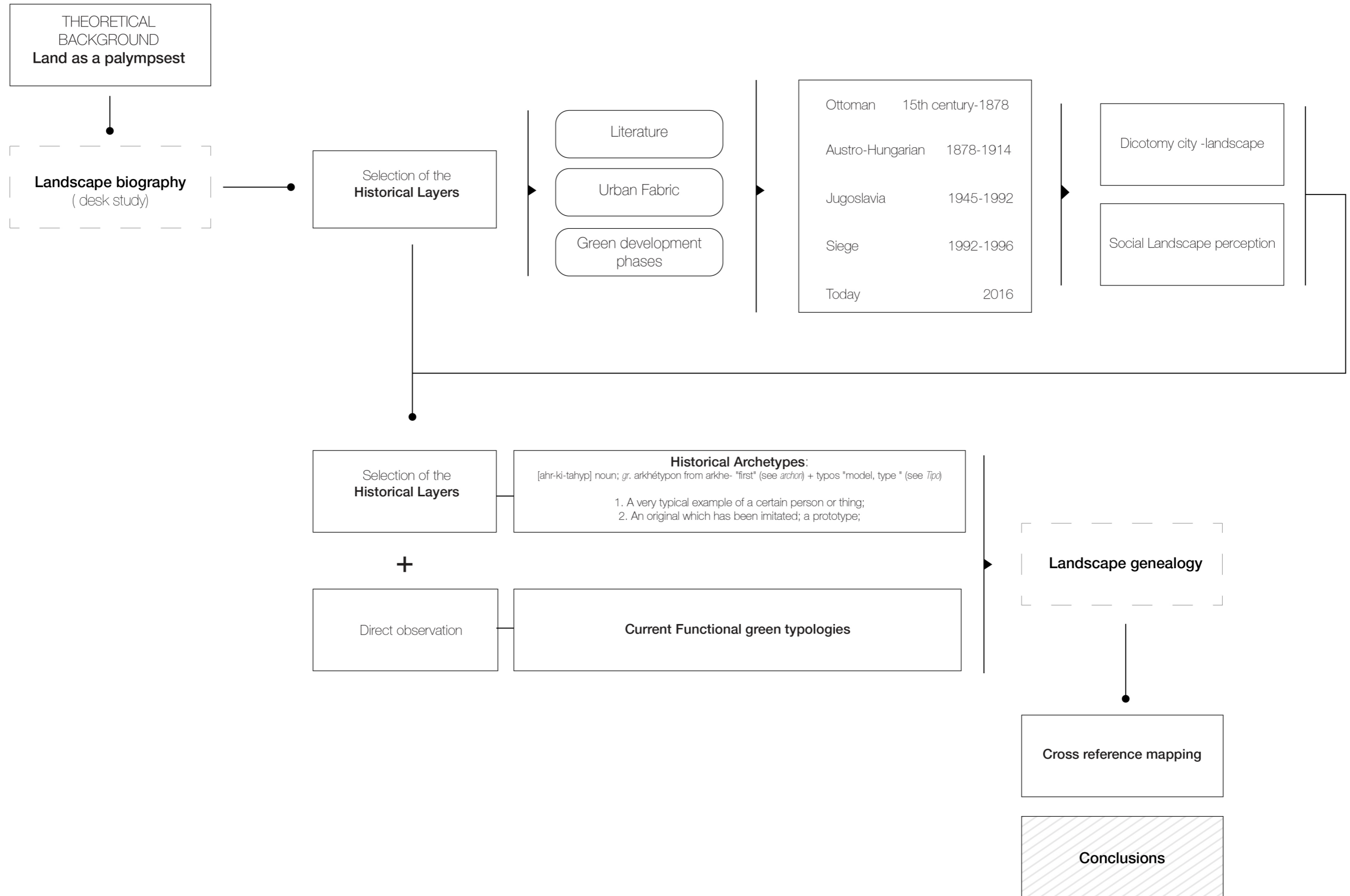
In a delicate and scattered social context my research and design aims to be as objective as possible. Not having directly experienced the Bosnian territory and its history I can only offer my personal understanding of it, based upon nine months of in-depth research of its peculiarity, tones and undertones.

I personally tried to approach the Siege not only as an extremely sad and violent event with a traumatic aftermath but also as only one of the various historical events that helped shaping the city of Sarajevo and somehow enrich its identity and city-space.



Former Tito's military barracks. Today UNSA University campus. Partly ruined partly renewed. Picture by Alessandro Arcangeli

//02 Methodology overview



// 03 Research methodology 1

LANDSCAPE BIOGRAPHY

Wars are not only traumatic because of the loss of lives they bring with them but also for their impact on the built environment. Architecture and landscapes are synonyms of social identities; they are a representation of history and they relate to the cultural dimension of the society that created them. For this reason, the impact of destruction is considered very emotional. The implications of trauma are evident in the people and in the urban scale; when urban landscapes are destroyed, cultural and historical identities are erased. This, appears to be the case of the Bosnian War and in specific of Sarajevo, sieged for four years. At the signing of the Dayton Peace Agreement in 1996, Sarajevo was not only destroyed and ecologically devastated, but had lost its identity and did not have the means to think of reconstruction.

The initial aim of the research was finding a methodology able to properly investigate and approach an environment that lost its identity due to a cultural (coused by man) traumatic event. The core idea was to research in the past the most coherent way and tools for intervening in the current situation. The developed methodology shows how it is possible to bridge a strictly historical research such as the one of the Landscape Biography with a concrete design output, taking in great consideration the genius loci of the city, in this case, Sarajevo. The PART 1 of the methodology, here addressed, describes how to make the best use of the Landscape Biography theory and the importance of both the concrete and abstract heritage of a site is highlighted. Before addressing the PART 2 of the methodology, I will give a site-specific historical overview of the city of Sarajevo. The overview, organized according to the principle of the Landscape Biography will set the informations to explore the Landscape genealogy, namely the PART2 of the research methodology.

Theoretical back ground. Landscape Biography as a method: why?

From both a preliminary desk study and the site visit, the need to approach the area from a historical perspective emerged. Not only the city has in itself valuable evident historical heritage but it is a patchwork of different historical and “geographical” influences as well. Moreover, whenever approaching a site that went through a traumatic cultural (human-caused) event, it is necessary to put this event into a long-term historical framework to understand its social-spatial antecedents and consequences.

One of the most interesting theories that considers the notion of history in landscape architecture is the one of the palimpsest. According to the Oxford Dictionary, “A palimpsest (/pælɪmpsest/) is a manuscript or piece of writing material on which later writing has been superimposed.”, “... something reused or altered but still bearing visible traces of its earlier form”. The term was firstly introduced in the modern landscape discourse in 1983 by Swiss architecture historian André Corboz³ in his essay “ Land as palimpsest”⁴. As explained by the author, after two centuries during which land management had known only the formula of tabula rasa, new concepts emerged which considered the land as the result of a long stratification process ,which should be understood before acting. Viewing the landscape in his long-term historical evolution and bearing the marks of its past, is the basis of my approach. In this framework, the palimpsest becomes a metaphor not only for the land, but also for the city.

The landscape biography method: theory.

Almost in parallel with the developing and diffusion of these theories, on the other side of the ocean, the geographer Marwyn Samuels⁵ was elaborating a similar approach, but more analytical. In “ Landscape biography as research strategy: the case of the south Netherlands project”⁶, is described how the landscape Biography method is gaining today more and more importance. The current approach follows the concept described by Samuels⁷ that proposed to use the term biography in almost a literal sense, pointing at the fact that, landscapes cannot be understood nor described without considering the individuals that shaped them over time. In his writings, he emphasised the role that authorship and human agency have in the evolution of landscapes. This methodology

not only includes society and its ideologies in a long-term dimension landscape analysis, but focuses on the multi layered nature of landscapes, in accordance with the idea of the land as a palimpsest. According to this approach, places and landscapes play an active role in biographies and genealogies of the people, creating a constant correlation between the historical evolution of landscapes and the identity of the people living in them. Processes of remembering and forgetting through generations are formative principles of the lived environment, and in this optic, the environment, plays a key role in identity constructions of local communities. According to this perspective the idea of two different biographies emerges: a concrete one, made of the visible objects observed in the environment, and another one, made of stories and identities, the image of the city through time. Already Samuels addresses this idea by dividing between “landscapes of impression”, namely the ideologies, cultural representations of space and the “identity” of a certain space and the “landscapes of expression”, the visible environment that is often a result of the first one.

One step further in this discourse is made by David Koren in the chapter “Shanghai: The Biography of a City” to be found in the book Landscape Biographies⁸. The writer articulates the difference between the tangible and the abstract heritage of a city, addressing them as separate but giving them equal importance in a comprehensive city understanding. Koren argues that the city has its own identity and personality, that influences its inhabitants and the image visitors have of it. This “landscape of impression” is to be read through history in writings, poems, maps and modern visual media that all together are able to offer an overview of the relation between people and the urban environment, the identity of the city.

Sarajevo is an example of a city with a layered landscape biography, along the lines of Marwyn Samuels. This is partly a material biography, showing traces of a ruling Ottoman society, a western-european influence, a communist period and a city destroyed by ethnic war that results today into a city trying to emerge from its ashes. However, Sarajevo also has an immaterial biography. This is the biography of the representation of the city in words and images, recorded and perceived by local popular culture and can be seen as an immaterial heritage. Both types of biographies appear to play an important role in the profiling and positioning of the city in the present time. The use of both physical heritage and the ‘character’ of the city is the key to a successful development of post-traumatic sites such as Sarajevo.

3. André Corboz (1928 – 2012) was a Swiss literary man that spent his life teaching history of urbanisem and architecture at various universities, both in Canada and Switzerland.

4. Corboz, A. (1983). The land as palimpsest. Diogenes, 31(121), 12-34.

5. Marwyn Samuels (New York 1942) is a geographer, expert on China's urban and regional development planning but he wrote broader geographical issues and theorized the "landscape biography".

6. Roymans, N., Gerritsen, F., Van der Heijden, C., Bosma, K., & Kolen, J. (2009). Landscape biography as research strategy: The case of the South Netherlands project. Landscape research, 34(3), 337-359.

7. For the complete theory please see: Samuels, M. S. (1979). The biography of landscape: cause and culpability. The interpretation of ordinary landscapes, 51, 88.

8. Renes, J., Hermans, R., & Kolen, J. (Eds.). (2015). Landscape biographies: geographical, historical and archaeological perspectives on the production and transmission of landscapes. Amsterdam University Press. [Accessed January 2017].

The landscape biography method: practice.

Following the theories of the landscape biography, several are the concrete element we can deduct and use for approaching the site.

The idea of a multilayered approach on a long-term perspective, calls for the definition and selection of these historical "layers". How do we chose the most suitable historical layers to be used and analysed in a design perspective?

Firstly it is necessary to consider the relevant historical literature regarding Sarajevo, paying attention to the classification made of the different historical periods. The literature I am referring to are historical writings, by historian or geographers that studied the region. Other relevant sources are historical maps from which it is possible to abstract the amount of green in the city, its relation to the landscape and the different green typologies. In this phase of the research a specific focus is to be set on historical images such as paintings, that not only illustrate the city, but filter the perception of the artist. When focusing on the recent times (from ~1900 on) we can also refer to different visuals such as photographs, videos and audio recordings available on online platforms (i.e. When focusing on the siege period the FAMA Collection was of great use⁹). On the other hand I based myself on the site visit, observing the historical influences visible in the built environment, and specifically in the green public space that presents visible historical influences and heritage (i.e. Ottoman fountains and courtyards, austro-hungarian parks, socialist courts etc.). Therefore, through literature review and site visit it was possible to highlight five historical eras, relevant for the green space development and the specificity of the city of Sarajevo.

These historical "layers" are:

- Ottoman times, from the foundation of the city (15th century) until 1878
- The austro-hungarian rule, from 1878 to 1914
- The Socialist-Yugoslavian era, from 1945 to 1992
- The Bosnian war, specifically the Siege period from 1992 to 1996

By proceeding in this way not only historical informations were gathered but also regarding the "landscape of impressions" through history, offering a specific understanding of the city.

What we also learnt from the landscape biography theory is the need to consider and formalize what is the identity, the "landscape of impression" of a certain urban space. This is particular important in a post-war environment since war has a huge influence on people and identities. While studying the selected layers I tried to answer some pre-thought questions to frame some concepts:

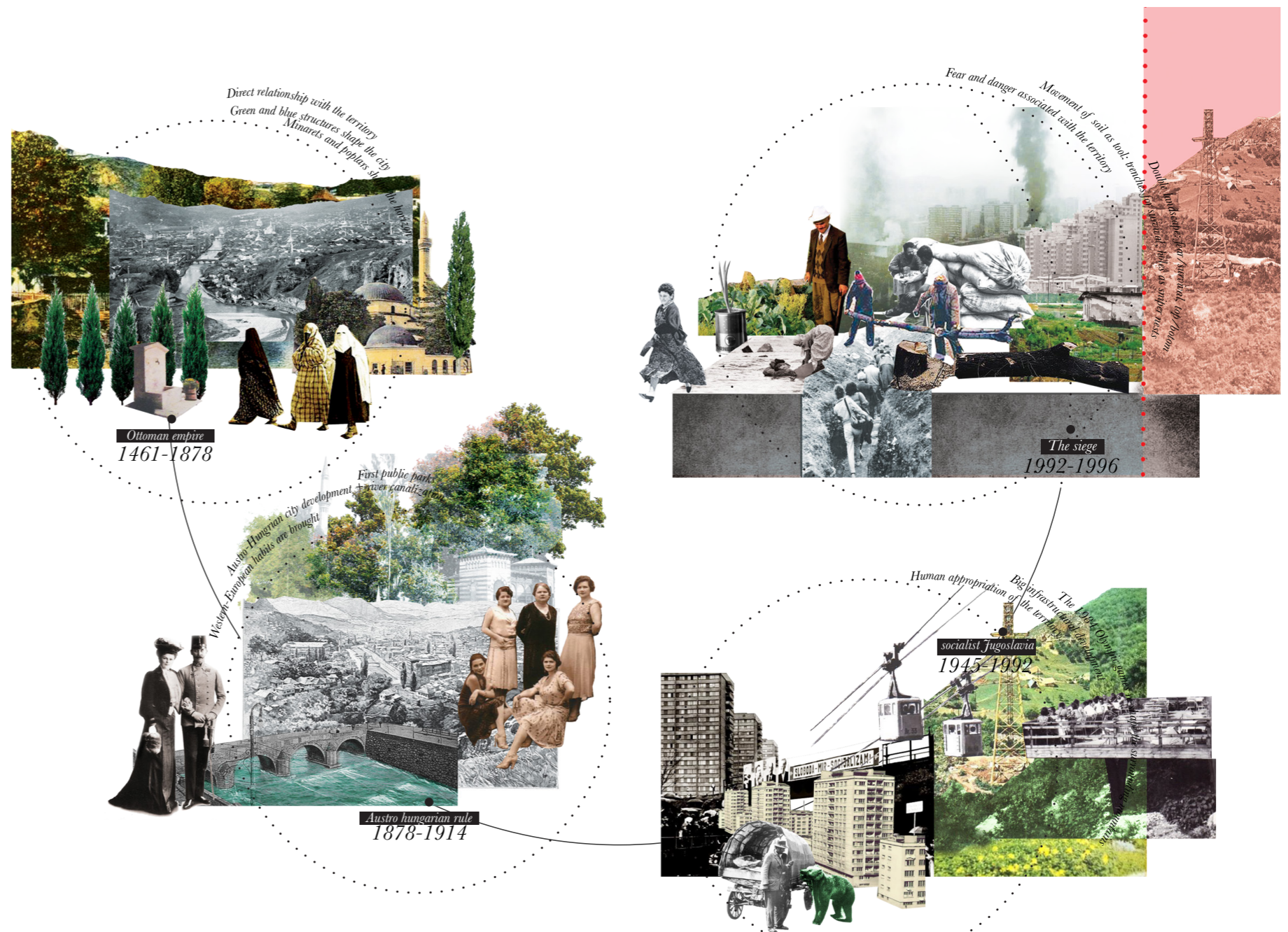
- Which is the amount of green in the city?
- What kind is the green space, is it used and how?
- Do people associate feeling and ideologies with the landscape?

Answering these questions for the different historical times led to an understanding of both the visible historical heritage of today and the "invisible heritage", the identity of the city and the perception people developed of the environment.

On one hand the amount of information collected is huge, but the landscape biography method remains quite abstract and detached from the concrete design perspective. In historical and biographical reports, not enough attention is paid to the possibility of reorganizing and combining these informations for architect and landscape designers. Therefore, the need of structuring and visualizing these informations is clear, in order to make connections between them and draw conclusions. The point of view chosen in my case was the one of the green urban structure. I therefore proceeded in what can be seen as an extension of the landscape biographical method, able to bridge the gap between historical informations and a future intervention in a site specific approach.

Which is exactly the identity we are intervening in? Which are the most suitable tools to be used in a future design? Which are the issues to be addressed?

9. The FAMA Collection is a Bank of Knowledge for mass usage, regarding all the different aspects of the Siege of Sarajevo. Available at: <http://famacollection.org/eng/> [Accessed January 2017]. biography".

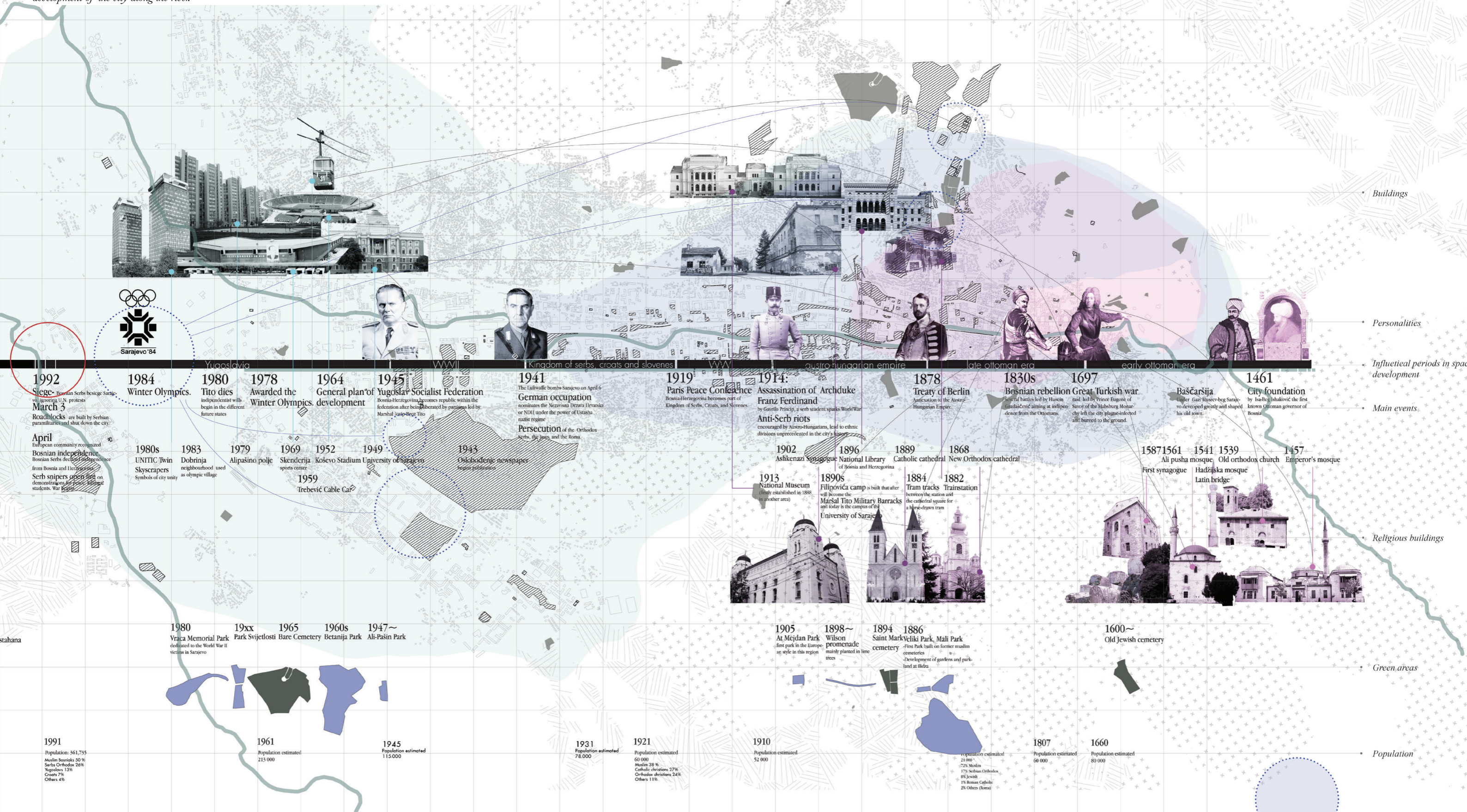


// 04 Time through Sarajevo and Sarajevo through time

// 04 HISTORICAL OVERVIEW

// 04.1 BEFORE THE SIEGE

Cross reference-mapping. Spatial time-line of the city's evolution prior to the Siege. Different layers are considered: cultural landscapes, green development, prominent personalities, conflicts etc, and set in relation one to each other, always referring to the spatial collocation thanks to the map underneath. The drawing is to be read East-West, following the development of the city along the river.



// 04 historical overview

// 04.1 BEFORE THE SIEGE

While researching the different historical layers, I focused mainly on the development of the green city structure, but also the relationship between the people and their territory on the different scales, from the hills surrounding the

The first recorded signs of human presence in the surrounding of Sarajevo date back to the Roman times, when Sarajevo was part of the Dalmatian province. A known Roman road ran through the Miljacka river valley and connected the coastal cities of modern-day Croatia to Pannonia (modern Hungary). The biggest known settlement in the region was known as "Aqua Sulphurata" situated where Ilidža is today. The settlement was connected to some thermal baths already famous at the time and still in use today.

Ottoman rule

However, the official foundation of the city and the first urban development date around 1461 when the first Ottoman governor in Bosnia, Isa-Beg Isaković transformed the scattered medieval villages of the Miljacka valley into a capital city. He erected key buildings, such as a mosque, a

covered market, public baths and the governor palace. Sarajevo began to prosper in the XVI sec. when the governor Gazi Husrev-beg erected almost everything that today constitute the old historical town (img1).

After 400 years of Ottoman rule, in the summer of 1875, Arthur Evans, which will later become famous as the excavator of the Minoan civilization, was on a walking tour of Bosnia- Hercegovina. It was the troubled period of the 'insurrection' - revolts by peasants against Ottoman rule¹ and Evans provides a valuable record of Sarajevo in the late Ottoman Empire, through Western eyes. He describes the totality of the city as a unique vast garden:

*"from amidst whose foliage swell the domes and cupolas of mosques and baths; loftier still, rises the new Serbian cathedral; and lancing upwards, as to journey with the sky, near a hundred minarets."*²



img1: The city expansion as of the Late Ottoman Empire

From these writings, we can understand how the image of the city of Sarajevo was, already at the time, the one of a garden city, situated along a river and surrounded by an impressive topography that enhanced the domain of the landscape over the city.

The cadastral map drafted by the Austro-Hungarians few years later (1882) (img2), soon after their arrival in the city, further proves the great presence of green, divided into different typological forms. The map can be taken as a visual account of the green spatiality of the city with different symbols used to map orchards, vegetable gardens, ornamental gardens, scrubland, arable land grazing land and meadow.³

In particular, the rich urban vegetation consisted not only of various enclosed courtyards (accordingly to the ottoman tradition of enclosed familiar gardens), but also gardens of public institutions such as schools or mosques. Trees of exceptional beauty or size are often isolated and constitute the pivot of urban space.

*"The most notable public trees were the poplars, usually adjacent to minarets. The minaret and poplar coupling shaped the skyline of the city."*⁴ (img3)

The whole city, in fact, was punctuated by minaret-like poplar trees, a feature that is kept today in the city. The poplar can be recognized as the symbolic tree of the city of Sarajevo, with its strong religious metaphor can be found still today in different declinations: along the river, as a landmark near important buildings or just at the corner of important roads.

The pre-20th century plantings are also

characterized by partially wooded cemeteries integrated into the city itself.

In fact, in this period, cemeteries were rather monumental and acted as city parks. Their position was close to the living area of the city and people partially used them in their daily lives. Connecting paths run through them and areas for stopping were organized. Some of these cemeteries would be subsequently converted to parks in the

*"[...] the bulk of the city occupies a narrow flat amidst the hills, cut in twain by the river Miljacka [...], and united by three stone and four wooden bridges. Around this arena, then rugged limestone precipices - rises a splendid amphitheatre of mountains culminating in the peak of Trebevic, which frowns over 3,000 feet above the city."*⁵

late 1880s, e.g. today's Mali Park and Veliki Park. These former ottoman cemeteries represent a peculiar feature of the green structure of Sarajevo. They are today used as parks, places for leisure and highly used and appreciated. Kids can be seen playing between the old tombs while woman chat sitting on a nearby bench.

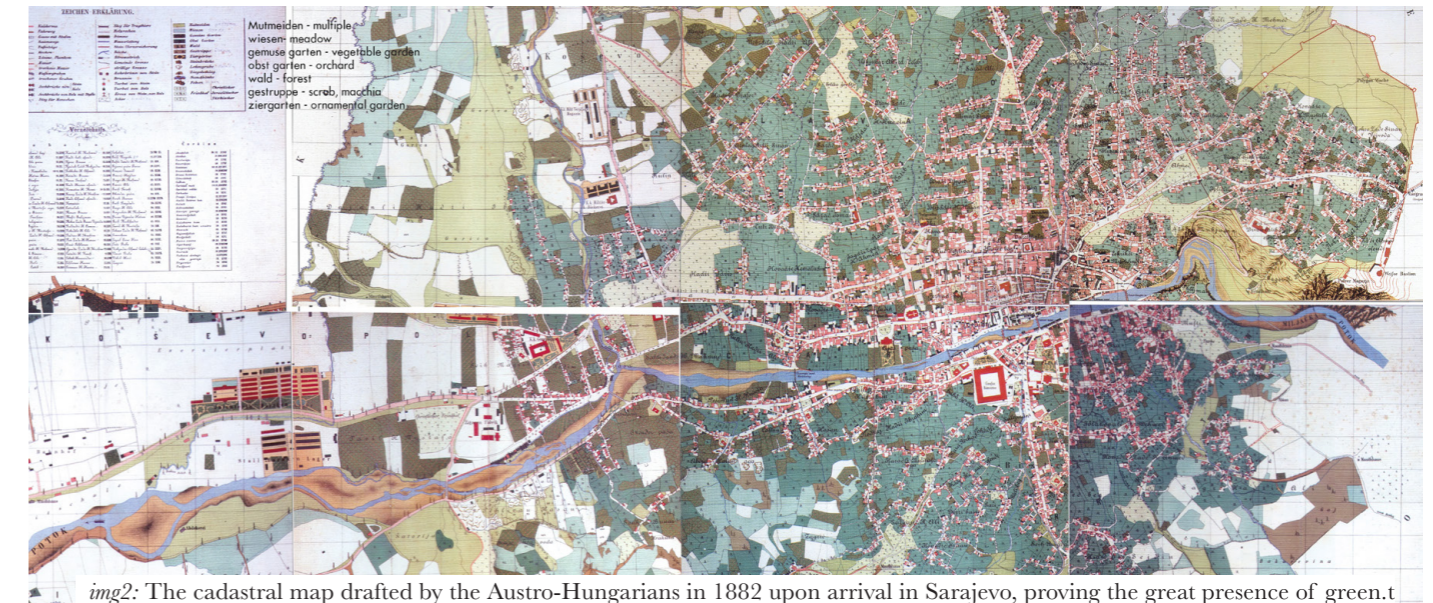
A counter-conversion of parks into cemeteries will later occur during the siege due to the danger of reaching proper cemeteries.

As described in the "Landscape of Sarajevo Region", the introductory document of the Le: Notre institute⁶ the traditional ottoman concept of direct relation between the vegetation and the built environment influenced the layout of the first urban settlement.

1-2-3-5. Sparks, M. (2014). The Development of Austro-Hungarian Sarajevo, 1878-1918: An Urban History. Bloomsbury Publishing.

4. Kelman, I. (2015). Greening in the Red Zone: Disaster, Resilience and Community Greening. Disaster Prevention and Management.

6. Lacan, I., & McBride, J. R. (2009). War and trees: The destruction and replanting of the urban and peri-urban forest of Sarajevo, Bosnia and Herzegovina. Urban Forestry & Urban Greening, 8(3), 133-148.



img2: The cadastral map drafted by the Austro-Hungarians in 1882 upon arrival in Sarajevo, proving the great presence of green.



At the time the urban area consisted of the central economic district called the "Bašcarsija", situated in the valley and the so called "Mahala", the residential area settled on the surrounding slopes.

The report also highlights how the historical urban tissue developed as a series of small residential units, with private inner courtyards and gardens. On the other hand, no planned public green space was planned nor available except the natural surroundings.

The houses, situated on the slopes, were each planned in an optimal way, strongly influenced by the environment. All of them had large windows and were orientated to get a large amount of light, a clear view and enough green. All these different residential clusters had each its own set of services such as a bath, a Koran school and a public fountain. Essential element was the mosque, a landmark, with its own fountain for ritual washing and a cemetery.

As mentioned, water played a key role in both Ottoman city and garden development. For ritual and cultural reasons. The opening of fountains and public baths was considered of the same importance of the construction of mosques and representative architectures. In Sarajevo, Ottomans are prized still today for "bringing the water up the hills" through numerous fountains, near cemeteries, inside the courtyards or along the streets, still visible functioning today. Ottoman culture is deeply involved with Arab and Persian traditions, also regarding urban planning and garden design. The "Persian Paradise", a form of garden of ancient Persian origin, greatly influenced the

Ottoman one. This garden represented the perfect garden described by the Coran, and presents water as one of the strongest feature.

The elaborate use of the water manifested in fountains, ponds, rills and different uses of canals did not only have a strong physical presence but was a metaphor for different ideals. ⁷ **NOTE SASKIA**
In the traditional hot and dry environments where these gardens come from, people always viewed water as a direct symbol of God's mercy. Water is usually in its flowing form to symbolize the eternally-flowing waters of the Garden of Paradise and the flowing waters of the spirit which purify the soul. Still water has as well a strong symbology, by mirroring the skies shortening the distance with God. ⁸

Apart from these enclosed green spaces the city presented as well scattered green along the streets. In fact, in Ottoman cities trees were thought to be a balancing element of architecture. For this reason, Ottoman cities "look as though they are extensions of the piece of land where they were built"⁹, metaphor that accurately describes the character of Sarajevo. This can be also highlighted in the fact that some of the streets established by the ottoman rule had names strictly referring to the topography. Even though the street patterns (after regularized by the Austro -Hungarian empire) might seem random they were part of a bigger conceptual plan, they were serving an ideal of privacy and "would follow the topography in such a way that houses were staggered along it, protecting the privacy of their entrances and their views."¹⁰

In conclusion, we can say that the planning

of the city and its organization its was heavily influenced by the regional topography. The green spaces in this historical phase of the city were introverted in the privacy of the family home, with a sporadic presence of trees in the public streets. Moreover, the planning principles of the city and the residential unit relied heavily on "natural" principles, natural light and greenery were essential planning criteria. The urban spaces were formed through a process of appropriation: of material nature (water and plants), of the context of the place (topography) or even just the panorama (planning of the views). More in general attention to the landscape and to the scenic point of view is always present.¹¹

All these elements highlight the importance that people lied in vegetation and the landscape at the time. According to Cerasi (1985) Some authors, attribute this intense bound with nature to the nomadic origins of the Turkish populations, and to the costume of summer gazing in the mountains. We can state that there was a direct relationship between the people and the surrounding landscape, based on their living habits, their respect and their identification with the natural environment.

7. Saskia

8. Cerasi, M. M. (1985). Open space, water and trees in Ottoman urban culture in the XVIIIth-XIXth centuries. Environmental Design: Journal of the Islamic Environmental Design Research Centre, 2, 36-50.

9. Avdagić A., Bećirović D., Hajrudinović A., Hukić E., Krpo M., Marić B., Mutabdžija S., Omanović M., Pintarić-Avdagić B., Salihović A. (25th-28th May 2014). Landscape of Sarajevo Region. In: Le:Notre extraordinary Landscape Forum 2014. City: Sarajevo available at: http://ln-institute.org/landscape_forum/lf2014_pdf/Sarajevo_s_Landscape_First_Look_20140417.pdf

10. Alarслан U., Fatos A., (October 2011). "Islamic Gardens with a Special Emphasis on the Ottoman Paradise Gardens: The Sense of Place between Imagery and Reality.". Online Journal of Communication and Media Technologies. 1 (4): 67).

11. Bertram, C. (1997). Ottoman Sarajevo: The urban history of Sarajevo in the Ottoman period and into the period of the dual monarchy. Retrieved July 30, 2008.

"The most notable public trees were the poplars, usually adjacent to minarets. The minaret and poplar coupling shaped the skyline of the city." ⁴





The Austro-Hungarian rule

In 1878, the Austro-Hungarian empire occupied Bosnia bringing along architects and engineers, with the unique goal of turning Sarajevo into a modern European capital. Helped by a fire that burned down the city, many buildings in Sarajevo were built in a recognisable "Austrian manner". This addition is what gives still today a European flavour to the city. The main aim of the "invaders" was modernization and westernization of both the city and the people's lifestyles. Austro-Hungarian colonisation policy depicted Sarajevo as a showcase, a testing area for important infrastructure works before being implemented in Vienna.

One of the main initiative that shaped the

city of today was the tramline, starting from the city centre and leading westward in the valley until modern Ilidža. Consequently, is exactly along this planned line that future development of the city will take place. Other important works completed in this period were the central electricity grid, the sewerage, and rail systems together with bank organisation and important works along the Miljacka River.

On the banks of the Miljacka River, sediments were deposited during floods over the past centuries, contributing to the fertility of the soil but limiting the expansion of the city. However, the higher frequency and strength of the floods during the 18th century led to the need of a canalisation. Therefore, during the Austro-Hungarian administration heavy

12. Donia, R. J. (2006). Sarajevo: a biography. University of Michigan Press.

13-14 and 16. Kelman, I. (2015). Greening in the Red Zone: Disaster, Resilience and Community Greening. Disaster Prevention and Management.

15. Sparks, M. (2014). The Development of Austro-Hungarian Sarajevo, 1878-1918: An Urban History. Bloomsbury Publishing.



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img4: Sarajevo by William Holmes. The painting to be found at the Sarajevo museum represent the city skyline , with its typical vertical lines given by the poplars and minarets

constructions and canalisation works were completed to mitigate the damage caused by floods (Donia 2006)¹². The system, which still exists today, consists of a series of steps that reduce flow velocity and sediment transport capacity.¹³ The city still today presents a majority of hard edges along the river, especially in the central area of the city. Moving west-ward some of the edges turn into soft ones, covered by grass, but in both cases the river is inaccessible by people.

