Bucharest: Between North and South

Claudiu Forgaci | EMU | 2013

Bucharest: Between North and South

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COLOPHON

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Acknowledgments

Figure 1
Spatial representation of the author's living, working and studying places, together with the main trajectories connecting them, overlapped onto the administrative division of the city. Is there a North-South division?

Preface

Bucharest is not the place where I grew up, but it is certainly the place that maturated and provided me with a dense urban experience during the eight years of my studies and work spent there. Coming from a quiet small town (far quieter and far smaller than Bucharest), I was intrigued by all of its peculiarities, which I wouldn't describe as pleasant, beautiful or safe. However, neither the opposite is true. The city is rather a very fine-grained combination of opposites. As most of big cities, it is highly dynamic, full of opportunities, well connected, vibrant and so on… Though Bucharest has a certain incompleteness, an apparent lack of coherence as a result of an interesting mix of post-socialism, Balkan culture and immature capitalism. This mixture is, in a particular way, its identity. Thus whenever someone tries to describe Bucharest, they end up expressing mixed-feelings. As Ștefan Ghenciulescu puts it,

"Bucharest seems ungraspable: such an unbearable city, yet hiding so many strangely charming places." (GHENCIULESCU, 2010, P. 6)

Its inhabitants tend to mind their own business. This is a post-communist social phenomenon: people (including myself), overwhelmed by the uncertainties and apparent incoherence of their new environment, tend to run away from the common in whatever surrounds them. So now, after two years of being away, I'm trying to look back and have a more detached position: How did I live there during these eight years? How did the city influence my everyday life?

While trying to approach these questions, I made a sketch of 'my Bucharest' (FIGURE 1): my living, working and studying places in Bucharest, together with the trajectories that I used to follow on a daily basis. In this retrospective experience mapping the destinations, links, but also uncovered areas seemed to be relevant. Even if this is just a subjective glance at Bucharest, the image of almost all my activities being concentrated in the North made me wonder about the differences between the two halves of the city. Why did I not live in the South as well? Were there structural, spatial, programmatic barriers that stopped me to do so? Or is it possible that the South lacks destinations to attract me? Is it indeed a whole urban phenomenon or just a coincidence in my particular case? These are the questions that guided me towards my thesis.

More than just a design exercise, this work gave me the opportunity to reflect upon the subjects that preoccupied me for many years: the interdependent relationship between city and nature and the richness of the conflict or alliance resulted from their interplay; limits and scale as thinking instruments, or research and design tools for morphology in its wider (more than spatial) sense; ruptures, barriers, or missing elements in the structure of the city and the way they influence urbanization and, consequently, the quality of life of the inhabitants. The two years of various research and design subjects provided by the European postgraduate Masters in Urbanism were eye-opening in this sense. Either subconsciously or coincidentally, the knowledge attained in the three semesters of the EMU programme – the relationship between urbanization and mobility, or between structure, areas and flows (Urban Region Networks); the landscape architectural approach to how city and nature are part of the same system (Constructing the Sustainable Delta City); the city seen as a renewable resource, in synergy with its territory, and subject to recycling (Recycling City) – is integral part of the story of Bucharest told in the pages of this booklet.

With a strong passion for a city that never stops to intrigue me and after the academic experience at TU Delft and IUAV Venice, I see the following work as the beginning of a hopefully longer reflection…

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Introduction

Bucharest is a big city trying to find its place between Europe and the Balkans, between capitalism and post-communism. It is a city in transition. Given this condition, it is difficult to prioritize among the numerous problems and fast changes that the city is dealing with. Good or bad, each historic moment had an ideology, a cultural direction, a guiding principle visible in its contribution to the city's form. This is not (yet) so clear for the last twenty-four years. After 1989, totalitarian decision has been gradually replaced by unleashed freedom, allowing individuals to make choices, to participate in a self-organized society. However, as a response to the previous period's oppression, today's society goes to the other extreme and totally rejects the common. What's more, regardless of the scale of any urban intervention, the 'long-term' is hardly involved. The result is a city where chaotic development happens on a daily basis and adds up to an even more uncertain future.

In this context, I believe that structural/structuring strategies are still urgent. Our task is not the endless blaming and avoiding of the 'top-down', but finding its right balance with actions emerging in a bottom-up manner. This thesis will address one of Bucharest's spatial issues - the differentiated development of North and South - and, as a response, will explore the potential contribution of the West-East diametric axis to a balanced interaction between the two sides.

As the title suggests, the thesis is not only about the North or about the South of the Romanian capital, but mainly about the potential interaction between the two. Incidentally, the title refers to Dana Harhoiu's Bucharest: A city between Orient and Occident (1997), a very original view on how Bucharest developed due to a constant interaction between East and West throughout history. Hence, it is interesting to relate the current state of the city to how it has been shaped previously. Indeed, the city has been economically, culturally, politically developed at the convergence of Eastern and Western culture, but today it is part of a different system: the globalized world where geographical location is not a primal condition anymore. The Orient-Occident mixture is still strongly embedded into the legacy of Bucharest, it is inherited, but it doesn't define the city anymore. The global market does. In this sense, it is equally important to speak about the North-South relationship. One of the difficulties that the city is facing today is the contrast between these two sides of the city. The South is poorer, almost monofunctional and car-dependent, while the North, much better connected, concentrates most of the economic, cultural, and spatial capital of the city. In a way, the North is ambitiously global, while the South is confined to the local. Such urban divide is not something unusual for large cities, but it is important to understand the present and future consequences of it. Polarization of jobs leading to social segregation, congestion and growing car-ownership resulting in even more congestion are just some of the phenomenon already taking place.

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The West-East axis, marked by River Dâmbovița, crosses the very centre of the city. Still, the river is only a canal with the function of regulating water levels during floods. From its previous meandering, dynamic flow it became a straight line, a utilitarian infrastructure, disconnected from its urban and natural environment. As if the risk of flooding remained in the subconscious of the city, the areas covering the former floodplain are still less densified than the rest of the city. The West-East axis looks like a loose urban fabric composed by a succession of large open spaces, which fail to integrate into the fine structure of the city. Instead of providing places for interaction, their barriers contribute to the separation between North and South.

Yet, the WE corridor has a two-fold potential. First, it is the natural 'infrastructure' for an ecological corridor that could improve the city's innate interaction with its territory. The former floodplain, now completely safe, is embedded in the city's fabric but it is yet not treated as a whole. It is rather a collection of urban fragments and open spaces accumulated during its history that need to be reconnected. Second, with its large open parks, proximity to the urban centre, representative buildings, brownfields, recyclable industrial areas, density of destinations, it has a high potential in providing the North and the South with a place of intense interaction.

The thesis is divided in three main parts and a final reflection. First, I will introduce the theoretical themes that form the base of the research. This part will commence with a brief historical review of Bucharest's spatial development. Then I will give a more detailed description of the post-communist phenomena, mainly referring to the socio-economic and spatial transformations occurred in the last two and a half decades, after the fall of the regime. The purpose of this part is to identify the spatial consequences of twenty years of chaotic development, overlapped upon the previous layers of the city, and to illustrate barriers and conflict areas resulted from this process. The theme of territorial synergy extends the scope of the study and looks at the city in its wider natural context. The concepts of scale and limit, intended here as dialectical spatial concepts and research tools, will form the last part of the theoretical background. Following the premises raised in the first part, the second part will explore the North-South urban divide. Here, the problem statement will be questioned and analysed with empirical evidence. In the third part of the thesis, the strategy for the West-East axis will provide a coherent succession of spaces along the valley, on one hand, and a series of cross-connections, meant to encourage North-South interaction, on the other. The third part will end with three design case studies, meant to apply the strategic actions formulated in the strategy. I will conclude with an overall reflection upon the research topics introduced in the theoretical background, the design assignment, and the methodology. Is the post-communist city a different kind of urban phenomena? What lessons can we draw from our case study, which can be applied to our general knowledge about the city? The reflection will try to speculate on possible answers to these questions.

Methodology

Instead of being treated as a linear process, the methodology involved in this thesis has emerged from both systematic and intuitive approaches, with recurring feedback loops between research and design. Research provided a flexible base for design, while design continuously helped in turning back to narrow down the research topics. The two were constructively intertwined.

The topics discussed in the theoretical background are summaries of wider topics of research. Their role here is to introduce the reader to the topics and to the way they relate to each other and to the design process . The overlapping of these three theoretical angles, introduced at the beginning of the thesis, constitute the definition of the problem field. Each topic was approached according to the same framework: literature review – interpretation – illustration – premise. More exactly, the theme is explored first in the general literature and interpreted in the context of Bucharest. Then the resulted observations are synthesized and illustrated either by mapping (e.g. urbanization patterns) or abstract representations (e.g. diagrams) in order to clarify the problems that are raised. Consequently, the theoretical subjects are concluded with a set of premises, synthetic observations that form the basis for the research questions preceding the analysis.

Next, the findings of the analysis help to validate and, consequently, adjust the premises with empirical evidence. Policy and real estate reports, statistics and spatial analysis serve as the database meant to question the premises. By using GIS to map and process statistical data, infrastructure and land use patterns, it was possible to diagnose and illustrate the relationship between programmatic and spatial data. The diagnosis is explored further by the addition of the dimension of time. Three brief scenarios outline the past, current and future tendencies. The focus is on the last scenario, which is proposed as a gluing story between the first two and it is developed in a strategy. The strategy is built on the potential contribution of the West-East axis to the North-South interaction. It addresses the topics introduced in the problem field and translates them into a spatial strategy. The vision of the valley represents the position taken towards the problems highlighted in the analysis. In a further step, the design case studies are meant to test and simulate the future outcomes of the proposed strategy. They are strategically chosen at the intersection of the connections along and across the valley.

The thesis is concluded with a personal reflection on the research and design framework. The questions and solutions raised in the case study of Bucharest is further related to the general challenges faced by contemporary cities.

The Post-Communist City

Literature review on Bucharest's morphological development.

Interpretation of morphological characteristics.

Mapping of open, conflicting and residual spaces.

The City as Unfinished Project

Analysis

Satellite mapping
Statistical review
GIS mapping
Space syntax
Planning system

Scale and Limits

Literature review scale and limits

Interpretation spatial concepts

Mapping of scale and barriers

Strategy

Structuring

Design

Case studies
Simulation

Reflection

Position essay

Problem Field | **Urban Divide**

Premises

North and South

Hypothesis

Mepping
Scenarios

The Valley

Research question

Testing

Literature review on ecology and territorial synergy.

Interpretation of the current regional urban-nature patterns.

Illustration of regional urban and natural patterns

Territorial Synergy

Premises are derived from the theoretical background and help to formulate the research questions. The findings of the analysis help to validate and, consequently, adjust the premises with empirical evidence.

Policy and real estate reports, statistics and spatial analysis serve as the database meant to support the problem statement. By using GIS to map and process statistical data, infrastructure and land use patterns, it is possible to diagnose and illustrate the relationship between programmatic and spatial data.

The diagnosis is explored further by the addition of the dimension of time. Three scenarios outline the past, current and future tendencies. Here the last scenario and its hypothesis are proposed as a response to the first two and it is developed in a strategy.

The strategy responds to the potential contribution of the West-East axis to the North-South transition. It addresses the three topics introduced in the problem field and translates them into a spatial strategy. The vision of the valley represents the position taken towards the problems highlighted in the analysis.

The design case studies are meant to test and simulate the future outcomes of the proposed strategy. They are strategically chosen at the intersection of the connections along and across the valley.

Personal reflection on the topics addressed by the thesis related to the general challenges faced by contemporary cities.

Urban Divide

The city as unfinished project

Of course, every city is an open system, meaning that it is 'unfinished' by definition. So by using this subtitle I do not imply that the city 'should be finished'. Instead, my aim is to point out the fast pace with which the unfinished projects succeeded each other in the case of Bucharest and, most of all, the fact that its incompleteness is one of its main distinctive features. Augustin Ioan recognizes this pattern in Bucharest's development:

"The capital of Romania is a city where competing development projects violently replace each other. Every fifty years or so, a new layer of the "palimpsest" (as an expert in the architecture of Bucharest, architect Alexandru Beldiman, uses to call the city's structure) or "an unfinished project" (Ioan, 1996) re-emerges in the city with the intention of turning it monumental, in step with the pretences of one regime or another." (IOAN, 2007, P. 305)

The historical sequence shown in this chapter is an illustration of how the city is built up of successive steps of fast change. The selection of the snapshots is based on the key moments in time when considerable change has occurred and has been accordingly recorded. With the exception of the last period, these snapshots and their titles are based on the historical inventory of "Bucharest as palimpsest" built up by Matei Bogoescu in his master thesis (BOGOESCU, 2010, PP. 45–87).

As the scope of this study is to understand the current state of Bucharest, this chapter aims to introduce the spatial 'incompleteness', 'openness' or the 'residual' characteristic of each historic period.

The Ottoman city   [1700-1859]

The spatial configuration of the ottoman city is the result of a very specific historical context. As commanded by the ottoman rulers of that period, the city of Bucharest was not allowed to be protected by walls. As a result, the city developed a spatial structure that was very different from many other European cities of that time. Instead of having a sole centre commanding a fortified town, the city has grown in a polycentric structure around parishes. The public space was shaped in a similar manner: 'maidans', spontaneously formed spaces of gathering resulted from the loosening of the street network in the vicinity of the Orthodox churches.

Paris of the East   [1859-1918]

This is the period of systematization and structuring the city. Called Paris of the East, Bucharest of that time was built after the model of the French capital. All the boulevards, the canalization of Dâmbovița, and the first comprehensive industrial developments happened in this period. That structure is still the backbone of the city.

European Modernity   [1918-1947]

During the inter-war period the bourgeois city continued to grow towards the North, facilitated by the new tram structures. Colonies of workers and rural areas started to grow both in the North and the South but in a disconnected manner.

Progressive Communism   [1947-1974]

Mainly in the 1960's, autonomous large housing estates appear in all four cardinal points, clustered around large public transport routes. Industry continues to grow around rail routs, completely isolating the centre from the periphery.
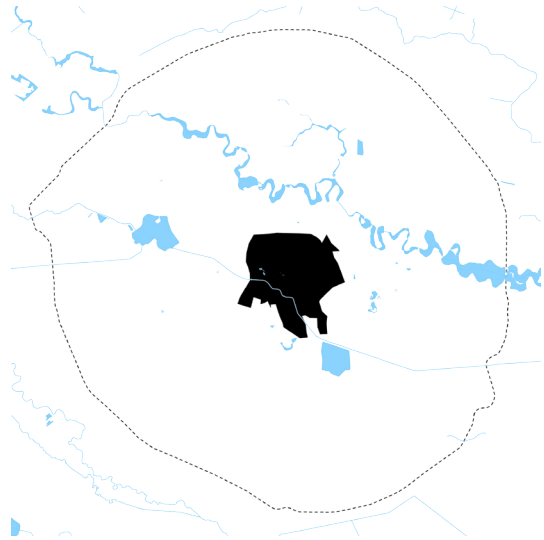
Urbicide   [1974-1989]

The years of communism under the dictatorship of Nicolae Ceaușescu left the city with very large opressive and unfinished structures. The demolition of 400 hectares of historical urban fabric and other 'systematization' operations disrupted the urban fabric of the centre. The scale of the interventions make the Civic Centre the largest structural barrier from the whole history of Bucharest.
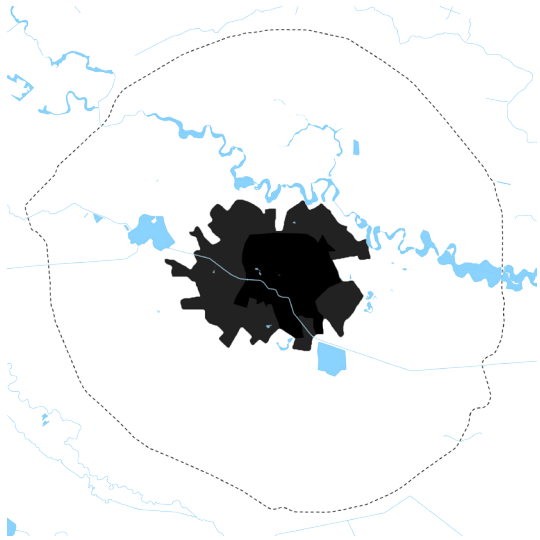
The post-communist city   [1989-2013]

Post-communism didn't manage to handle the problems inherited by other periods, nor to use the leftover spaces effectively. In contrary, the socio-economic processes of the years of transition went out of control and can be best characterized as opportunistic, privately-driven development, which had the power to influence urban regulations.
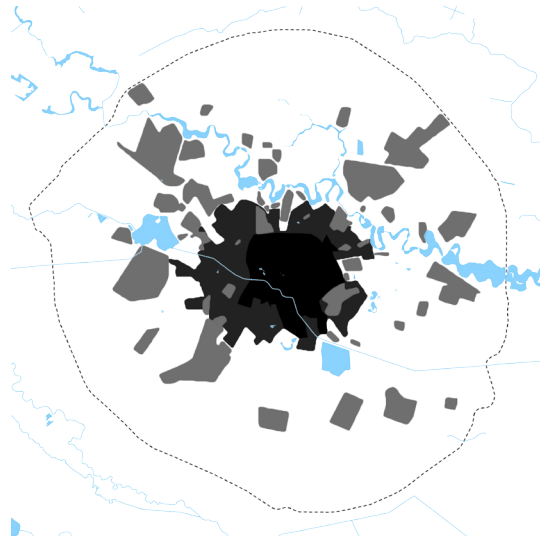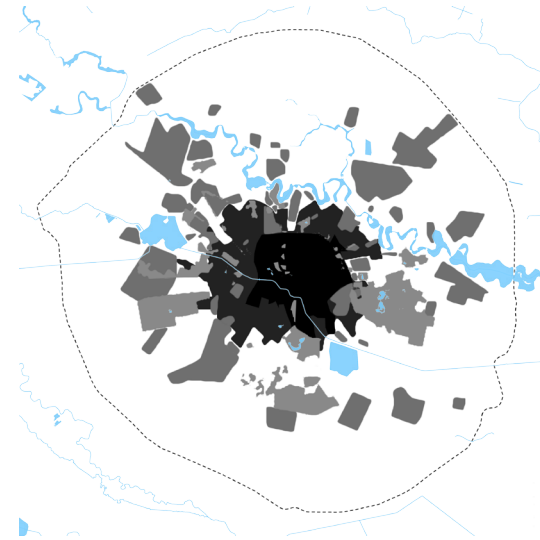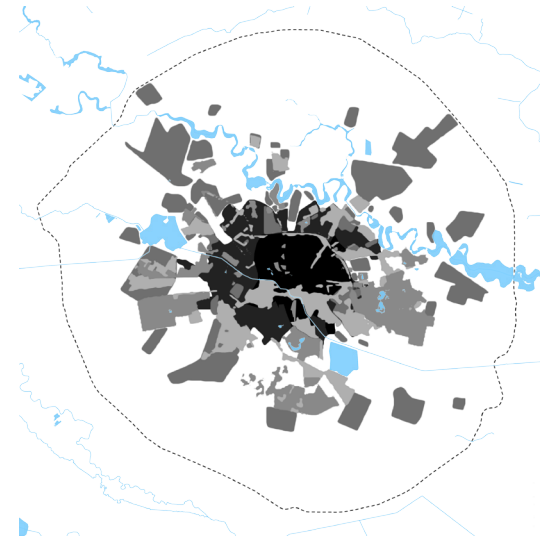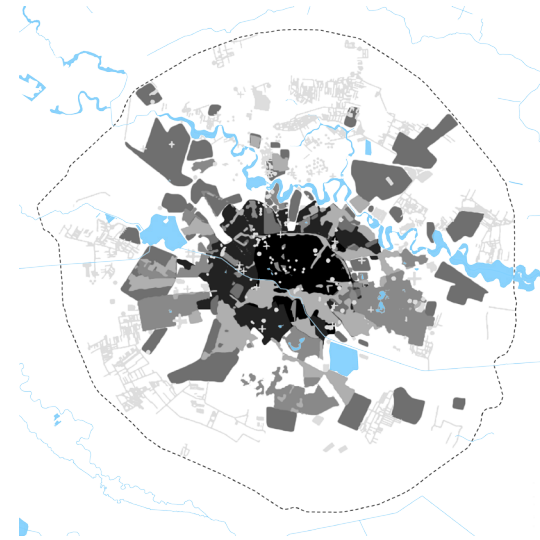
Urban growth before **1859.**

The Ottoman city, grown around parishes.