Another major element of Western thinking about urban development was the importance of open public spaces and parks where ordinary people could go to relax and enjoy exercise and fresh air. The main goal was to loosen up the density of the city, and provide open spaces for health purposes. It was in this period that the first public parks were organized and opened to common people without distinctions. Sarajevo was by then a mixing of ethnicities and cultures and these places enhanced integration and tolerance.¹⁴ The Ottoman pattern of public life, conducted largely in the streets was gradually re shaped in some parts of the city to accommodate these new Western-European parks with winding paths, shrubs, flowerbeds and grass. As mentioned in the previous section the first parks (Veliki and Mali park today) were set out in 1886 on the site of two Muslim graveyards.

According to Sparks¹⁵ the administration's attempts to provide large Piazzas and parks failed due to the lack of space in the city centre. Therefore, the major development of parkland and gardens occurred especially in Ilidža, accessible by tram.

Here, as in many other parts of the city the Austro-Hungarian empire brought a new grid for the streets, now lined with trees. An important, still existing, example is the Bosna Spring Promenade, a double line, two rows of London planes and horse chestnuts leading to the spring of the river Bosna.¹⁶ The area, rich in groundwater, was an important source of water for the city, and the spring area itself is today a park, extremely busy in the week ends. Not only did the Austro-Hungarians re-organized the green structure of the city, but they also enhanced the connection to the surrounding mountains. It is in fact during this period that the Mt Trebević¹⁷ firstly acquired the characteristics of a forest park for the city. New access roads were built, leading up the mountain, several fortifications, restaurants and leisure spots appeared on the surrounding mountains. In addition, is in this period, due to the fascinations of the Fin de siècle that there was an uncontrolled introduction of exotic plants species. Because of this the slopes of the mountain today look like a sort of improvised arboretum.¹⁸

17. Mount Trebević with its 1627 m of high is one of the mountains surrounding Sarajevo situated to the south-east end of the city. During the 1984 Winter Olympics, Trebević was used for Olympic events, such as bobsledding. Trebević had always been the main excursion site of Sarajevo citizens due to the favorable geographical position, climate and the beauty of the nature. During the Siege the mountain took a darker role. Its elevations and strategic view lines to the city, together with its proximity became strategic positions for the enemy's artillery, turning the area into a key fighting ground. The mountain today, even though almost completely cleared by landmines is not a tourist destination anymore. There are few hotels restaurant and leisure spots scattered on its slopes, together with suggestive ruins of the olympic infrastructures and other buildings with great historical relevance.

18. Bertram, C. (1997). Ottoman Sarajevo: The urban history of Sarajevo in the Ottoman period and into the period of the dual monarchy. Retrieved July, 30, 2008.

From the end of the Austro-Hungarian rule until WWII

In 1914 Sarajevo came to be the theatre of the tragic event that started WWI. The archduke Franz Ferdinand, heir presumptive to the Austro-Hungarian throne, was sent by the central government to visit Sarajevo, to strengthen the presence of the empire in the city. On the 28th of June 1914, Gavrilo Princip, a militant in the independentist movements of Bosnia, shot dead the couple in front of the Latin bridge, giving to perfect excuse to spark WWI.

At War's end in 1918 Sarajevo became part of a newly created Royal South Slav State. The rulers of the newly formed state favoured Belgrade, Zagreb and Ljubljana as the principal urban centers. The tendency was reflected in the state's formal title: 'The Kingdom of Serbs, Croats and Slovenes' that will be, in a second moment, renamed Kingdom of Yugoslavia. 17

Between the two wars Sarajevo kept a low profile, largely forgotten in the international dynamics as the new administration gradually became more centralised in Belgrade. (Donia, 2009)18. Sarajevo suffered a great economic stagnation, with rare urban project being planned. A relevant project to be mentioned is the one of the square Oslobod-enje Alija Izetbegovic', a public square centrally located that became one of the cores of public life (Gül, 2015) 19.

This period is marked by internal tensions and un-balances in the kingdom and the fragile peace was soon to be shaken by WWII.

The Nazi troops entered the city on 15th of April 1941 and with the help of local fascist collaborators, a new political order was established, making Sarajevo now part of the Independent State of Croatia. The Independent State of Croatia was a puppet state of Germany and Italy during WWII. Its territory consisted of most of modern-day Croatia and Bosnia and Herzegovina, as well as some parts of modern-day Serbia and Slovenia. During its entire existence, the state was governed by the fascist Ustaše movement as a monarchy ruled by Ante Pavelić. The regime targeted not only Jews but also Roma and Serbs.

The city suffered further damage by Allied bombing in 1943–44 until it was liberated from the occupation by Tito's partisans on 6 April 1945. 20

To know more about the history of Bosnia and Herzegovina or the Balkans please see: Hüsch, E. (1972). The Balkans: a short history from Greek times to the present day. Crane Russak & Company, Incorporated

Sarajevo during the Socialist Federal Republic of Yugoslavia

1945 saw the birth of the Socialist Federal Republic of Yugoslavia under the rule of Josip Broz Tito.

During the war, Tito had been the leader of the Partisans and soon became a popular public figure both in Yugoslavia and abroad. He held the title of Prime Minister (1944–63), President of the Socialist Federal Republic of Yugoslavia (1953–80) and served as the supreme commander of the Yugoslav People's Army (JNA). Viewed as a unifying symbol²¹, his internal policies could maintain the peaceful coexistence of the six nations (Bosnia and Herzegovina, Serbia, Croatia, Slovenia, Macedonia and Montenegro) until his death in 1980.

After WWII Yugoslavia saw an economic expansion in the 1950s and 1960s and a decline during the 1970s which reflected in the expansion of various cities, including Sarajevo. In fact, during the socialist period, Sarajevo became an important regional industrial focus and underwent a large-scale physical development. Significant of this period is the late 1940s expansion of the public transport system, new residential accommodations in high-rise apartments, the building of educational and recreational facilities and the introduction of two comprehensive plans to guide the city's development²². An important development plan that re-shaped the city was introduced in 1965 in vision of the 1984 Winter Olympics, the first winter Olympics held in a communist state.

Through the 20th century, the city witnessed a linear urban expansion towards the valley in the west and an additional urban corridor to the north, along the Koševo Stream. The expansion was characterized by typical socialist building features and city organization. This development pattern is the one defining most the city's urban morphology to this day.²³

As previously mentioned, one of the highest moments of, not only Sarajevo, but the whole Yugoslavian federation, were the Winter Olympic games held from February 8 to 19 in

17 and 20. Gül, M., & Dee, J. (2015). Sarajevo—A city profile. *Cities*, 43, 152-166.

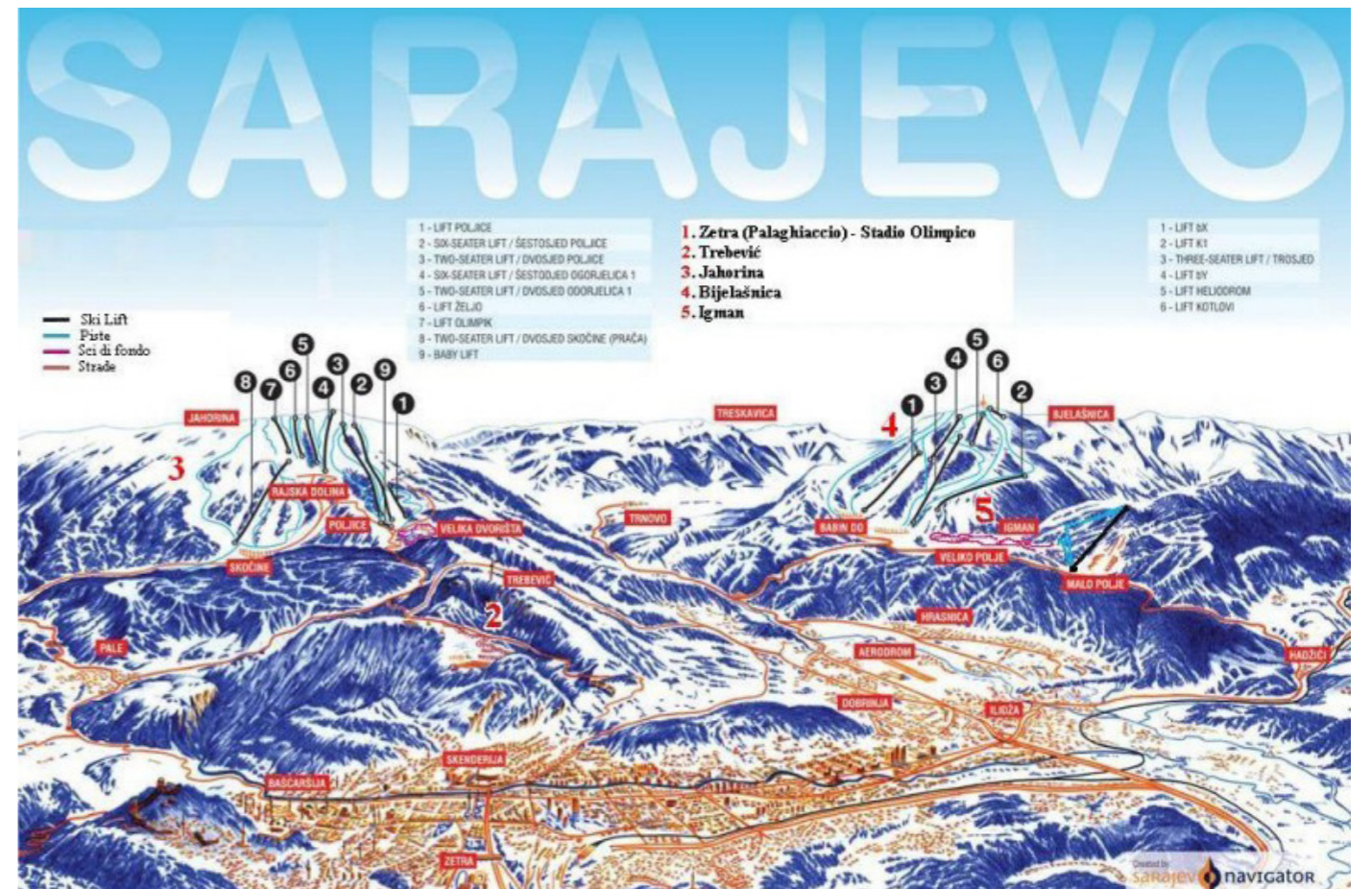
18 and 22. Donia, R. J. (2006). *Sarajevo: a biography*. University of Michigan Press.

19. Gül citing Makas in his article: E.G. Makas, T.D. Conley (Eds.), *Capital cities in the aftermath of empires: Planning in central and south Eastern Europe*, Routledge Taylor and Francis Group, London and New York (2010)

21. Martha L. Cottam, Beth Dietz-Uhler, Elena Mastors, Thomas Preston, Introduction to political psychology, Psychology Press, 2009 p. 243 ISBN 1-84872-881-6
"...Tito himself became a unifying symbol. He was charismatic and very popular among the citizens of Yugoslavia."

23. Gül, M., & Dee, J. (2015). Sarajevo—A city profile. *Cities*, 43, 152-166.

24-25. Kelman, I. (2015). *Greening in the Red Zone: Disaster, Resilience and Community Greening*. Disaster Prevention and Management.



1984. Enthusiasm, pride and a sense of unity of all peoples meandered in the federation, symbolized by the mixed competing athletes. Sport facilities were constructed together with significant infrastructure works to “modernize” the city, such as a large-scale upgrade of the Sarajevo airport, a five-star hotel, road and public transport improvements and an all-purpose stadium (Donia, 2009).

These construction works comprehended as well heavy infrastructure appropriation of the mountains surrounding the city. The mountains became populated with sport and leisure facilities, accessible roads, restaurants and other attractions. Moreover, a cable car opened, connecting the city centre of Sarajevo to mount Trebrevic with a brief 15 minutes’ ride. All these interventions made the mountains of easy access to the people who started to live them just as an extension of the city. Serene memories of family weekends and impressive views of the city were associated with the surrounding nature at the time.

The Olympic games development program, contributed also to several changes in the urban fabric. New Olympic villages were constructed, that will later become residential neighbourhood, with impressive brutalist features (Mojmilo, Dobrinja...) and Sport complexes such as Skenderija and the Zetra Hall were erected in central positions of the city.

This phase of city expansion was also characterized by an extreme population growth (up to 430.000 in 1991)²⁴, but planners and city developers did not forget the vital role of vegetation and green areas.

According to Kelman (2015) the urban forest of the late 20th century included not only plantings from both ottoman and Austro-Hungarian times, but also a great urban forest expansion. Urban trees were planted around newly constructed high rise buildings and along broad boulevards that connected the new parts of the town. New parks were created, street trees were implemented and every new residential building was planned with its green space around.

The existing historical green spots were taken care of and became landmarks in the city, such as the Austro-Hungarian planted Wilson Promenade. The street presents linden trees planted in 1905 about 8 m apart and is still today, one of the busiest leisure spots of the city²⁵. After 5 pm the road is closed off to cars and crowds gather for the sunset on the Miljacka, strolling, jogging and enjoying the last bits of sun.





The war challenged Sarajevo in all its aspects



The city



The people identity



The landscapes

The Siege of Sarajevo is known as “the longest siege of a capital city in the history of modern warfare”²⁶.

After Tito's death in 1980, tensions between the Yugoslav republics escalated, reaching their apex in 1991 when the country disintegrated, pushed by nationalistic feelings of the future independent nations. A series of inter-ethnic conflicts and unrest sparked, lasting for almost a decade, still impacting the area today. The war in Bosnia and Herzegovina not only resulted in many deaths and large scale destruction but also in dramatic populations shifts, due to the ethnic character of the war.

A total of 13,952 people were killed. In the specific case of Sarajevo, the 1991 census indicates that before the war, the estimated population was around 435,000 people, while after the conflict, it ranged between 300,000 and 380,000.²⁷

Compared to the other Yugoslav states, Bosnia and Herzegovina, had (and has) an ethnically varied population composed by Croats, Bosniaks and Serbs (img X), respectively following different religions (Christian-catholic, Islamic and Christian-orthodox) making the issue of independence more complicated. The population, in fact, did not agree on the nation's future; while Croats and Bosnian

Muslims were calling for independence, Bosnian Serbs, guided by Radovan Karadžić²⁸, parted for remaining under Yugoslavia (by then made up of only Serbia and Montenegro). Therefore, when Bosnia and Herzegovina declared independence with the 1992 referendum (held after a request from the European community), Bosnian Serbs rose up against it. Meanwhile, Serbian central government had secretly organizing troupes around Bosnia and Herzegovina and armed the local Serbian militias preparing for the attack on the capital.

Of no use were the pacific demonstrations of the ethnically mixed population of Sarajevo; when students were shot and killed by Serb gunmen at a peace rally in April, events spiralled out of control and the Siege of the city officially begun.

From the 2nd of May 1992, the Serbs blockaded the city taking its population unprepared and unable to defend herself. From the positions hidden in the surrounding mountains, they assaulted the city with heavy artillery, tanks and sniper fire for the four following years.

“Two hundred and sixty tanks and one hundred and twenty mortars together with innumerable anti-aircraft cannons, sniper rifles and other small arms were assembled in the mountains surrounding the city resulting in prolonged attacks on museums, mosques, government

26. Connelly, Charlie (8 October 2005). "The new siege of Sarajevo". The Times. UK. Retrieved 10 May 2010.

27 Bassiouni, Cherif (27 May 1994). "Final report of the United Nations Commission of Experts established pursuant to security council resolution 780". United Nations. Archived from the original on 22 February 2001. Retrieved 10 May 2010.

28. Radovan Karadžić is a Bosnian Serb former politician and convicted war criminal who served as the President of Republika Srpska during the War. Educated as a psychiatrist he was convicted in 2008 by the International Criminal Tribunal for the former Yugoslavia of war crimes, including genocide against Bosniak and Croat civilians.

29. FAMA Collection, Siege of Sarajevo 1992-1996. Available at: <http://famacollection.org/eng/> [Accessed April 2017].

buildings and people in the streets (FAMA, 1993).”²⁹

The siege lasted for 1425 days pursuing a systematic destruction of Bosnian cultural heritage and the majority of the building of the city. Sarajevo was daily shelled and snipers picked off civilians as they walked in the streets, making daily-life impossible.

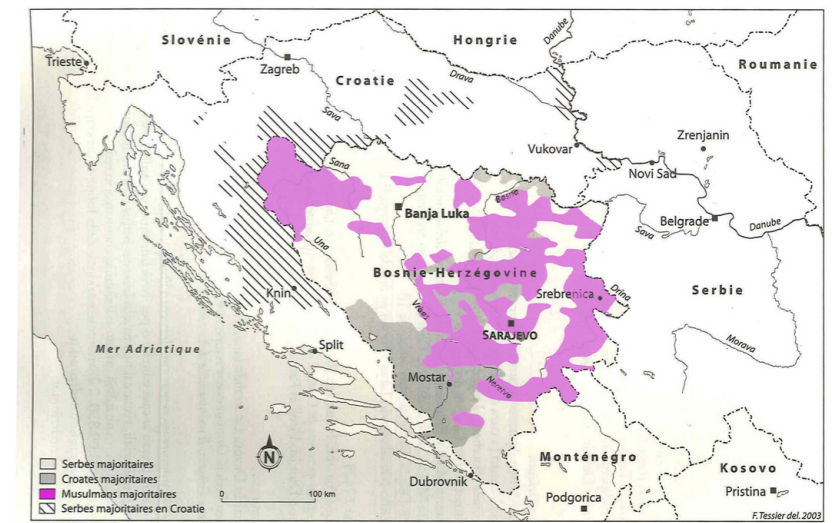
Especially targeted by heavy artillery were the constructions representing the Bosnian and Muslim identity, as well as relevant landmarks of the city and its tolerance. Bosnia's National Library together with the Oriental Institute belonging to the University of Sarajevo were destroyed along with their invaluable collections dating back to Ottoman times³⁰.

This specific type of war has been theorized and described with different words. Between I found particularly interesting the term “Urbicide”, a systematic violence against the urban tissue (Bogdanovic, 1995)³¹. The main premise of the concept is that buildings frame public spaces, places of encounter and exchange between people holding a strong symbolism for an ethnically mixed and tolerant city such as Sarajevo. This act of destruction deliberately targets non-military buildings in order to make the daily life of civilians impossible. The siege has also been described as a “psychiatric war” by Lorenzo Torresini³² due to the violent techniques exercised by the enemy aimed at both physical and mental exhaustion of the population.

These definitions make us understand how at the time Sarajevo was facing a war with different features than the ones fought until then. The initial goal of taking over the city, soon turned into a psychological game of exhaustion and identity erasing. Not only the city itself was under attack, but everything that it represented. Modernity, peace, culture and tolerance between all people.

In Sarajevo “the archetype of the clash between the rural world and the city in the era of globalization” took concrete features. By destroying the city, the will of abolishing the difference of the population also was destroyed, the war in Bosnia soon became the war of everyone against everyone, the war of the rurality against the wealthy citizens that daily mixed their cultures and ethnicities.³³

What is left today is the difficulty of explaining why and how, so close to our homes, One of the greatest tragedies of the past century has been consumed, between the public opinion disbelief and the impotence of the international community.



Ethnic composition after the war and before it.

Source: Sarajevo, mon amour. interview of J. Divjak by F. La bruyere

30. Riedlmayer, A. (2002). Bosnia's Cultural Heritage. Islam and Bosnia: Conflict resolution and foreign policy in multi-ethnic states, 98.

31. Bogdanović B. (1995), "The City and Death," in Jeri Labon, ed., Michael Henry Heim, trans., Balkan Blues: Writing Out of Yugoslavia. Northwestern University Press, 1995

32-33. Lallo, A., & Toresini, L. (2004). Il tunnel di Sarajevo: il conflitto in Bosnia-Erzegovina: una guerra psichiatrica? (Vol. 2). EDICICLO EDITORE.

The besieged urbanity³⁴.

The aspect I found more interesting from a landscape architectonic (and urbanistic) point of view was the newly established spatiality between the limits of the Siege. Soon in my research it was clear how the city of Sarajevo reacted to the imposed condition of isolation, changing from its core and re-adapting herself to new needs. The city was reshaped and reorganized by the people in such a way to boost security and respond to the new basic need of survival. In this paragraph, I will extensively address the "war spatiality" through the different scales and try to summarize which were my findings from several sources.

One of the most valuable texts documenting how was life during the Siege (and on which I strongly relied on for information) is the "Sarajevo survival guide"³⁵ written in Sarajevo, between 1992 and 1993, and distributed by Workman Press of New York. The manuscript is part of a project by FAMA³⁶, and intends to take visitors through the city and instructing them on how to survive with the few goods available. I found the document of interest due to the offered perspective, proposing Sarajevo not as a place without future and hope, but as a field of experimentation and invention.

And it is also this power of the city of Sarajevo and its citizens of re-inventing themselves and experiment that inspired me in the design phase.

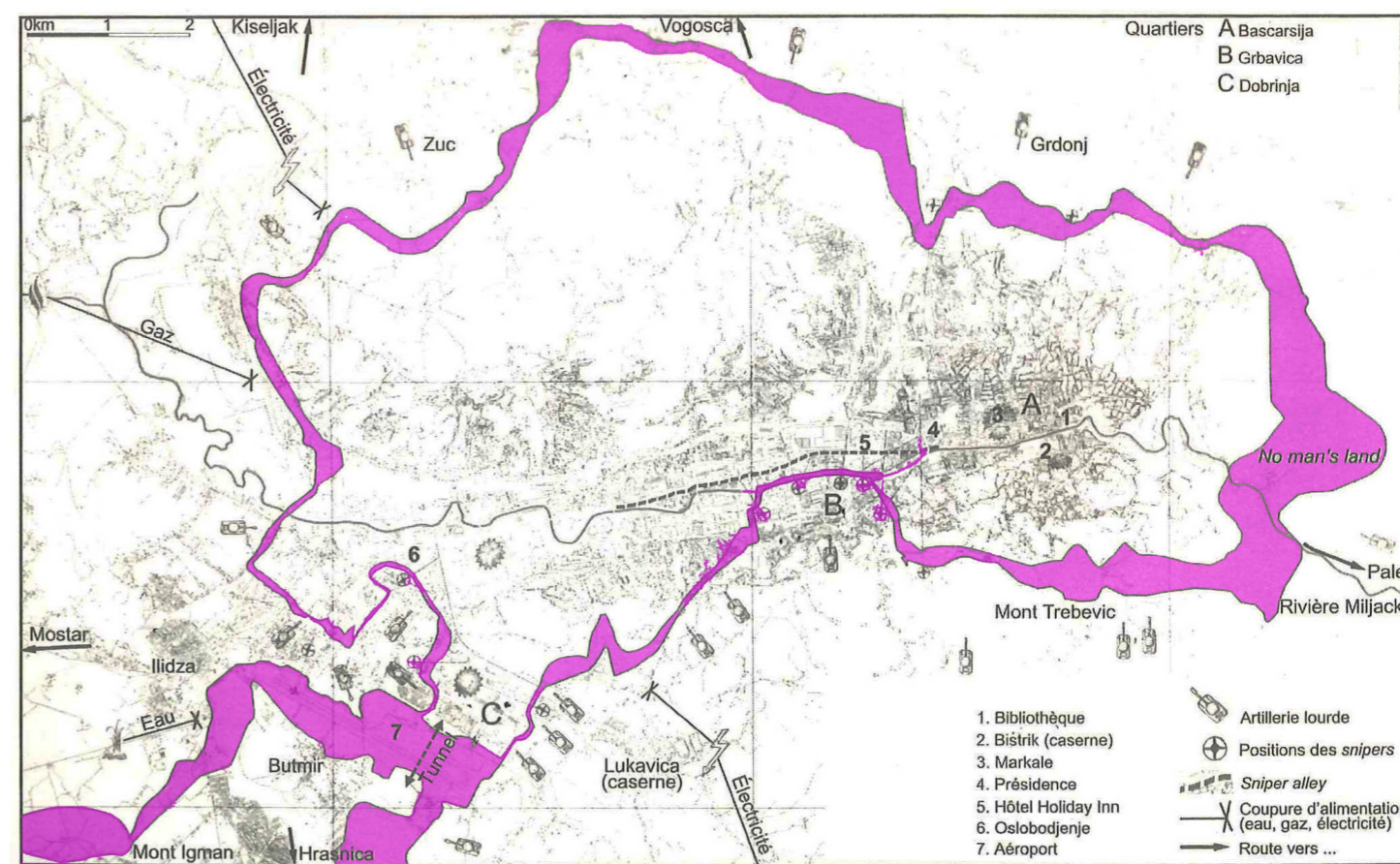


The siege line

(*Img 5*) The shown map, drawn by B.Cindric in 2003 and presented on the book: "Sarajevo mon Amour" by Florence La Bruyere, highlights the front lines of the conflict. An external line, the one marked by the artillery and sniping positions of the attack, runs through the surrounding mountain of the city. The internal line, closer to the city is the defensive line of the organized militias composed of military people and civilians aiming at protecting the city. The closer people were to these lines the higher was the risk of casualties due to the exposition to fire. Therefore, between these two lines a literal "no man's land" was created impossible to cross or approach. In several spots of the surrounding hills these lines are still marked today due to the alteration of the vegetation. Rows of trees or vegetation densities were used to protect the view of fire from both sides (*img4*). Moreover, on the city side, the closer to the former siege line, the higher the amount of vegetation that survived. This was due to the danger of chopping the trees

and collecting the wood, used by civilians to warm themselves during the cold winters.

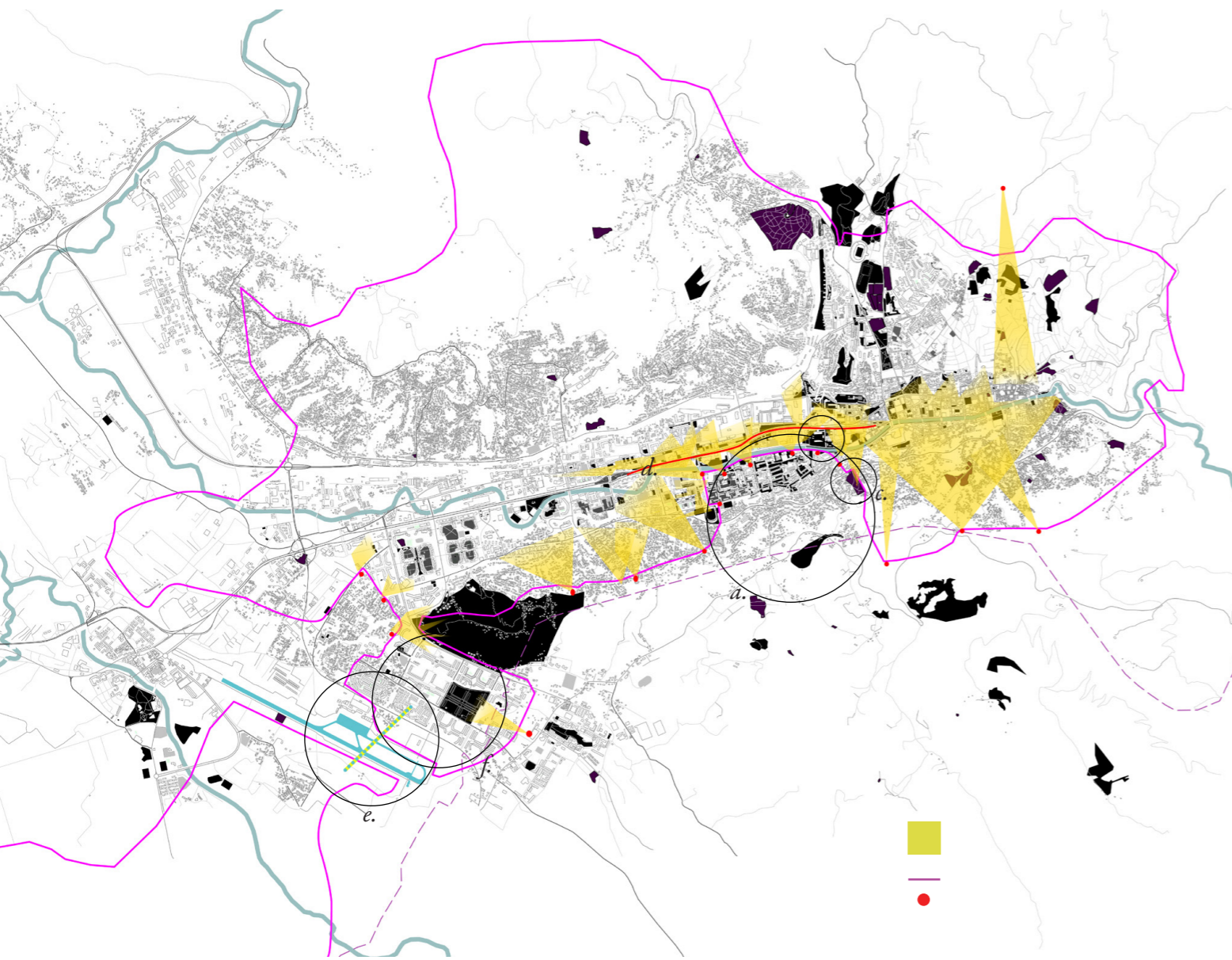
The two following maps show the siege line, as it lasted for most of the war. I drew them by collecting informations and text from different sources, in order to give an overview of the level of danger in the different areas of the city.



34. Defined as "urban life" comprehending the broad spectrum of the city spatiality and people behaviour and perception in it.

35. Sarajevo survival guide contributors:
Text--Miroslav Prstojevic
Photos--Zeljko Puljic for FAMA
Design--Nenad Dogan
Editors--Maja Razovic and Alexandra Wagner
Translation--Alexandra Wagner with Ellen Elias-Bursac
© FAMA, 1993.

36. FAMA is an independent production company that, in the pre-war period, worked primarily in audio/video media. During the war, under the fire of shells and snipers, in impossible conditions, FAMA organized and ideated several projects with artists and intellectuals. The outcome of their research and data collection is available at: FAMA Collection, Siege of Sarajevo 1992-1996. <http://famacollection.org/eng/> [Accessed April 2017].



The front line

The line, cutting through the surrounding hills penetrates the city in the historically Serb neighbourhood of Grbavica (a.) , reaching the river. This neighbourhood became a key spot during the war. One of the bridges crossing the Miljacka river at this point, the Most na Pofalićima, was the only spot for the rare exchanges between the two sides of the conflicts. Ironically called the “bridge of friendship” it was the sole spot where hostages were exchanged between the two sides. The siege line in Grbavica run until the Vrbanija bridge (b), famous for having witnessed the first war casualties marking the official beginning of the Siege. At this point the siege line withdraws passing through the old Jewish cemetery (c.) , a famous sniper spot for Serbians.

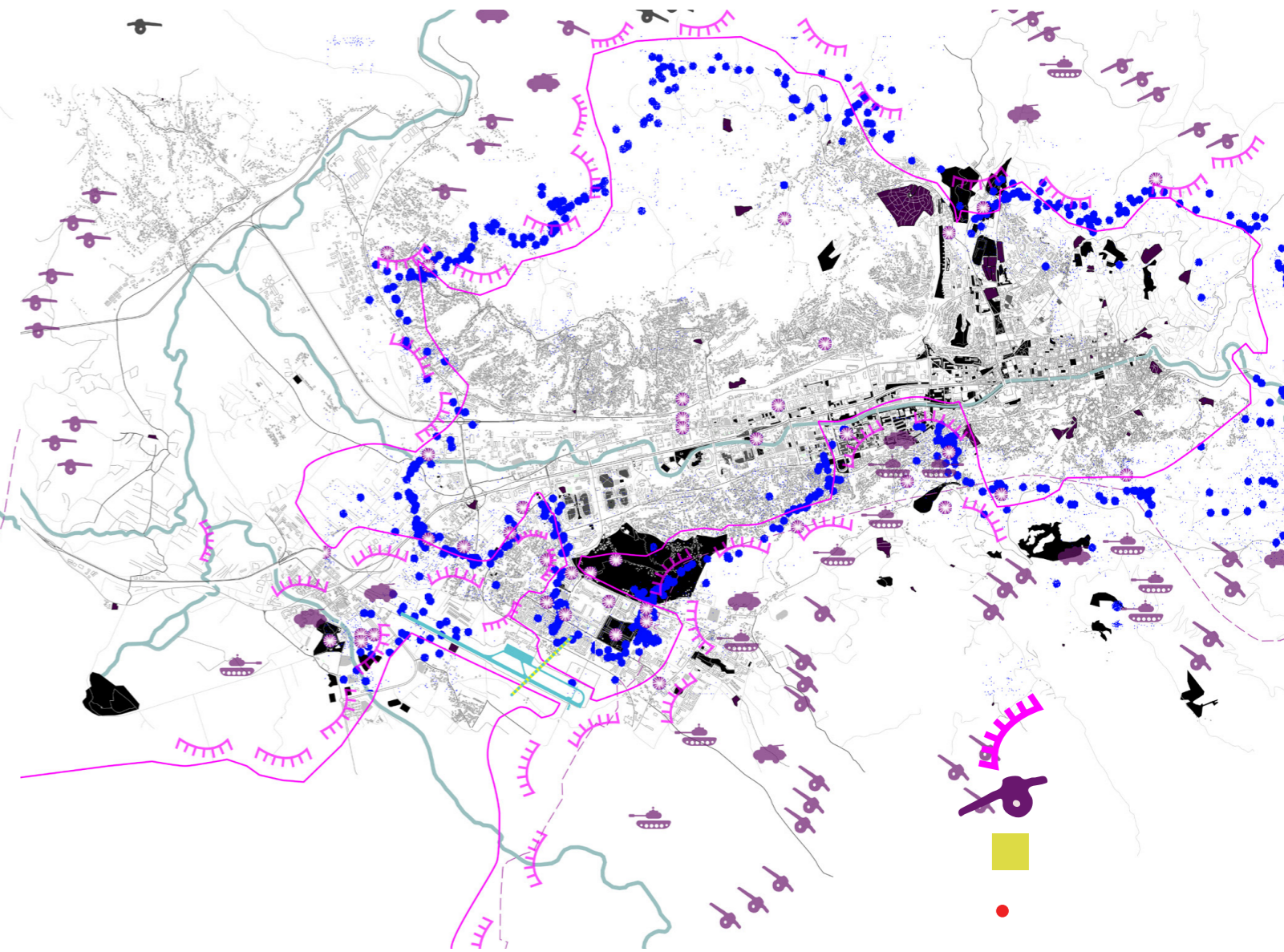
Grbavica was for the civilians a deadly spot because it allowed snipers to hide in the high-rise buildings facing the river, giving them a complete view on the main city artery, the Zmaja od Bosne Road (d). This stretch of road starting outside the city centre and leading westwards, was renamed by the inhabitants ‘Sniper Alley’ due to

its danger. The road is remembered as the most dangerous part of the city, impossible to safely cross, a feature that literally split the city into two separate entities.

This division constituted a problem, not only for the movement in the city, but also for the supply of aid material. Aid packages arrived through the UN-Controlled airport or the DB-Tunnel (e.), both situated at the extreme west of the city and needed to be transported to the city centre. Although the siege line broke at the Sarajevo International Airport, the city remained hermetically enclosed as the airport was controlled by the UN forces and open only for humanitarian aid, not for the movement of citizens.