1859-1918

Maidans - road widenings as public spaces.
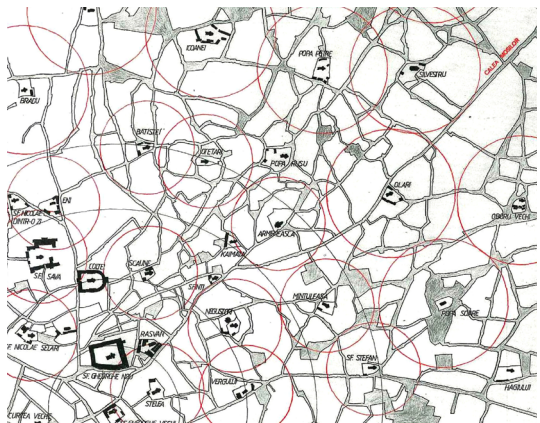
1918-1947

European modernity.

1947 - 1974

Progressive modernism.

1974 - 1989

Urbicide.

1989-2013

The post-communist city.

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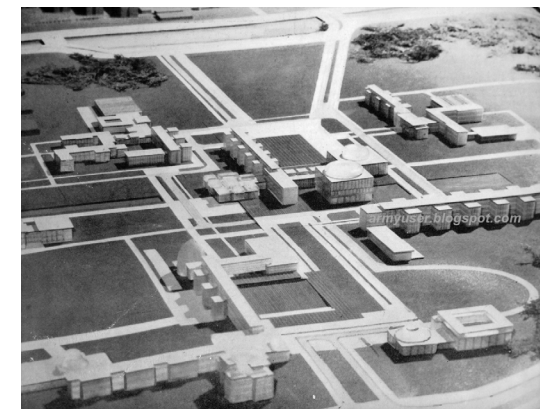
The post-communist city*

* I follow the argument of
Luděk Sýkora and Stefan
Bouzarovski (2011, p.54)
that the term 'post-com-
munist', rather than
'post-socialist', is more
appropriate to Eastern-Eu-
ropean ideologies.

< Bucharest centre, photo
by Vlad Petri

Bucharest: Between North and South

The last chapter in the history of Bucharest is still being drafted, even after more than two decades. It isn't a defined period yet, but rather a 'post-situation' still bearing its previous name: *post-communism*[1]. When referring to post-socialism, Kiril Stanilov (2007) states that "[s]imilarly to the terms *post-industrialism* and *post-modernism*, [...the] expression signified a condition that was defined primarily by the disintegration of the characteristics of the preceding system, rather than by a coherent vision of what should follow." It is commonly called 'transition' because of its (yet incomplete) goal of shifting "from a totalitarian socialist to a democratic market-based society" (STANILOV, 2007, P. 21), from an opaque to a transparent governing system.

Luděk Sýkora and Stefan Bouzarovski claim that the term 'post-communist', rather than 'post-socialist', depicts this post-situation in the case of Eastern-European countries more accurately (2011, P. 54). Communism is different from socialism in many ways[2]. And so are the spatial consequences of the two. The monumentality (and brutality) of urban structures, but especially the emerging social behavior after the fall of the regime is much more accentuated and complex in the case of communism. As stated by Cavalcanti, the urban transformations under the autocratic regime of Ceaușescu had a set of specific repercussions. The replacement of old structures in the centre of the city with the new Civic Centre in the '80s had a radical impact on the street pattern. The continuity of the street layout was disrupted and replaced with a collection of *barriers*, separating the North and South of the city. This operation had an ideological dimension as well: the pre-existing townscape, representing the bourgeois culture and life-style of the previous periods, had to be abolished and overshadowed by the *scale* of the new structures. These operations required massive demolishing of historic buildings and areas that lead to a considerable loss of historical identity. (CAVALCANTI, 1997, PP. 90–91)

Thus, based on these inherited outcomes, let's portray some aspects of the process of transition started in 1989. It is highly relevant to look closer to this period, given that it is, despite some appearances, still ongoing, that our present is part of it:

"Post-communist cities are cities under transformation. [...] Cities in former communist countries can no longer be seen as socialist cities. Their development is now largely governed by market forces and democratically elected governments. Yet, they are not fully developed capitalist cities either. Looking at their morphology, land use and social segregation, we can document typically capitalist city areas and districts, while sections of urban landscapes resemble frozen mirrors of socialism. The reorganization of urban landscapes in post-communist cities that began with the institutional reforms of the 1990s is far from complete." (SÝKORA & BOUZAROVSKI, 2011, PP. 44–45)

According to Sýkora and Bouzarovski (2011), the transformation of the post-communist city is a

Transition I:
Institutional transformations

Transition II:
Social transformations

Transition III:
Urban transformations
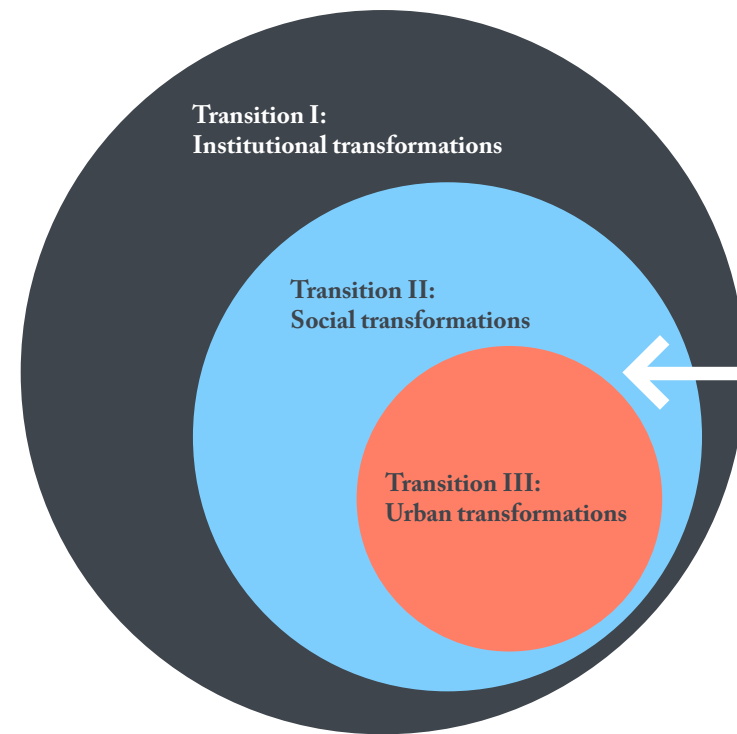
Bucharest

Figure 2
The three-stepped process
of transition proposed by
Sýkora and Bouzarovski.

three-stepped process, following the succession of institutional, social and urban change (FIGURE 2). The authors claim that in order to have a comprehensive understanding of the process of transformation, it is important to take all these three steps into consideration, rather than just looking at institutional change, as very often happens in the literature dealing with post-socialism.

Institutional reform, the first stage of the transition process, happened with a fast pace in Bucharest. Still, even though the dictator was ousted, many of those who started the new government were coming from the Communist Party. The Regime, as institution, was gone but its 'governors' still needed time to learn and adapt to a democratic way of thinking. Even more, the socio-economic consequences of the institutional transformation were much larger than the new government was prepared to handle. It was just the trigger for a much more complex process of socio-economic transformation, occurring with an unprecedented speed and character. Liberated from the restrictions of communism and facing a new, open market, individuals ventured into privately driven market economy. The overwhelmed state contributed to this by delegating its power and by privatizing as much as possible from its properties.

From a nation of engineers and workers, Romania suddenly became the country of entrepreneurs. Businesses, appearing with an unprecedented pace, enabled people to build their own future, to aim

higher. Overnight, they became individuals, rather than equal pieces of a uniform mass. From a controlled workforce distribution all around the country during the communist years, capital started to concentrate in Bucharest, as a consequence of the dramatic shift from the secondary to the tertiary sector (NAE & TURNOCK, 2011). More than that, within the boundaries of Bucharest, the independent microrayon-industry[3] system broke, resulting in a very different origin-destination or residence-jobs movement patterns. Jobs of the tertiary sector started to cluster in the better connected North, thus increasing the distances that needed to be traveled by the inhabitants of the South.

Of course, this is normal to happen in a society in transition, but there are some social particularities to how it happened in Romania. The frustration accumulated during Ceaușescu's regime, the weakness of the new government, the 'pressure' of market opportunities, all contributed to an immature and irresponsible individual behavior. Consequently, the urban environment has been shaped in an uncontrolled manner during transition. The 'ad hoc' development of the city keeps contributing to the widening gap between rich and poor, while this gap reduces social justice and adds up to even more uncontrolled development. For instance, the so-called "derogative urbanism" (NAE & TURNOCK, 2011, P. 216) resulted from the exploitation of flexible urban regulations with exclusively profit-driven purposes. The speed of this process however didn't take into consideration the effects

on infrastructure. As a result, it happened very often that new developments were built before even being connected to road or utility infrastructure, thus preceding and controlling infrastructure development. But infrastructure grew too slowly and after the 2008 crisis, this phenomena of 'infrastructural catch-up' left the city with a lot of disconnected areas.

So, if communist urban operations shattered the urban fabric by creating *barriers*, by using *scale* as a tool for imposing power, and by promoting ideology by erasing historical *identity*, post-communism didn't manage to address these spatial issues, but got lost in trying to manage the complexity of socio-economic processes. Isn't it then crucial to think about spatial and socio-economic consequences together? The answer seems obviously affirmative, but the inertia of Bucharest's urban development makes it a wicked task.

1   Many authors refer to post-socialism, especially when describing the phenomena on an international level (Stanilov, 2007), but the term 'communism' captures the particularity of the Romanian political background more accurately.

2   Residential neighborhoods were combined with industrial platforms in their immediate vicinity. This way the workers, together with all the services they needed, were located in the same spatial unit within short distances.

3   The Zonal Urban Plan was allowed to modify the General Urban Plan anytime a private development needed different conditions of massing or land use.
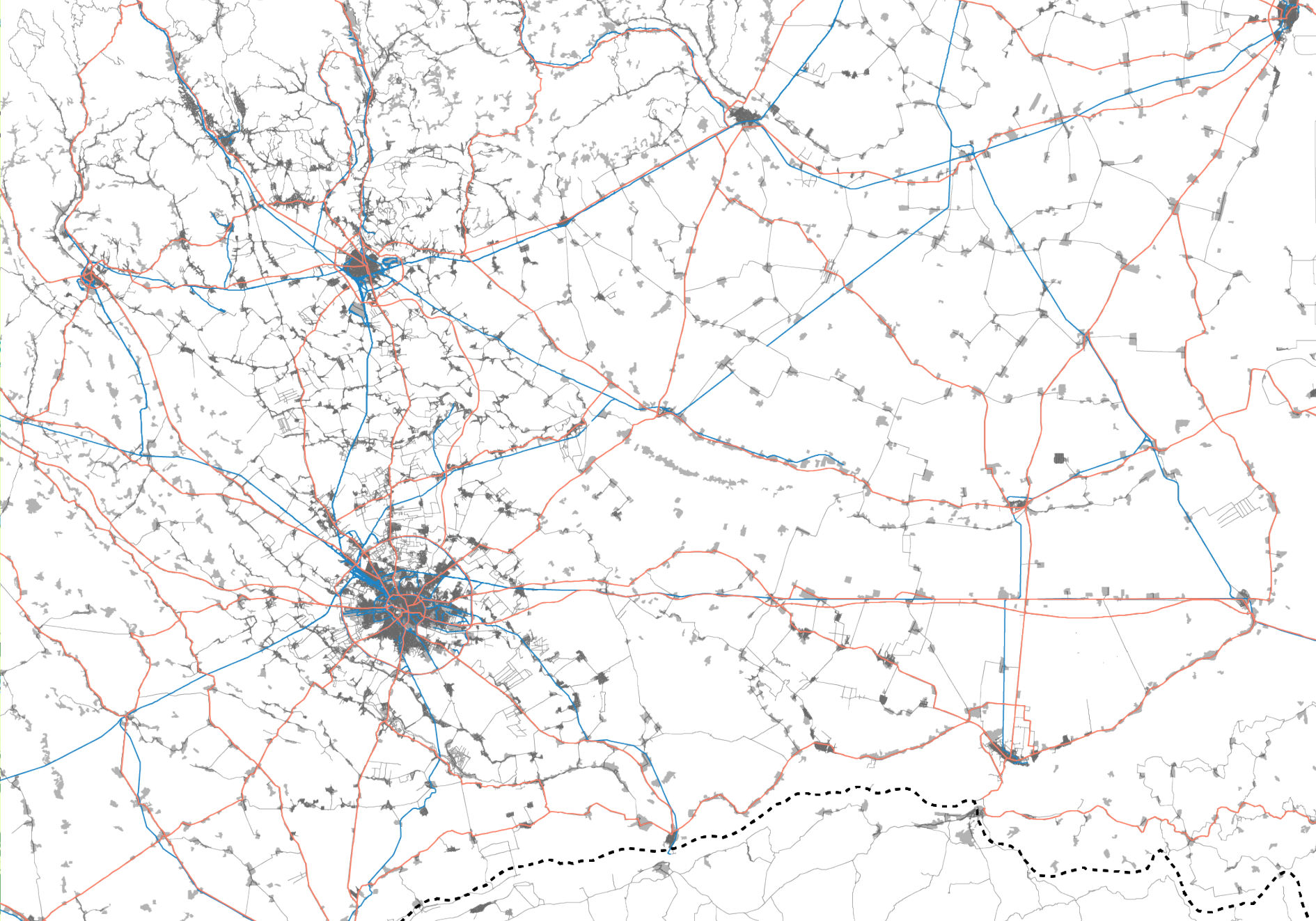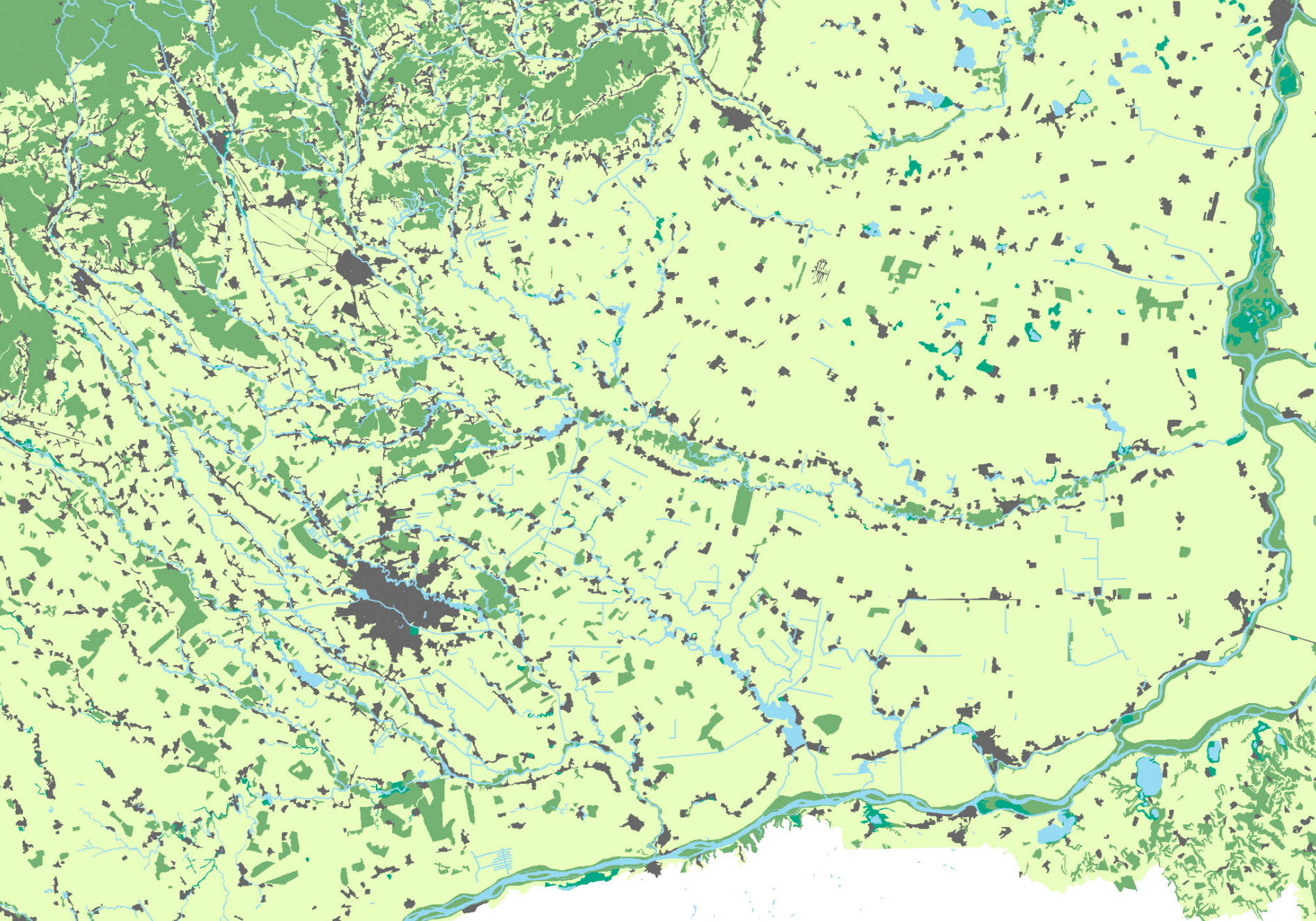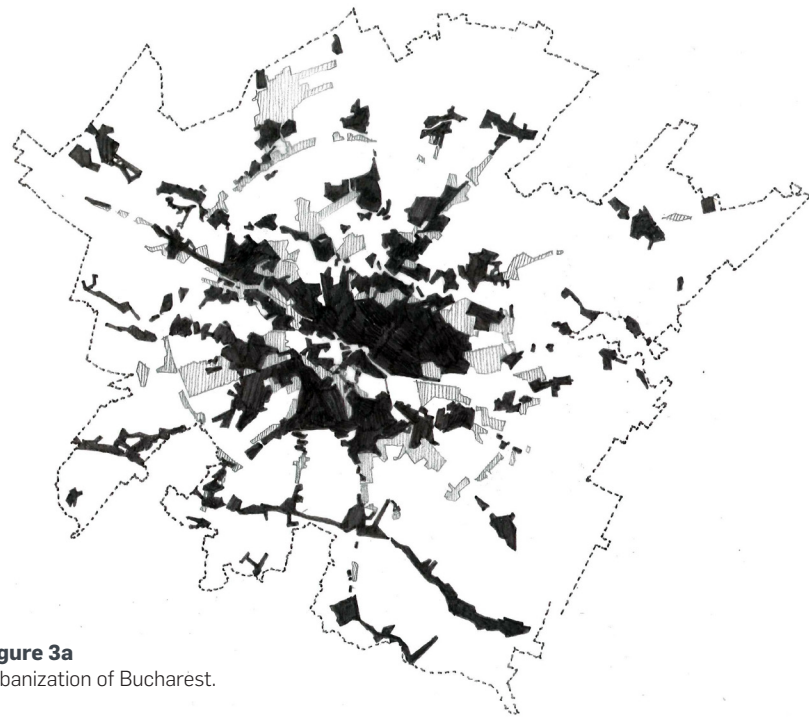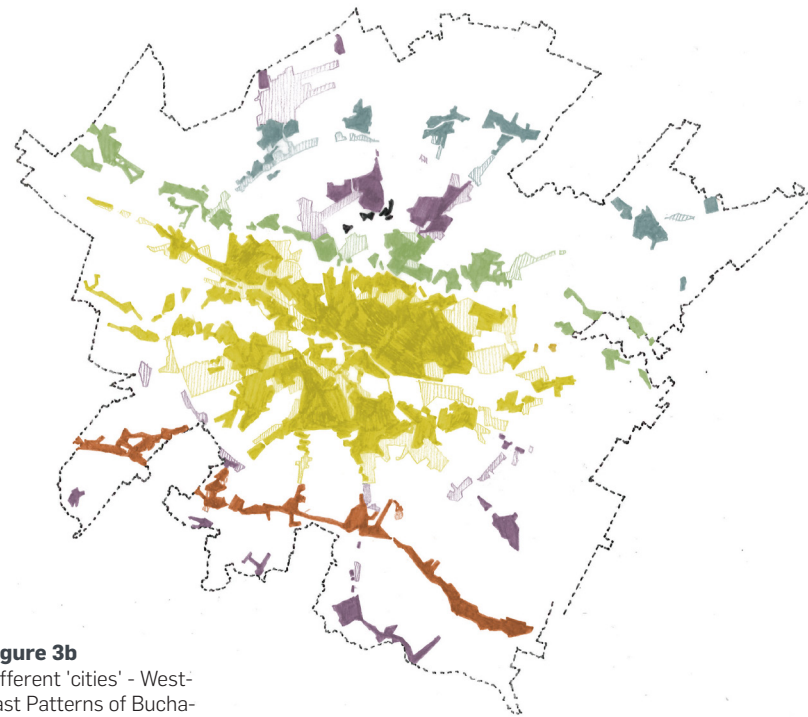
Figure 3a
Urbanization of Bucharest.

Source: drawing based on Urban Atlas.

Figure 3b
Different 'cities' - West-East Patterns of Bucharest.

Source: drawing based on Urban Atlas.

Territorial synergy

Bucharest is a city in the low-plain of the Danube, along one of its tributaries, the Dâmboviţa. The whole plain was shaped by the rivers following the NW-SE direction, leading to a parallel linear pattern of urbanization. The river system was the backbone for urbanization during history, but, since the end of the 19th century, manmade infrastructure started to take over the lead on shaping cities, especially in the case of larger urban agglomerations. Thus, with its advantageous position at the intersection of trading routes, and by following the example of Paris, Bucharest started to develop a radial-concentric road and rail structure. River Dâmboviţa was canalized and the risk of flooding considerably reduced at the beginning of the 20th century. This way, the floodplain lost its natural role and started a slow process of transformation. Yet, even though it is not a risk area anymore, it still bears the traces of its history. The large open spaces, the parks grown around lakes, residual spaces and agriculture appear on the place of a once wild and dynamic landscape. As if the fear of flooding didn't disappear, most of the residential areas of the city are still outside the valley.

Consequently, this hidden tension between the natural and man-made systems requires a closer look at their interaction. Does it participate in the conflicts that the city is facing? What is the scale of these systems: metropolitan, regional, territorial? To what extent is there a synergy between them? Let's assume that the scale fit for understanding this issue is the wider natural context of the territory: in Bucharest's case it is the whole low-plain, from the mountains, where the rivers are born, down until the Danube, where they merge and continue to flow towards the Black Sea. Different from the other small settlements, Bucharest has an additional, superimposed layer upon this river system: the radial-concentric infrastructure, responsible with connecting the city to various – global, continental, national, provincial, etc. – networks. In a way, the system of the low-plain defines the form of the territory, while the other upgrades the capital to an articulator of networks at different scales. This is already an important suggestion of how *topography* interacts with *topology*, a subject that will be debated or implied recurrently along this thesis.

As a result of this interaction, Bucharest's pattern of urbanization might be described as a collection of different 'cities', still following different structures (FIGURE 3B), bound together by a 'skewer-like' infrastructure into a superimposed radial-concentric structure. This is not a linear city, neither a purely radial-concentric one, but an interesting combination of the two, which is something called in this thesis the 'skewer city'. This model should be by no means understood in a pejorative manner. The 'skewers' are part of the system, but the 'meat' and 'vegetables' that are being bound together, should maintain their transversal identity. There's no point in making skewers just with onion… It is a model for synergy between topology and topography, between fast and slow, or between red and green.
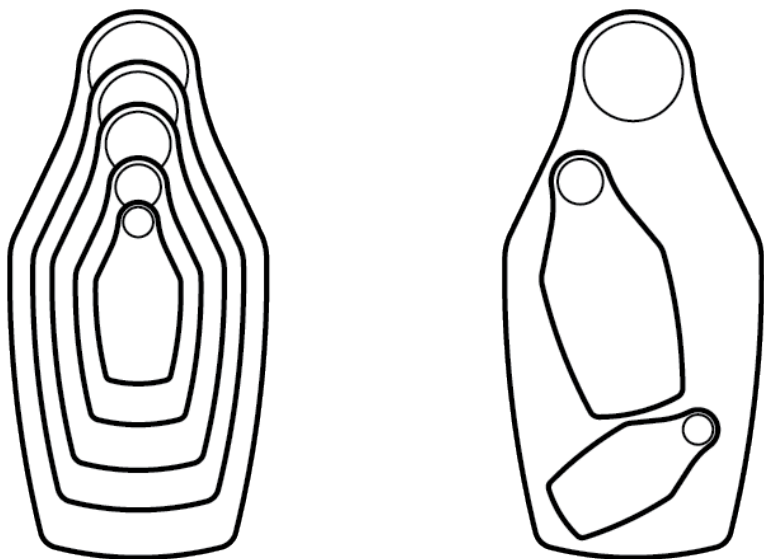
Scale and limits

The concepts of scale and limit have been recurrent topics in my last years as an architect and urbanist (FORGACI, 2010). I am intrigued by how architectural, urban, regional scales overlap, by the capacity of limits to provide intense interaction, and especially by the relativity and openness of these two concepts, given the fact that they are conventional constructs of our mind, not part of reality. Therefore, if they are consciously involved in the construction of interaction between human and natural systems, they can, conversely, be used as tools for understanding that same interaction. Thus I am reading the city, on one hand, as a system of barriers and limits[1] that guide its development and flows, and as a collection of systems at different scales in a certain relationship, on the other. These two parameters describe both the physical environment of the city and the networks operating in it. The angle that I am proposing here is one that looks at the city by using these two tools, both topographically and topologically. In this sense, the two concepts will be consciously

and methodologically employed research and design tools.

Scale

"The question of scale and of levels implies a multiplicity of scales and levels." HENRY LEFEBVRE (QUOTED BY HEROD, 2011)

Things around us are getting larger and more complex. Consequently, every part of our world contains and is contained by a growing number of 'scales'. We are global and local at the same time, including the myriad (!) of subdivisions between these two ends of the spectrum. Accordingly, 'glocal' or 'glocalization' (SWYNGEDOUW AND KAÏKA, 2003) have become common expressions of this simultaneity. Still, the synergy among them is something that may be questioned. In fact, I would argue that the need for synergy – be it global, territorial or local – is precisely what makes us, designers or planners, so dependent on working with scales.

Scale is born at the interaction between society and space. It is used by society to shape space and, in return, the scale of spaces influences how society works. For this reason, scale is very political. It is politically produced (HEROD, 2011, P.9). Society thus uses a conventional set of scales, compatible with the way power is distributed globally at a particular moment in time. When describing scalar hierarchies, the geographer Andrew Herod (2010) uses five levels of scale: body, urban, re-

gional, national and global. Urbanists will probably add the architectural scale to this succession. This division, however, is conventional and politically dependent. 'Global' and 'local' scales, on the other hand, are relative. Something is global or local in relation with something. Therefore, I am not concerned with classifications or conventional spatial subdivisions of scale[2], but rather with the relativity of scale, the way that one scale links to another. Human-scale, urban-scale, large-scale, small-scale, out-of-scale, scale-less… This is, more or less, the scalar terminology of a designer. When we use these expressions we always put scale in relation with something. More precisely, we relate two things with each other by using scale as measurement. Can we say than that scale is a tool meant to provide knowledge about relationships? How is it instrumental than for us, designers? Do we really understand it at 'full capacity'?

Scale has been scarcely theorized in architecture and urban design. It only started to get more in depth attention in the last three decades, especially in the field of geography (HEROD, 2011, PP.5-58). The first and foremost question was dealing with the role of scale as weather ontological or epistemological in the theoretical discourse. This debate, initiated by materialists and ideologists led to the general consensus that scale is by definition epistemological and it should be understood as a cognitive instrument, not taken for granted as part of reality (HEROD, 2011, PP. 5-6). So rather than insisting on their ontological status, I

am approaching the topic with an interest in the capacity of scales to support and provide knowledge. In this respect, metaphors of scale provide a deeper insight into the essentials of scale[3]. Scale as a ladder, as concentric circles, as nesting Matryoshka dolls, as the roots of a tree, as earthworm burrows or as a spider's web are the most common metaphors collected by Herod (2011, pp.45-56). If the first three describe areal relationships, the last three have a more topological meaning. More exactly, scale can refer to both topography and topology, or spatial morphology and networks.

These metaphors can be taken even further. Instead of just describing the relationships between body-urban-regional-national-global scales, as in Herod's framework, they can be applied to any other scale. Either vertical, horizontal, nested, hierarchical, rhizomatous or webbed in their relational configuration, scales happen the same on all levels. They seem to have a certain kind of fractal-logic. Local might mean something totally different in meaning and size for two individuals.
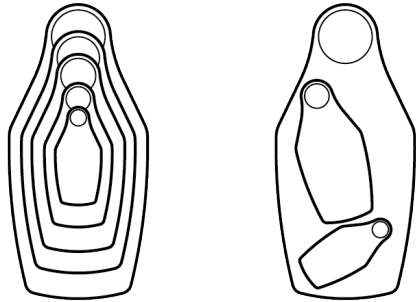

Matryoshka

Out of all the examples given above, I would like to speculate on the scalar properties of the Matryoshka system in the case of the post-communist city. Communist regimes use scale as a tool for representation of power by putting power and the mass in contrast. As a consequence, ex-communist cities very often contain large-scale communist artefacts contrasting with the fine-grained, small-scale urban fabric surrounding them. These sudden jumps in spatial and ideological scale lead to spatial and, consequently, social and economic conflicts. This is also the case of Bucharest: huge structures inserted with the sole intention of providing a proper scenery for communist propaganda dominate the centre of the city. The biggest of all, Ceaușescu's Civic Centre is a collection of large objects and spaces, built after the demolishing of 400 hectares of historic urban fabric. The difference in scale with its surroundings makes this structure the largest barrier in the city's structure. As stated above, the discontinued street pattern, the massive demolishing architectural heritage and, consequently, the considerable loss of identity, were consciously undertaken by the regime.

Michael J. Ostwald (2012) approaches the subject of scale by referring to the work of two Russian Paper Architects, Alexander Brodsky and Ilya Utkin. With a more architectural view this time, and especially concerned with aesthetics and politics, Ostwald tells the story of a group of Russian architecture graduates who "chose to spend their time designing dark, satirical works as a critique of

the state". As representatives of how politics, scale and representation interact, the main theme of the Paper Architects is the dissolution of scale and the recurring leitmotif of an infinite Matryoshka-like spatial order.

"In the hand of the Communist state, scale was the architectural strategy par excellence." (OSTWALD, 2012)
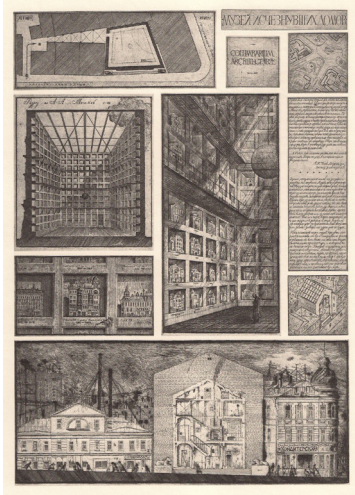
As a reaction to the subversive authority of the Soviet State, the Paper Architects are rebelling against the Soviet State's destructive planning system. In the 'Columbarium Architecture', one of their pioneering works, they attack tabula rasa urban interventions. Their design, the Museum of Disappearing Buildings is located on a site where "one of the most subversive transformations of scale in the urban and social fabric of Moscow"

has taken place. (OSTWALD, 2012)

"In this vignette, the Matryoshka is the scale hinge, the transformative device that critically pairs children in opposition to adults, plush Misha against Iron Felix, the KGB headquarters against Detskiy Mir, and, finally, the miniature city in Brodsky's and Utkin's museum against the full-scale city of Moscow."
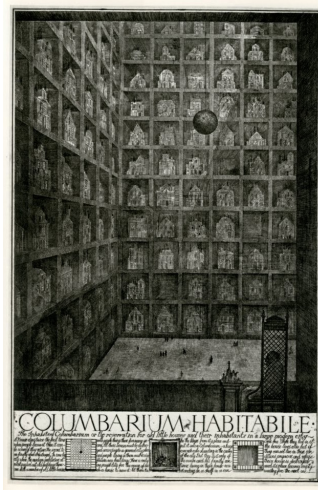
'Columbarium Habitabile', a work that they produced two years later, however, is the opposite. Stating that "a house is only worth saving if it is inhabited" (OSTWALD, 2012, p. 214), the houses that are subject to demolishing - the exhibits – are in full size this time. This second Columbarium is not a critique as in the first case, but a satirical representation of state planning. Scale is not undermined here, but, in a way, built in a dystopian

diagnosis of the present.

In this sense, scales are relatively dual. They are contained and containing at the same time. In other words, the Matryoshka has the capacity to operate at multiple scales simultaneously. Therefore, the question is where do we position ourselves, in relation with which part of the comparison. Are we part of the contained or the containing? This is an important question that every designer faces when negotiating between bottom-up and top-down interventions.