Key for the survival of people was the DB-Tunnel, the city secret lifeline. By 1993, with no end to the siege in sight, the city organized militias begun to dig a tunnel to connect the city to the outside world. Volunteers took several months to dig the nearly one kilometre tunnel under the UN-controlled airport to link the neighbourhood of Dobrinja (f.), inside the siege lines to the Butmir area where supplies were available.

37-38-39. Ristic, M. (2014). ‘Sniper Alley’: The Politics of Urban Violence in the Besieged Sarajevo. *Built Environment*, 40(3), 342-356.



The Bosnian Army used this tunnel to shuttle food and humanitarian supplies but it also helped the Army bypass the international arms embargo and smuggle weapons into the city.

Once crossed the tunnel with supplies the exiting door (Inside the Siege line) was to be found in the garage of an apartment building of the Dobrinja neighbourhood. The exit was under constant guard and surrounded by trenches manned by the Bosnian troops. From here on, to reach the city centre, one had to go through the so called “salvation road”, a series of trenches and container barriers that enabled pedestrians to avoid the most dangerous part of Sniper alley.³⁷

In a more general sense, the different historical morphologies offered as well different degrees of protection. The tightly built Ottoman town provided more protection, and some of the crossing were covered by other buildings, but at the same time the steepness of the valley increased the proximity with the siege line. Moving west, the wider orthogonal street network of Austro-Hungarian part increased the danger, since some of the axial north-south streets were totally exposed. Moreover, the

majority of crossing and intersection between enclosed building blocks were exposed to the sniper sight.³⁸ The newer modernist morphology of the Socialist town offered less possibility for protection because of large open and exposed areas in between high rise residential buildings.³⁹ To cover these dangerous gaps, visual barriers were erected by inhabitants, made of any spare material that was available. Containers from international aid were organized at the crossroads, destroyed vehicles, rubbish containers and any hard material that could act as a shield from bullets or the sniper view. Where the urban morphology was denser, more towards the historical core of the city, a wider variety of solutions was possible. Other than the material mentioned here also curtains were used. Large pieces of textile were hanged from building to building, that blocked the view of the snipers, increasing the probability for people to cross safely. Moreover in open fields or where no material was available trenches were dugged using the soil as the only source of protection.

Through these means, the link between the eastern and western parts of the city was somehow re-established

// 05 Spatial solutions for survival

// 05.1 SPATIAL SOLUTIONS FOR CIRCULATING (AND LIVING) THE CITY



The whole circulation in the city during the Siege was characterized by one main feature: speed. The faster one was able to move around the city the higher the chances of survival.⁴⁰ Constants shelling and sniping from the surrounding hills called upon a re-organization of both the interior space and the outer space according to new coordinates: the ones of safety.

“For the people of Sarajevo, each time they leave their home is a major outing. To visit a friend is an event. Paths lead through back doors, over fences, through gardens, far from the dangerous roads. Visits usually end by staying overnight, for life ends in the early afternoon. In fact, war-parties are the best kind of entertainment. Once they start, they last until the morning. Hosts are those who, for that evening, have the electricity, or the drinks.”⁴¹

In the beginning of the Siege, circulating in the city demanded courage, but out of necessity for water, food, going to work or simply social interaction people found their own ways.⁴²

As mentioned wherever crossing a road was too dangerous defence structures were built. These solutions implemented by the people in order to safely use the space they were not merely punctual intervention. All together they acted as a network of protection and created a complex system that re- shaped the existing city into a new one, able to protect people in their daily practices.

The survival solution can be divided into two sub-categories. The ones focused on assuring a safe line of movement and others thought to protect and enclose spaces to allow activities to occur in it.

Containers, pieces of cloth, soil (trenches), new entrances to the building and tunnels were all solutions implemented to guarantee safe transitions. In the specificity trenches were commonly used, since they did not need any material rather than the bare soil. An infamous neighbourhood at the time for its “underground landscape” was Dobrinja.

On the other hand sand bags, spare materials and the buildings themselves, were used to create protected environment in which social activities could occur. A fundamental activity that originated out of necessity during the siege was urban farming, the production of vegetables for personal consumption.



40-41-42. Sarajevo survival guide contributors:
Text--Miroslav Prstojevic
Photos--Zeljko Puljic for FAMA
Design--Nenad Dogan
Editors--Maja Razovic and Alexandra Wagner
Translation--Alexandra Wagner with Ellen Elias-Bursac
© FAMA, 1993.

The betrayal of the landscape: A grenade from Mrkovic

Izet Sarajlic

//

<i>Vec trideseti satkako smo sa svih strana</i>	<i>È già da trenta ore</i>	<i>It's more than thirty hours now,</i>
<i>zasuti granatama</i>	<i>che le granate</i>	<i>that grenades</i>
<i>Jedna upravo ovog časa</i>	<i>piovono su di noi da ogni parte</i>	<i>rain on us from everywhere.</i>
<i>prolijeće</i>	<i>Una di queste</i>	<i>One of them</i>
<i>iznad moje pjesme</i>	<i>ha appena sorvolato la mia poesia</i>	<i>Just flew over my poem.</i>
<i>Ova je s Mrkovica</i>	<i>È stata tirata dal Mrkovoci</i>	<i>It comes from Mrkovoci</i>
<i>gdje sam prije rata</i>	<i>dove prima della guerra raccoglievo</i>	<i>where, before the war,</i>
<i>s onom koju volim</i>	<i>margherite</i>	<i>I ,with the woman I love,</i>
<i>brao margarete</i>	<i>con la donna che amo.</i>	<i>was picking daisies.</i>

//



As we understood from the previous chapters, the hills and more in general the territory surrounding the city of Sarajevo always played an active role in people's lives.

Sarajevo has always been recognized as a vibrant green city, riddled with trees and flowers, surrounded by a stunning landscape that blended into the city in a direct relationship. Sarajevans always kept a close bond and respect of the hills and vegetation both inside and outside the city. Spending time in nature, hiking to the hills and the mountains was an almost daily habit, due to the increasing accessibility and the proximity of the peaks to the city core.

“Sarajevans once loved their hills and the fact that their city was like a bird in a green nest.” ⁴³

Sarajevo's topography, source of its astonishing beauty, soon became its great curse.

In fact, the siege of the city turned out to be so effective thanks to the specific topography in which it occurred. The hills and mountains, offered

strategic points of view and hidden spots where the Serbian militias could position their weapons and efficiently shoot to the city.

The common understanding of their territory changed into the people's minds. From an idyllic spot of leisure it turned into the primary source of death and danger, where the end of the city was being engineered and spread daily.

The territory assumed during the Siege a different shade: the one of the duality. I refer to the specific type of landscape that originated during the war as a "dual landscape". Dual because it was both a source of attack, offering himself as the nest of the enemy, and defence, helping the people to survive in the city.

Holes were dug as sniper nests in the hills and as to protect the inhabitants inside the city. Moreover it was thanks to the soil, the vegetation and urban farming that several people were able to survive and feed themselves through the four years of Siege.

The duality of this landscape is also to be read

as a physical duality. The trenches dug in the soil created a network of paths able to connect isolated parts of the city and created an "underground" protected landscape in contrast with the over-ground exposed one. In conclusion we are in front of a landscape of both attack and defence, death and survival, over ground and under ground.

After the siege the perception and use people made of their surroundings changed. Due to the mines left in the woods by the withdrawing troops and the incidents that followed, after the war people remained suspicious and avoided the hills. In recent years, the mountains around Sarajevo have been almost entirely cleared from the mines and new investments built leisure spots around the city. The hills are slowly being re-appropriated but still remain largely un-used, abandoned and host several ruined buildings scattered around.

The siege was the first moment where the identity of the people and the recognition they had of their territory cracked and started detaching from its long history of love and respect for the surroundings.

43. Sarajevo survival guide contributors:
Text--Miroslav Prstojevic
Photos--Zeljko Puljic for FAMA
Design--Nenad Dogan
Editors--Maja Razovic and Alexandra Wagner
Translation--Alexandra Wagner with Ellen Elias-Bursac
© FAMA, 1993.

Necessity is the mother of all invention. This sentence accurately describes the articulated food production system born in Sarajevo during the 1425-days-long siege. Between 1992 and 1996 the city of Sarajevo underwent one of the longest sieges of modern history. Completely isolated and daily shelled, the hunt for food became harder and harder as the days went by. People found new alternative ways of feeding themselves by growing their own produce wherever they could find a safe patch of land. Playgrounds, courtyards, parks and balconies were soon populated by cabbages, carrots and tomatoes.

The territory, the ground and vegetation, long beloved by Sarajevans became now their primary source of survival.

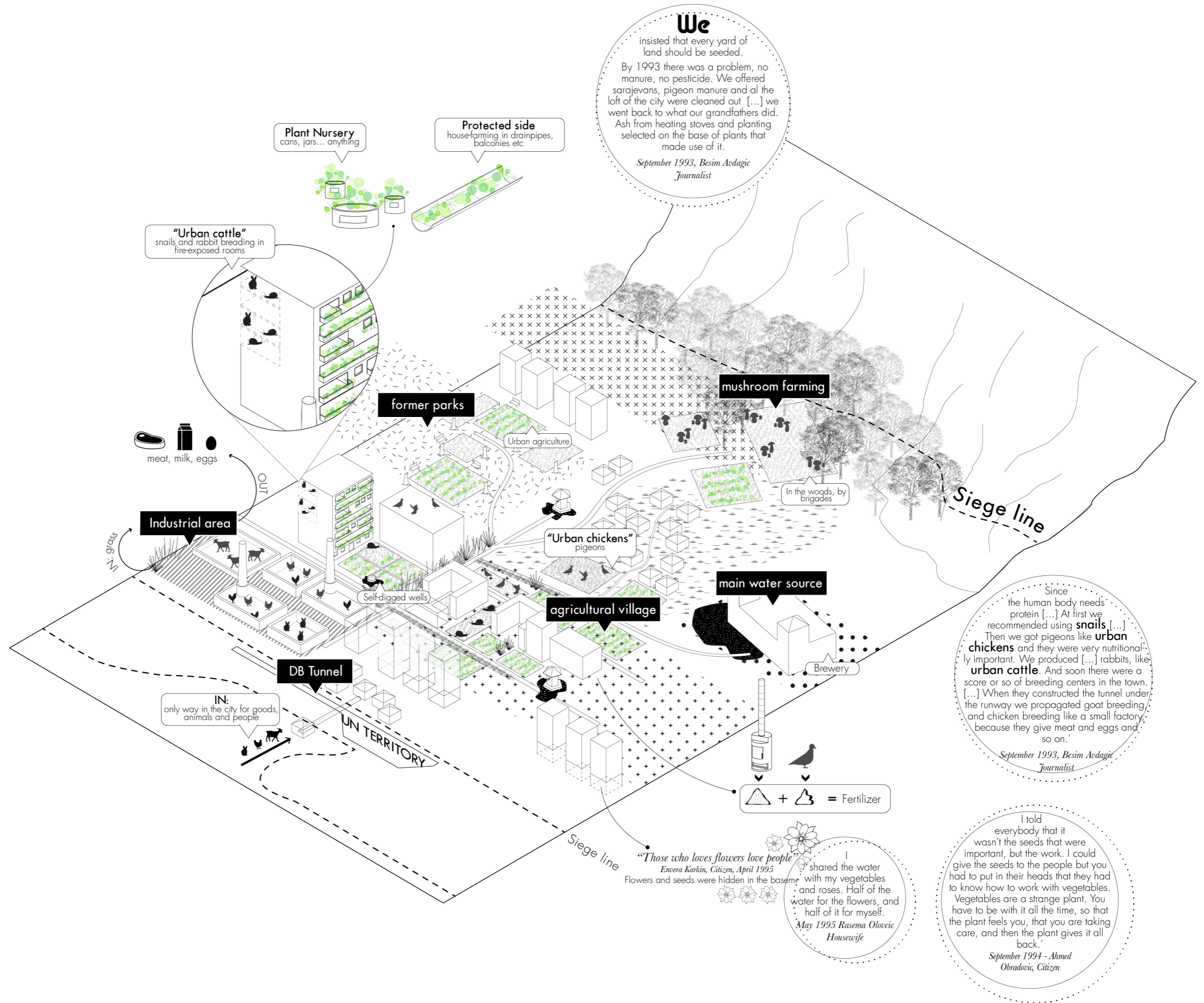
Urban farming turned the city and its spatiality into a new city model aimed at a new essential goal. The city changed from its core, the open green spaces were first destroyed and exploited and soon reorganized and protected. The city was reshaped in the mind and the words of people, that started using new, more suitable definitions: rabbits and snails became the “urban cattle”, specific neighbourhood was reference as “agricultural villages”, pigeons became the “urban chickens” etc..

Urban agriculture was not only necessary for the body but also for the soul. Several interviews of survivors describe how daily engaging with plants, caring for them and seeing them grow, distracted them, gave them hope and reminded them of “life”.

The drawing represents the city of Sarajevo as a closed agricultural system with rare outside inputs. The spatiality, the new definitions and the described solutions are a precise translation of several interviews of experts and civilians that experienced the siege.

SOURCES:

For the citations in the drawing, and any other informations regarding the siege food production, please see the section “Survival Gardens”, EAMA Collection online archive. <http://www.famacollection.org/index.php/conceptualindex/search/tag/survival%20gardens>

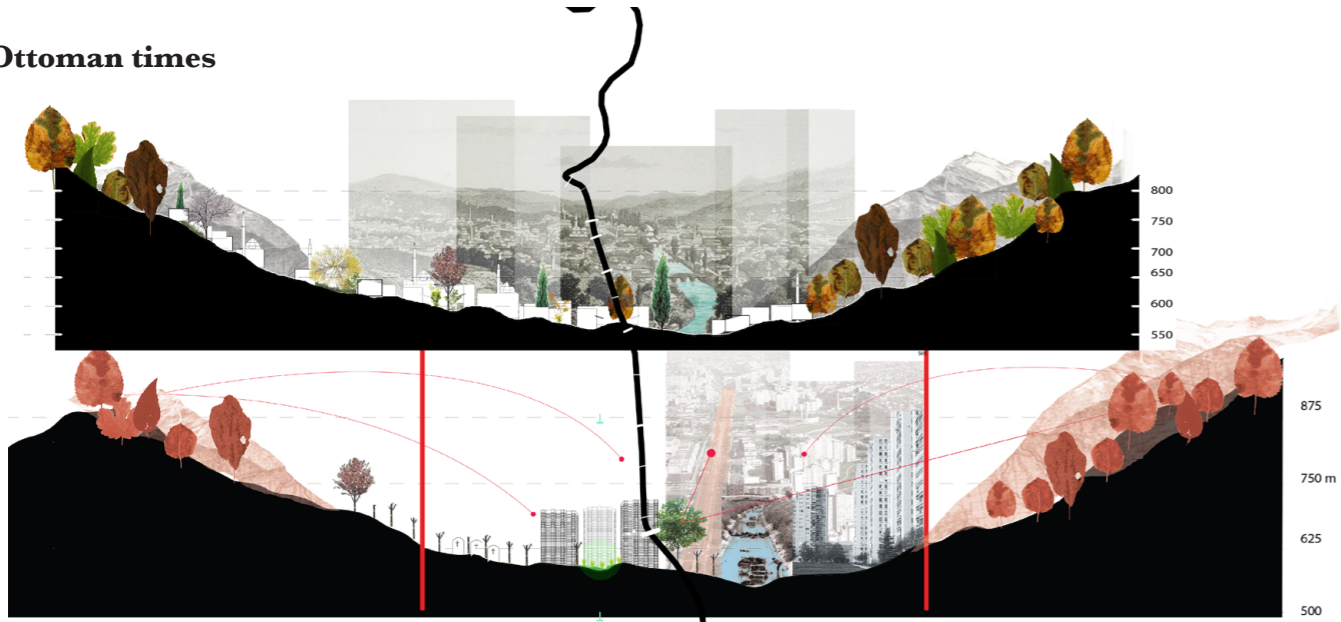


In conclusion we observed how through time the people of Sarajevo always kept a really close relationship with the natural environment inside the city and their territory. The profound love and respect of Sarajevans for nature can be tracked in different historical times, up until the Siege. The siege changed this aspect and set new rules and relationships that can still be

observed today.

The following sections (spatially organizing according the actual topography) describe the relationship between the city and the landscape in the different historical times and puts them in comparison, highlighting the fundamental change that occurred during the Siege

Ottoman times



The siege

Austro-Hungarian rule

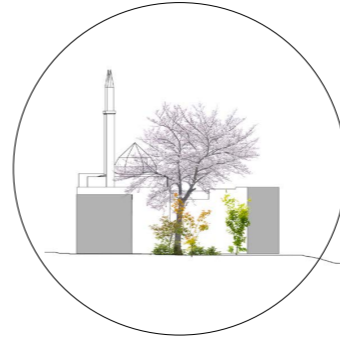


Socialist era

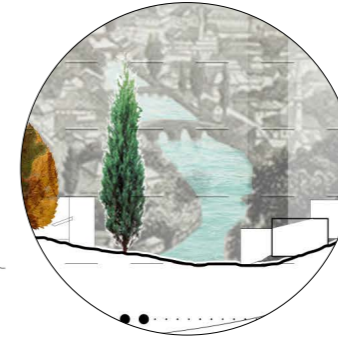


Ottoman times

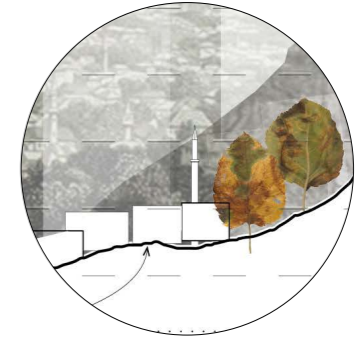
Enclosed green spaces, often relating to worship places.



Populus nigra italica as a landmark.

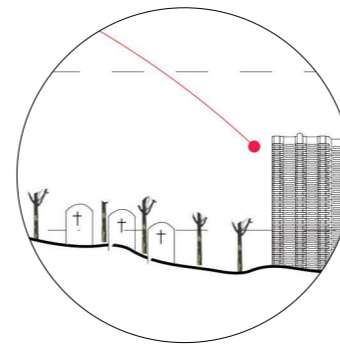


Close relation to the landscape.

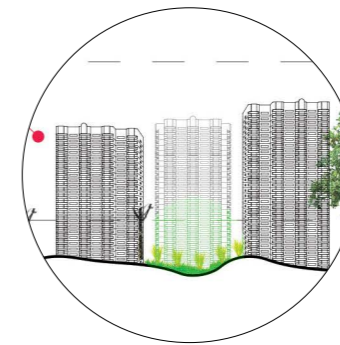


The siege

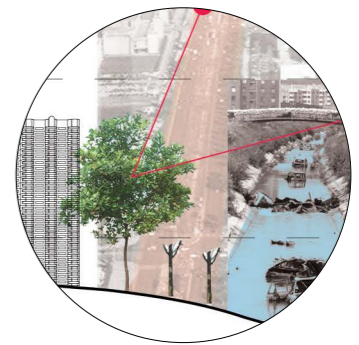
Trees are chopped, danger comes from the hills, the landscape.



New landscape of survival



Vegetation used as shield



Austro-Hungarian rule

First public parks.



Enclosed green spaces

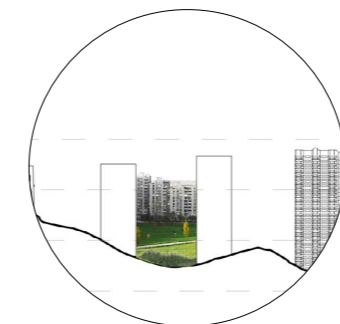


Relation to the larger landscape is lost.



Socialist era

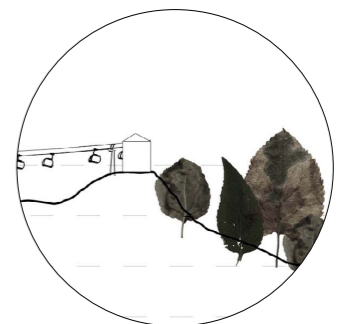
Communal space inside buildings.



Expansion into the larger landscape



Exploitation relationship with the landscape





// 06 RESEARCH METHODOLOGY 2

LANDSCAPE METHODOLOGY (2):

// 06.1 THE LANDSCAPE GENEALOGY: THEORY. // 06.2 THE LANDSCAPE GENEALOGY: PRACTICE. // 06.3 THE LANDSCAPE GENEALOGY: CONCLUSIONS

The answer to the questions raised at the end of the chapter of the methodology¹ can be read in the landscape genealogy. Given the fact, that in many cases biographical analyses of landscapes are likely to remain rather abstract, I proceed by presenting an extension to it, which I believe offers a bridge with the design: the landscape genealogy. Through the drawing of the genealogy of the urban space, based on the informations obtained through the landscape biography, it will be possible to decipher the past, present and future needs of the urban space of Sarajevo. The genealogy offers a critic interpretation of the historical informations, applying them to the existing urban space. The conclusion dragged from the genealogical method, not only defined the identity of the space of Sarajevo, but set the needs and goals of the intervention. In the last chapter it is explained the possibility of abstracting this procedure and use it as an approach in researching and understanding any kind of site, not only a post-war situation.

The landscape genealogy: theory.

The genealogy is approached as defined by Michel Foucault¹, using the informations obtained by the landscape biography but generating new design-focused conclusion on the current city green space. Genealogy is defined by Foucault as a subjective methodology depending on the accumulation of a large amount of historical informations.

The tracing of the past by a genealogist is necessarily an interpretation and he also recognizes that, the meanings that are deducted are open to interpretations. The genealogical approach detaches from history and seeks the reason behind the surface practices and spatial organizations. A simple definition of Foucault's genealogy is that it is a certain type of history that seeks to deconstruct what is regarded as unified, such as history as a chronological pattern of events, while attempting to identify an underlying continuity that is in itself a product of "discontinuous

systemacies". For Foucault the spatiality of today is not made up by a historical linear evolution, but emerged from all the "wrong moments" the bumps, irregularities and conflicts that occurred through history.

The landscape genealogy: practice.

To see how this interpretation was suitable for the specific case of Sarajevo, and to give guidelines to replicate it in other cases, I will describe concretely how to draw the genealogy of a city. In general, the complexity of the space (IMG 1) asked for simplification and creation of analogies to get a grip on the reality and at the same time categorize some city features. During the site visit I collected pictures, impressions and data about the different spaces and, together with the informations of the desk study I came up with a functional subdivision of the urban green space of today into 19 typologies. (IMG 2.)

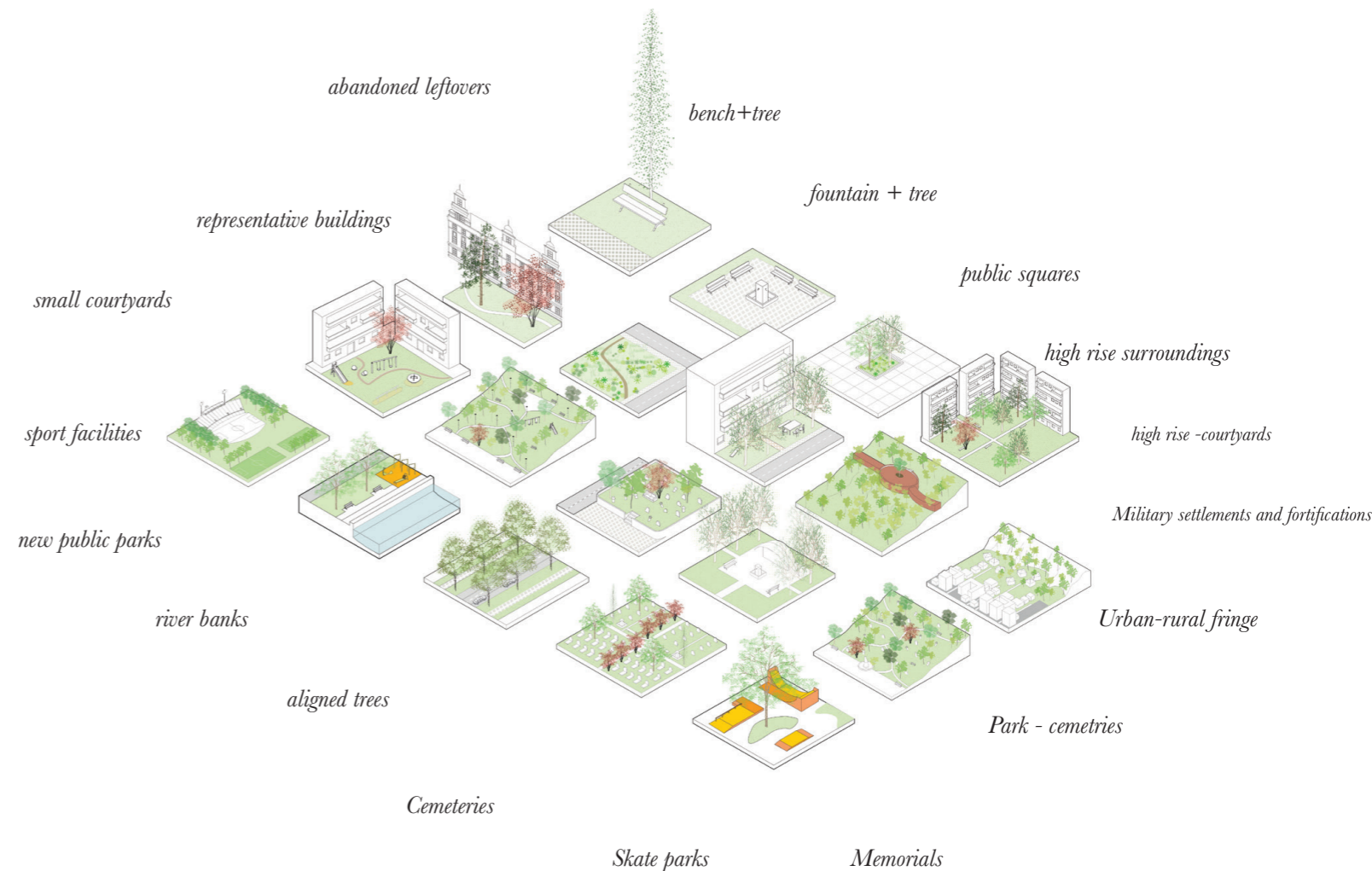
In parallel, I focused on the historical layers

1. More about Foucault's genealogy can be read here: Foucault, Michel (2003). The Essential Foucault: Selections from Essential works of Foucault, 1954-1984. New York, NY: The New Press. p. 306 and here: Foucault, M. (1978). Nietzsche, genealogy, history. Semiotexte, 3(1), 78-94.

2. Carl Gustav Jung (1875 – 1961) was a Swiss psychiatrist and psychoanalyst who founded analytical psychology. His work has been influential not only in psychiatry but also in anthropology, archaeology, literature, philosophy and religious studies. He created some of the best known psychological concepts, including synchronicity, archetypal phenomena, and the collective unconscious.

A structure with multiple influences

A space with multiple visible influences



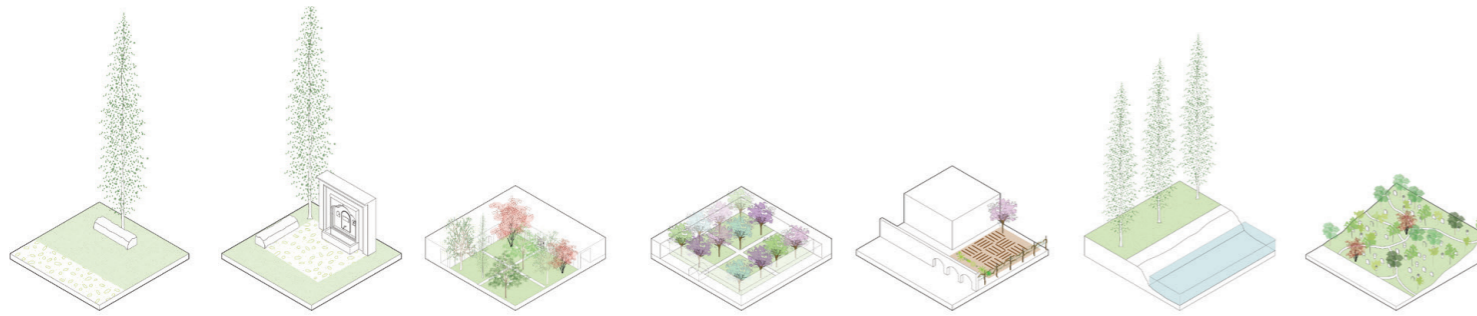
Typologies of the green spaces

Archetypes

[ahr-ki-tahyp] noun; gr. *arkhētypon* from *arkhe-* “first” (see *archon*) + *typos* “model, type” (see *Tipo*)

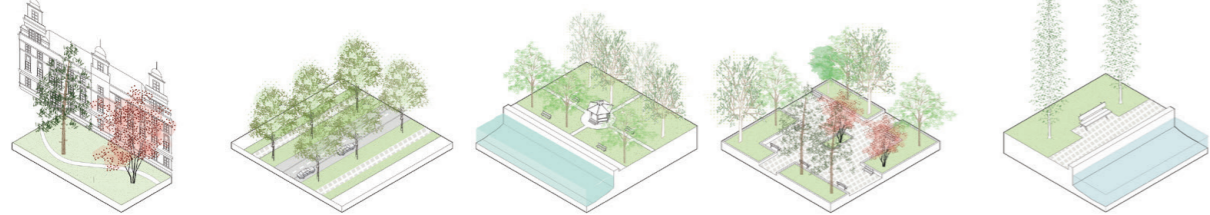
1. A very typical example of a certain person or thing;
2. An original which has been imitated; a prototype;

ottoman times: familiar green



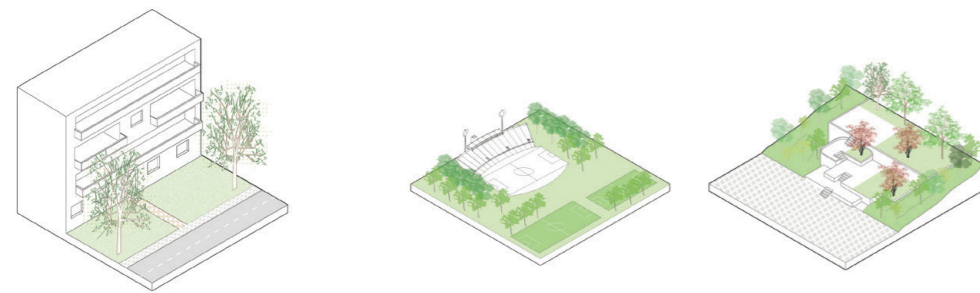
bench+tree fountain + tree family courtyards enclosed orchards vegetable gardens river banks cemeteries

Austro-hungarian times : public green

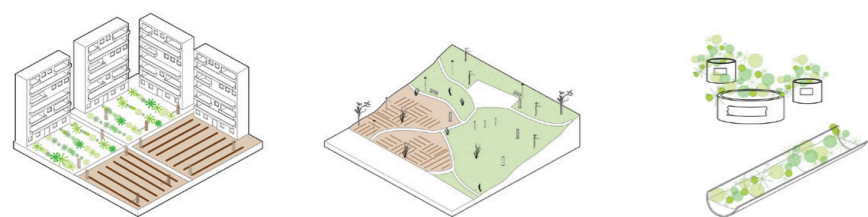


representative buildings aligned trees public parks public squares river banks

Socialist era: communal spaces



high rise buildings surroundings sport infrastructures Memorials



Urban agriculture (courtyards) Urban agriculture (parks) Urban agriculture (interiors)



highlighted with the landscape biography. For each historical time I defined and formalized some “Archetypes” in the Jungian² declination of the term. According to the psychologist Carl Gustav Jung, wherever there is a commonality of human experiences over extended periods of time, archetypes arise to help structure these experiences. An archetype is a primordial circumstance that recurs in time and is thought to be a universal concept. One of the fundamental aspects of the Jungian archetypes is their variability—they change their form to adapt themselves to specific cultural contexts while their core remains unchanged. The chosen archetypes for Sarajevo are indeed transcendent in time and space, but they are as well formulated on the specific city, bearing site-specific characteristics. (IMG 3.)

Having defined and represented the typologies of the modern day space and the ones of each historical time the real role of the “genealogist” begins. All these different typologies exist as separate entities but assume new meanings if connected and related to each other. (IMG 4.) Some connections between the different archetypes and the modern space will appear as obvious (the evolution of the typology of the orchard from the Ottoman to the Austro-Hungarian times, or the evolution of the typology of the fountain+tree that evolved from Ottoman times until today changing its outlook... etc) while other can be recognized only after a deep historical study (the Austro-Hungarian imposed parks that merge with the ancient Ottoman cemeteries,

originating a new type of park).

In general an evolutionary flow of the space emerges, that highlights all the conflicts, interruptions or unifications of the archetypes that generated new space typologies. Summarizing these typologies in a unique drawing helped me to drag the conclusions needed to start designing. In the drawing is clear how the genealogy of Foucault is particularly prolific for Sarajevo. The city space was shaped by conflicts of different natures such as the one between the typologies imposed by ruling powers and the people (i.e. The Ottoman cemeteries turned into Austro-Hungarian parks).

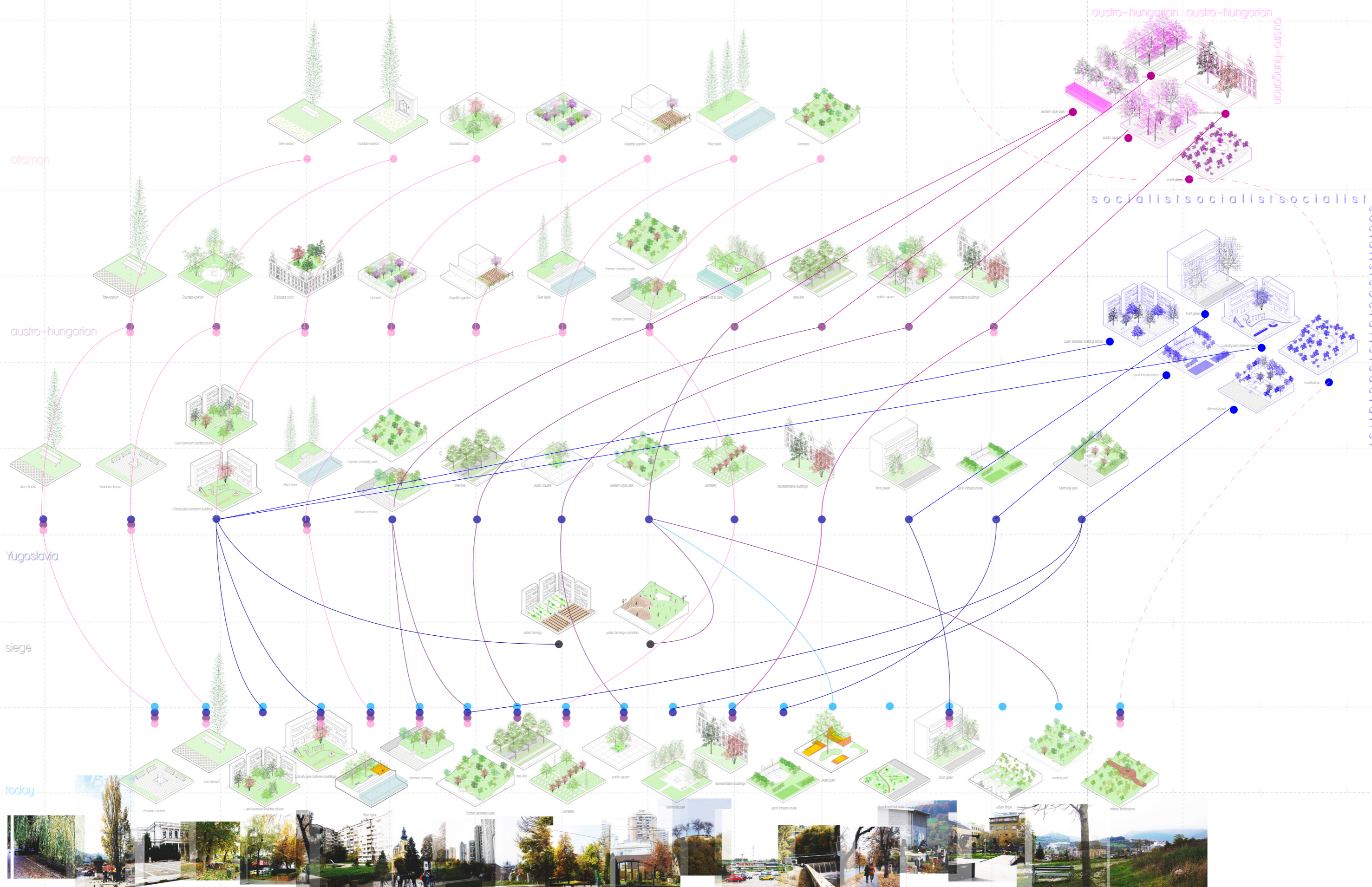
The landscape genealogy: conclusions.

First of all, we are finally able to understand and define the specificity of the urban space of Sarajevo. It can be described as a “subsuming landscape”³, since over time it has absorbed all the different cultural influences to enrich its character. The urban space of Sarajevo has been shaped through history by externally-imposed powers, that while ruling the city they brought and imposed on the existing urban tissue new typologies. These typologies did not just over impose on the existing structure, but were appropriated by people, modified and coherently merged into the city structure. The identity of the space of Sarajevo is therefore, built up by various influences that were not laid one on top of each other but merged together, enriching one another. This

3. From the Oxford Dictionary:
To subsume, verb.
UK /səb'sju:m/ means to include something or someone as part of a larger group. Word from medieval Latin *subsumere*, from *sub-* ‘from below’ + *sumere* ‘take

Genealogy of the space

External influences



integrative landscape is therefore the essential core of the city.

Moreover, from the scheme it also emerged how the use people did of the green space during the war, the so-called “war green spatiality” has no influence on the space of today. The war represents a halt in the evolutionary stream of the space, the typologies of the war were dismissed and forgotten and people went back to the pre-war use of the space. In the specific type of urban landscape of Sarajevo, built up by various historical influences this represents an issue. This is the point in which the city started a non-coherent development of the green structure, based on international capitalistic investments, that has nothing to do with the city’s character. It can be seen as well as a metaphor for the people attitude towards the memory of the war, present but avoided.

The question is now, how can we give, spatially, a new understanding of the siege, just as one of the steps of historical evolution, able to enrich the city space? Which forms and shapes can be used to reach this goal?

Design theory

In his book “War and Architecture”⁴ Lebbeus Woods addresses the theme of the reconstruction of Sarajevo. He describes how war alters life and architecture, reducing the existing patterns, through violence, to a ruined pattern that can’t be simply replaced or restored. For Woods, the ruined buildings are the result of an intense human effort, they need to be analysed, comprehended and re-used in the future design. In his architectural logic, cities that have been destroyed by a human act, should not be forced to return to their previous state. Doing so would mean erasing the history of what happened; instead, the space should express what it went through. His idea is the one of a reconstructed Sarajevo, surrounded by its own ruins, the new buildings would interact or exist within the ruins themselves. His vision condemns residents to a perpetual sighting of the effects of the war as a process of normalization and healing. The principle here is that reconstruction integrates people’s experiences of the destruction, into the future design.

Thanks to the biographical analysis we discovered how, during the war people reshaped the city in order to answer to basic needs of survival: trenches, protective curtains, holes in the buildings and urban agriculture, were all solutions that produced a new kind of space, unique in its history and meaning. (IMG 9.) . The city was completely reshaped to answer to new needs. It did not stop, instead it became a productive system of food and protection for the people.

The genealogy of the space proved how the space of Sarajevo failed to absorb this specific spatiality and in the same way people failed to heal from the traumatic memories of a hunting past.

Design practice.

Looking at the conclusions dragged by the genealogical analysis and thinking of spatial solutions, the theories of Lebbeus Woods do give an answer on how to proceed. By keeping the existing war ruins and by partly recreating the war spatiality, people will be confronted with it and experience it. Moreover, by adding a new function based on the modern needs of the city (a space for experimenting with agricultural practices, new leisure spots a playground etc...) this intervention can be read as something enriching, in a place commonly associated with fear. The area will, in this way, become part of this “subsuming landscape” and will be experienced alongside other historical heritage sites of the city. People will be able to experience it just as one of the many historical events that shaped and enriched the urban green space.

In the specificity of the case of Sarajevo we are speaking about defined solutions that emerged through the study of the siege from a biographical perspective. As landscape designer the focus will be on the soil, earth and ground movement, inspired by the solutions people undertook during the war.

In this way the process of healing and acceptance of the past by the population can start and slowly the siege will be set into the larger historical perspective of the city evolutionary stream. The resulting

intervention and its spatial solution, are therefore coherent both with the historical past of the city and its historical identity and with the future needs of space and population.

Conclusion: how to apply the method in different circumstances.

It is not necessary to detail all the exact spatial solutions in this place, since the focus of the method is more to propose a new way of approaching an unknown post-war site and to drag site-specific conclusion that will frame the design process. The method can be seen as a new perspective on a traumatized site aiming at giving the means for a coherent spatial evolution that respects the genius loci of the place. As Foucault’s specifies, the whole method has indeed a part which is subjective, based on the sensibility and intuitions of the researcher/designer but this doesn’t make the procedure less scientific. This text offers one possible solution for the case of Sarajevo, but several other meanings, conclusions and necessities for the space can emerge from a genealogical analysis.

One of the main restriction of this method is the fact that, if we chose to agree with the theories of Lebbeus Woods, it can be applied only in post-war circumstances. There is however, the possibility of abstracting it and making it relevant to other circumstances. It is possible to apply it partially, following the described steps up until the definition of the genealogy of the chosen urban space, that will highlight its specific character. From this point on, defined the identity of the space we are dealing with, different conclusions will be dragged in the light of the historical research. If we find ourselves in a post-war scenario, then the theories of Lebbeus Woods can be applied; If not, I believe the method to still be valid, but it will be up to the landscape designer or researcher to decide the new steps, following the conclusion dragged from the genealogy of the space.

What I am describing here is not a step by step method universally valid, but a way of thinking and approaching an urban space with a historical layering, able to give a new understanding of the space and new tools that will suit that specific area.

Therefore, it is possible to abstract the method and use it in different circumstances but the outcome will always be site-specific, and the conclusion might vary in aim and relevance.

4. Woods, L. (1993). War and Architecture: Pamphlet Architecture 15..

// 07 conclusions and site definition

From the genealogical analysis of the green spaces of the city, an evolutionary flow of the space emerges, that highlights all the conflicts, interruptions or unifications of the historical archetypes that generated the space typologies of today. Summarizing these typologies in a unique drawing helped me to drag the conclusions needed to set the design goal and principles.

Thanks to the genealogy of Sarajevo I was able to drag the following conclusions:

1. I defined the specificity of the urban space of Sarajevo. It can be described as a “subsuming landscape”¹², since over time it has absorbed all the different cultural influences to enrich its character. The urban space of Sarajevo has been shaped through history by externally-imposed powers, that while ruling the city they brought in the existing urban tissue new typologies. These typologies did not just over impose on the existing structure, but were appropriated by people, modified and coherently merged into the city logic. The identity of the space of Sarajevo is therefore, built upon these influences that merged together, enriching one another. This integrative landscape mirrors the development logic of the city and needs to be addressed in a future design.

2. From the scheme it emerged how the use people did of the green spaces during the war, has no influence on the space of today. These spaces and spatial solutions disappeared or faded away, almost un-noticed. In the logic of the genealogy the war represents a halt in the evolutionary stream of the space, with people going back to the pre-war use of the space. This is the point in which the city started a non-coherent development of the green structure, based on international capitalistic investments, that has nothing to do with the city's character. It can be seen as well as a metaphor for the people attitude towards the still-hurting memory of the war, present but avoided.

3. The Siege itself originated as well a new typology which is the one of the abandoned cut-out of land and the abandoned ruins, where nature started (and succeeded) to take over and set the new rules for the use of the space. Some of these areas are left in "decay" due to blurry property rights that emerged in the post-war bureaucracy, some are just abandoned due to a lack of funds or indifference. Spread around the city there are



// 08 site choice

// 08.1 CRITICAL LANDSCAPES IN THE CITY

Alipasno Polje
Former Olympic Village
Front line during the siege

Industrial leftovers
Unused and polluted

Old people's home
Abandoned and ruined

Valley of the city
Suggestive display of history

Tito's military barracks
Symbol of foreign ruling powers

One of the deadliest sniper nests

abandoned pools

Abandoned AH barracks

Latin Bridge

as well different ruins dating from different historical times but especially from the Siege one. These ruins were slowly appropriated by nature and people and partly act as public space. They are embedded with memories and scars, representing a direct association with the war.

4. The genealogy highlighted the presence of a specific typology, the former military settlements (both from Austro-Hungarian times and the socialist era) that are today partially used as public spaces and sometimes appear in a state of ruin and decay.

Between all the "critical landscapes" (All the sites around the city, with a particular meaning in the common memory of the people, a complex historical layering, that are in ruins or abandoned, that had a prominent role during the war, former military site etc.) that I observed in the city (see map) especially the last two points directed me in the choice of the site of intervention:

"Tito's barracks", former military barracks used today as university campus.

The area is a symbol of ruling powers and violence and historically never belonged to the citizens, acting more like a void in the public space structure rather than a prolific space. The area presents a great landscape potential, where nature was left to do its course and started to inhabit the space both horizontally and vertically, climbing up the ruins. And these ruins present themselves with the heavy traces of the Siege: scars, bullet holes and mortar marks are still visible in the facades. The site has a strong presence in the common memory but at the same time the new programmatic use of the university campus looks strongly at the future with its educational purpose.

1/8000

Vrbanja Bridge
Marks the first casualties of the war and its beginning

Vraca memorial park
WWII Memorial to the partisan
Socialist symbol, currently abandoned

Abandoned observator

Former Olympic Bob-sleigh
Ruined but visited. Symbol of unity. Strategic attack point for the enemy during the war

Bridge of friendship
people exchange during the war

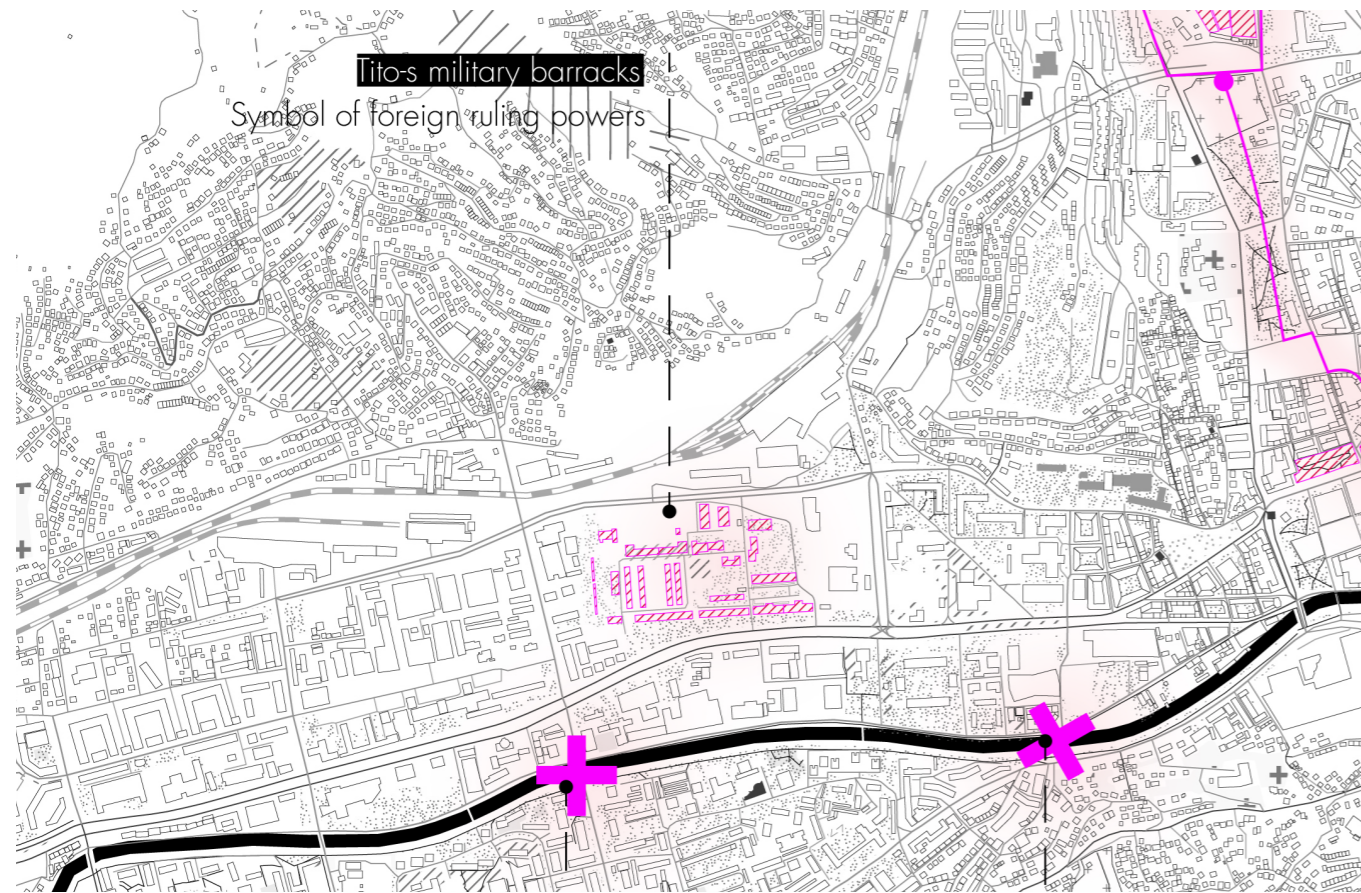
Dobrinja
Entity line dividing the neighbourhood

Vidikovac Cablecar station

Symbolic meaning which is not marked, ruined or abandoned, layered historical meaning.

// site choice

// 08.2 TITO'S BARRACKS



TITO'S BARRACKS THROUGH SCALES

// 09 Site analysis

TERRITORIAL, NEIGHBOURHOOD AND SPECIFIC SCALE

// 09. topography

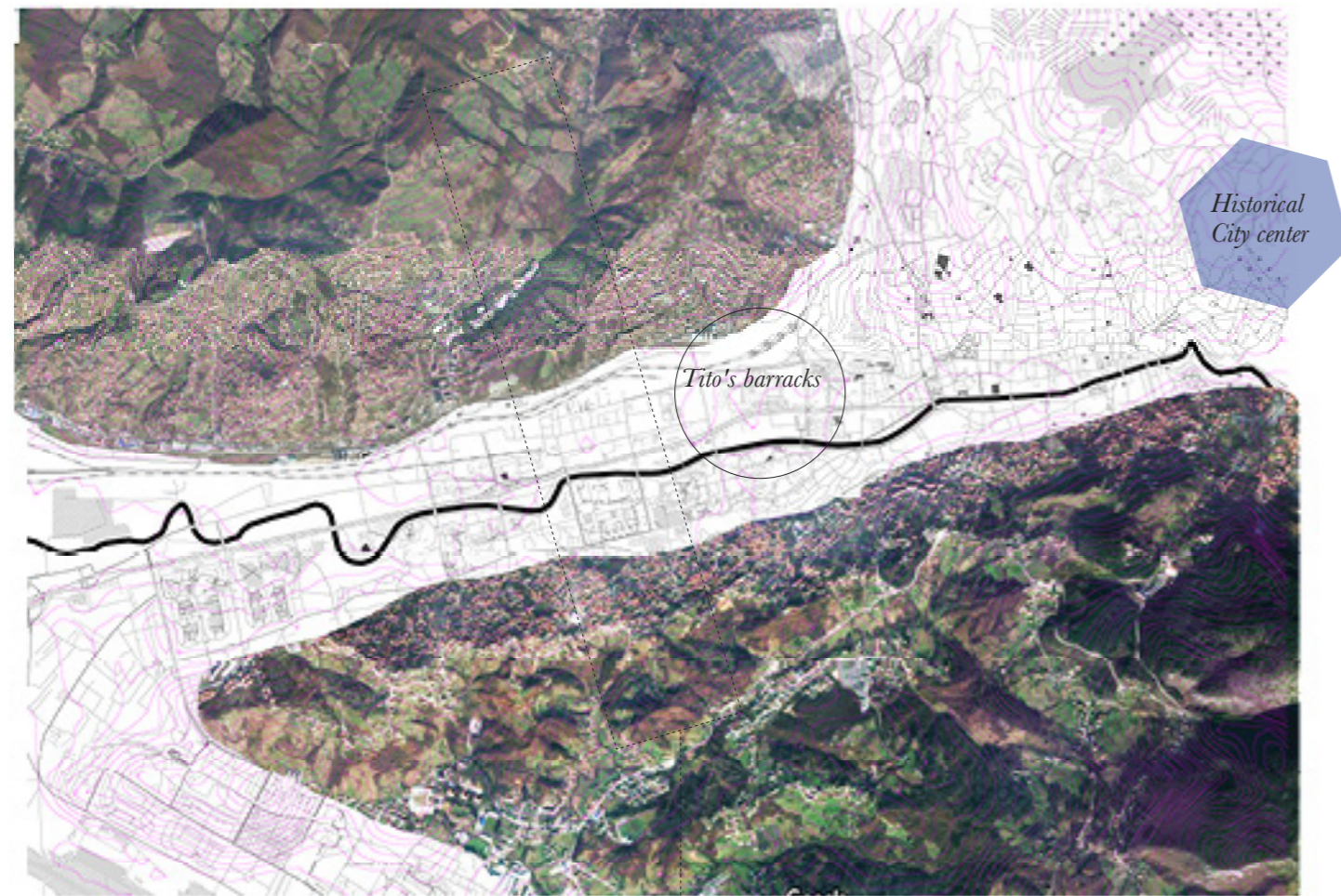
// 09.1 STUDY MODEL



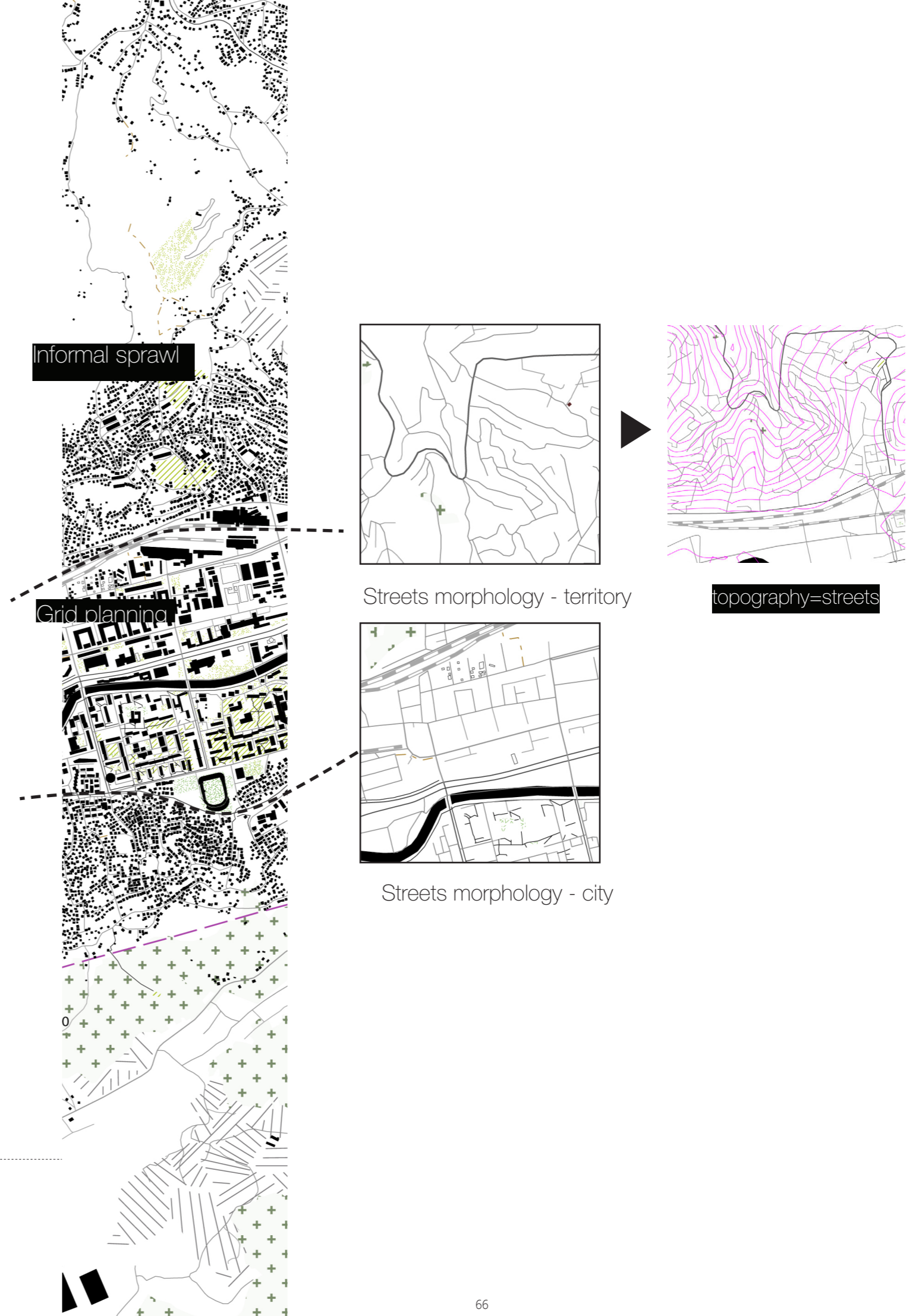
// 09.2 Territorial scale

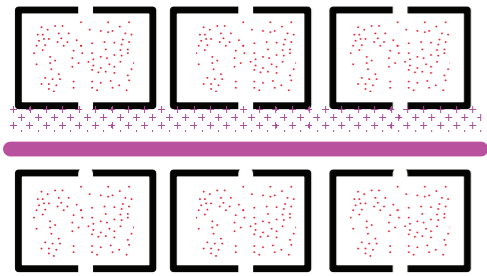
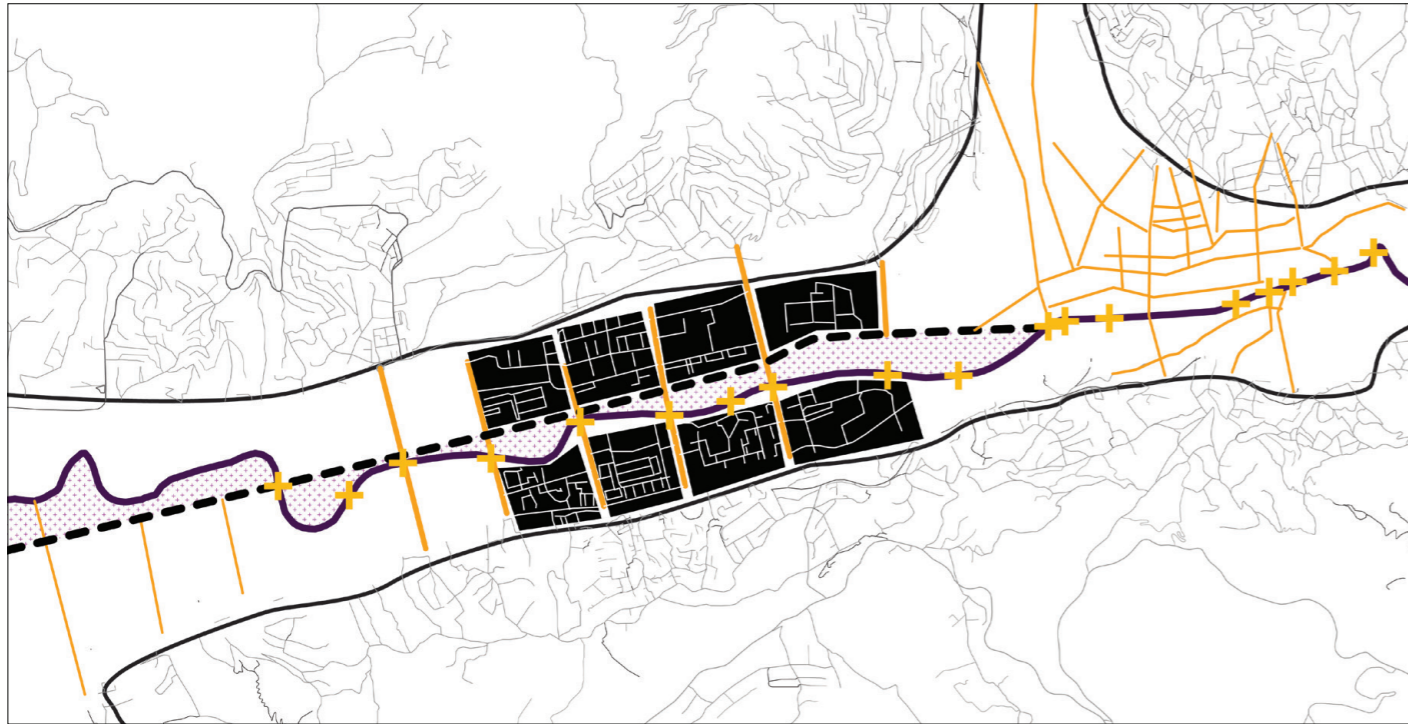
// 09.2 MORPHOLOGY OF THE AREA

The former military barracks are situated in an area of great urban pressure. They find themselves in between the end of the historical core of the city (the Austro-Hungarian) morphology and the modernist expansion. Moreover they set themselves in one of the narrowest parts of the valley, making the landscape a constant and present background, with the hill slope almost entering the site to the North.



The spot is also part of the planned grid of the modernist expansion but is directly facing the informal urban sprawl occurring on the hills just behind. This is highlighted by the specific morphology of the street patterns. The grid-like street system that clings to the river as a reference point, is counterposed to the informal road pattern of the hills. These roads, built where the topography would allow it, represent a direct cast of the shape of the territory and its steep configuration.



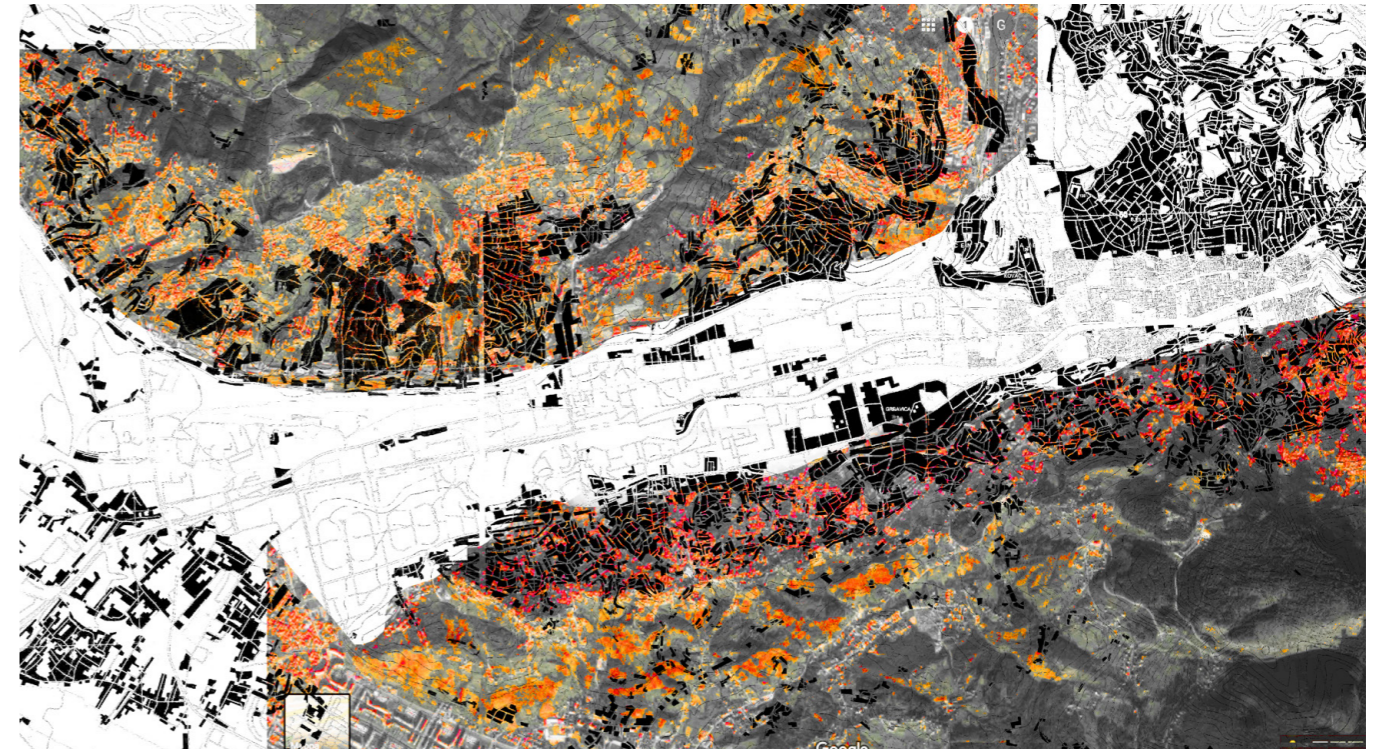


If we focus strictly on the area relating to the site we observe how the street grid divides the city into different blocks. While I was there I could observe how this different blocks have an introvert character. Life, activities and interaction occur inside them, away from the main distribution axis. Each one of these neighbourhood have it's one specific character, name and identity that does not interact with the others.

The roads connecting North to South, probably originally planned to connect the city and the hills are today interrupted and only in few cases lead up to the hills. This originates a stark division and contrast between the valley and the hills.

The main road, running parallel to the city is the main artery of the city, connecting east to west. It is both the tram line and a 4 to 6 lanes road for cars, which obviously acts as a big limit between the North and the South.

Post-war diffusion. 1997 (black) compared to today (Orange)

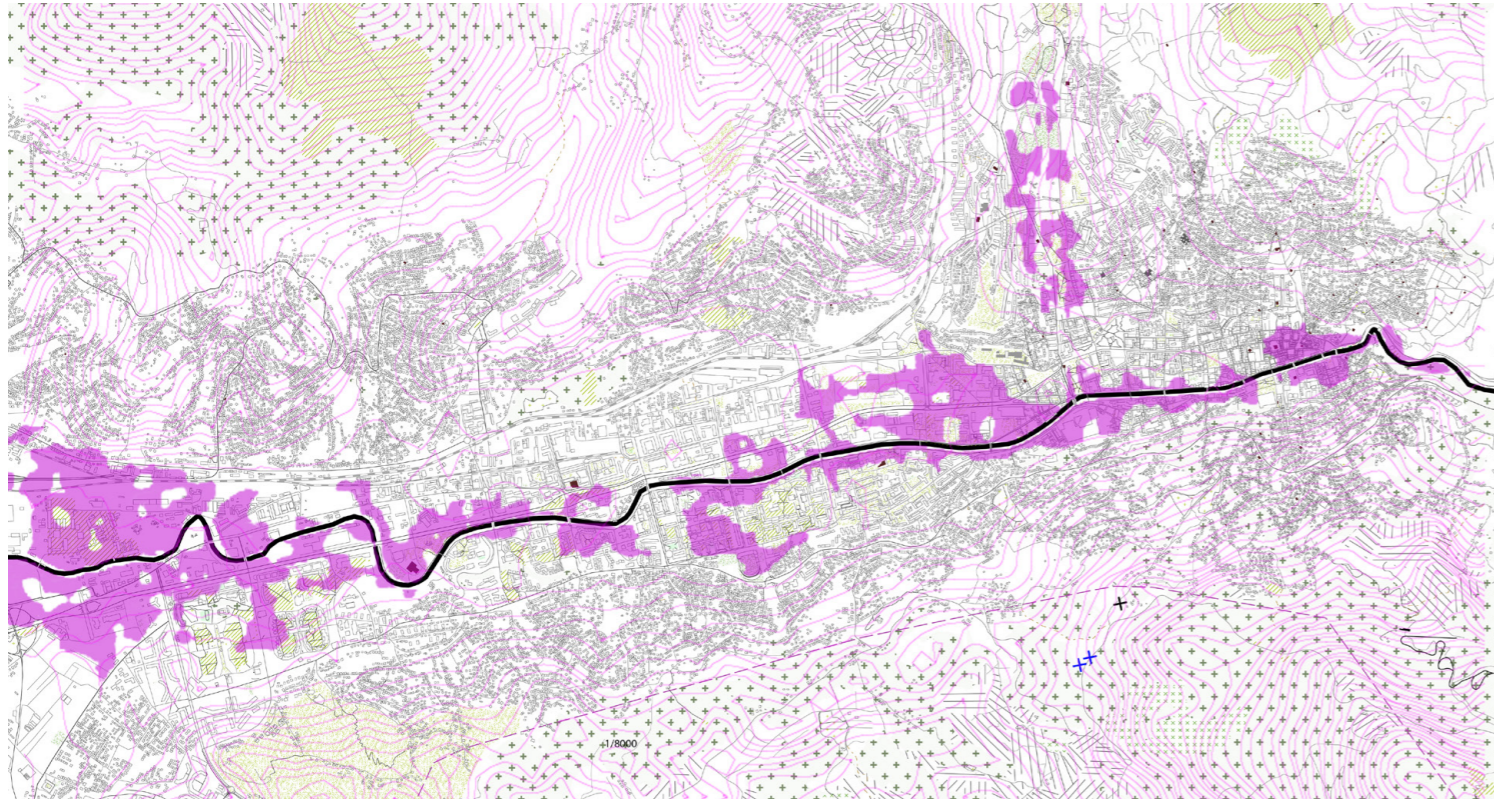


The Urban sprawl in Sarajevo represent today a concrete issue for the city. Traditionally, already Ottoman houses were built on the hills around the city, but they were carefully planned and followed a series of principles that guaranteed a quality living. The modern sprawl has nothing to do with these principles, but its rather an un-planned often illegal phenomenon. These areas have no centrality, no services, low quality of living and lack in any kind of organization.