However, this is not a plea for 'fractal hierarchy.' It is rather stressing the fact that gradual interdependencies can provide higher levels of integration in a system than sudden and independent scale jumps. This 'nested hierarchy', as described by Ostwald (2012) when referring to Herod's 'Matryoshka system', is a system of relationships that may contain both topological and spatial dolls as long as they usher each other.

But if scale describes relationships, how do relationships look like? How are they expressed spatially? This brings us to the concept of limit. Nonetheless, the limit is a way to describe relationships. Even more, it is the materialization or materialisation of relationships. It is not necessarily a line, not even necessarily spatial. In order to illustrate this, I will refer to the concept of ecotone or ecocline from the field of ecology. These two terms define relationships between two ecosystems: the ecotone is sharp, mainly linear, while the ecocline

is a gradual, areal, transition from one ecosystem to another. the particularity of (especially) the ecocline is that this gradient is a place where biodiversity reaches its climax. We can speculate on the use of this concept in human systems as well. If we extrapolate it to the case of the city, to social systems, or to the interaction between social and natural systems, we might discover that areas of transition, limits of interaction, as referred to in this thesis, have a high potential in providing high spatial qualities.

So can we take these two concepts, the Matryoshka system and the 'urban ecocline' and translate them into tools for spatial design?

1   There is a considerable difference between barriers and limits here: barriers separate, inhibit trespassing, while limits represent lines or areas of interaction between two neighboring spatial entities. Just as the 'ecotone' and 'ecocline' in ecology (Tjallingii, year?), the limit here is referred to as a place of intense interaction between two (eco)systems. However, neither of them will be describe pejoratively, since they work together in a synergetic manner.

2   Here I refer to the common subdivision of the world in the successive levels of body, urban, regional, national and global scale, as suggested by Herod (2011).

3   Bernardo Secchi suggests that whenever we face a difficult urban question, we need strong metaphors and images (Secchi, 2010).
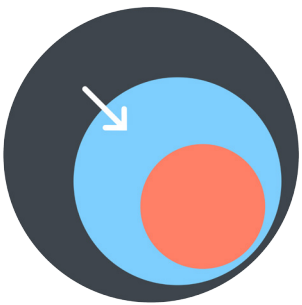
The city as unfinished project
Morphology

The post-communist city
Socio-economy

Territorial synergy
Structure

Matryoshka system
Scale

Ecocline
Limits

Research questions

How can the West-East axis be redefined as an area meant to integrate the two sides of the city?

How can we transform the West-East corridor into a destination?

How can the urban fabric be adjusted to a pedestrian-friendly scale?

How do we transform spatial barriers into limits of interaction?

Literature review
Historical review of urbanization patterns.

Interpretation
Bucharest is a city where unfinished projects succeeded each other with a fast pace during history. The result is a city that resembles a palimpsest of different historical fragments.

Premise
The specificity of this kind of urban morphology lies exactly in the fact that it is unfinished. Residual, open, disconnected urban fragments seem to concentrate in the West-East corridor and to contribute to the spatial separation between North and South.

Literature review
Post-socialism.

Interpretation
Bucharest is struggling with the consequences of an uncontrolled transition from the secondary to the tertiary sector. This has concentrated development interests to the well connected North of the city.

Premise
The Romanian capital is still in transition, still in the phase of socio-economic transformations due to poorly managed institutional reforms. In order to make the change visible on the level of the urban, it has to be strongly integrated with the specific social and economic processes of the post-communist city.

Literature review
Territorial synergy.

Interpretation
The radial-concentric structure ignores the importance and potential of the NW-SE river structure of the territory upon which it is overlapped.

Premise
The fact that the two - natural and manmade - structures are in conflict, has a negative influence on the integration of the two banks of river Dâmbovita.
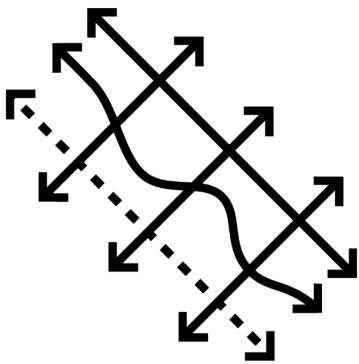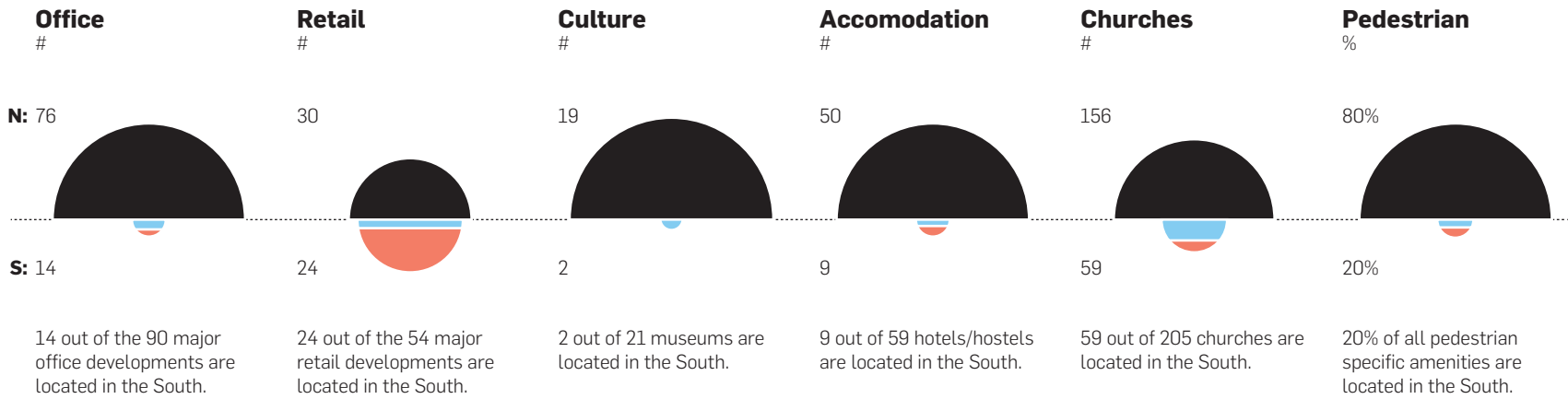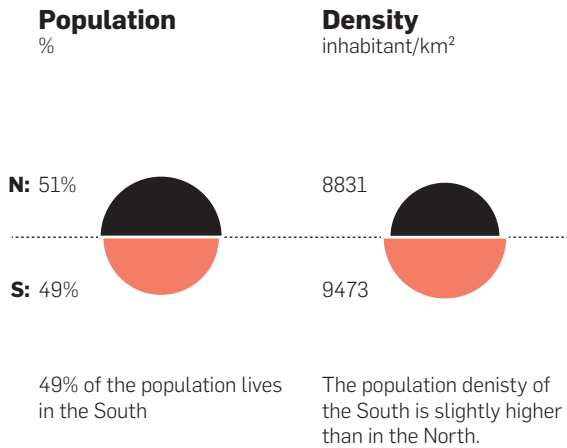
Literature review
Concepts of scale in geography and ecocline in ecology.

Interpretation
Possible research and design tools.

Premise
Gradual scalar interdependencies and limits of interaction may play an important role in balancing North and South.

Claudiu Forgaci

Bucharest: Between North and South

North and South

City profile   36
Scenarios   44

North-South profile

Population
%

N: 51%

S: 49%

49% of the population lives in the South

Density
inhabitant/km²

8831

9473

The population denisty of the South is slightly higher than in the North.

In order to describe the contrast between the two sides of the city it is important to understand how residential and non-residential uses are distributed throughout the city. Even though the surface and population of the North (districts 1, 2 and 3) is comparable to the South (districts 4, 5 and 6), most of the public activities are unevenly positioned in the two halves of the city.

For instance, office development and accommodation is mainly clustered in the North side of the city (85% of the total number of major developments) in the proximity of major national and international connections. The position of the two airports, the main railway station and the major national and European road corridors, are the major factors that lead to this concentration of the tertiary sector in the North.

The only activity that is evenly spread out is the retail sector represented by major shopping centers and retail boxes, with a 55-45% North-South ratio. This positioning logic is, indeed, specific to retail developments, mainly focusing on uniform distribution in the territory and maximum coverage of residential areas. On its own, this indicator isn't reliable, but it can help to describe car-based mobility flows.

Industry, initially conceived as directly connected to the dense residential developments in their vicinity, is uniformly distributed on the surface of the city. However, when comparing their surfaces, Southern industries cover a much larger surface (963ha) than the units in the North (654ha).

Culture, exemplified here by the position of museums and churches, is an important indicator of local identity. Museums, or 'displayed culture' are almost entirely in the North, while churches, an important part of local culture, are present in a larger proportion in the segregated South.

Office
#

N: 76

S: 14

14 out of the 90 major office developments are located in the South.

Retail
#

30

24

24 out of the 54 major retail developments are located in the South.

Culture
#

19

2

2 out of 21 museums are located in the South.

Accomodation
#

50

9

9 out of 59 hotels/hostels are located in the South.

Churches
#

156

59

59 out of 205 churches are located in the South.

Pedestrian
%

80%

20%

20% of all pedestrian specific amenities are located in the South.

Sources: Jones Lang LaSalle, Bucharest City Report, Q4, 2012; GIS processing of OpenStreetMap data (downloaded 07.03.2013).

Spatial representation of office and retail developments, together with museums of Bucharest.

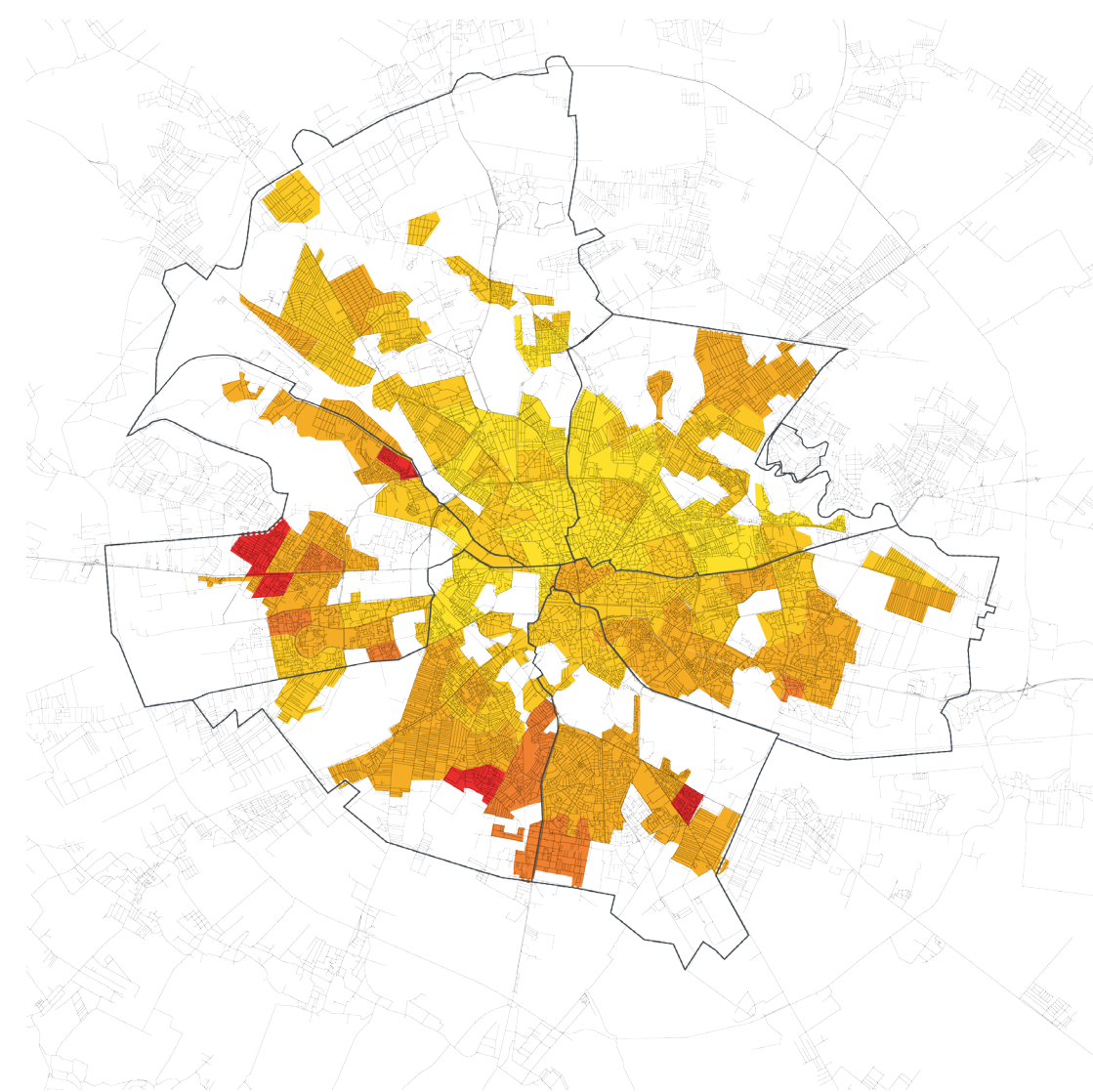RETAIL
- shopping centers
○ retail boxes
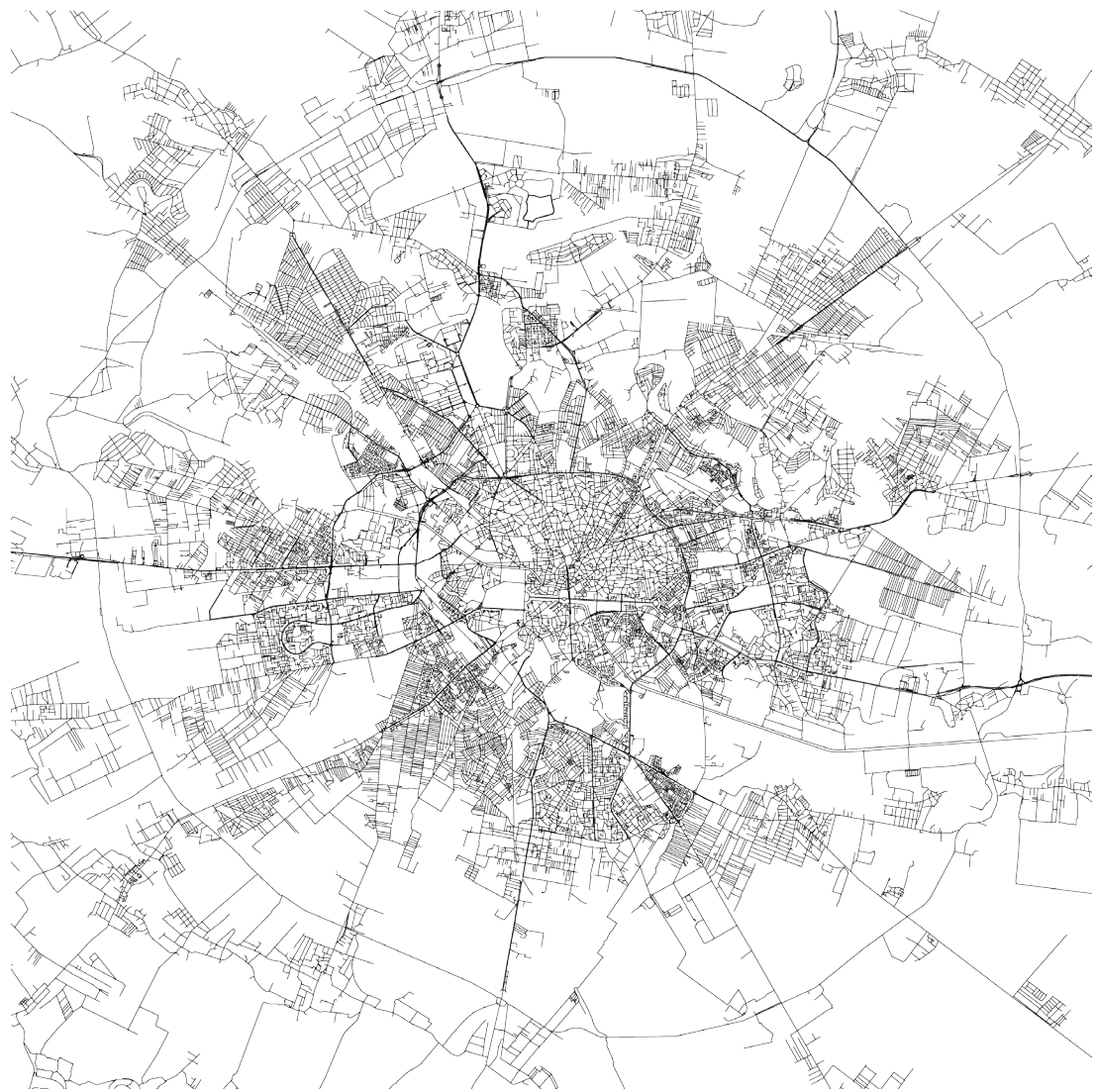
OFFICE
■ existing
▢ under construction

CULTURE
• museums

Population density and **social segregation** clusters.

Source: Mionel (2011).

⸢ ⸣ Rich suburbs
◆ Ghettos
△ Slums
✳ Chinese clusters

Min.   Max.

Distribution of **unemployment** across the city is higher in the neighborhoods of the South.

Source: Mionel (2011).

Min.   Max.

Claudiu Forgaci

Bucharest: Between North and South
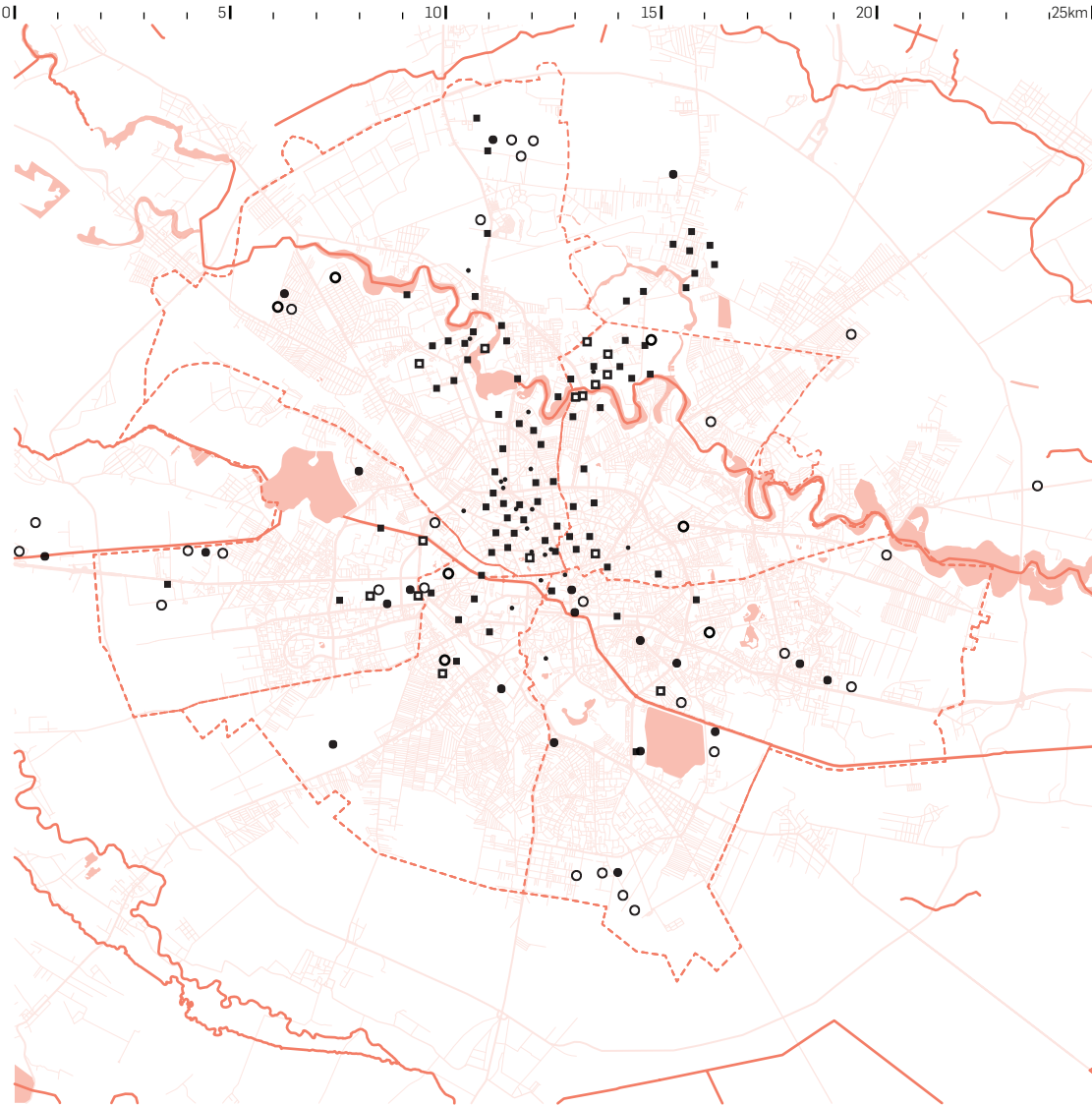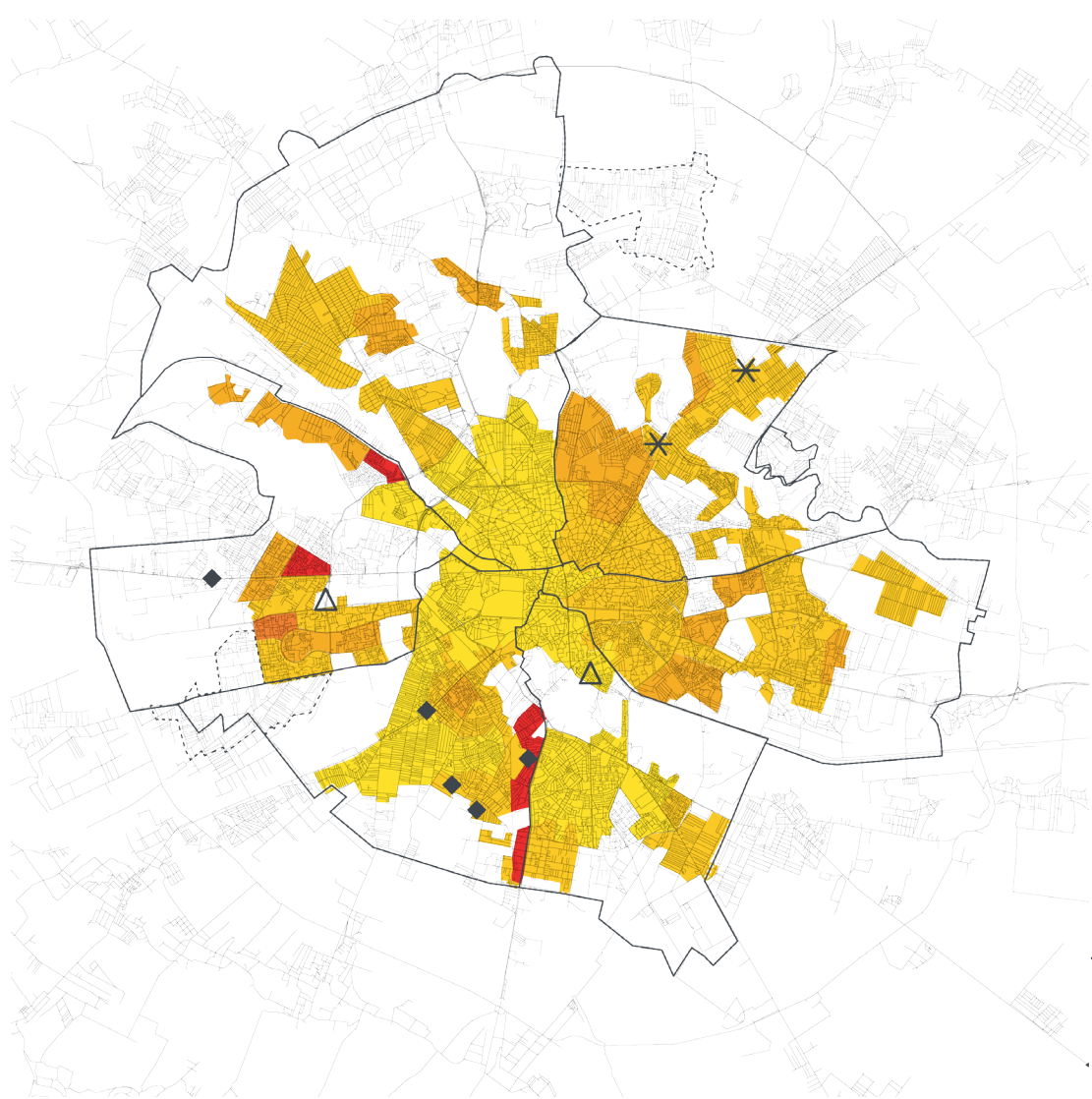
Axial map of Bucharest's road network. See the unfinished local road patterns within the West-East strip.

Source: Tracing based on Google Street Map.
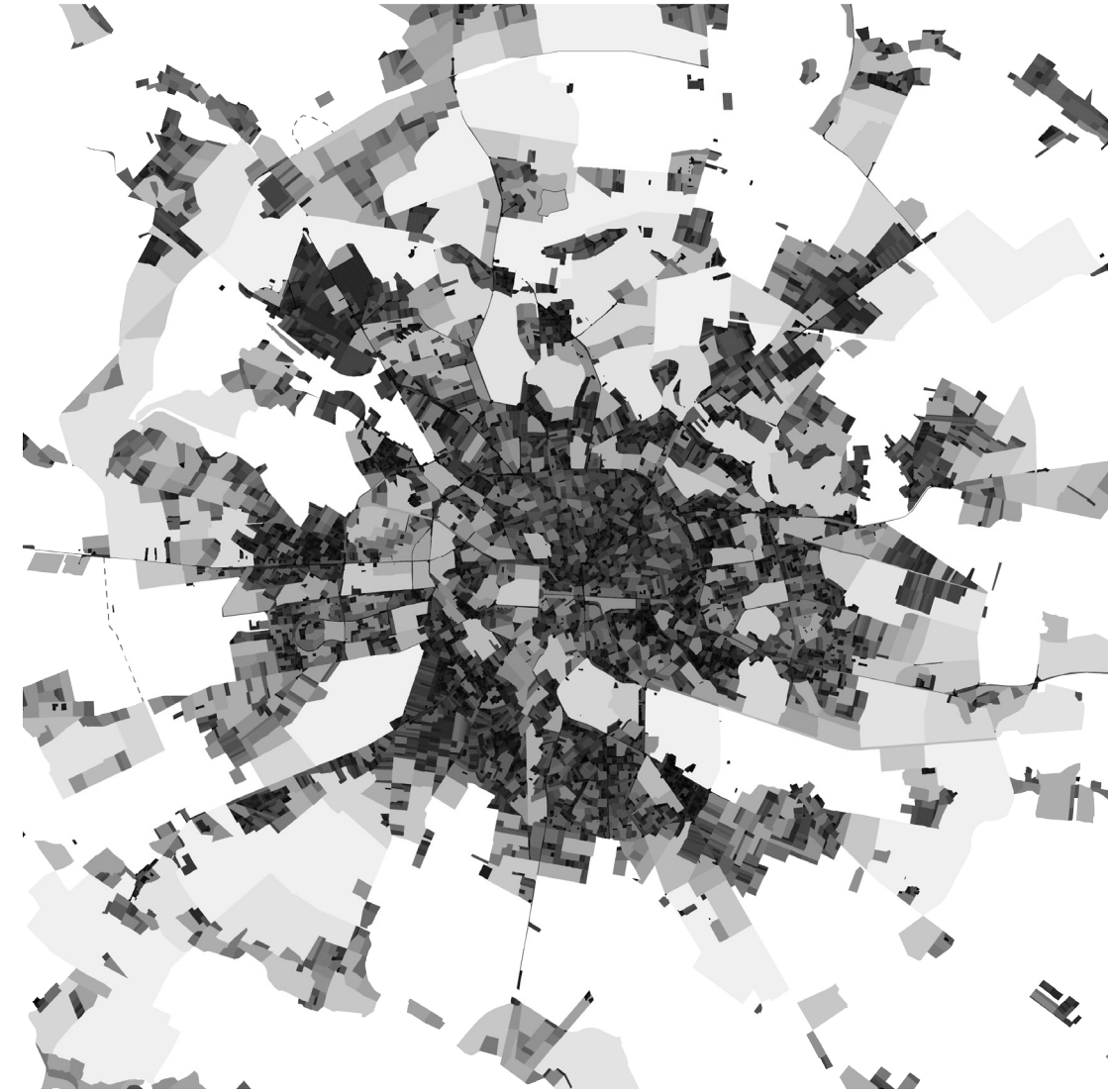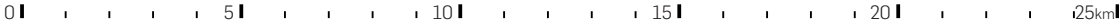
Relative **scale distribution** of urban island sizes across Bucharest. Observe the difference in scale between the West-East axis crossing the city and the rest of the compact city.

Source: GIS processing of road axial map.

Min.   Max.

Claudiu Forgaci

Bucharest: Between North and South
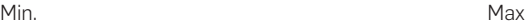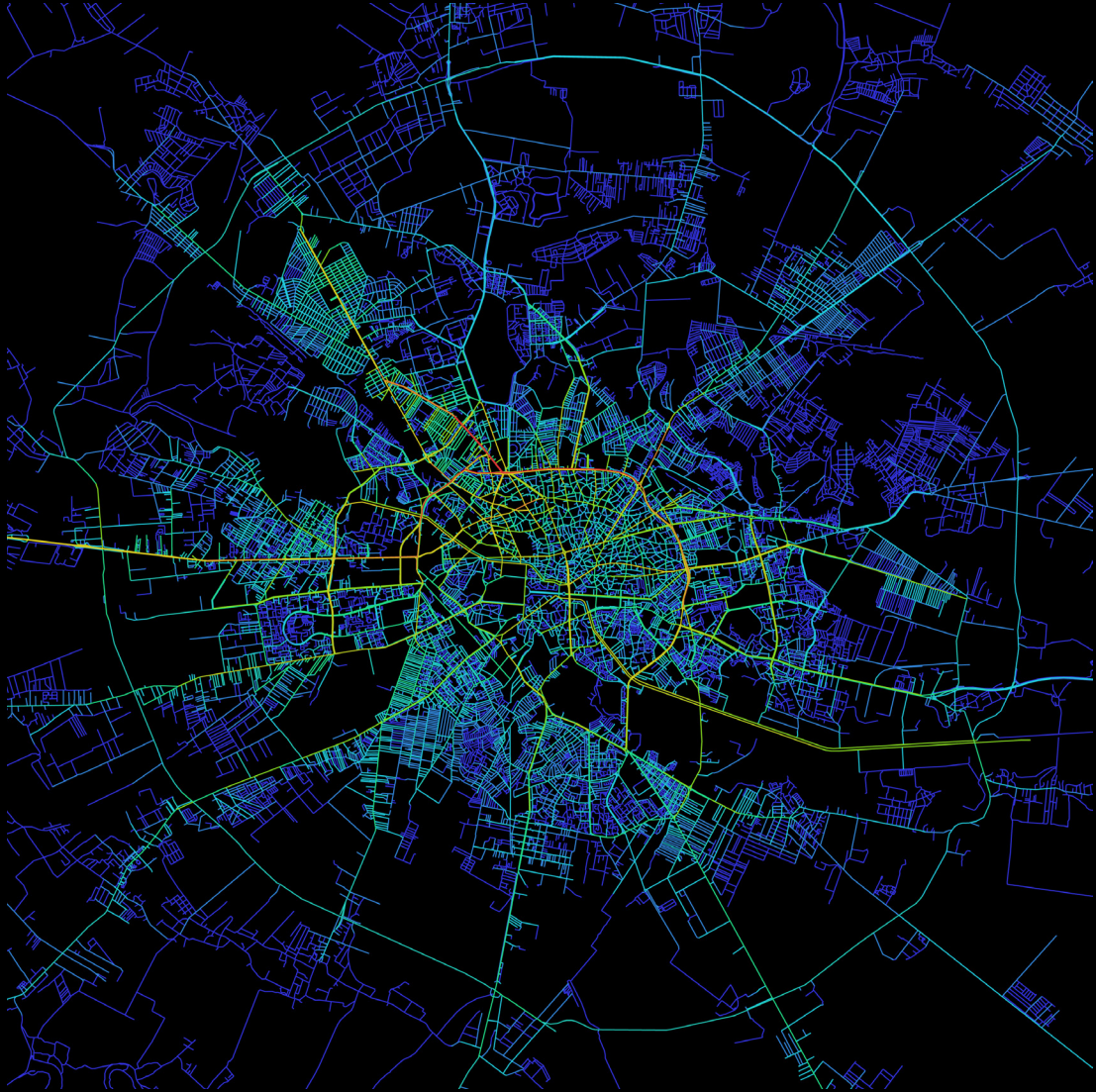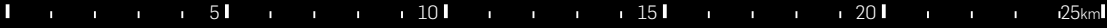
Integarted global radial network.

Angular map - integration R6.00.
Source: Tracing based on Google Street Map.

Min.   Max.
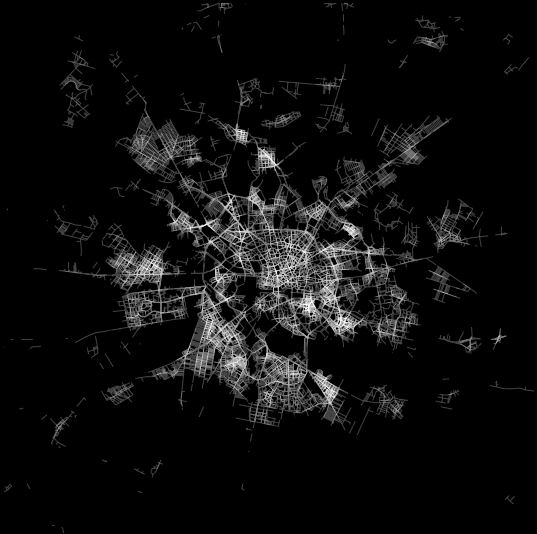
Missing local network between North and South.

Segment map - integration R500 metric.
Source: Tracing based on Google Street Map.

Min.   Max.