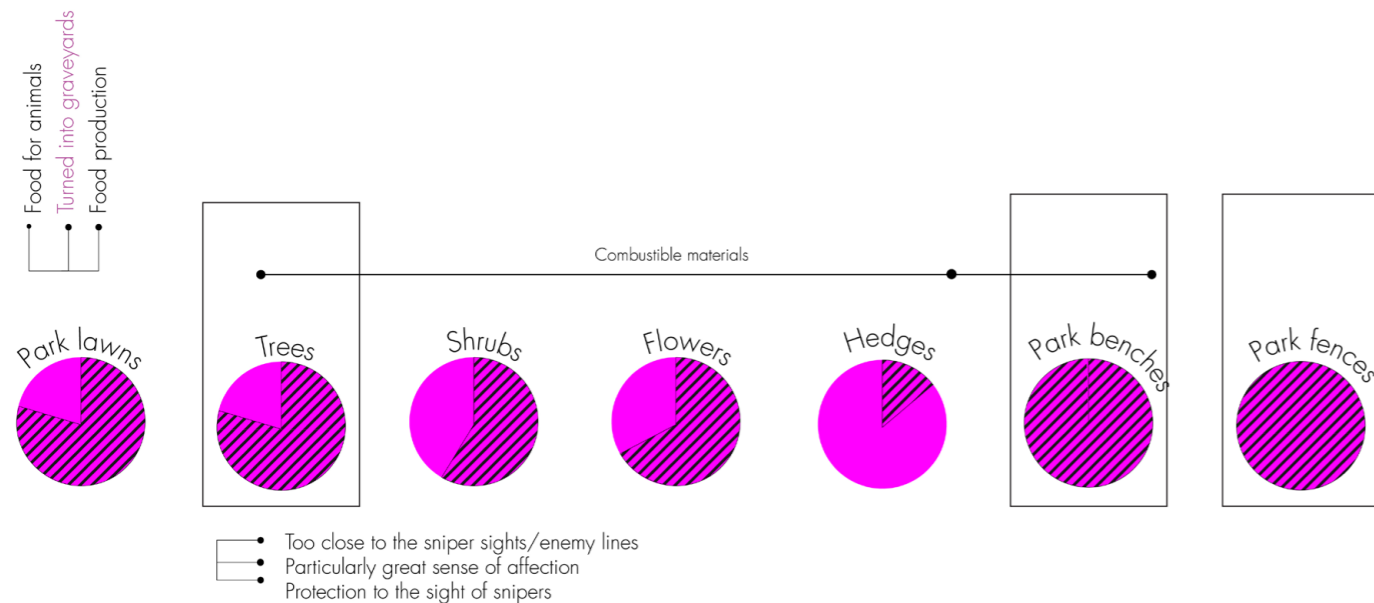
The sprawl greatly worsened soon after the war. A great number of displaces people from all over Bosnia, saw Sarajevo as a safe place where to start over. Moreover the great influx of money from international help and investments attracted a lot of people that from the countryside moved to the city. The disorganization of the post war, did not set any rule or limit for construction leading to the unplanned sprawl on the hills. The first problems start to emerge today. Due to the great damage of the vegetation during the war and this construction spree the soil is weakened, originating a risk of landslides and increasing the water runoff to the valley. This aspect is also increasing the flood risk.

// 09.3 FLOOD RISK : 2.5 METERS SCENARIO

The map envisions the city in a +2.5 meters scenario. The obsolete river management, the urban sprawl on the hills and the great damage of vegetation during the war turned today into a great flood risk for the city,

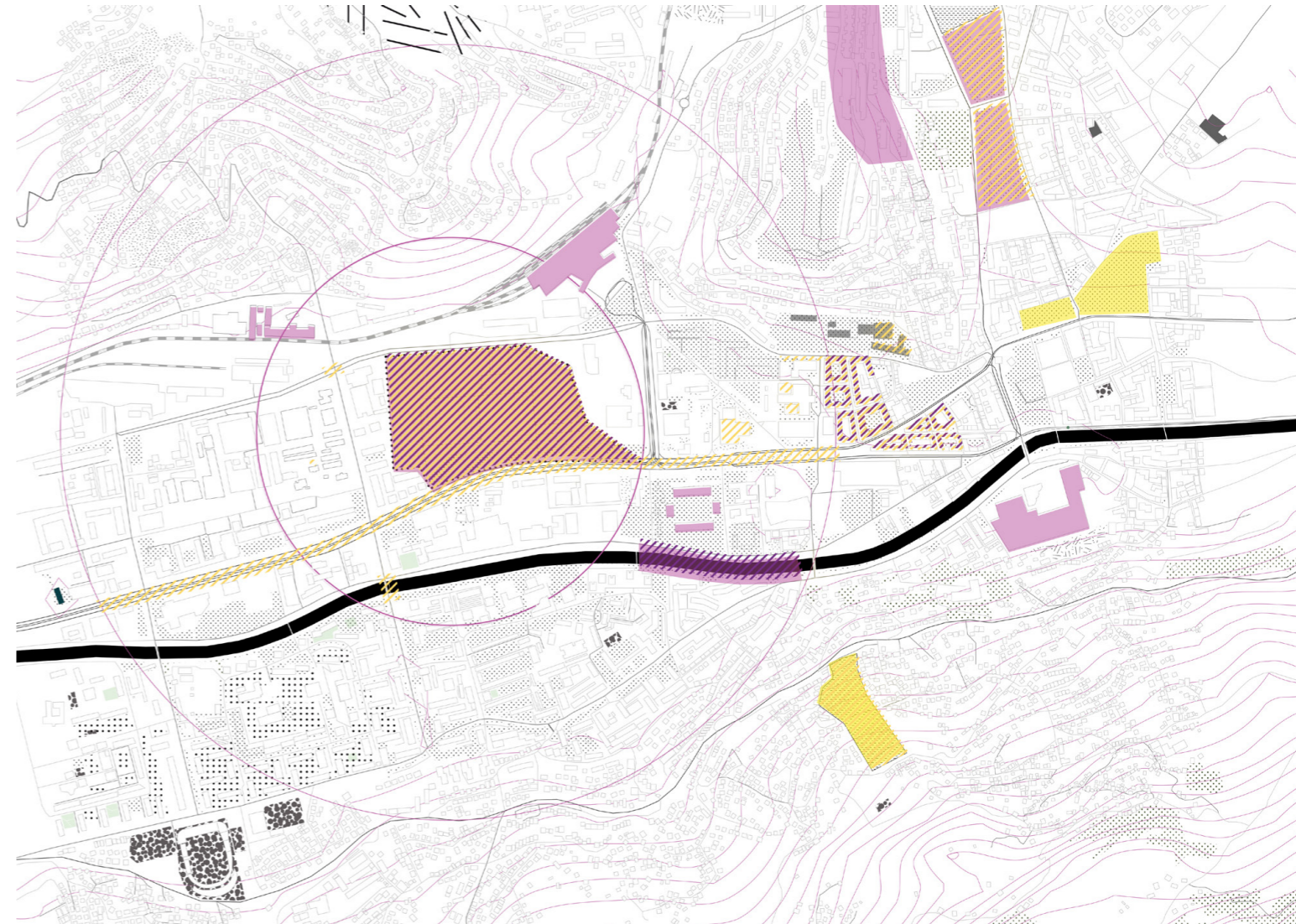


// 00 AMOUNT OF VEGETATION DAMAGED DURING THE WAR



//10 Site analysis. Neighbourhood scale.

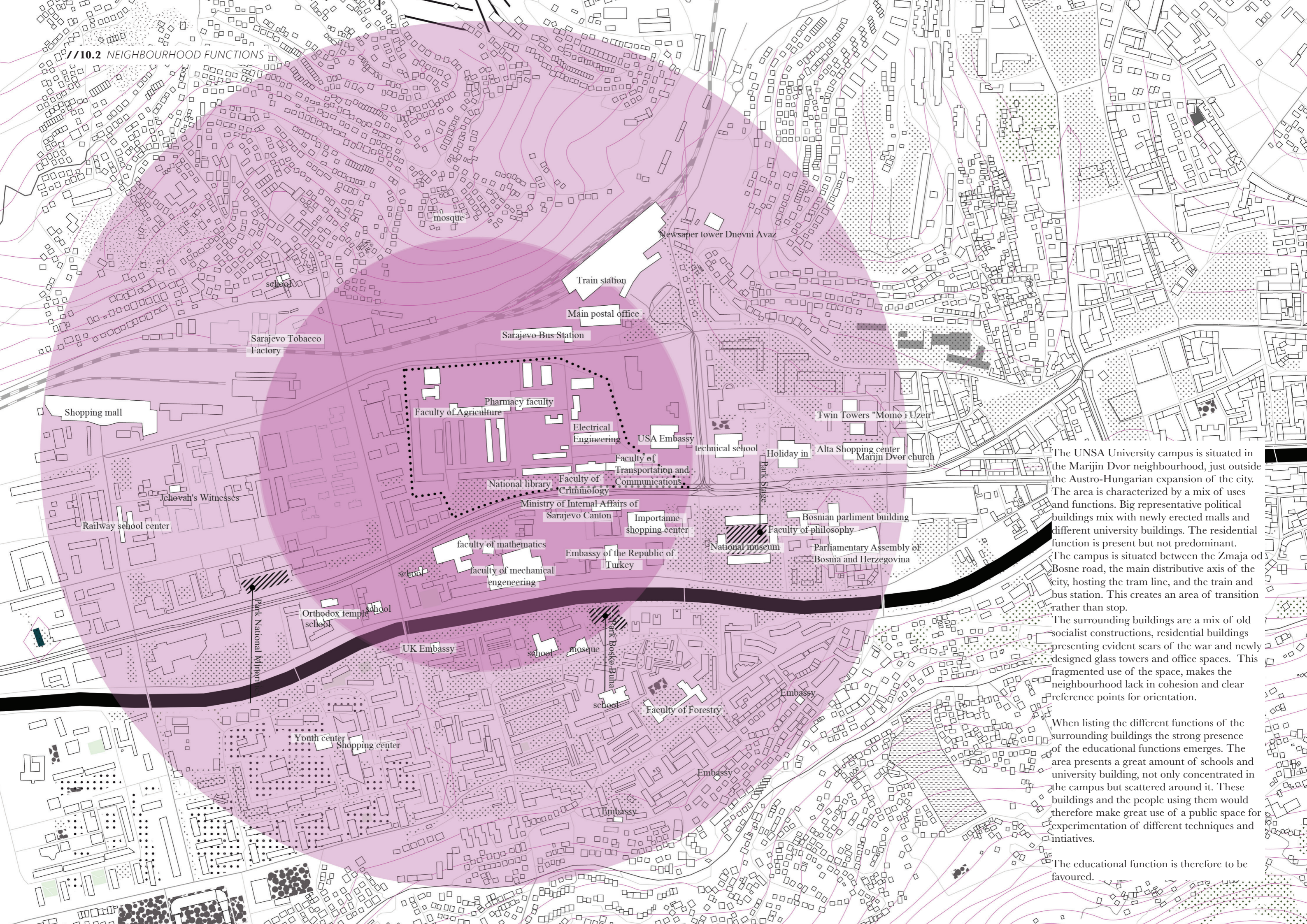
// 10.1 HISTORICALLY RELEVANT SPOTS



- Ottoman
- Austro-Hungarian
- Socialist
- Siege

The circle marks a distance of 500 meters and 1 km from the site, which is the average distance one is willing to walk in order to reach a spot of interest. The site is situated in a neighbourhood rich in historical layering from different eras. In particular, focusing on the period of the siege, the site is situated along sniper alley and played a prominent role during the war. The site itself dates back to Austro-Hungarian times, it was used during the socialist times, the siege up until today.

//10.2 NEIGHBOURHOOD FUNCTIONS



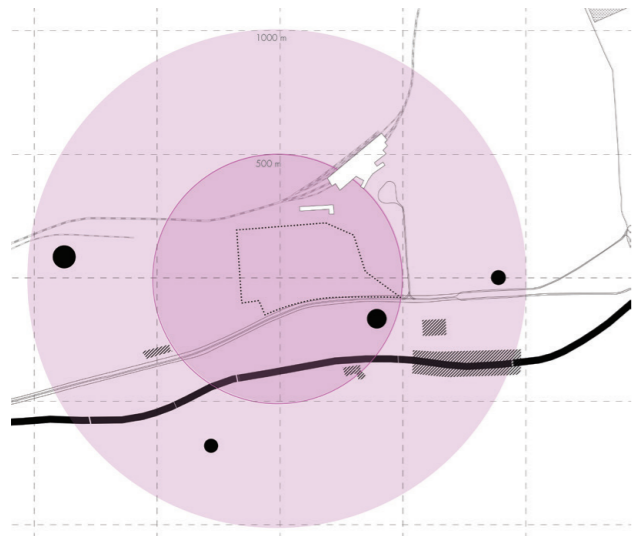
The UNSA University campus is situated in the Marijin Dvor neighbourhood, just outside the Austro-Hungarian expansion of the city. The area is characterized by a mix of uses and functions. Big representative political buildings mix with newly erected malls and different university buildings. The residential function is present but not predominant. The campus is situated between the Zmaja od Bosne road, the main distributive axis of the city, hosting the tram line, and the train and bus station. This creates an area of transition rather than stop.

The surrounding buildings are a mix of old socialist constructions, residential buildings presenting evident scars of the war and newly designed glass towers and office spaces. This fragmented use of the space, makes the neighbourhood lack in cohesion and clear reference points for orientation.

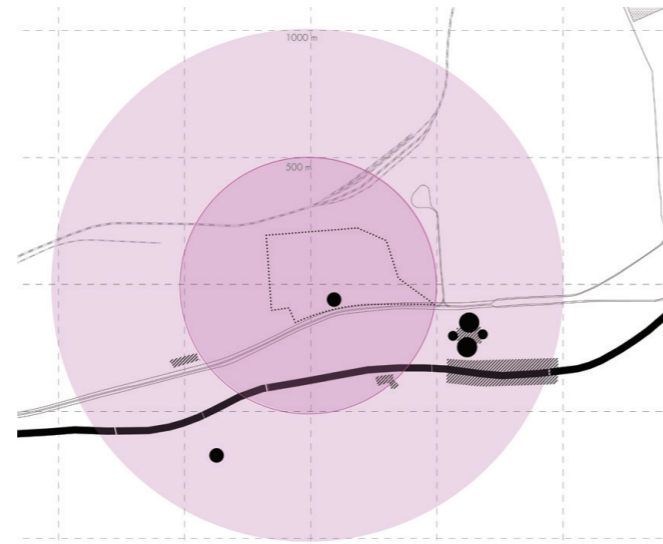
When listing the different functions of the surrounding buildings the strong presence of the educational functions emerges. The area presents a great amount of schools and university building, not only concentrated in the campus but scattered around it. These buildings and the people using them would therefore make great use of a public space for experimentation of different techniques and initiatives.

The educational function is therefore to be favoured.

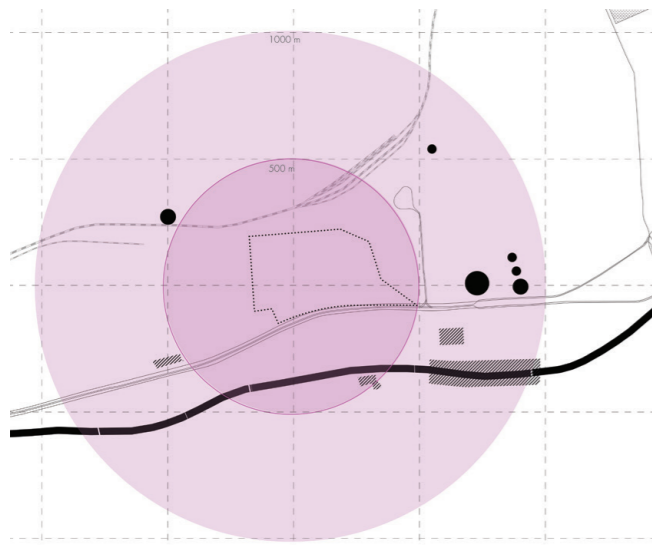
Big retail and infrastructures



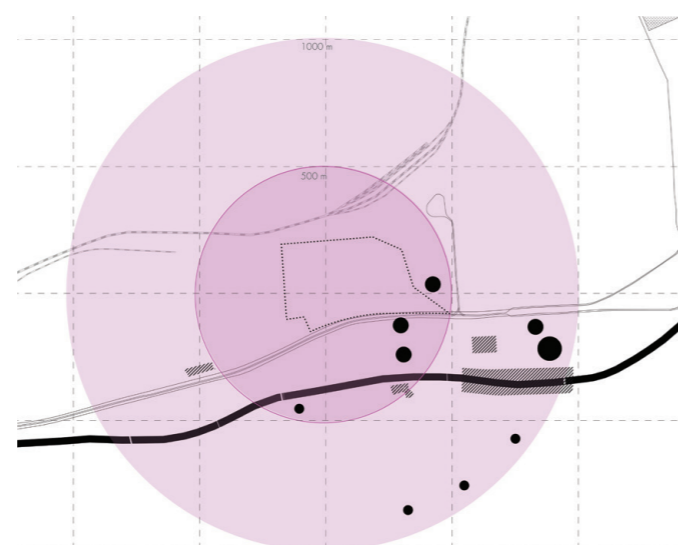
Cultural



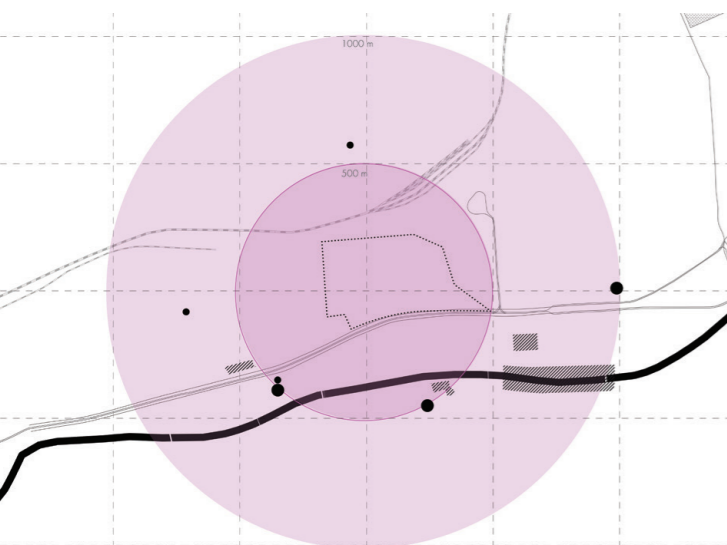
Landmarks and towers



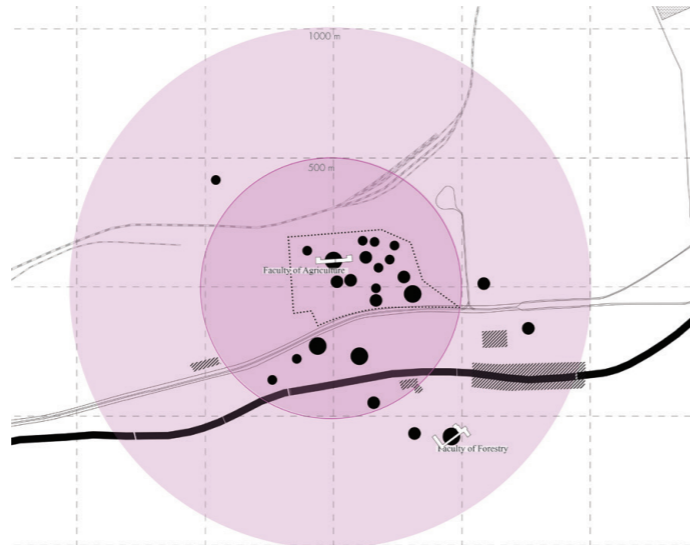
Political institutions



Religious Buildings

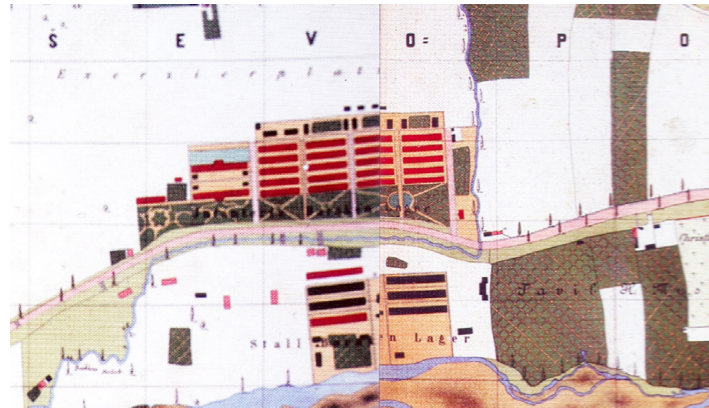


Educational: schools and universities

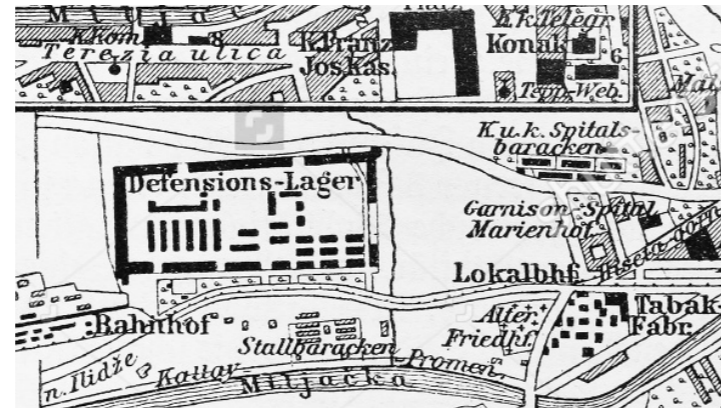


TITO'S BARRACKS

//11 Specific site analysis



~ 1889



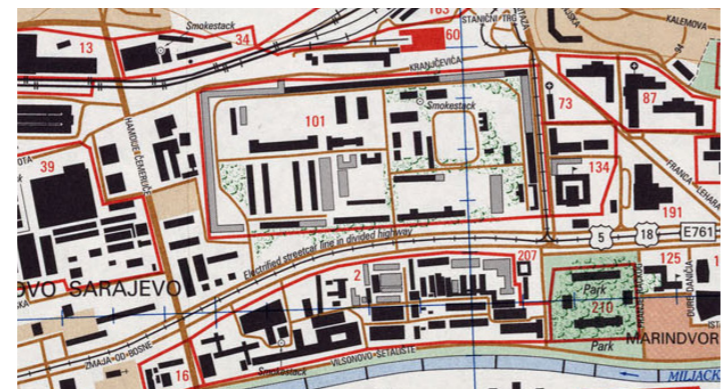
~ 1900



~ 1929

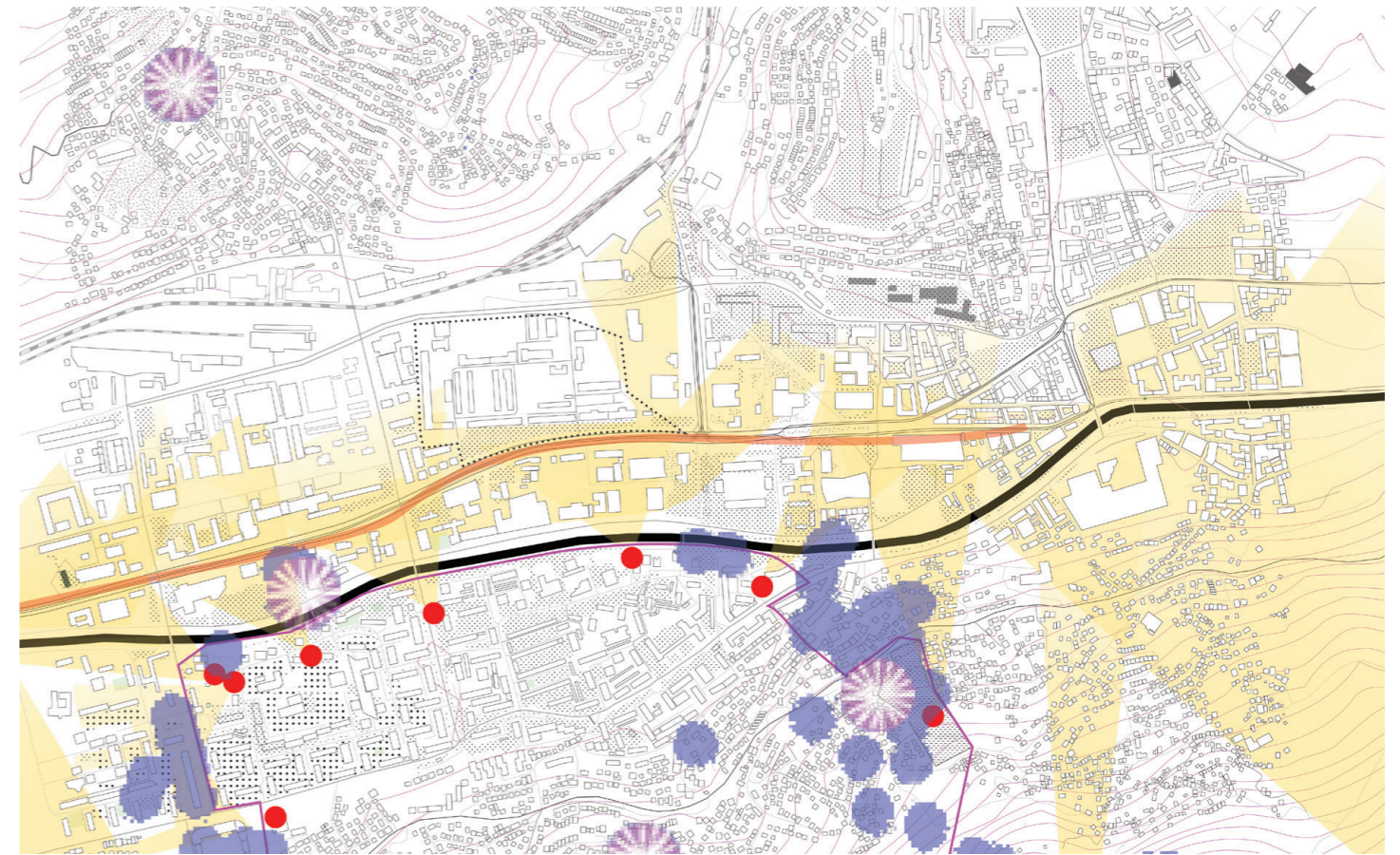


~ 1932









~ 1997

Built in 1878 as a military contingent of the Austro-Hungarian empire, Tito's barracks represent a piece of the history of Sarajevo. After WWII the barracks housed the military school of the JNA and disappeared from the civil maps, becoming a void in the urban tissue. Since the beginning the barracks were built and intended with an introvert shape, a fortress isolated from the rest of the city. They played a prominent role during the war. In the first year of the siege 1992 they became a deadly enclave of Bosnian Serbs, barricade inside with all the military weapons and artillery belonging to the JNA (The national Yugoslav army). They would spread fear and shoot to whatever was moving just outside the walls of the barracks. After a military move by the organized defence troops of the city, Bosnian Serbs left and the area became the headquarters of the resistance. Situated on the front line it sustained heavy damage and destruction.



Not only were the barracks shelled due to their military role, but also for their position on the front line. They are situated in front of the neighbourhood of Grbavica, where the Serbian attack line penetrated the city and had the Miljiacka river as its edge. Hiding on the high rise buildings, Serbian snipers could shoot easily to the area and the road in front, the infamous Sniper Alley. The area was therefore of extreme danger during the 4 years period of the Siege. Moreover in front of it the so-called "Bridge of friendship" could be found, the only area for the rare exchanges of hostages or goods between the two parts.

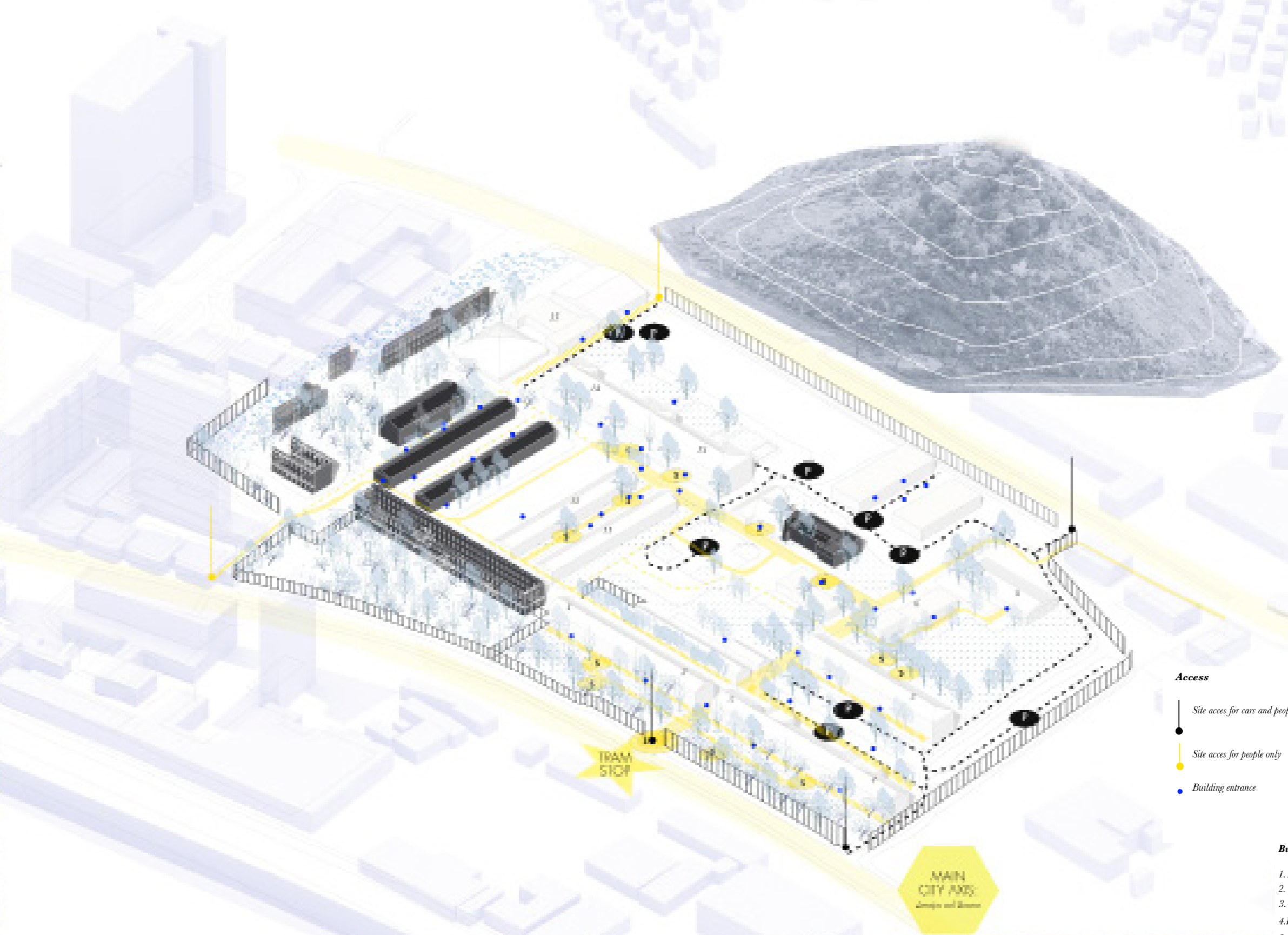
Legend

-  Front line
-  Main sniper nests
-  Aproximate sniper reach
-  Mines
-  Mine incidents as of 1997
-  Sniper alley

//11.2 DATA COLLECTION

Data collection and brainstorming disposed in a visual manner. The first panel summarizes the analyse at a neighbourhoods scale while the second one focuses on the Campus itself and the walking experience through it.