Claudiu Forgaci

Bucharest: Between North and South
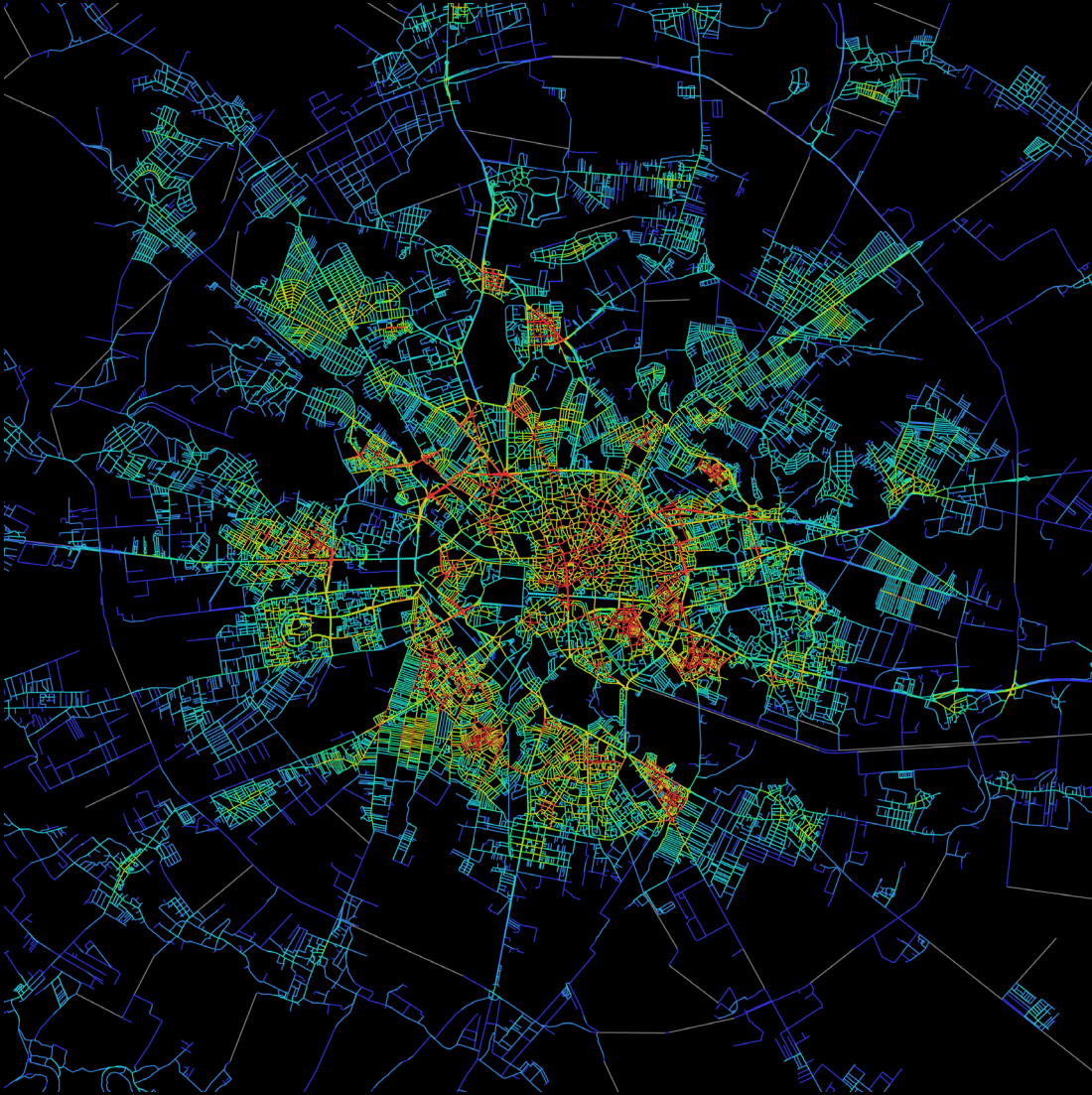
Scenario -1
Before crisis

Scenario 0
Diagnosis

Scenario 1?
The Valley

As most of the other post-socialist cities, Bucharest witnessed a very fast growth in the first two decades after the fall of the regime. in this period the growth of the city was concentrated around infrastructure, so still mainly in the better connected North side of the city. As a result, the South lacks public facilities and remains mainly a large dormitory 'neighborhood'.
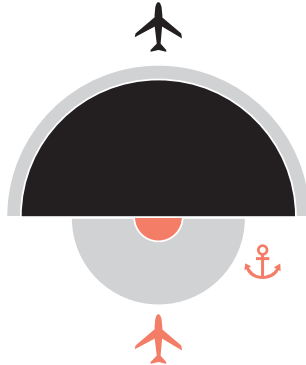
Today, in the context of prolonged crisis, the urban strategies shifted in purpose. The South, which is cheaper and less developed is becoming an attractive place for urban improvement.

Therefore current urban strategies increasingly place future potentials in the South of the city. The most important projects are the new South airport and the port on the Dambovita-Danube canal, both meant to strengthen Bucharest's position in the international passenger and goods transport network. These projects would bring several jobs and increase the quality of life in the Southern part of the city.
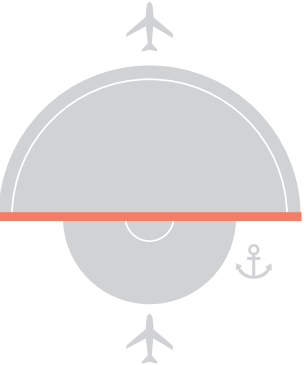
The first two scenarios address the two sides of the city separately. But what about the interaction between the two? There is no direct concern for the whole West-East axis. If not included in future urban strategies, once the crisis is over it might (again) become the place for market speculation. It is a place of high potential for ecological developments, public spaces, a better living environment, all these urgently needed in the post-communist city.

This scenario doesn't contradict the other two, but it complements them. The main metropolitan projects are adopted and integrated in this thesis. The possible future developments around the planned South Airport and European port, together with the existing attractors of the North, are used here as driving forces. This way, the proposal integrates future functional demands of the new developments in the South. The spatial quality, land availability, and central position in the metropolitan area will most probably link the valley to the large developments of the city. This strategies formulated within this scenario make sure that the city will control these future transformations and will fully benefit from it. In this sense, the proposed balance doesn't mean evening out North and South, but integrating the specifics of North South and the Valley between them.

**The valley
Between
North and South**
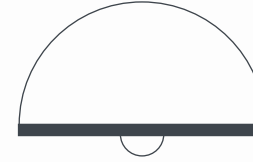
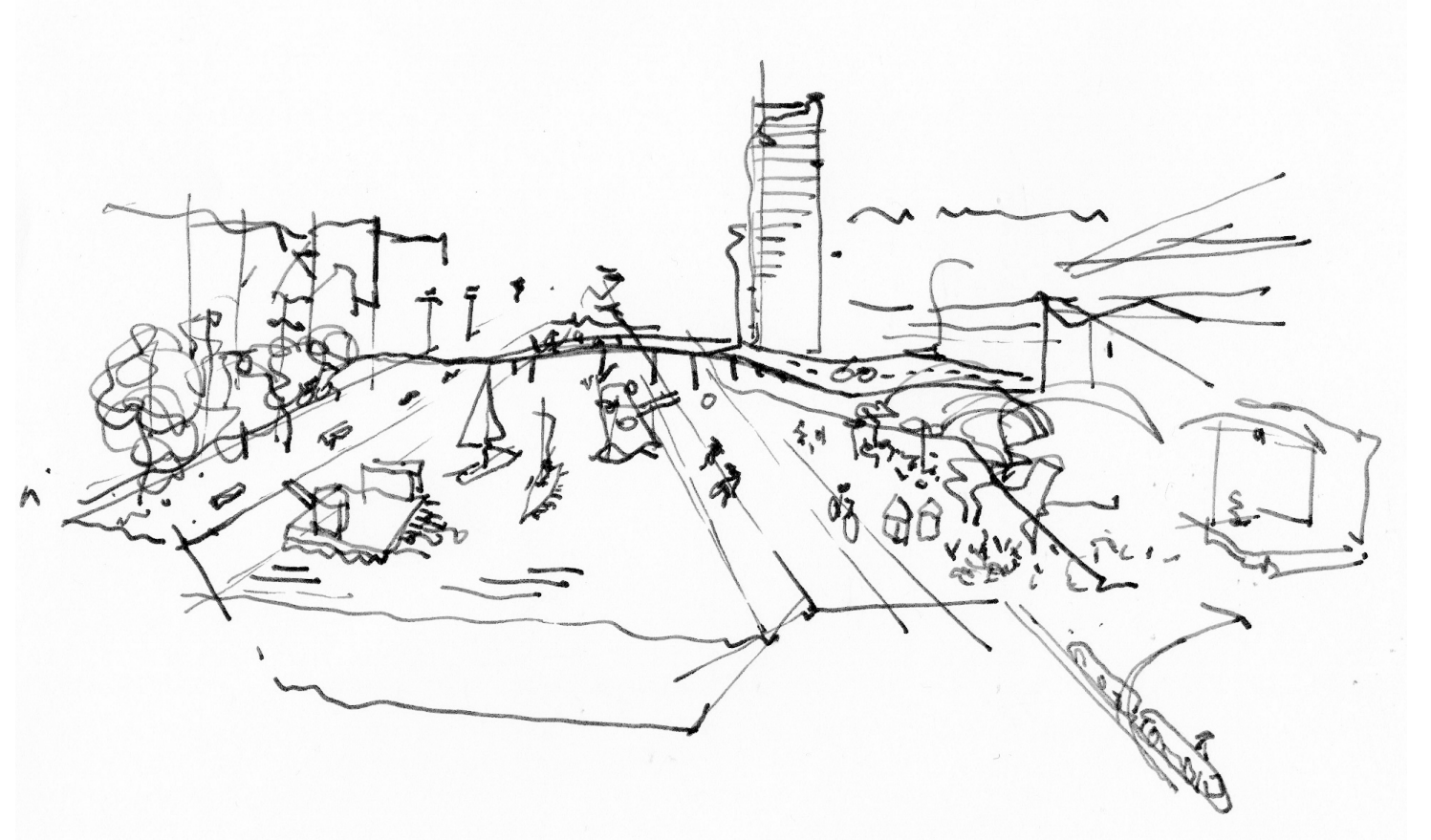**In a city where the river is not part of the life of its citizens...**

where the topography shaped by its dynamics is hidden by massive urban structures acting as barriers between North and South...
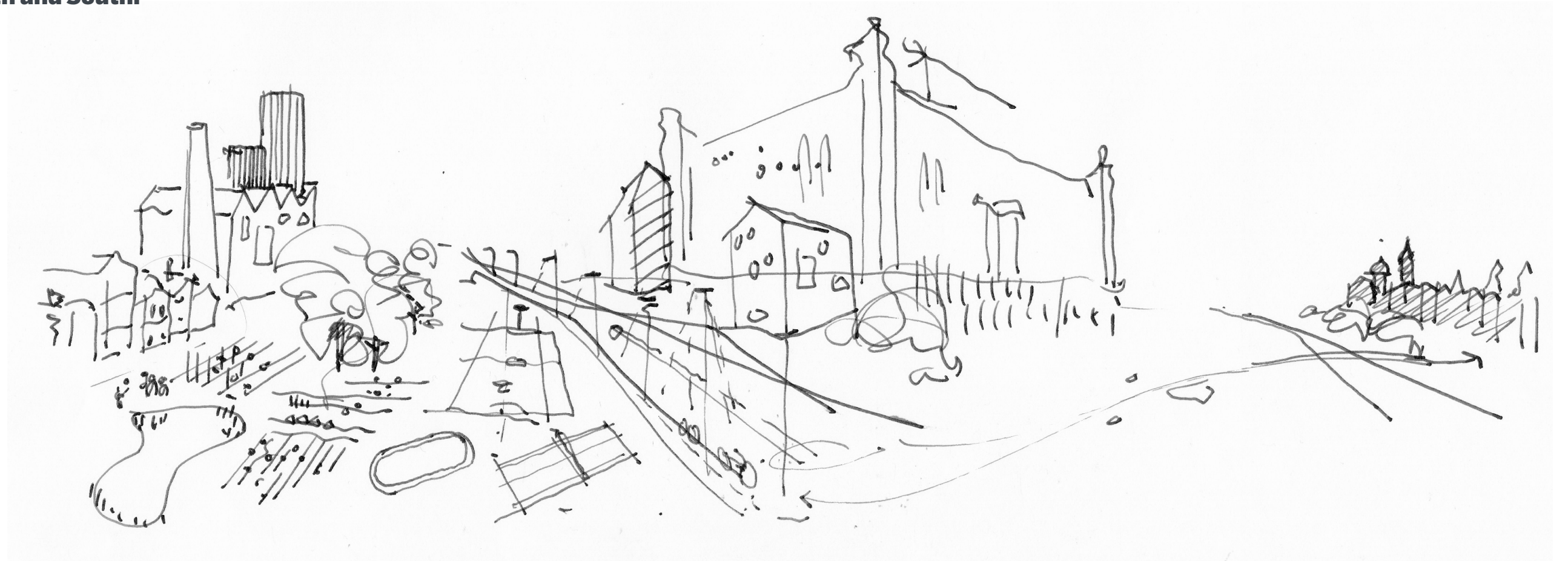
can we envision a VALLEY that restores the potential of the river as a place of intense in-
teraction...

a VALLEY, which will become the backbone for a healthier, shared and more sustainable lifestyle, meant to contribute to the integration of North and South.

Problem field	**Goals**	**Principles**	**Strategy**	**Intervention**
Urban Divide	**Integration**	**Society**	**West-East Corridor**	**Three Key Projects**

Territory
Conflict between man-made and natural territorial structures.

City <> Nature

Metropolis
Urban divide.

North <> South

Community
Global integration and local disintegration of the urban fabric.

Global<> Local

Healthy living
No barriers
Less cars
Glocalization
Living with water

+

Models

Structure

Blue-green corridors
Fast-slow networks
CPULs

∨

Implementation

Policies

∨

Slow mobility backbone

Ridge as West-East structure

Decentralized neighborhood governance

Living in the floodplain

Bicycle tracks
Community gardens
Sports fields
Residential areas
Leisure facilities
Pedestrian riverbanks
Pedestrian bridges
Recycled industry
Architecture that connects
Extended secondary road/path connections
Pilot projects
Extended public transport services
...

Task

Strategy

Vision

The Valley

Strategy

Driven by the envisioned image of the valley, the strategy has two main components: the definition of the valley as a coherent corridor crossing the city and the potential cross connections between North and South. The first will be realized by the proposal of a connecting slow-mobility structure, while the other is concerned with the identification, enforcing and connection of the main destinations in North, South and the Valley as anchors of development.

In this sense, the strategy for the valley, together with its projects, is an articulator of different scales - territorial with metropolitan, metropolitan with local - depending on the scope and wider effect of each intervention along the area of intervention.

The corridor is based on three structures: the social structure of the communities that it crosses, the old floodplain's ridge structure connecting the open spaces in the valley, and the river itself as a place of potential interaction.
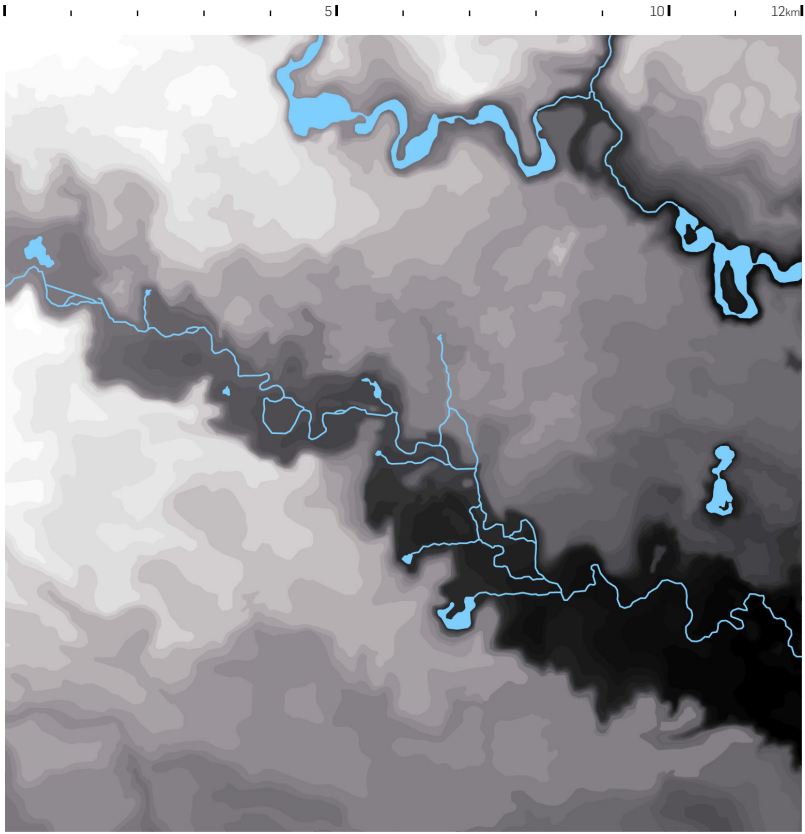

communities
- shared governance

ridge
- structure
- mobility

river
- structure
- destination
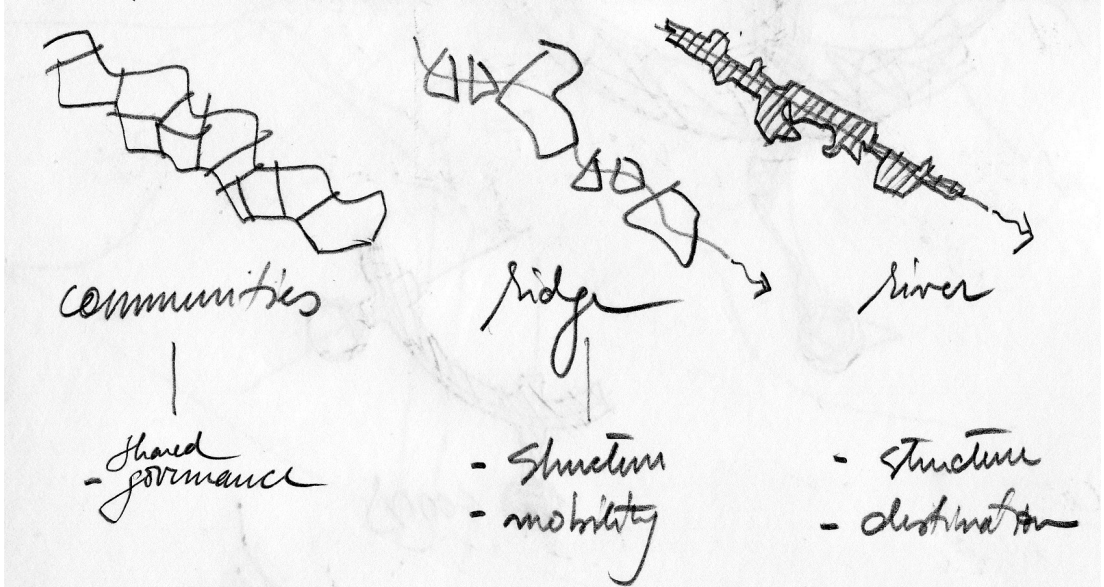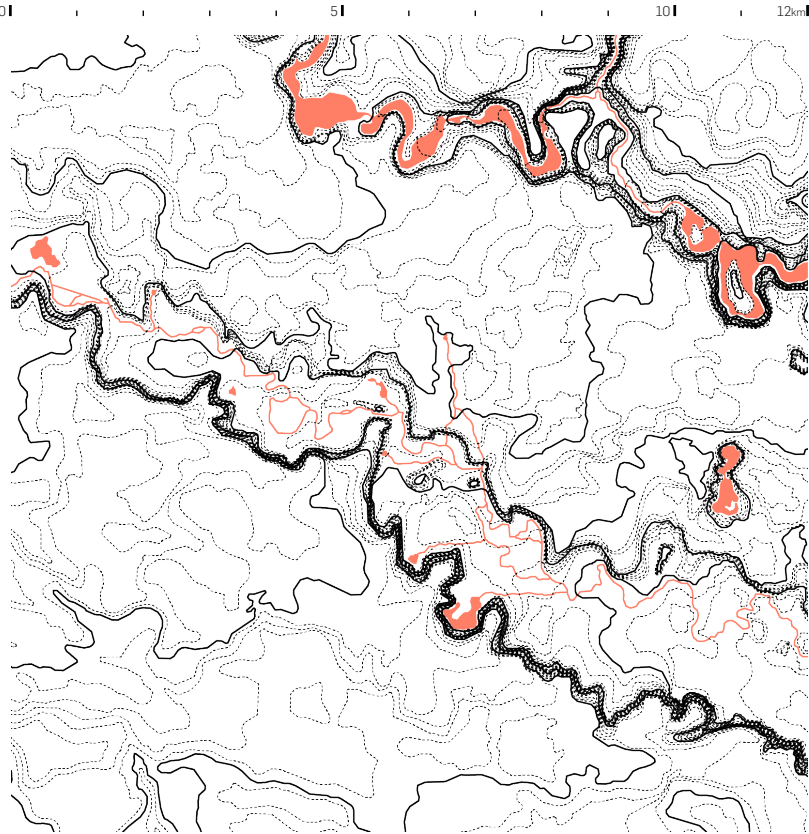
1859 - Lowland topography shaped by rivers.

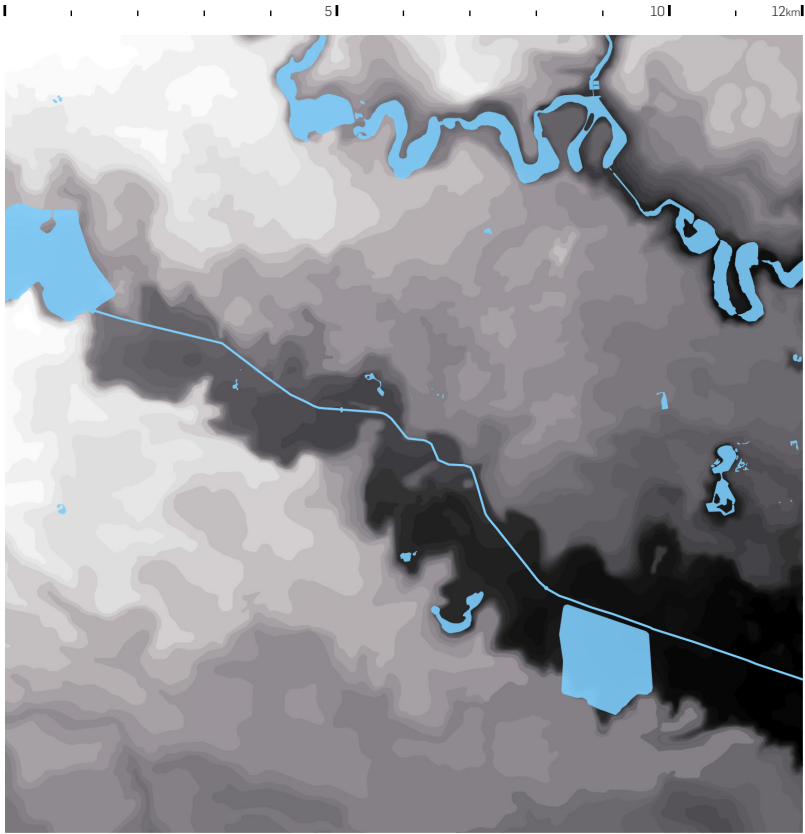*Source: Drawing based on Harhoiu, 1997, pp.28-29.*

In a topography with a very small NW-SE slope, river Dambovita formed a wide **floodplain** along its meandering trajectory.

Source: Drawing based on Harhoiu, 1997, pp.28-29.

90   60m

Absolute hight value above sea level
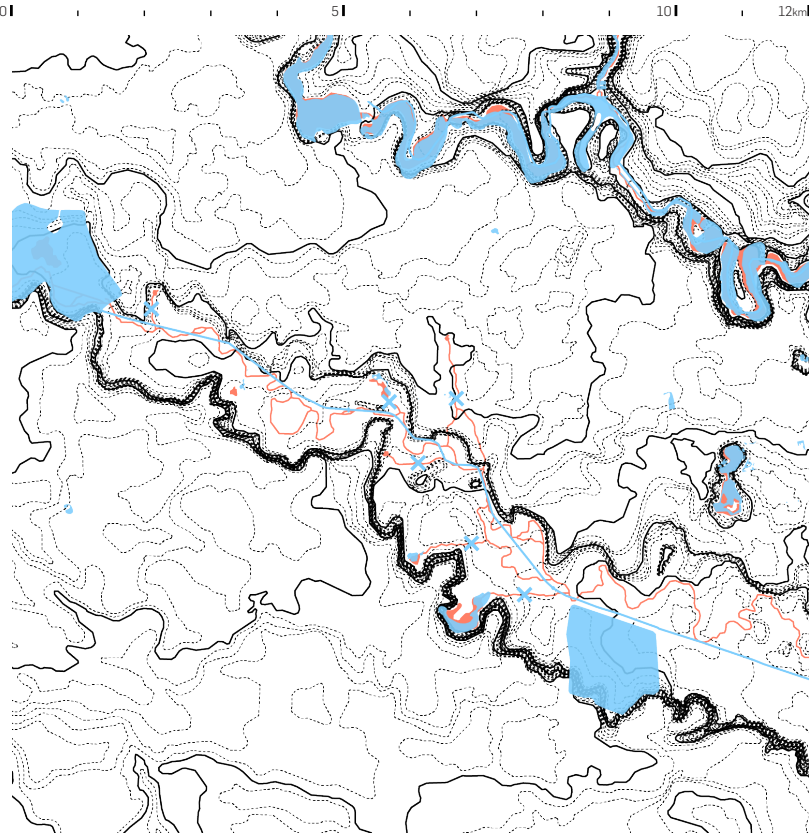
2013 - Topography and hydrography altered by human intervention - regularization of Dambovita in order to control water levels and avoid further floods (beginning of XX c.).

Source: Drawing based on Harhoiu (1997, pp-28-29) and OpenStreetMap.

No longer being a flood risk area, Dambovita's plain is rather a **valley** than a floodplain.

Source: Drawing based on Harhoiu (1997, pp.28-29) and OpenStreetMap.

90   60m

Absolute hight value above sea level
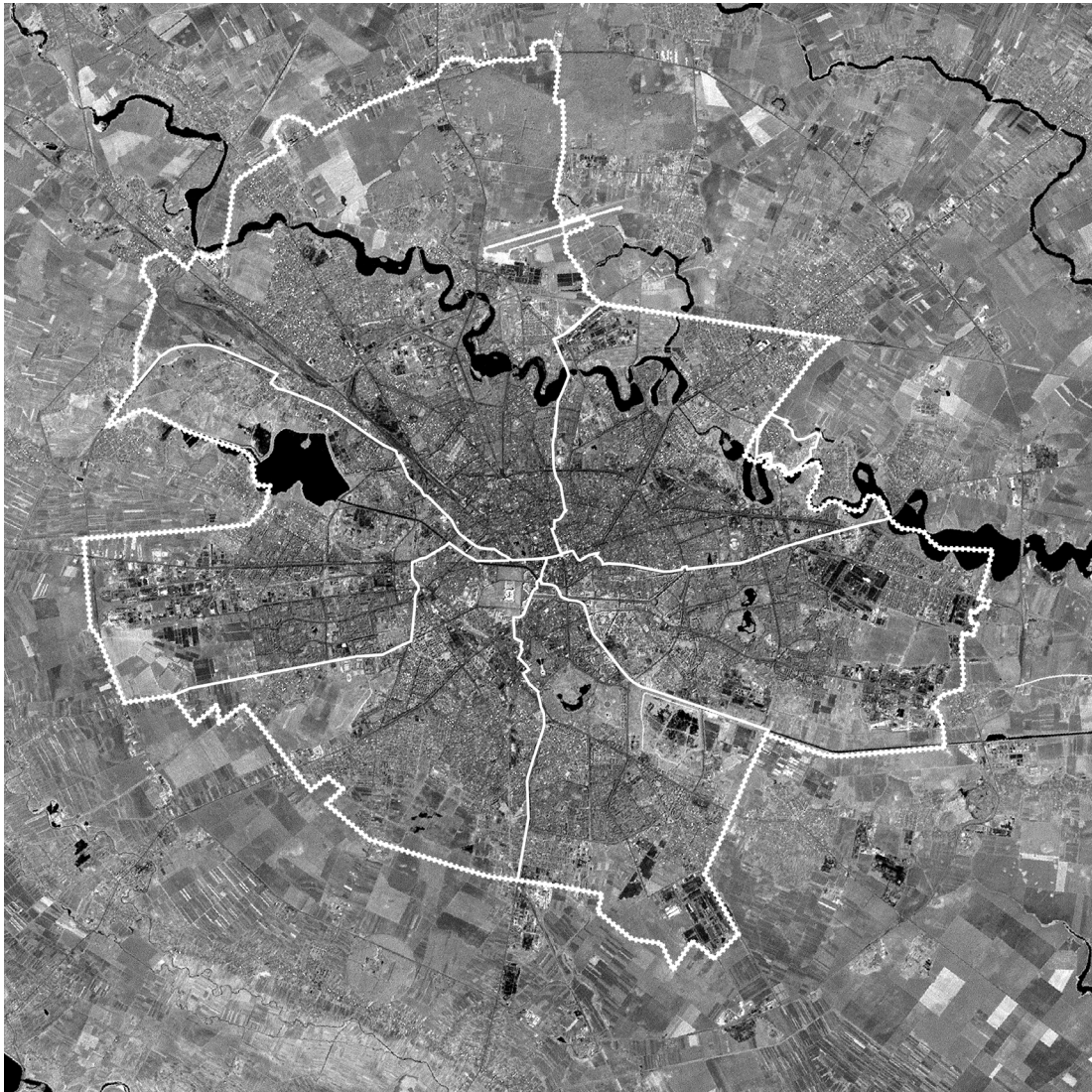
Current **sectoral administrative division** of Bucharest. Within this structure, the centre of the city and the trajectory of Dâmbovița is a periphery. This administrative structure of the city makes any intervention on Dâmbovița's corridor difficult.

Shared governance
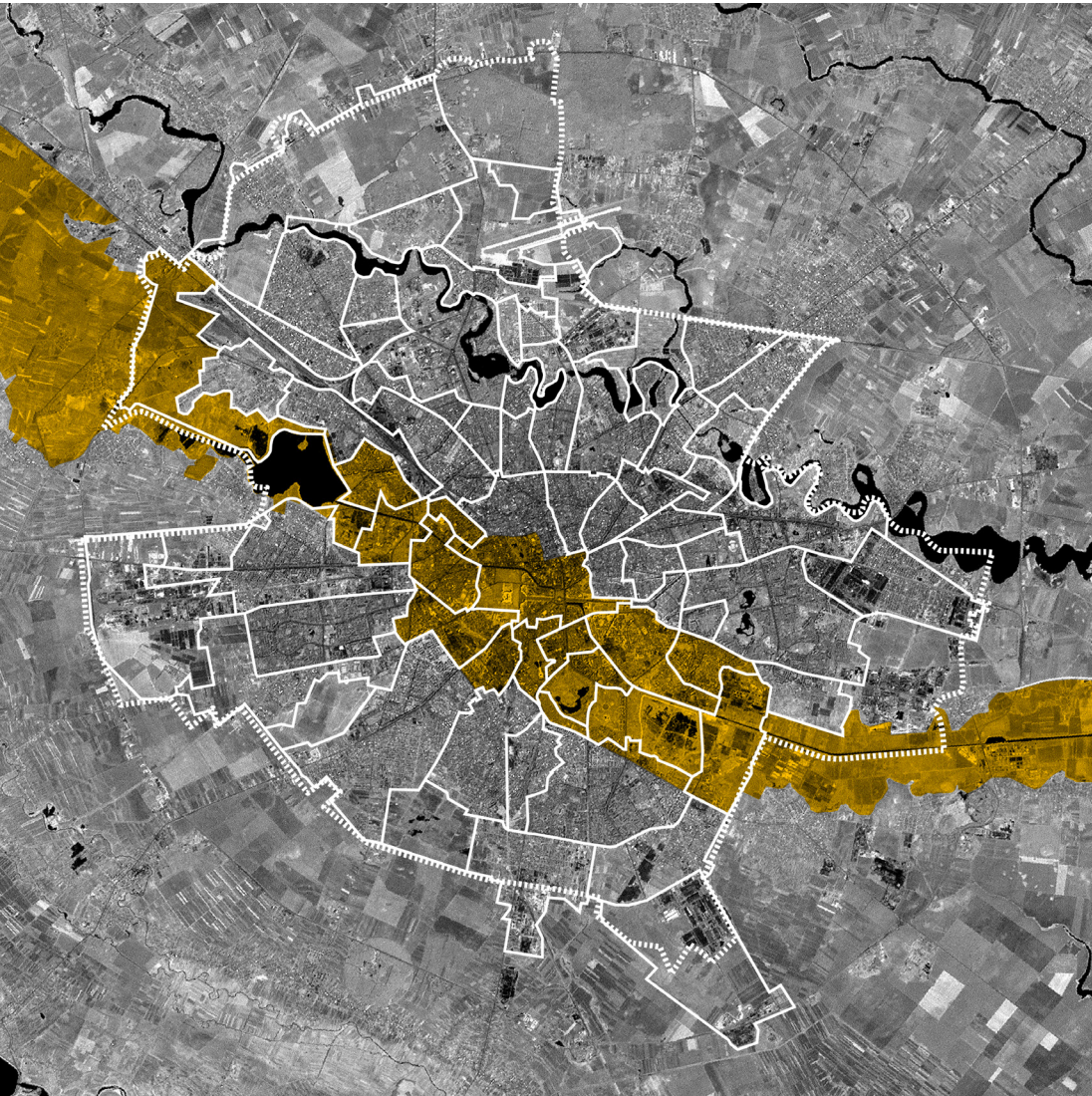
Proposed **neighborhood administrative division.** The intervention area follows this structure and selects the neighborhoods that fall within the boundaries of the former floodplain. Besides an overall structural strategy of the valley, decisions are based on a community-based shared governance system. This way, the interest in the spatial qualities of the valley will grow and each neighborhood can maintain their local identity.
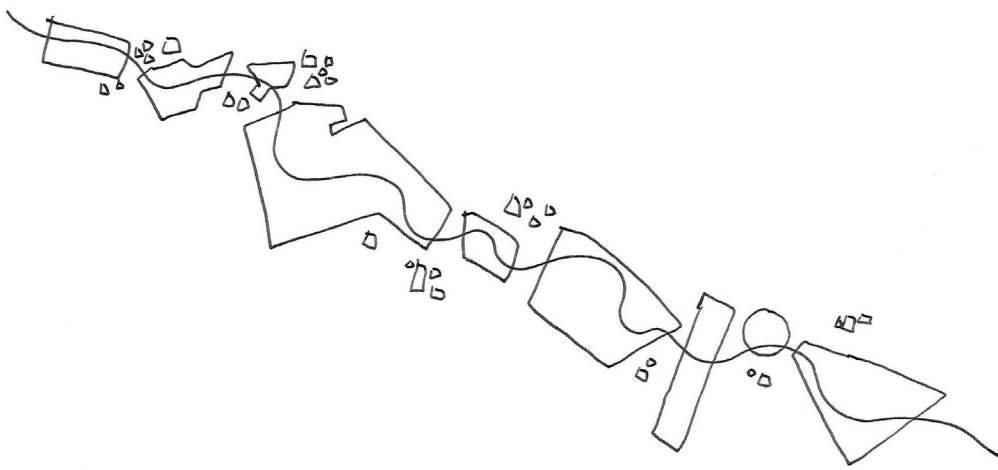
The Ridge

Various attempts have addressed the issue of River Dâmboviţa, either by planting its banks with more vegetation, trying to bring public activities to the water, but none of them was able to deal with the high traffic lanes cutting it off from the rest of the city on its both sides. The truth is that modifying the traffic here is a long-term goal, and it concerns the whole metropolitan area's mobility structure. However, the river is not just a line, it has (or at least used to have) a wider area in its natural state. The river is its floodplain. In this sense **the ridge** of the floodplain is an equally important linear structure, which, incidentally, is much easier to transform. Therefore, in this strategy the ridge is used as a base for a dedicated slow-mobility backbone, meant to connect all the large open spaces across the valley and enrich them with activities that promote the principle of a healthy lifestyle. Shared urban gardening and meeting spaces, part of a more or less continuous urban productive landscape, provide the transition from the local urban structures' backyards to the new public activities; a dedicated bicycle 'highway' crosses the whole diametre of the city along the line of the ridge; and sports activities are clustered around leisure, gardening and slow mobility structures.