TRAIN
AND BUS
STATION

MAIN
CITY AXIS
Design and Structure

Access

- Site access for cars and people
- Site access for people only
- Building entrance

Movement

- S Stationary point for students
- Main movement
- Secondary movement
- - - Rare presence of movement
- - - Car routes
- P Parking spots

Building program

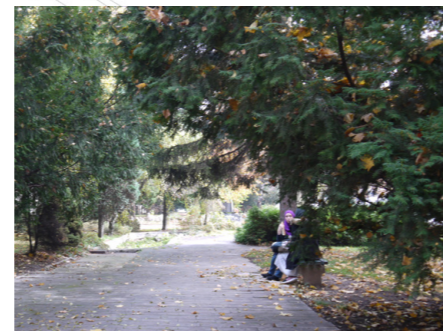
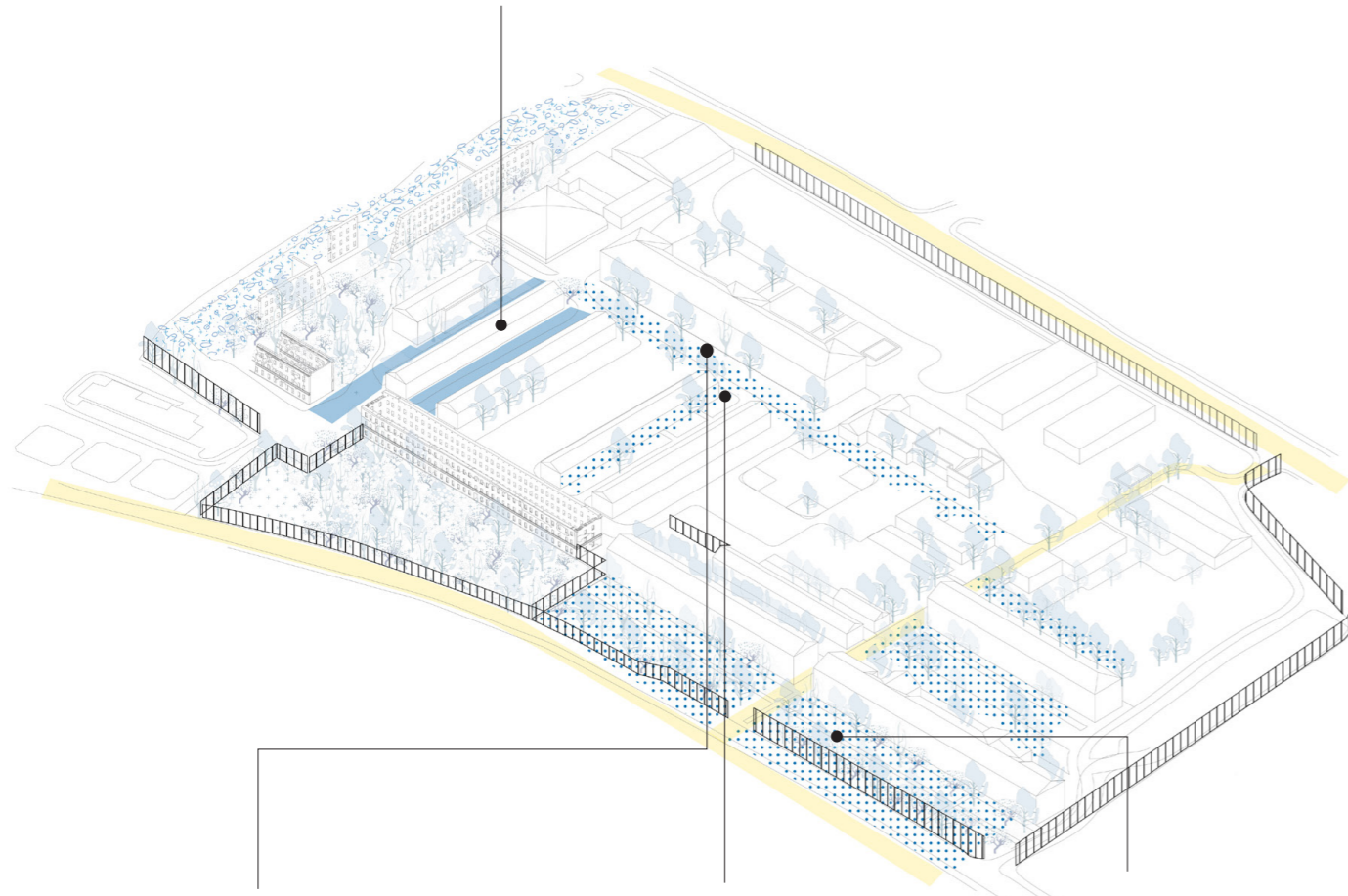
1. National and University Library of Bosnia and Herzegovina
2. oriental Institute
3. Faculty of Criminology and Security Studies
4. Faculty of Transportation
5. Electrical Engineering
6. Human rights center
7. Tele-informatic center
8. Center for interdisciplinary postgraduate studies
- 9.-10.-12. Faculty of Electrical engineering
11. Institute for Genetic Engineering and Biotechnology
13. Faculty of pharmacy
14. Faculty of agriculture
15. Sport center "Una" and restaurant

■ Ruins

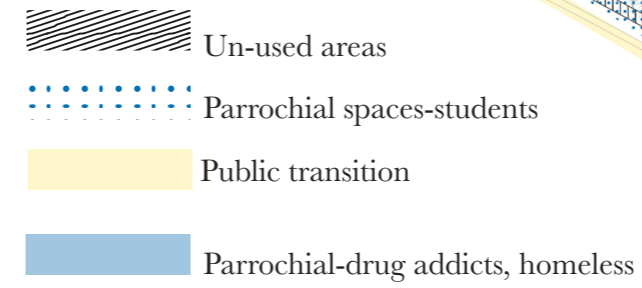
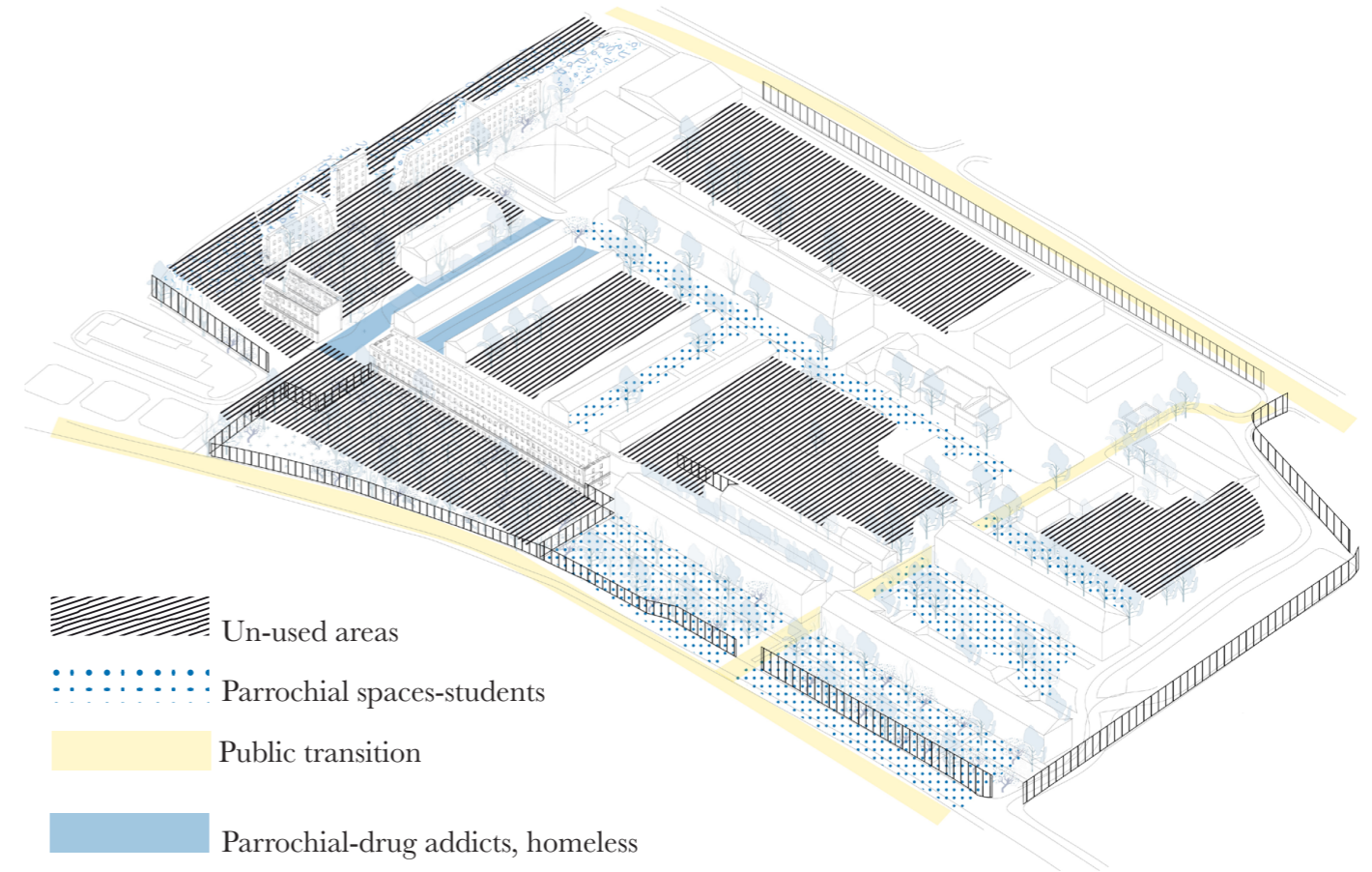
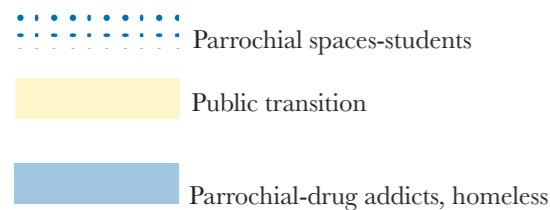




Homeless



Students



In the overall plan of the site at the time of its construction, also the open spaces were planned accurately to host different functions. The vegetation and the park-like area focused on the surrounding in order to give a filter between the city and the military area. The majority of the open spaces are large esplanades used for parades and military practices, from which their large size. Today the area is partly abandoned and in ruin. University buildings alternate to ruined once, covered in graffiti. The two area do not communicate, but are separated by an invisible limit that prevent the different users to communicate and the space to be used coherently. Different users appear to be living the space differently. A large amount of people and civilians use the area as a transitional axis between the tram stop, the city and the train station to the north. Students instead are the only ones who stop and gather in determined

areas creating few "parrochial" spaces (a certain area utilized only by a certain category of people and preventing other groups to co-habit the space). Students gather mainly around buildings and at the main entrance, leaving the big open spaces largely not used. Another relevant user of the area is a "community" of homeless people and drug-addicts that, especially during winter, use the ruined barracks as shelter. This creates as well a strictly parrochial space, that due to fear or prejudice avoids the use of the area by any other group of people.

This composition of densely used axis and big voids represented by the esplanades creates a star un-balance in the site, which potential is not exploited. Invisible walls divide the south-west area of the ruins with the rest of the site, avoiding interaction, confrontation both with the ruins and what they represent and with the people inhabiting it.

// 12 An existing language: the site vocabulary

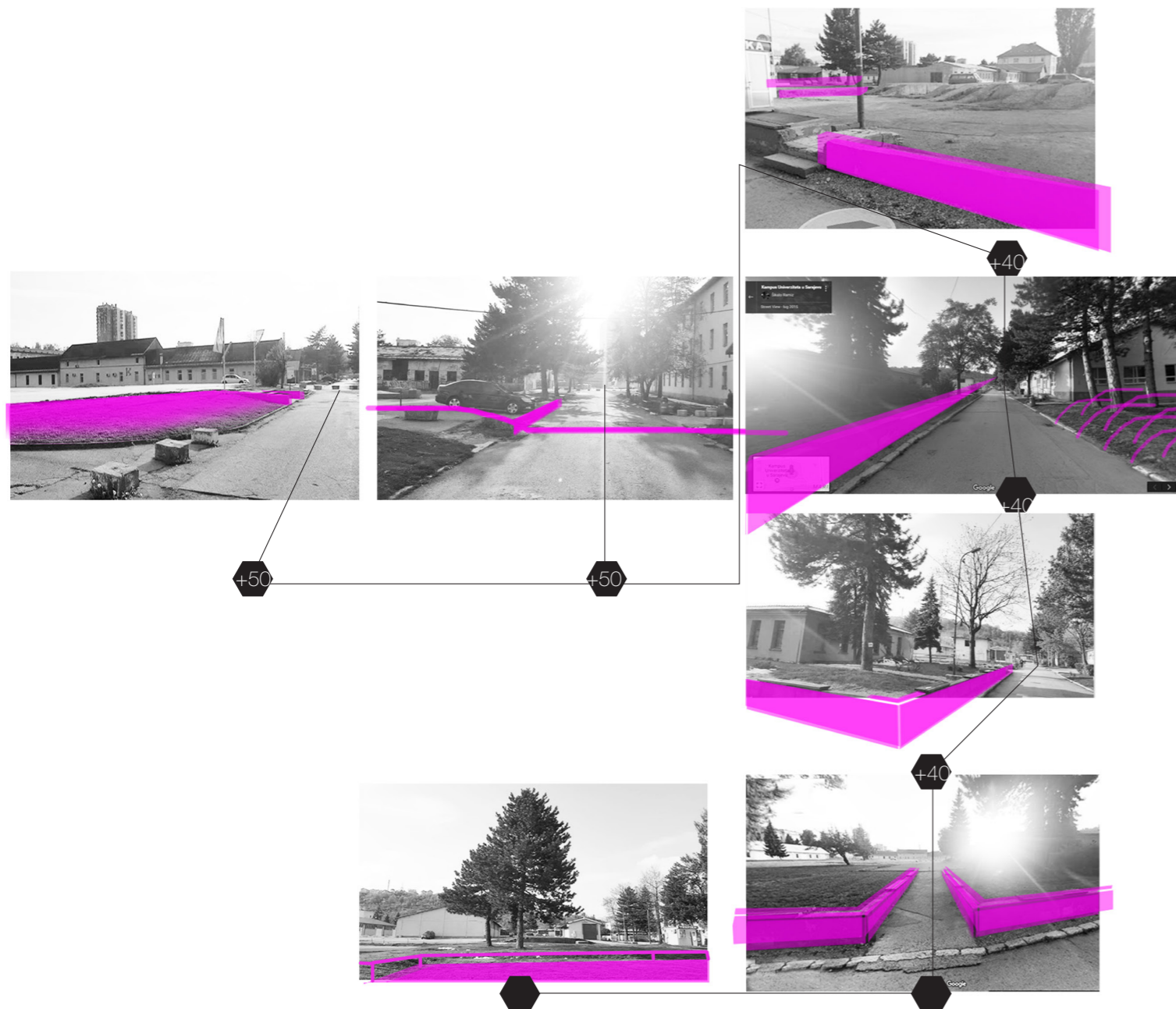
// 12.1 HIGHTS DIFFERENCES

Carefully observing the site and its dynamics it emerges how a strong vocabulary of solutions is already present. Different factors influence the experience of the users through the space, some more evident some less perceptible at first sight. While walking through the site we are un-consciously directed in our path by different elements, some planned some that spontaneously originated through time.

Time, social practices and vegetation created a total different image of the former military barracks, that different greatly from the planned idea.

1. Hight Differences

The area is shaped by different highs difference that present themselves in the shape of small lowlands, walls, low hills and mounds. They appear to be of different origin, some of them planned, some originated with later addition or demolition of buildings. What can be observed is how the walking axis that shape the site are always kept at level 0, encouraging the user to walk along these lines and to not cross the edge and use the open spaces that are often situated on different levels.



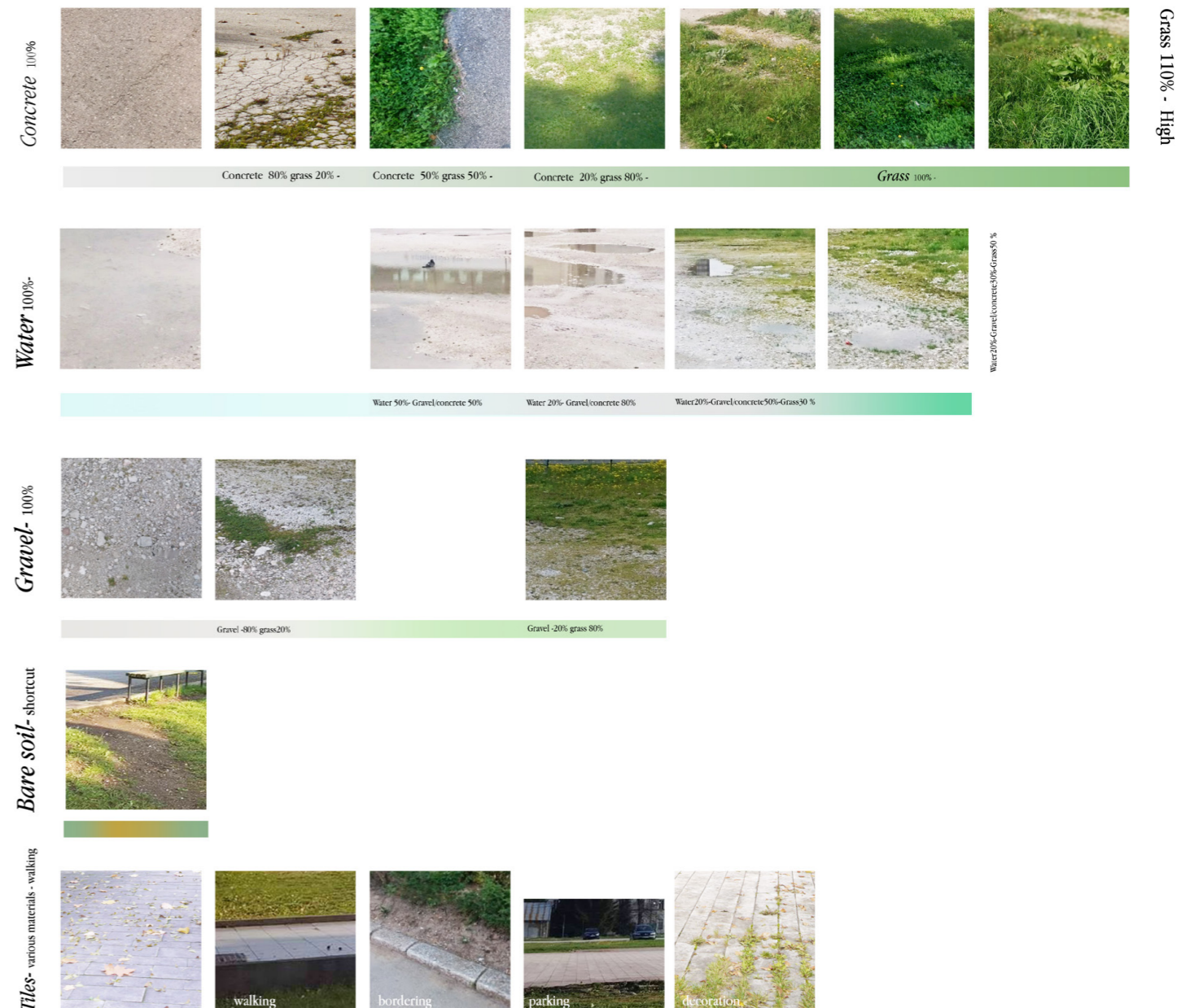
// 12.2 SOIL TEXTURES

Even when abandoned my man, the area was never abandoned by the vegetation that slowly took its course. The majority of the area is covered in hard surfaces, asphalt concrete or tiles for walking.

With the passing of time and the low maintenance, different grasses and invasive plants started to take over, creating different patterns of the soil.

Asphalt and grass relate one to each other in different ways, never with a clean limit, but interact, blending into each other creating mixed surfaces.

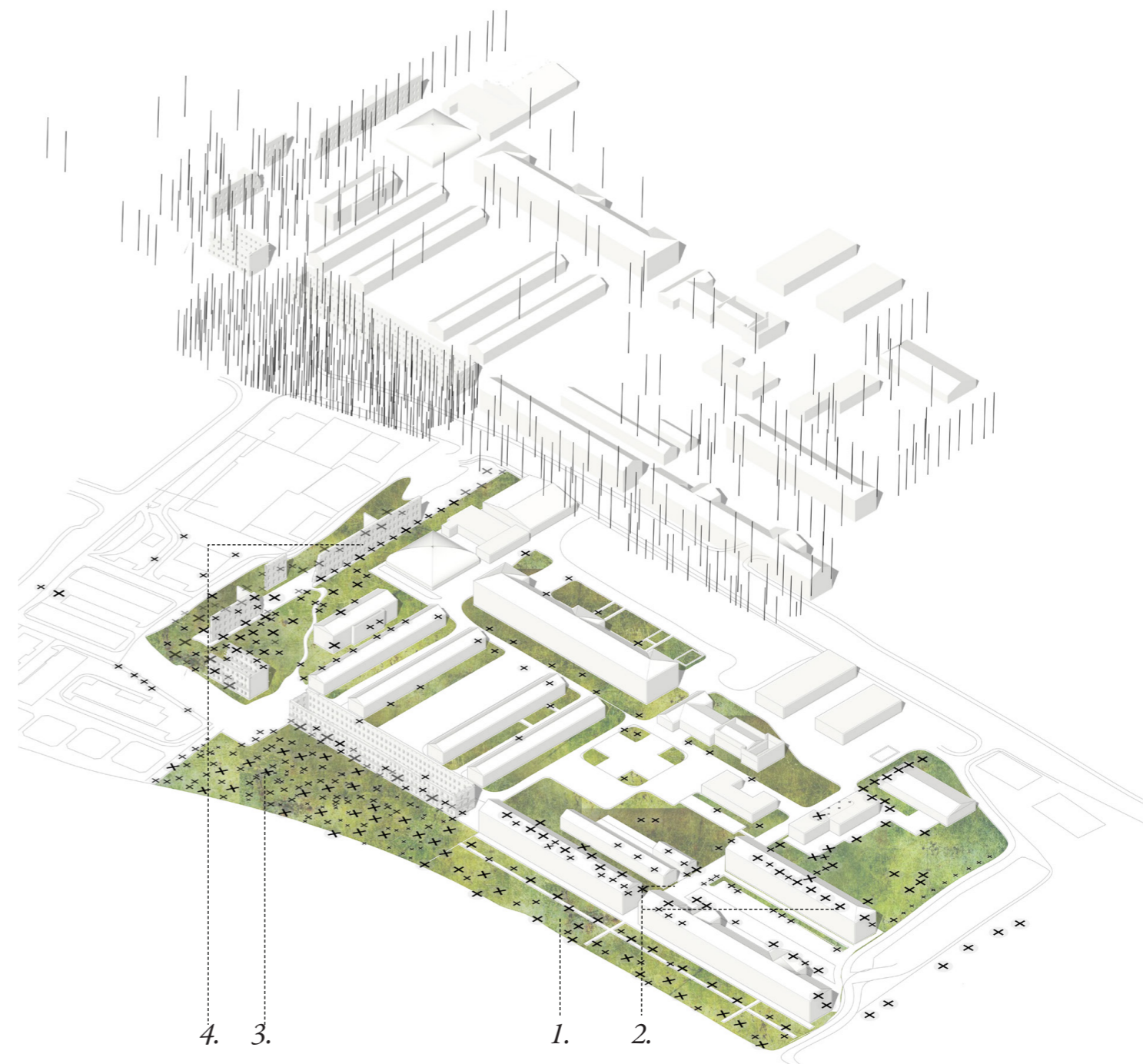
Moreover natural processes helped to create different shade of natural environments: from the most wild to a almost " humid environment in the northern part, where the water running off from the hills stagnates.



// 12.3 VEGETATION DENSITIES

As mentioned the grasses breaking through asphalt help creating different environments that are, of course, mainly influenced by the different types of vegetation that originated. While some parts were maintained as much as possible, big parts were abandoned and spontaneous vegetation, typical of an anthropic environment developed. Being this vegetation invasive and hard to manage, these areas were mainly fenced off making them inaccessible and allowing vegetation to express herself.

The map shows both the amount of hard and soft surface present and the organization of the tree densities.



1. **Front park -**
Autumn, November 2016



Deciduous

- Elm
Ulmus
- Largeleaf linden
Tilia platyphyllos
- Silver birch
Betula pendula
- Downy birch
Betula pubescens
- Horse-chestnut
Aesculus hippocastanum
- Tree of heaven
Ailanthus altissima

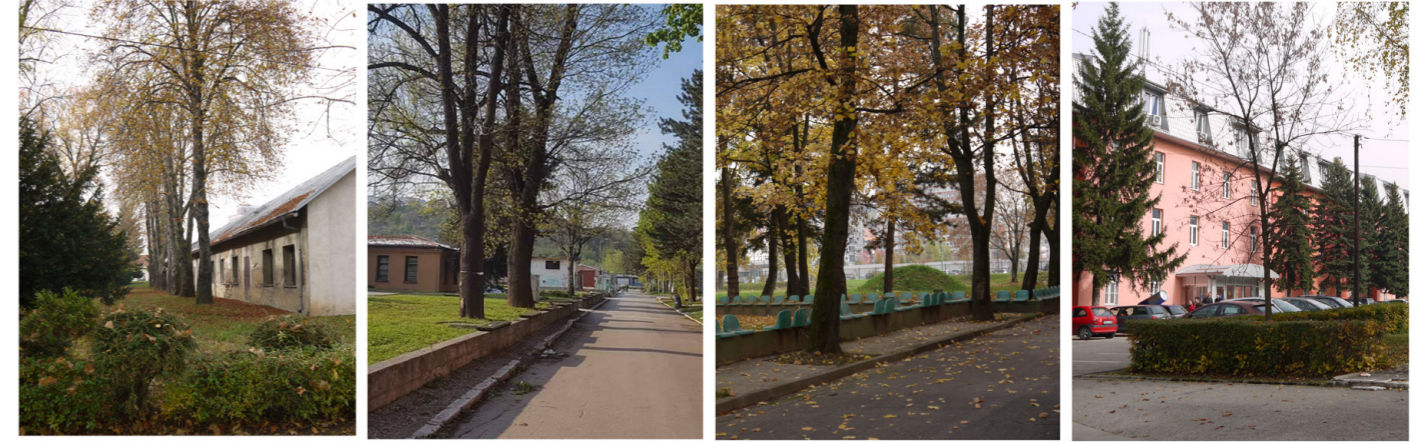


Evergreen

- Norway spruce
Picea abies
- Scots pine
Pinus sylvestris
- Cedar of Lebanon
Cedrus libani



2. **Rows of trees**
- Autumn, November 2016



Deciduous

- Horse-chestnut
Aesculus hippocastanum
- Tree of heaven
Ailanthus altissima



- Norway maple
Acer platanoides

Evergreen



- Norway spruce
Picea abies

3. **Anthropic environment**
Spontaneous development -Autumn, November 2016



Trees

Catalpa
Catalpa bignonioides



Norway maple
Acer platanoides



Shrubs

Common dogwood
Cornus sanguinea



Bramble
Rubus fruticosus L.



Climbing

Ivy
Hedera



Old man's beard
Clematis vitalba



4. **Anthropic environment**
Spontaneous development -Autumn, November 2016



Trees

Catalpa
Catalpa bignonioides



Norway maple
Acer platanoides



Norway spruce
Picea abies



Silver birch
Betula pendula



Shrubs

Common dogwood
Cornus sanguinea



Bramble
Rubus fruticosus L.



Flowers

Snapdragon
Antirrhinum majus



Shrubs

Poplar
Populus tremuloides



R u i n s

// 13 Function definition and design abstract

*The rhythm of urban life is linked to the one of the territory
through a landscape laboratory open to the community.*

The implemented nature does not become an object of contemplation but an everchanging entity to engage with.



During the analysis, the main function of using the campus open space with an educational purpose emerged clearly. The University of Agriculture, present on site and the one of Forestry, proved to be particularly active in the post-war period. In the first years following the Siege, a large program of reforestation of the city was planned and activated, and since then, huge efforts have been made from the university to update, evolve and implement new projects around Bosnia.

Offering a space where students can exercise with different agricultural practices such as forest agriculture, the principles of the garden in movement or hydroponic production would have different positive effects, stretching outside the borders of the area.

The design presents itself more as a process of enhancing the site, creating a transforming landscape whose primitive characteristics of orientation, moisture and its natural preconditions are used to lead its transformation. The outcome is a mix of agricultural fields, birch groves, anthropic forest and humid areas. The conventional order and classification of the space is forgotten and trees are presented as densities and variation of densities. Neither full nor empty space originates, but rather a fluid variation in conditions, through which life and practices flow.

Several examples in history thought us how the “terrain vague” the absence of function does not work in a renewed public space. People need to be invited to use the space and involved in it. Therefore a series of activating activities and appealing space with specific limits are proposed: a workshop space where to learn how to take care of vegetation, a natural playground, a humid area, several “ruin gardens” etc etc.

When building in the city the aspect of time is particularly important. The blooming of a landscape has not the same speed of the fast-changing urban practices. There is an absence of synchronization.

Agriculture and agricultural practices help shortening this gap, giving immediate meaning to these spaces, and offering a glimpse on the time passing. The goal is to make the space useful and meaningful, with few resources and very few time. Students and people from the neighbourhood can engage with the soil from the first moment, work with it, try new techniques and learn from it. The area becomes a symbol for experimentation. The city is given an enclave, a cultural reservoir where experiments become useful not only to the students (in this case) but to the community in general. The space for agriculture are alternated to open lawns and public areas where inhabitants can spend time. In this way experimentation is showcased to people and is likely to spread and rise interest.

The site is therefore an open laboratory, immediately readable and comprehensible to all. The urban field is now a privileged area for diverse research in a public manner. This originates a new type of evocative public space that may sparkle playful social practices, shared between different groups. The main goal underlying this type of space is firstly aesthetic but also scientific.

Meanwhile, the surrounding area is planted with a growing forest resulting into a large intervention of reforestation. The produced urban space, this micro forest for agricultural experimentations set himself in a new relationship with nature. On one hand, we are in front of a process of re-appropriation of nature of the human space, on the other hand man is engaging with the soil to benefit from it. Nor man nor nature is now prevailing but we find ourselves in front of a process of action and reaction. Man observes and allows nature to develop and reacts to it only when its own survival sphere is touched.

The site becomes now a metaphor for a laboratory dedicated to the relationship between man and its territory, in order to research how to reach a situation of balance.



//14 Design

*“My work requires few objects- ideally none at all- an only ordinary materials.
It does not entail any heroic feats of execution or any extravagance.
So it is distinguished by a certain poverty. It is not a deliberate desire for an
architettura povera, but rather the option of rusticity.”*

Michel Desvigne - Intermediate natures





"When finished, man's architecture comes into an irreversible degradation process. Their inability to evolve condemns them to ruin. When architecture is accomplished, it is already dead. Nature, on the contrary, never finishes anything. It takes charge of the hurricanes, interprets the ashes of a fire, invents a vital process on the basis of an upheaval.

*|| Nature does not meet any accidents. **Only man action knows accidents.***

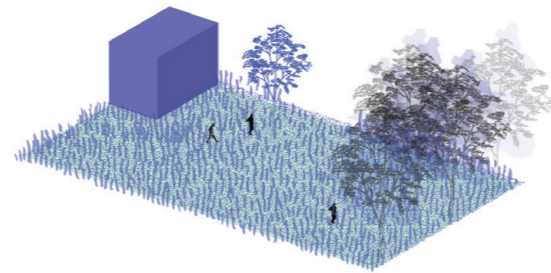
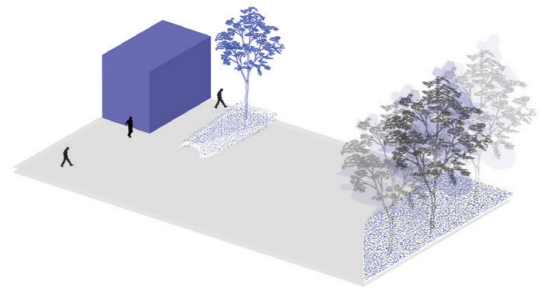
Nature knows cataclysms. And then it heals. "

Gilles Clément. The garden in movement

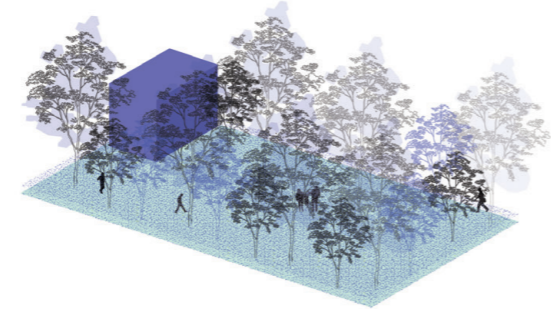
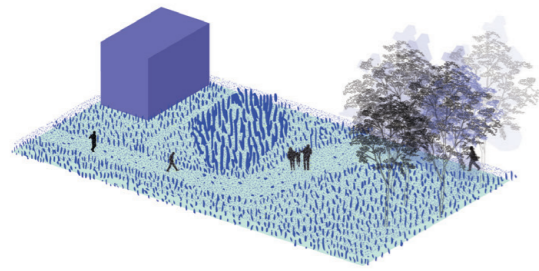
The preparation of the site bases itself on two principles: a reforestation program, divided in phases and a planned removal of the hard surface, totally replaced by a mixture of grasses.

Species are chosen on the basis of the different environments that will be created and the

grass species refer to an agricultural language. The grasses are of different heights creating different textures: rye and hairy vet are planted together sustaining each other in the growth and oat an tall oat grass are also forecasted. This interventions aim at giving back a balance and erase the hierarchies of the area while preparing it to future flexible uses.

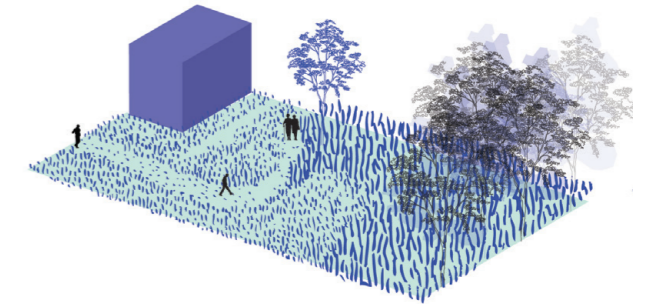
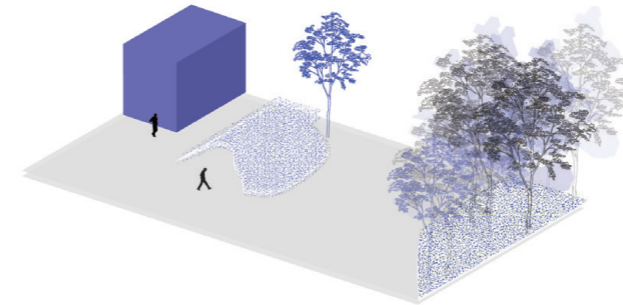


Removal of concrete replaced with soft surfaces

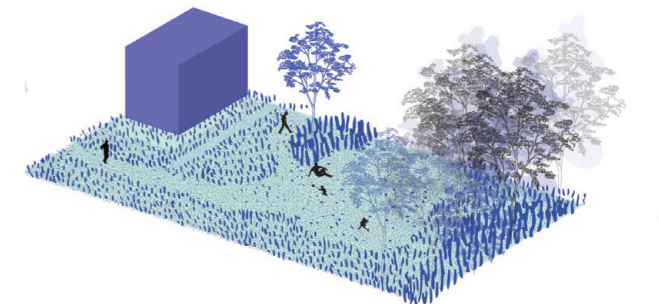
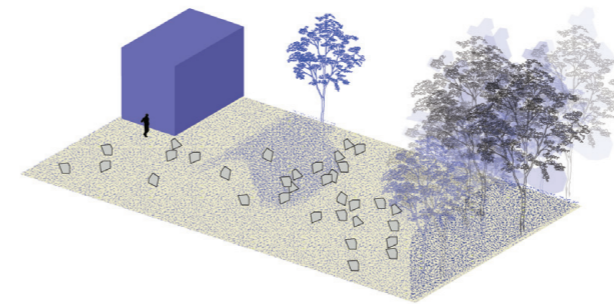


Gridal planting Afforestation

//GRASS SPECIES

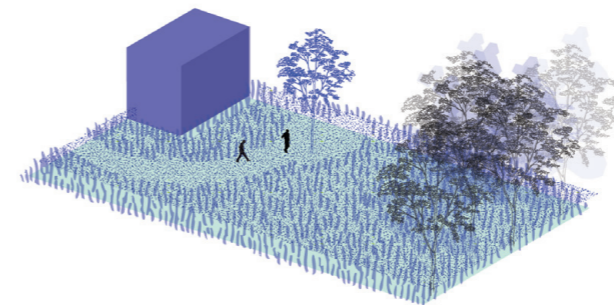


P3: Allow spontaneous wandering: add reinforced grass - adapt circulation to people movement. High grass is reduced to islands.

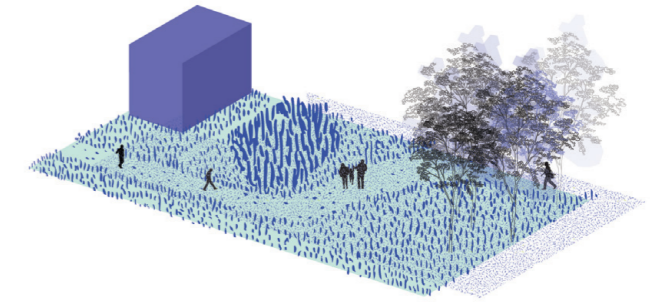


P1: Total of partial removal of the concrete depending on the existing quality of it

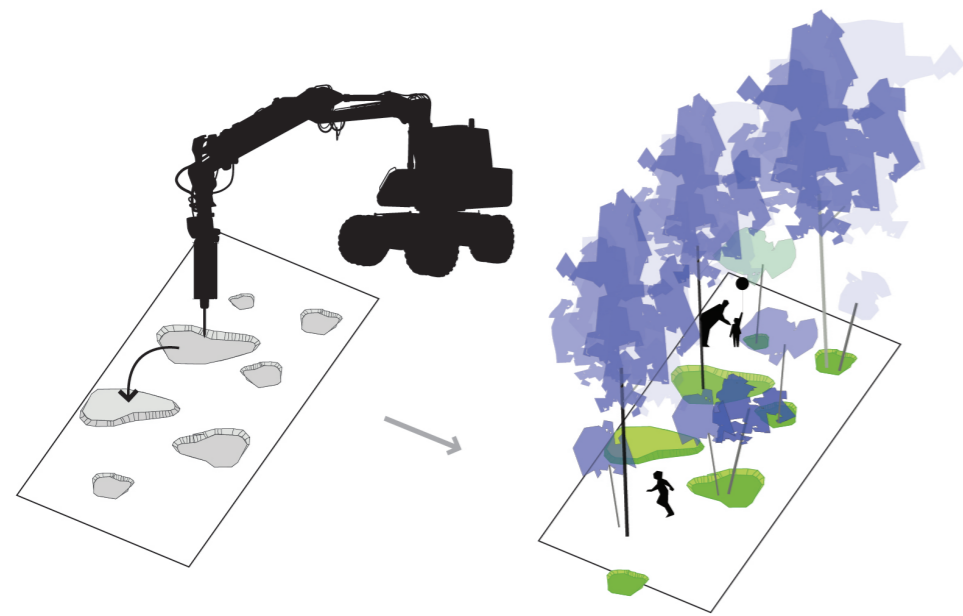
P4: reduce the high grasses where new activities are added



P2: Grass plantation- different hights. Use of reinforced grass for basic paths

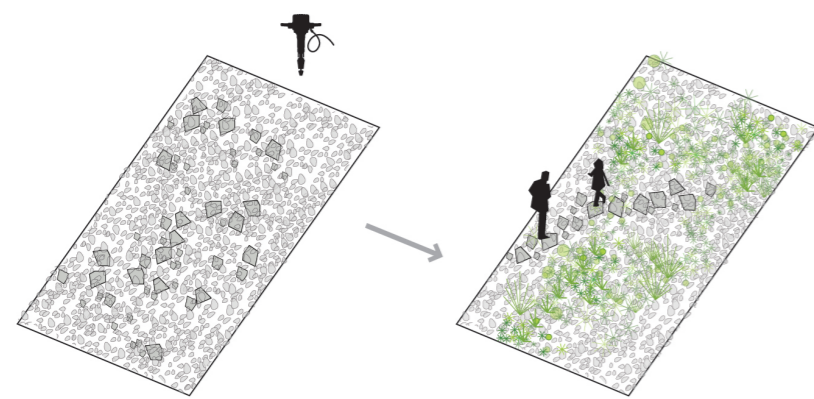


P5: Complete soft surface - balance on man's need. Island of grasses are kept, surrounding existing vegetation



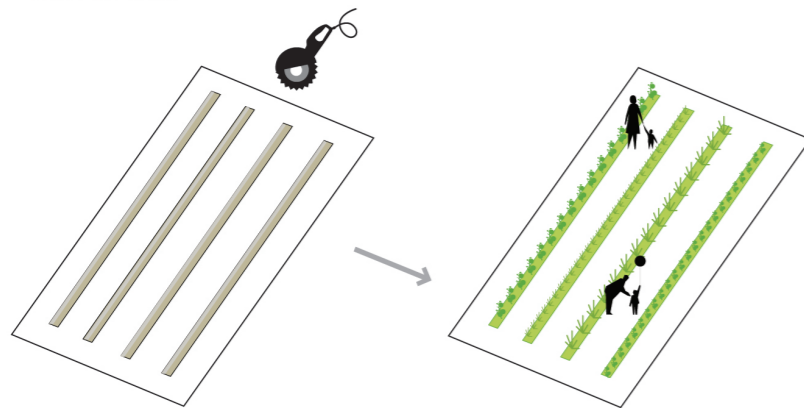
*Planting the holes
(Trees with tall trunk+
re-use of the evicted piece of*

(jack)Hammer



*Gardens of reclaim
(Ruderal plants, moss)*

Concrete saw



*Paths of cultures (eadible)
(Gardening lines)*

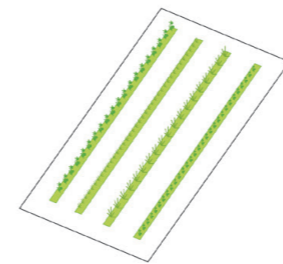
// PLANNED REMOVAL OF CONCRETE

There are different means and ways in which the asphalt and concrete can be removed. By observing the existing conditions of the soil and the percentage in which nature already broke through the concrete is removal in different percentages. Moreover the removal can create different types of environments, holes, formal shapes or the asphalt can be simply broken and plants planted in between. In this way the soil is reactivated and different types of reclamation

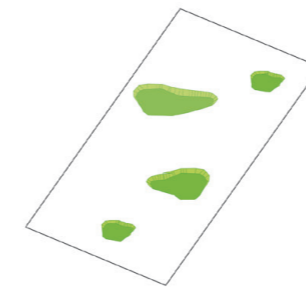
gardens are born.

The practice can be easily carried out by students, the common people of the surrounding neighbourhood or professional workers.

The abstracted material is stored and re-use to construct different landscape objects around the site: paths, reinforced grass or contentive walls for grass slopes. The external input for materials in reduced to minimum.



Cutting: slab

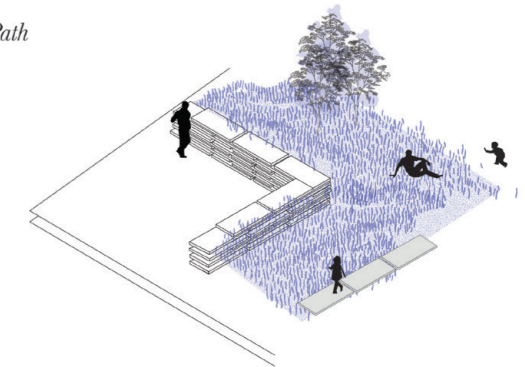


Breaking: irregular material

→ *Optimal state: sold*

→ *Depleted: used on site- contentive walls*

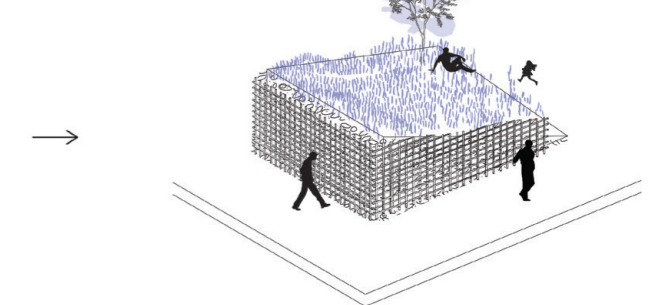
→ *Path*

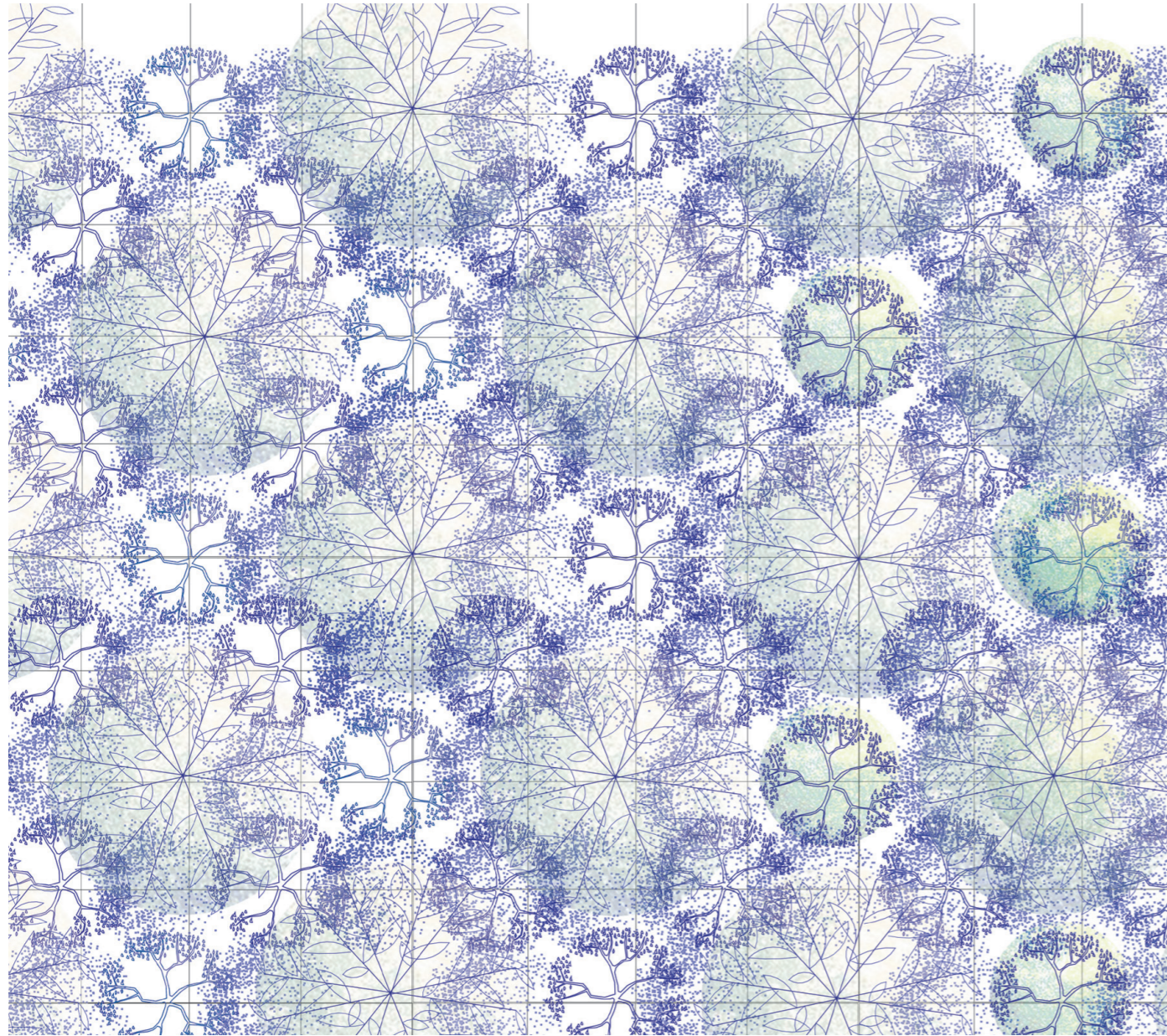


→ *Paths*



→ *Contentive walls - Gabion structure*





As explained, the planned area is a hybrid between farming and public space. The space is planned as a flexible unique surface, evolving in shape and use through time. We saw how the whole intervention revolves around a massive program of asphalt removal and re-forestation. The latter is realized in phases, in order to increase its feasibility.

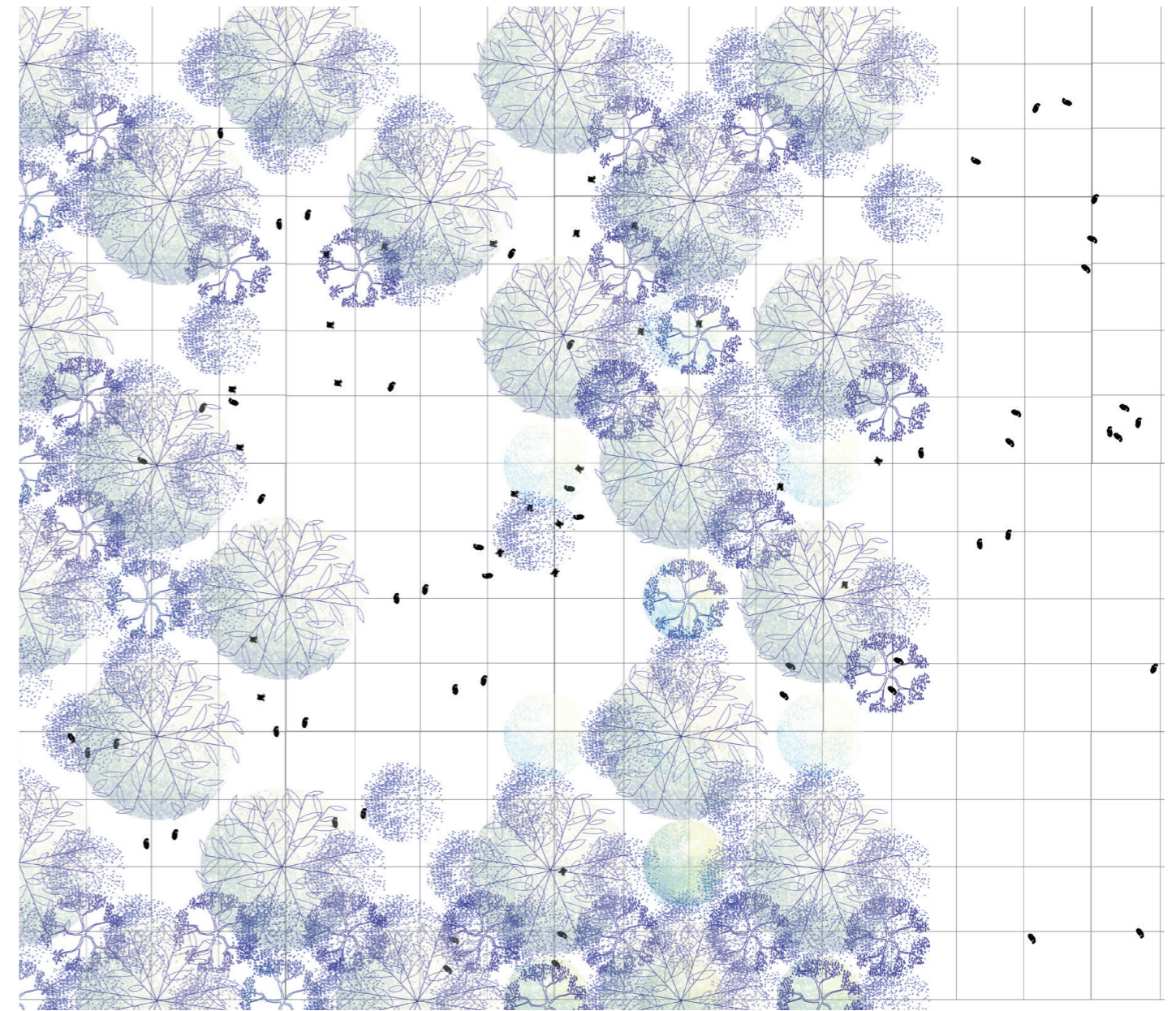
In the whole design, there is indeed a part which is flexible in time, changes in use and configuration but a defined structure is set from the beginning.

This is done through vegetation and the implementation of a “two speed landscape”. These terms refer to the use of different species of trees that have different growth rates (fast and slow) and different life expectancy. The slow-growing but long-lasting species will set a defined grid that overall shapes the site.

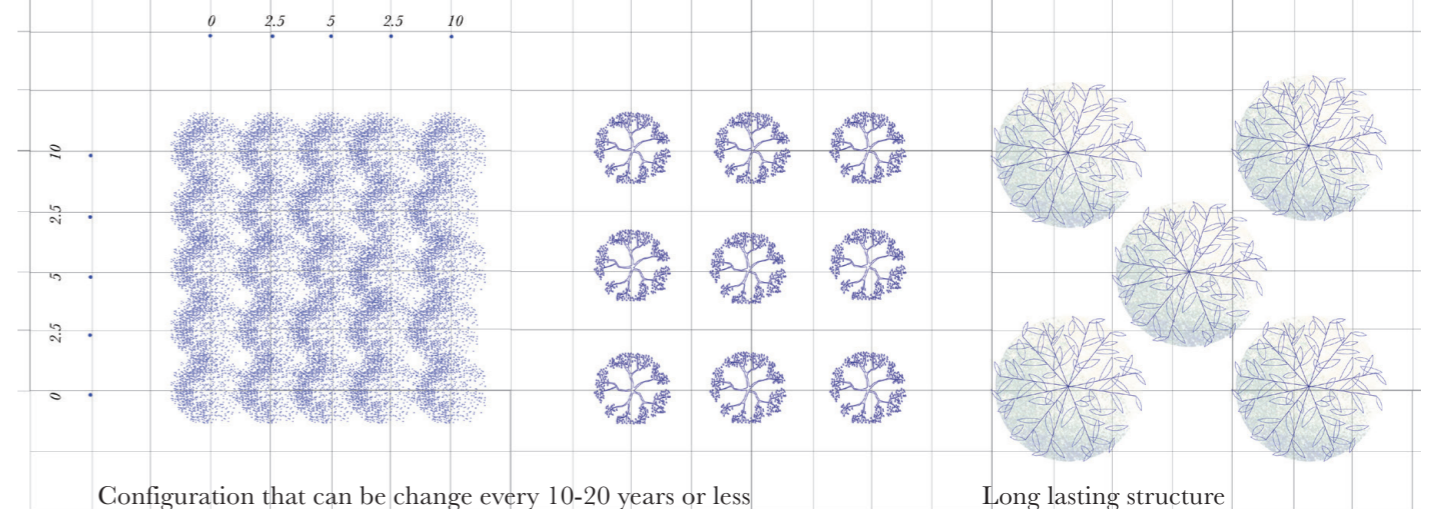
These towering trees set the definite structure in time while all the other trees, fast growing and with a short life span, enable part of the site to change in its secondary configuration every 20 years or so. They can be chopped and replanted, left to die allowing the space to clear or replanted according to the future needs of the area.

The planting plan develops along a grid. In fact, the site itself was planned according to a grid multiple of 2.5 meters, and the planting plan will follow along.

Every 10 meters a big and long-lasting tree is planted, alternated with smaller trees with a short life span in between. These trees will be of species able to enrich the soil and fix the nutrients for the development of the bigger ones. This continuous grid is applied to the site and its existing configuration adapting itself to the current and future uses.

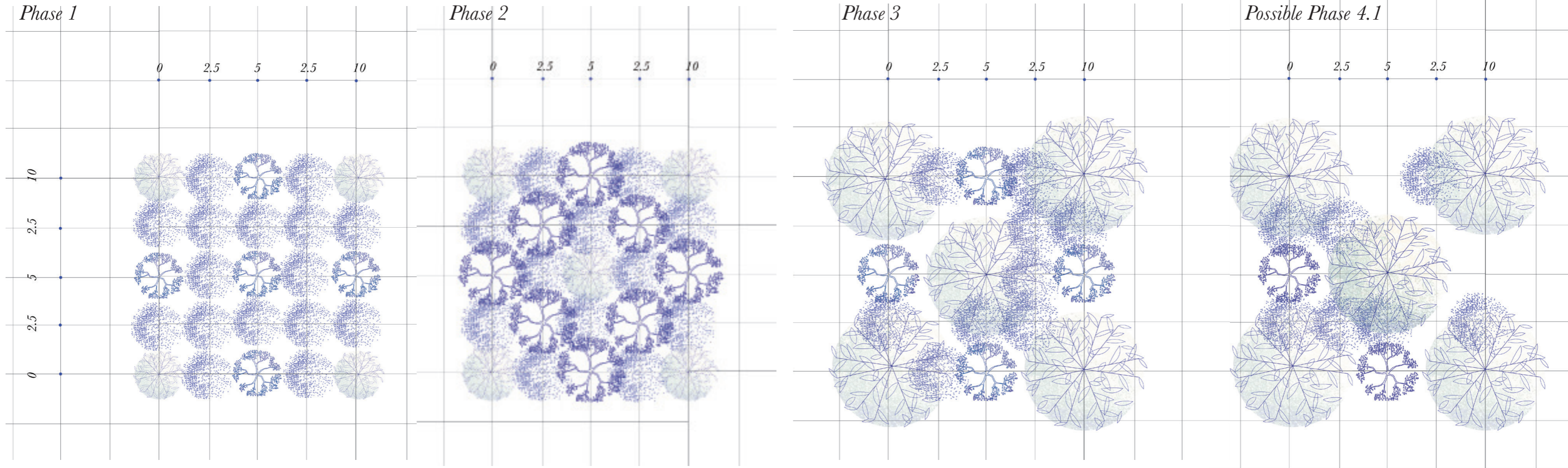


// TWO SPEED LANDSCAPE



Configuration that can be change every 10-20 years or less

Long lasting structure

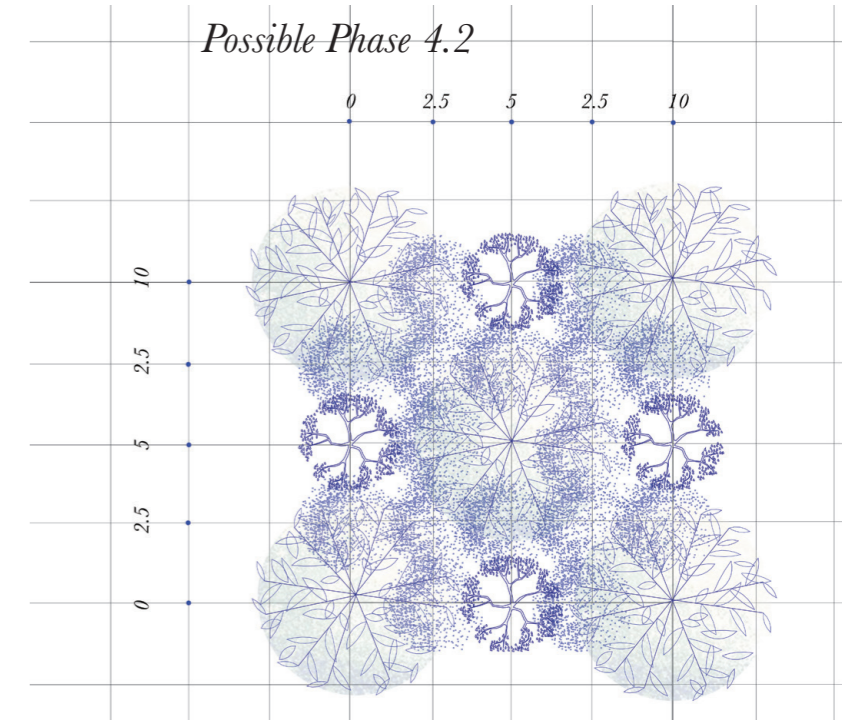


PHASE1 In the first 1 to 3 years the trees of different species have the same aspect. They are planted on a tight grid of 2.5 meters in order to give immediate quality to the space.

PHASE2 After the 3rd year up to the 8-9-10th the fast growing trees slightly take over the slow growing one, giving dynamis to the grid.

PHASE3 A couple of year more passed and slowly the big trees need more space to develop and take over the smaller one that are partly removed.

PHASE4 The plantation is adapted to the need and functions that arise in the space. Small open fields or enclosed one are created by chopping different trees. The configuration can vary but the main grid of the big trees is kept.



The transformation of the site is not a static design but a process of coordination and re-organization of the different resources found in place: materials, people and vegetation.

The final state is a product of the interaction and collaboration between the different users of the space, groups of people and institutions and the peculiar language already existing. Not only the space is designed but also the interaction between the parties. Inhabitants of the neighbourhood, the drug addicts living inside the barracks, students of different faculties, the University as an institution and the Municipality are put in communication and all play a small role in the overall success.

All of them will collaborate with their means and knowledge and all the small actions will add up to a renovation and the maintenance of the site. University can organize classes to teach their students how to cultivate and maintain different natural environments presenting a variety of species and conditions.

While maintaining and transforming the space through plantations and agriculture they will be offered a workshop space by the municipality. Here they are able to pass on the knowledge to the people of the neighbourhood, invited to act on the part of the site closer to their homes in the first instance and to spread the knowledge to other people.

Drug addicts and homeless people can make use of a program of re-integration in the society through labour, by helping the realization and maintenance to make a small living. While the university and municipality are expected to participate with the bigger works of soil movement that need specific machinery a big part of the project will be realized by other groups, that will benefit from the outcome as exercise or as a pleasant public space.

In this way, the design is not a static morphological solution but rather a process, a work in progress, with a planned backbone but that through time can assume different shades depending on all the variables that can occur in between the phases.

Time plays a key role in the evolution of the design, vegetation is used to accompany the transformation process and its realization. Therefore a careful phase planning was necessary, to follow the potential development of the landscape.

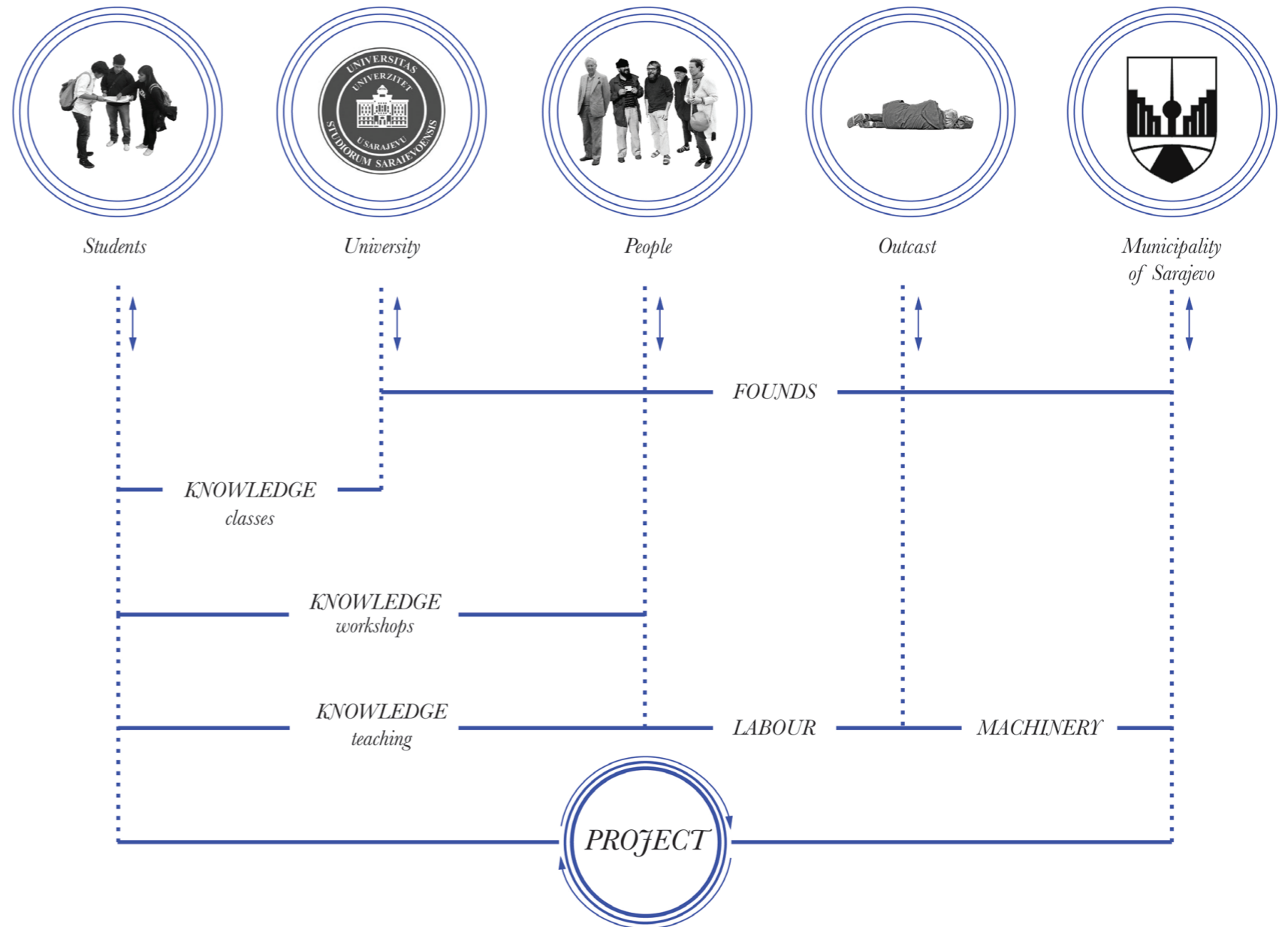
The design is not a static project rather a design of a process of development. Using the sources and the resources present on site, they are re-organized and collaborate to regenerate the area by offering a space aiming at the future but that at the same time highlights the existing qualities and the memory of the site.

Existing geographies are enhanced, processes encouraged and quickened using the existing formal language and resources.

The outcome is a site built through collaboration, enriching the city with its role as a public space and the society with its experimental role. The single categories all benefit from the outcome and are able to spread knowledge also to other areas in the city.

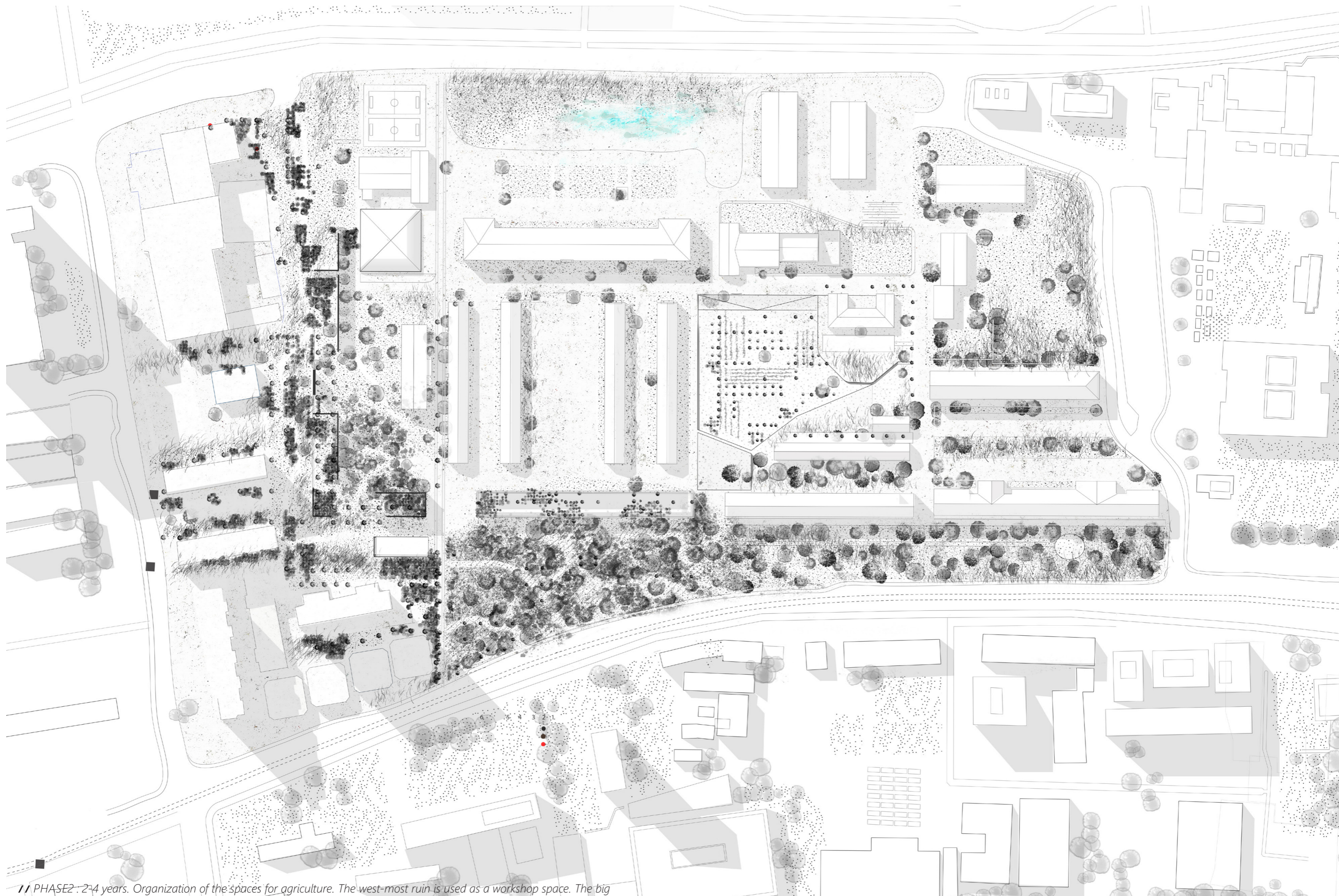
By engaging in agricultural practices and living the public space along them, the landscape is not a static nature to contemplate but an ever-changing field in which to dwell and that invites for an interaction.

The low need of maintenance and the highly educational purpose increase the possibility for the intervention to last and evolve in time. The process of forestation read as a colonization of nature is set in contrast with man practices until a balance is reached.

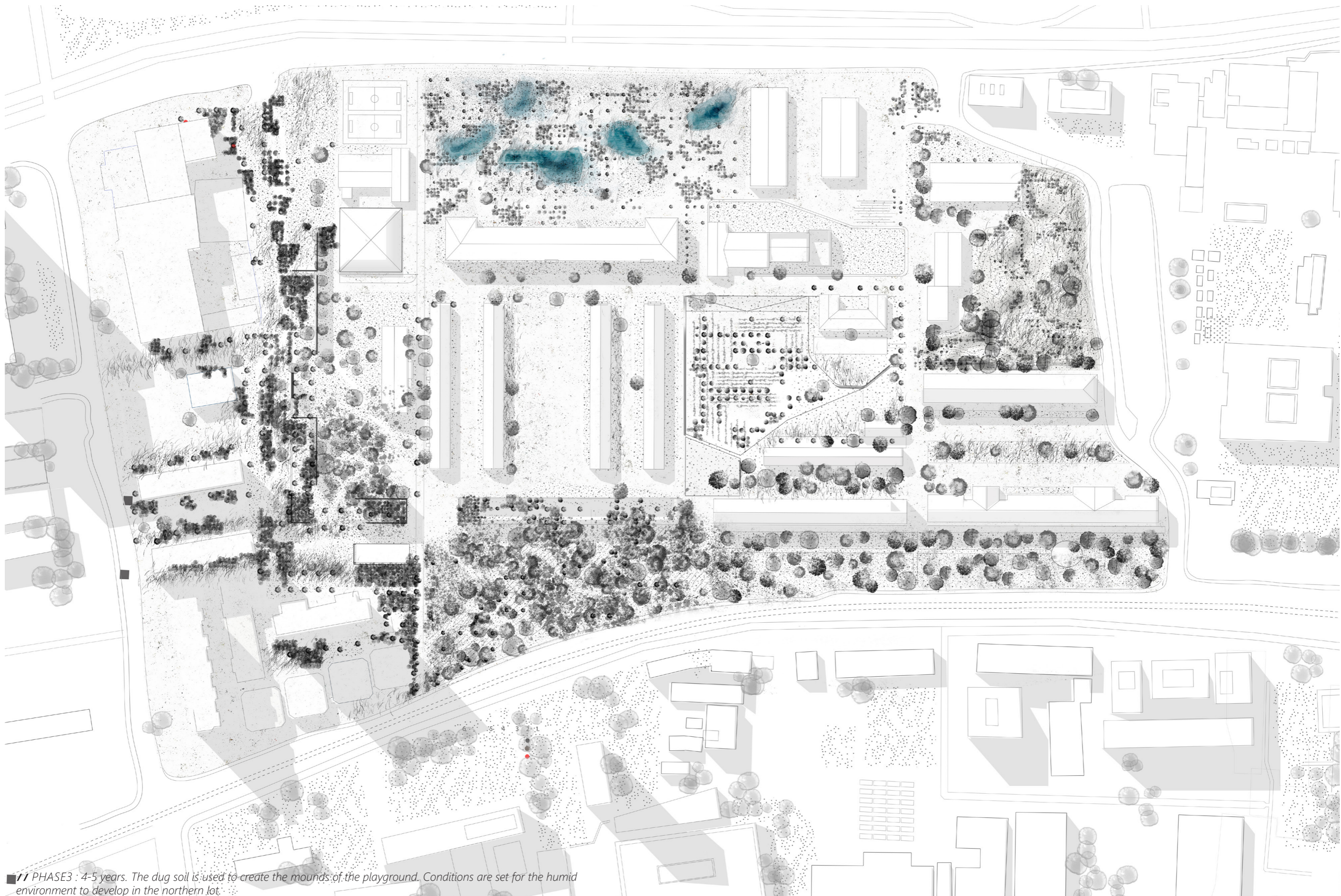




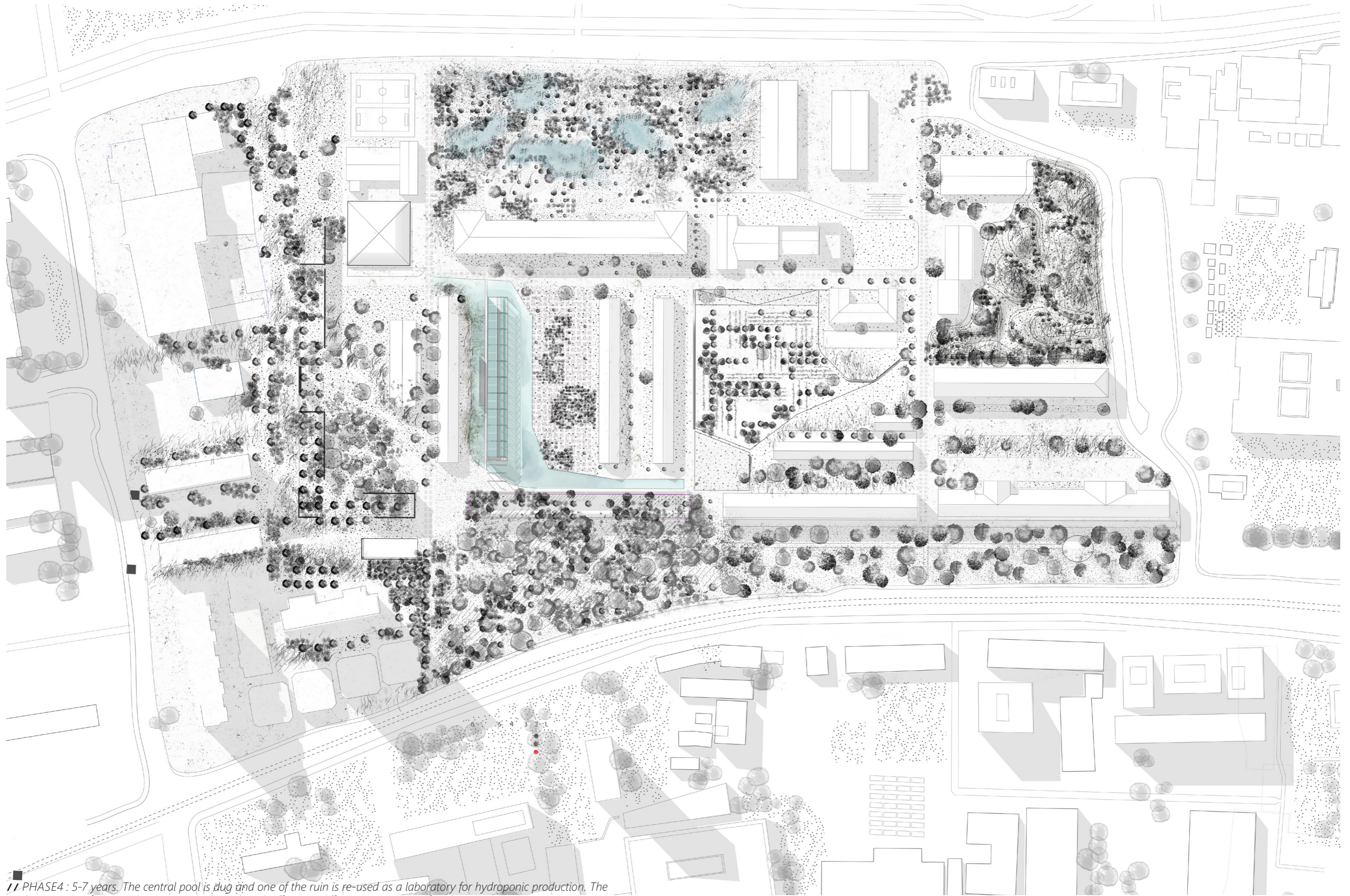
// PHASE1 : first and second year. Cleaning and planting of the west wing. The wild area is opened and start to be cleaned.



PHASE 2: 2-4 years. Organization of the spaces for agriculture. The west-most ruin is used as a workshop space. The big ruin facing south is opened up and used as a garden.



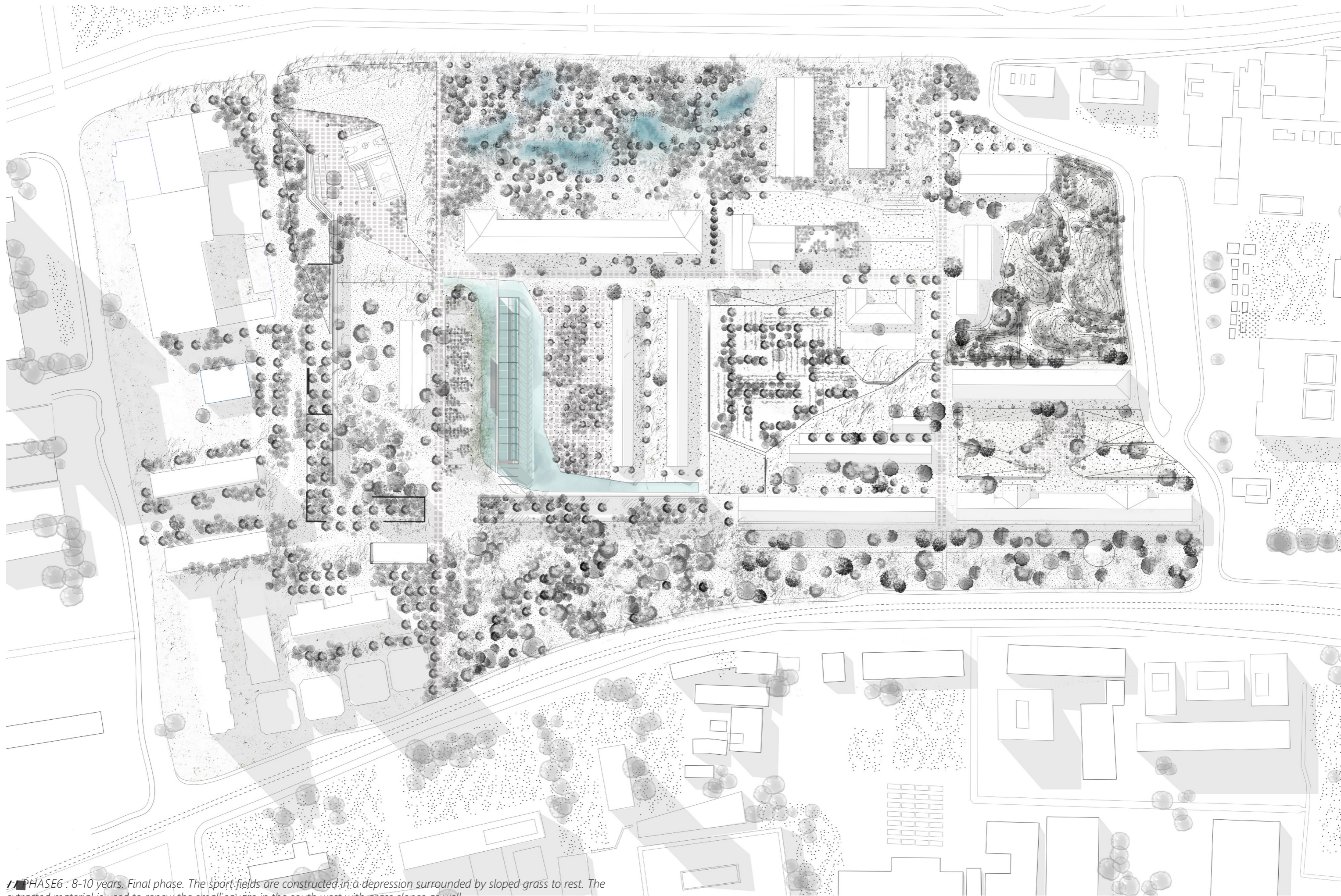
PHASE3 : 4-5 years. The dug soil is used to create the mounds of the playground. Conditions are set for the humid environment to develop in the northern lot.



// PHASE4 : 5-7 years. The central pool is dug and one of the ruin is re-used as a laboratory for hydroponic production. The pool present a soft age and acts as an ecological pool, offering a different environment for plant species.



// PHASE5 : 7-8 years. One of the ruins is partly demolished and room-gardens planted between the remaining walls. The small ruin in the centre of the site is turned into a secret garden.



PHASE6: 8-10 years. Final phase. The sport fields are constructed in a depression surrounded by sloped grass to rest. The extracted material is used to renew the small square in the south west with grass slopes as well.



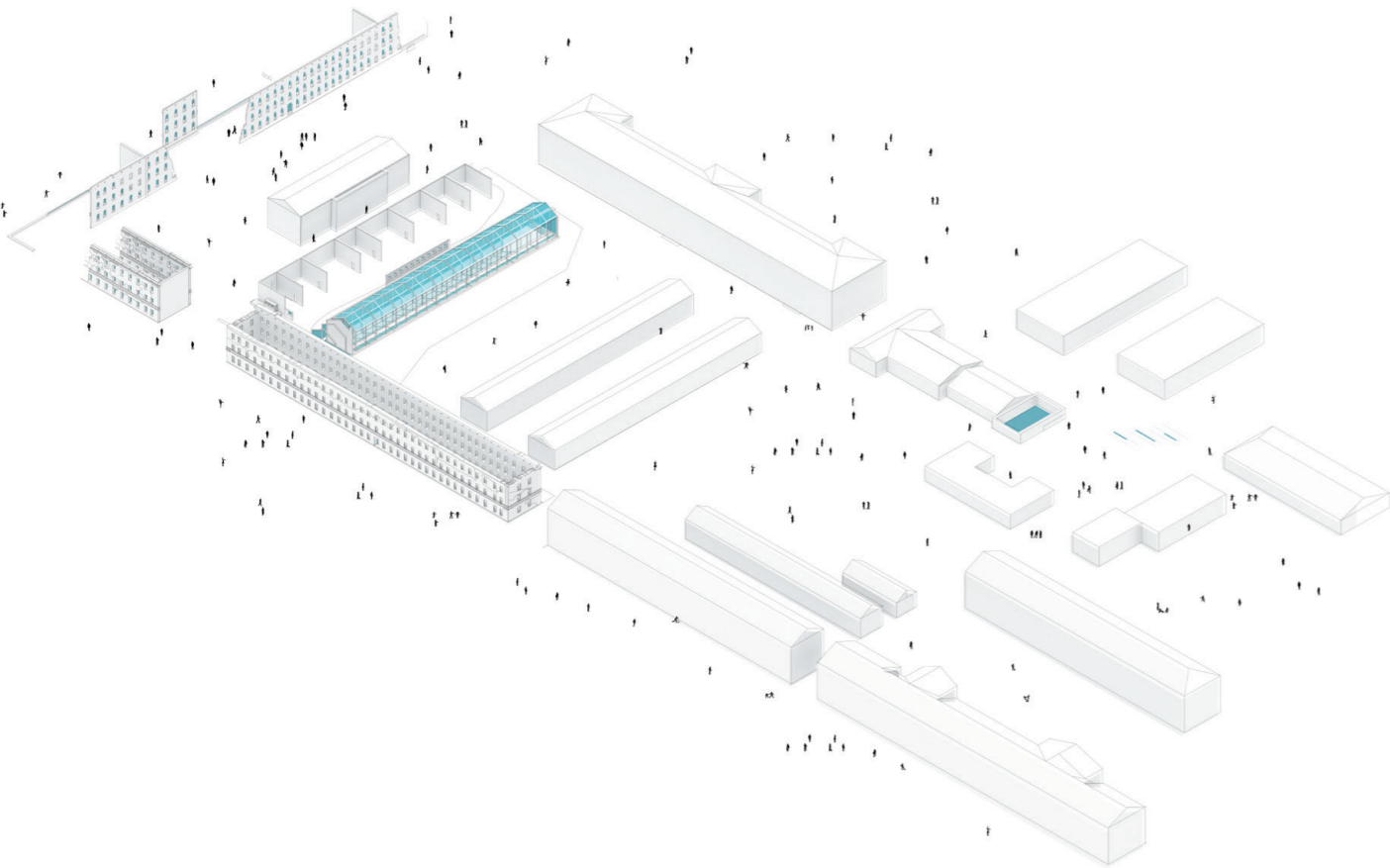
PHASE20 : 20 years. Final phase. The fast-growing trees reached maturity and the area is at one of its climax.



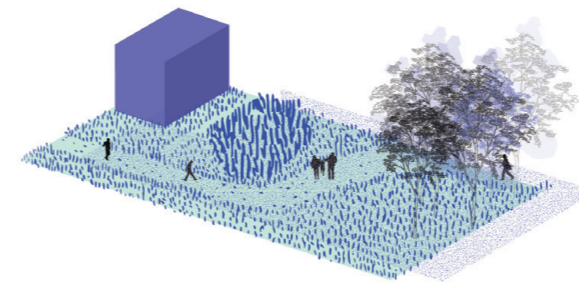
// PHASE20 : 40 years. Big trees start reaching their maturity, smaller one might be chopped or replanted



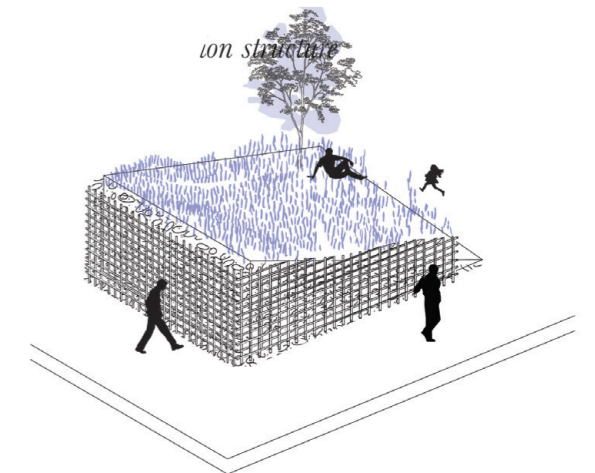
// PHASE20 : 50 years. Vegetation starts expanding in the surroundings



*Walking as a primordial act of appropriation.
While wandering through the site past memories emerge and new ones are created.
How to build up the experience of the space?*



Plants and grass densities



Surface alteration (slopes)

-1.5 | +2.5

Given this flexible limits, the freedom of wandering around the grasses of the area and the restored balance, how do people orientate themselves and how are they encouraged to reach certain areas?

Which is, the kinaesthetic experience of the space? How do people experience the war ruins?

To direct the user through the space and encourage them in certain planned spots, again, the existing language of the site is used as a resource.

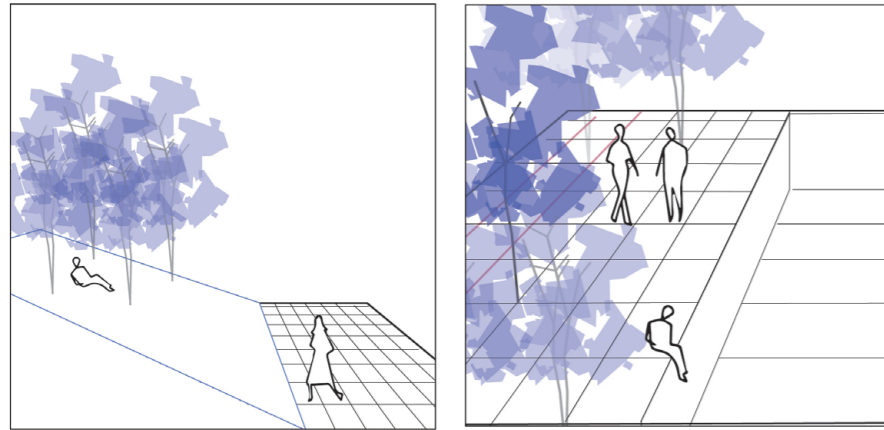
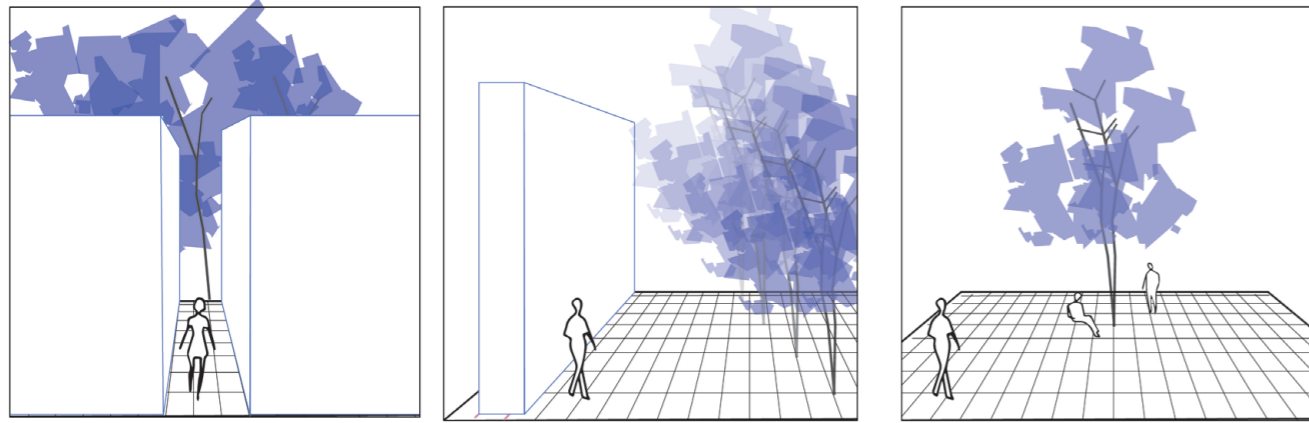
Using different densities of trees and heights differences and alternating soil textures, the user is led through a specific experience. In particular the suggested paths lead in the proximity of the ruins, in order for people to experience them from far and close. In certain areas the user is forced to pass next to the ruin in a bodily proximity where he is able to touch it and observing it from close.

The entire site becomes a directional machine

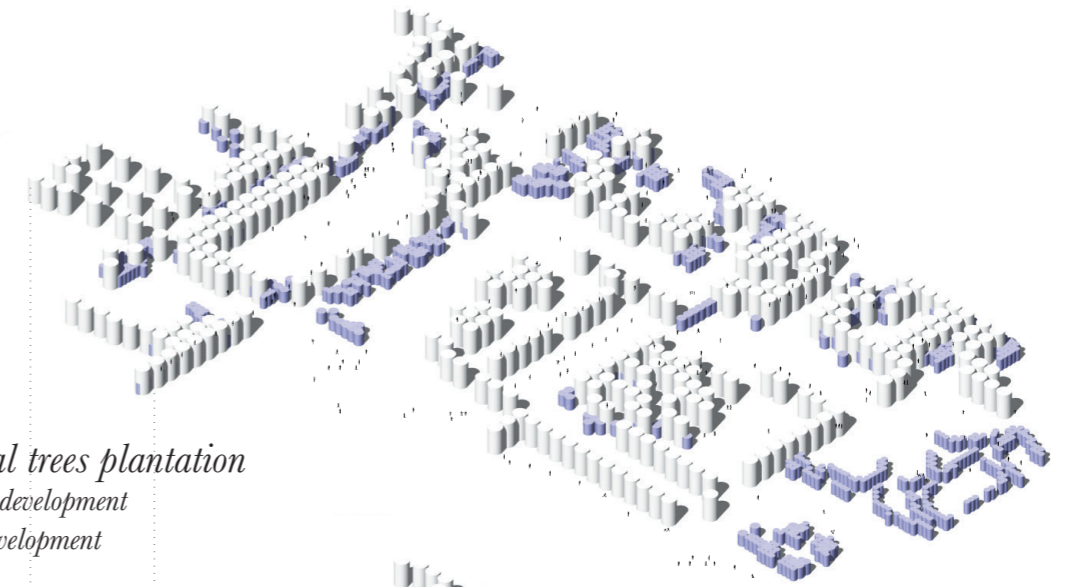
of the movement. Different threshold are created, focusing the attention of the user in certain key spots, relevant for the memory of the area. Narrow passages between the ruin and water, between constructed walls and agricultural soil or dug passages exposing the foundation of the ruins create an alternative and concrete experience of the memory embedded in the walls of the surviving buildings.

Walking becomes here a learning practice, a primordial act that we perform instinctively in our daily life is the most suitable mean to discover the space.

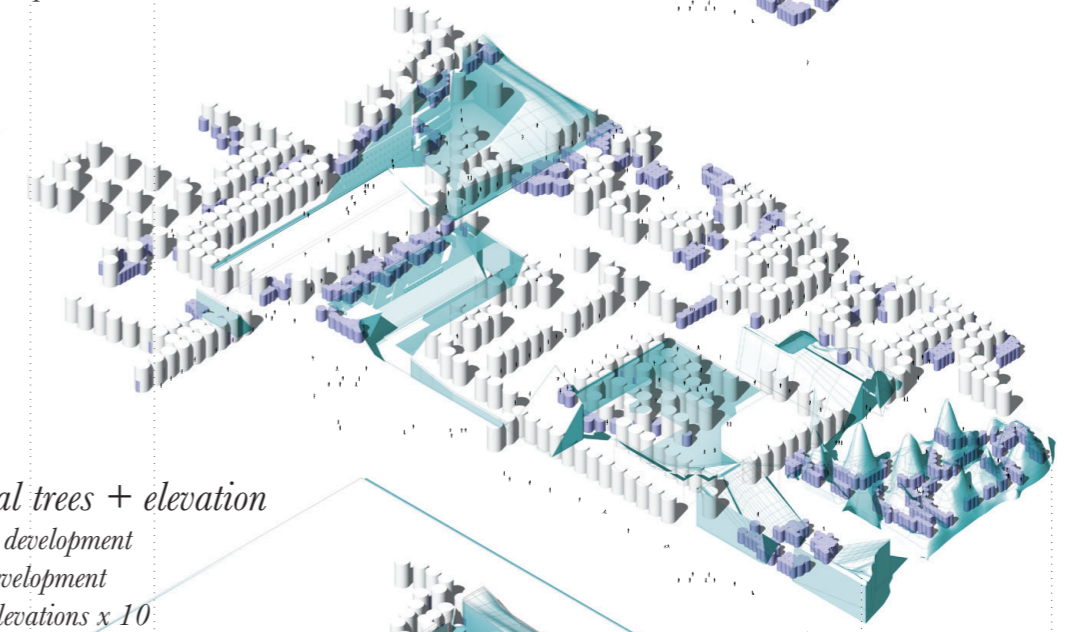
While walking through it people appropriate both physically and in their minds the area of Tito's Barracks, creating new memories and experiences. This new appropriation of the space overlaps and merges with the existing association of the barracks: fear and ruling powers. In this way the area is re-written in the mind of the population and in the common memory.



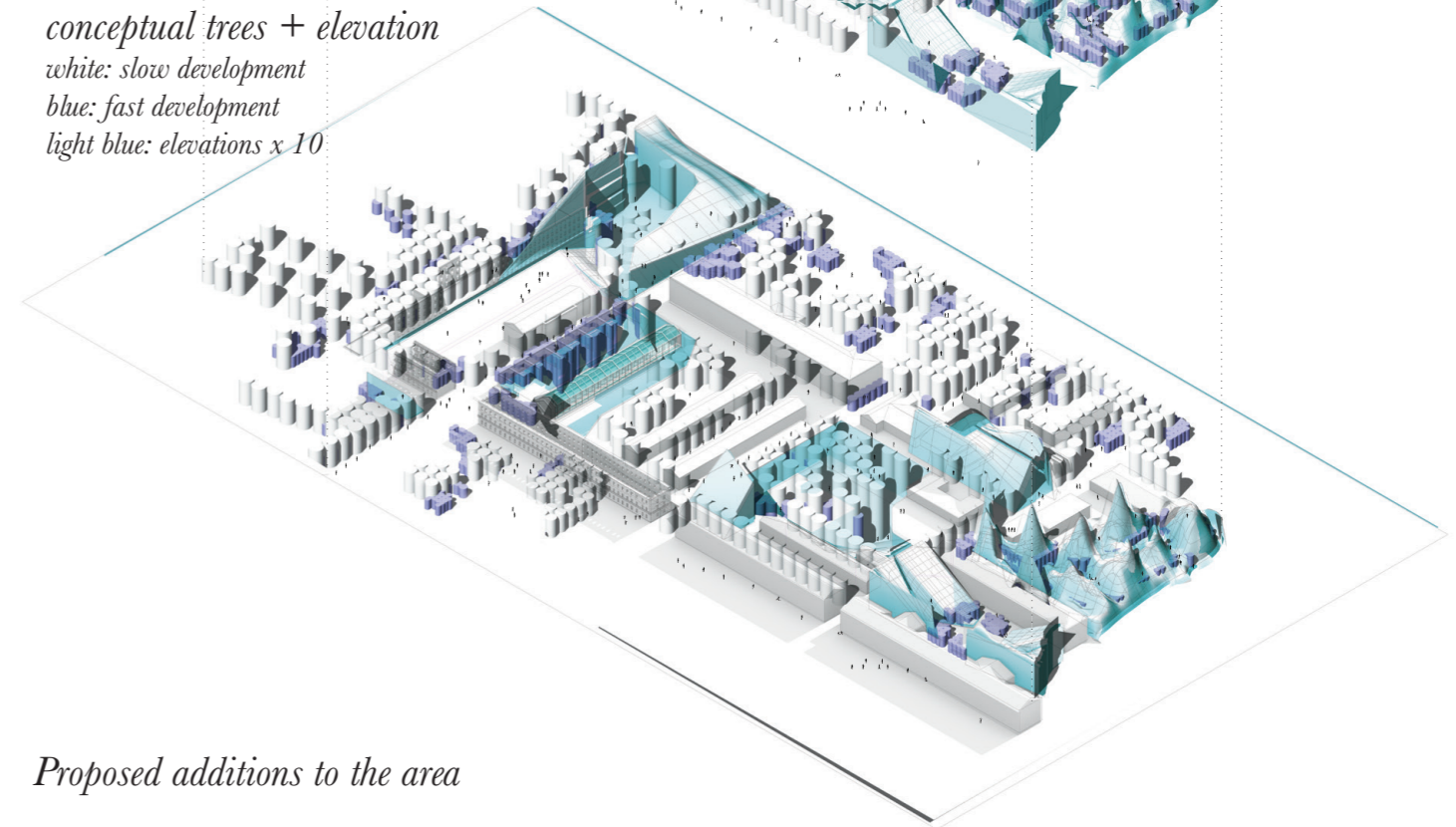
Trees can act in different way in order to direct the movement of people. They exercise their influence with different intensities. They can act as landmarks and attractors speeding the movement towards a certain point, they can act as directive lines if displayed in a row or as landmarks if planted singularly. Moreover they create also areas to stop, shaded and protected environments.



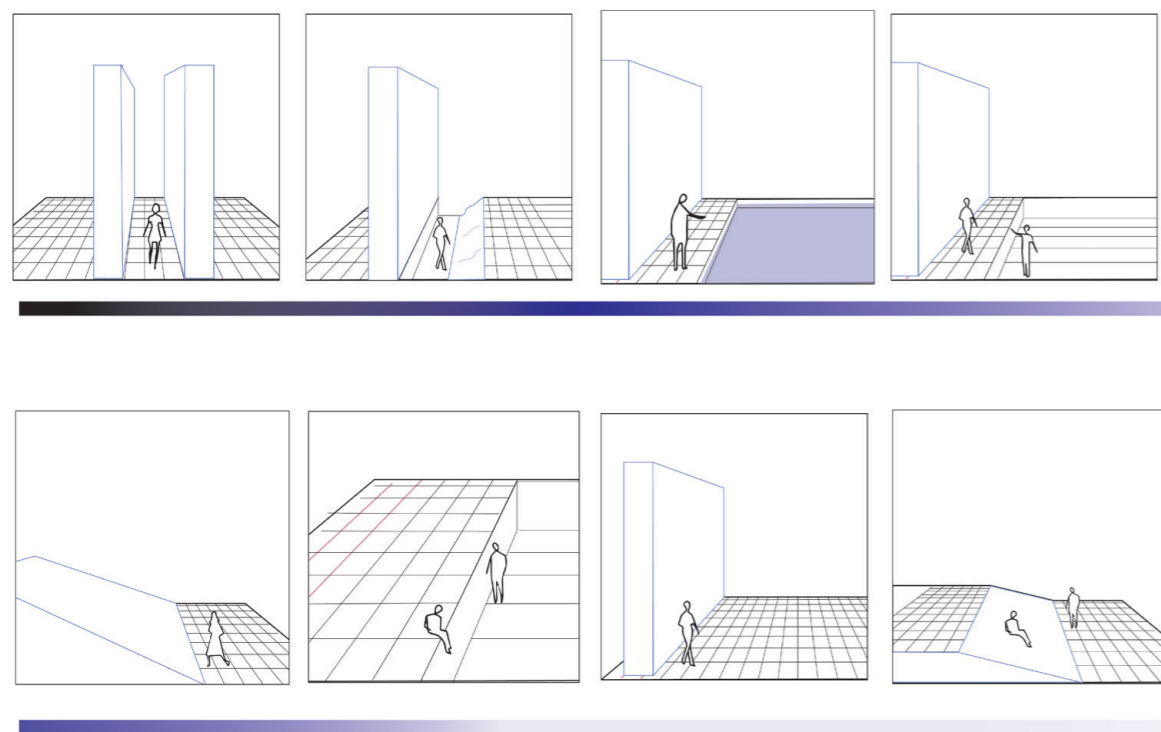
conceptual trees plantation
white: slow development
blue: fast development



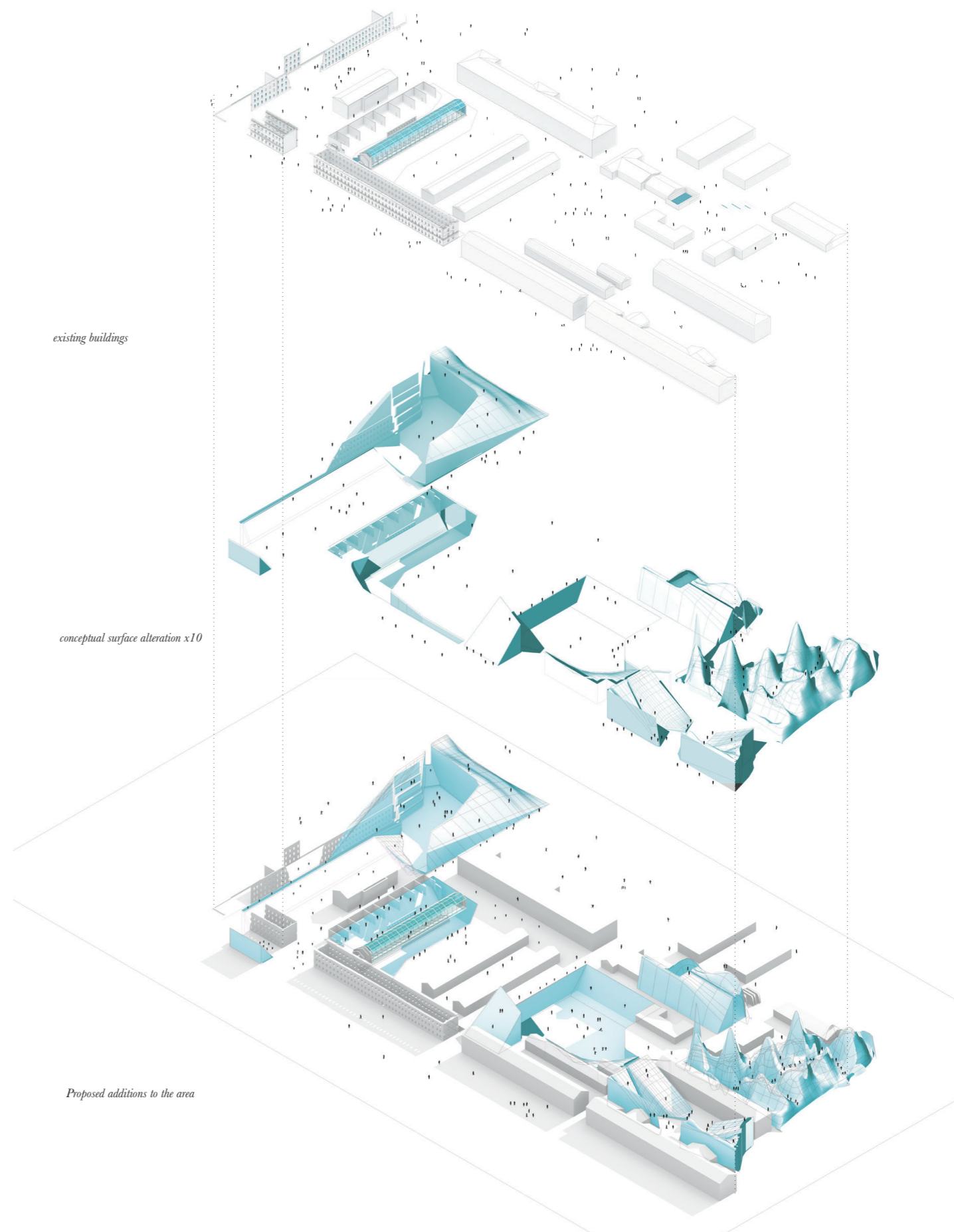
conceptual trees + elevation
white: slow development
blue: fast development
light blue: elevations x 10



Proposed additions to the area



Kinesthetic experience
influencing the movement through the area: surface alteration



SECTION IN TIME - TO BE FILLED





Phase 1 : trees just planted, 3 or 4 years into the project



Phase 2 : trees start to grow 6-7 years into the project





Phase 1 : trees just planted, 3 or 4 years into the project



Phase 2 : trees start to grow 6-7 years into the project