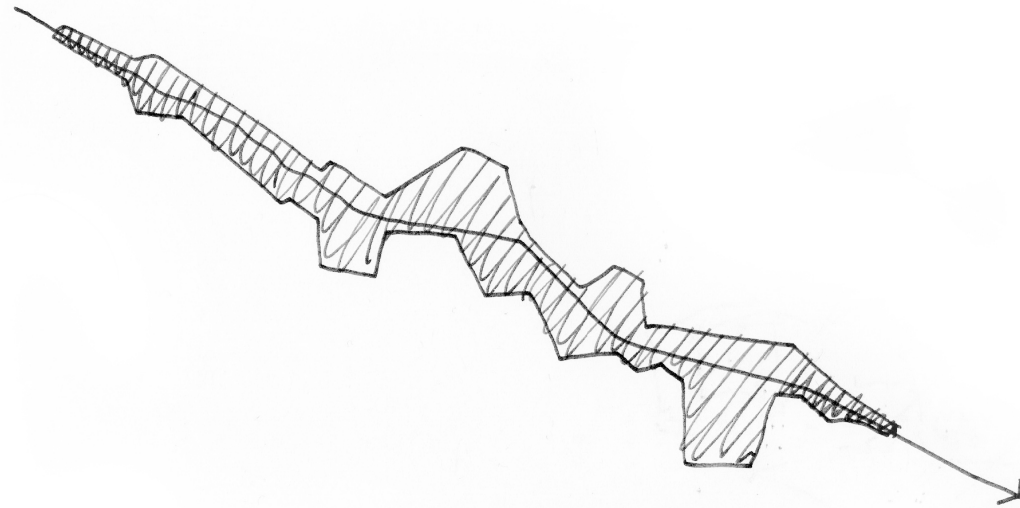0   5   10   12

River Dâmboviţa
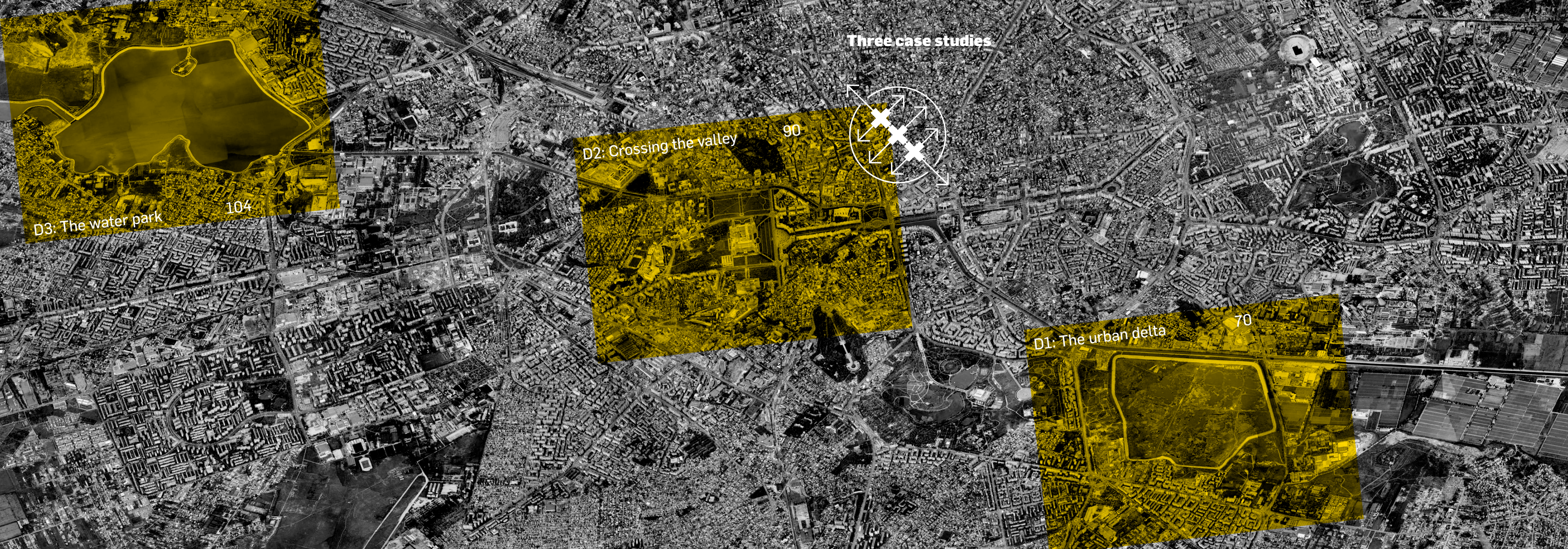Ridge
Open spaces
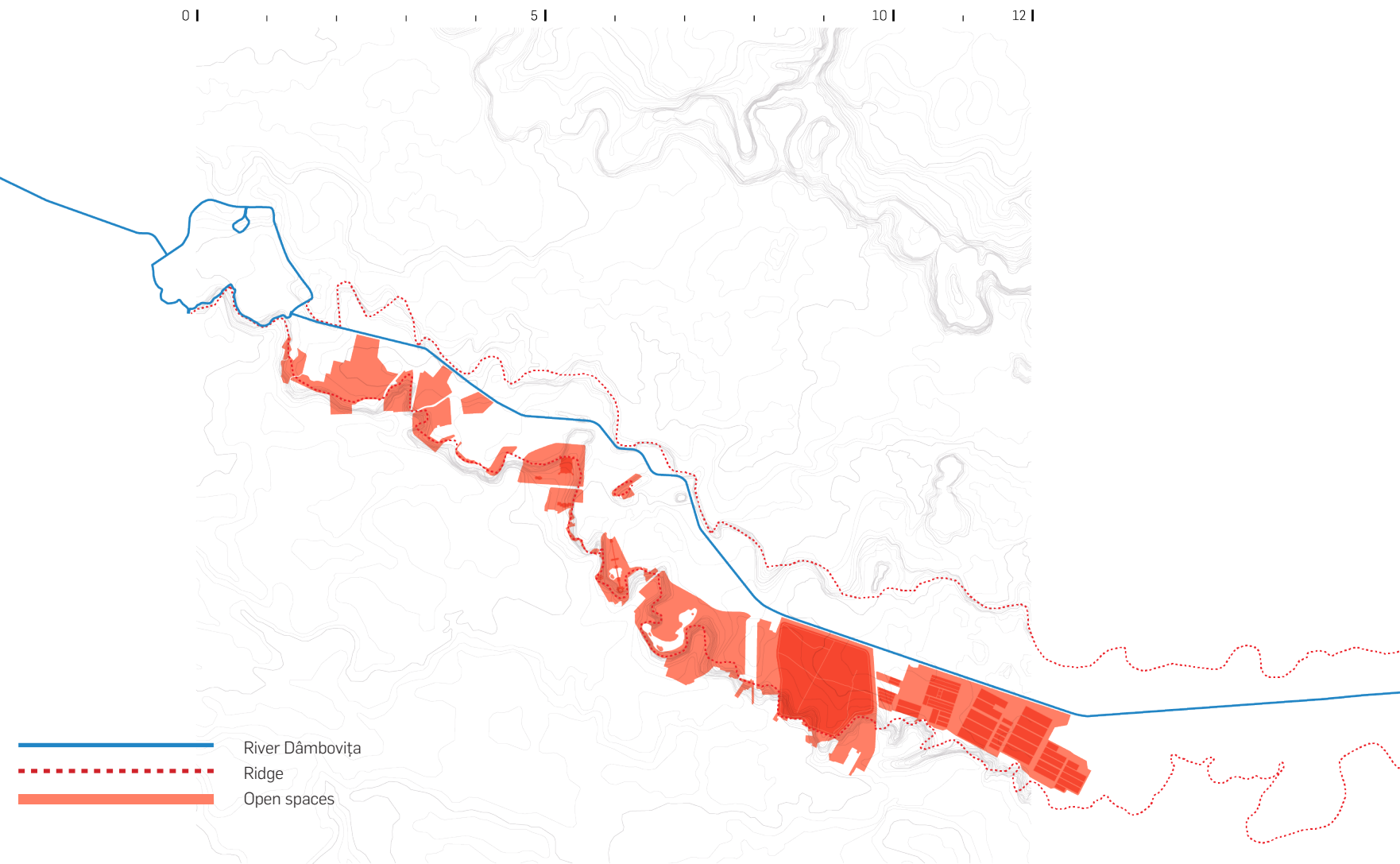
The River

Dâmbovița is indeed canalized and isolated from the public spaces of the city. But that doesn't mean that it cannot be integrated. If we look at the spaces aroun the canal of La Villette in Paris, we can see the potential of such canalized structures to become lively, pedestrian-friendly urban spaces.

The proposal identifies all the open spaces, parks, brown-fields, public spaces, existing and proposed, that are in the vecinity of **the river**. The spatial structure resulted from all of these spaces has the potential of creating a continuous riverfront on the scale of the whole city.

Different from the ridge, the river cannot be transformed easily. It is constrained by the traffic bordering it on both sides. Thus it is crucial that this dimension of the strategy be thought together with a general metropolitan mobility strategy aiming for the decongestion of central areas.

——————— River Dâmbovița

- - - - - - - Ridge

——————— Potential riverfront areas

Claudiu Forgaci

Bucharest: Between North and South

Three case studies

D3: The water park

104
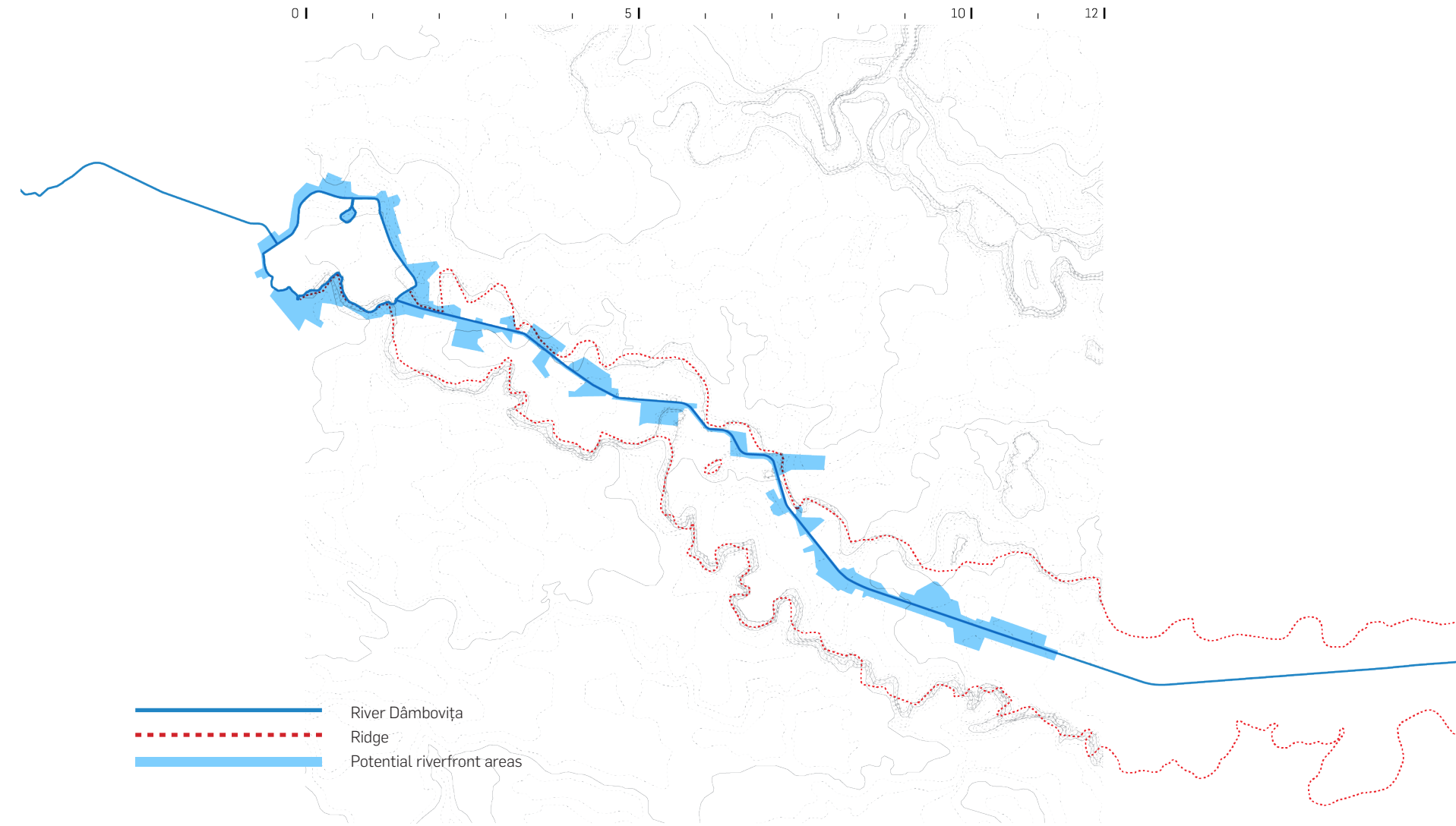
D2: Crossing the valley

90

D1: The urban delta

70

Three case studies

The criteria for chosing the three intervention case studies refers back to the observations on territorial synergy expressed at the beginning of this thesis. The rings developed different urbanization patterns in a concentric way. This different spatial and programmatic organization is intentional in the radial-concentric model. On the other hand we identified a conflict between this model and the structrual logic of the territory.

Following this line of reasonong, the three case studies look at conflicting and potential areas in three different urban settings: the urban delta, in an intermediary position between the first and second inner rings, still close to the center, but already interacting with the edge of the city; one case study looking at the very centre of the city where spatial barriers are the most densly organized; and outside the second ring, Lake Morii features a particular case of interaction between the extraurban and large, non-central urban functions. This is just a strating point. The purpose is not to enforce the ring structure, as already stated, but to create potential centralities with local potential and identities at the intersection between the valley and important cross-connections, so that the disadvantages (mainly the monocentrality) of the model and the North-South division are negotiated in a decentralized manner.

Proposed **connection framework** of the three case studies.
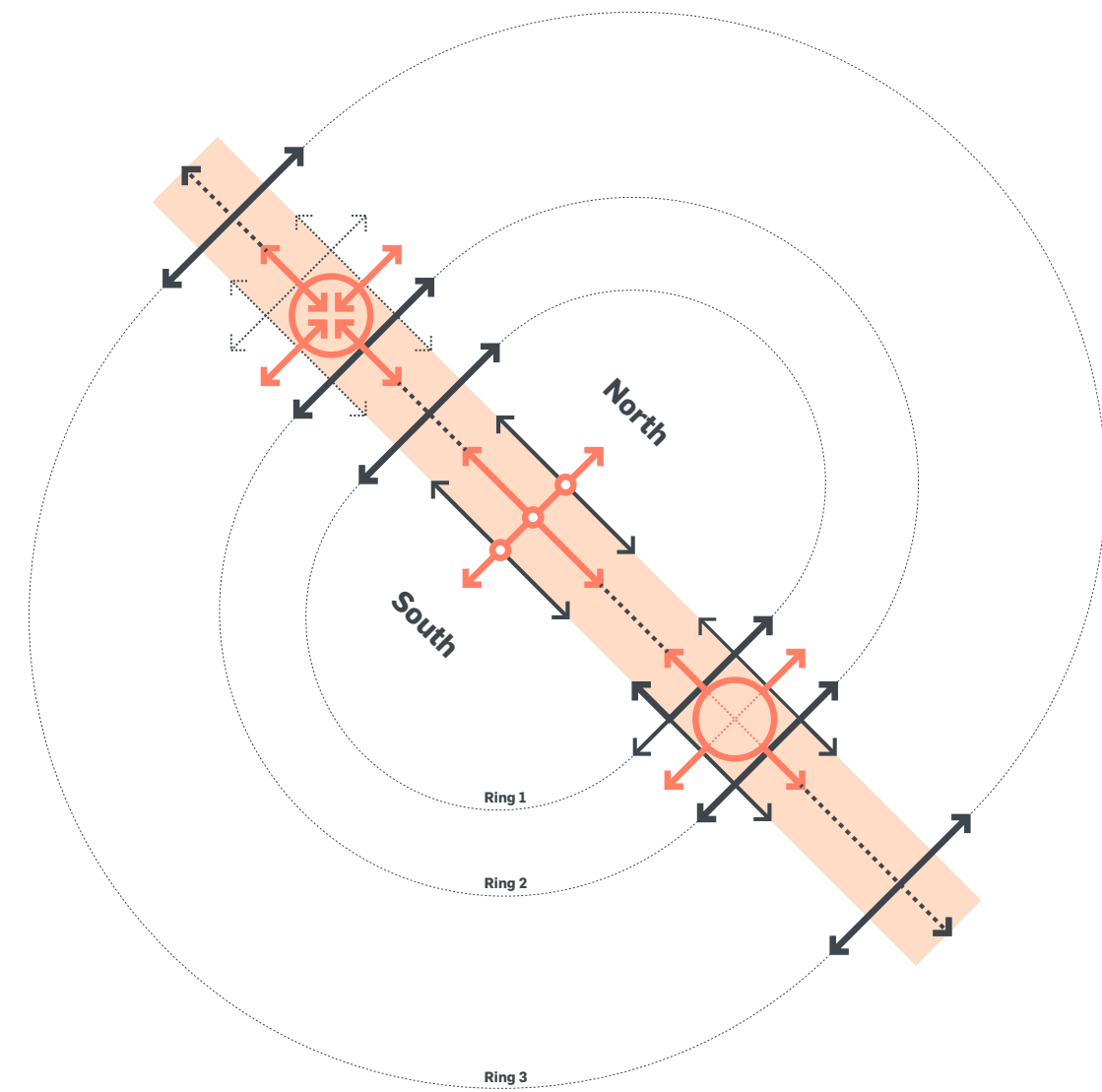
**D1: The urban delta**
Lake Văcărești

Lake Văcărești

With a surface of 189 hectares, Lake Văcărești is one of the largest available areas on the West-East corridor. It was artificially created as part of the systematization of River Dâmbovița, but it was never completed and remain one of Bucharest's largest unfinished projects. During the 24 years of its abandonment, a very spontaneous development took place within its boundaries: the high levels of groundwater of the former floodplain, and the isolation of the area with dikes, created the perfect conditions for the development of a rich ecosystem, comparable to a delta. The abundance of animal and plant species, the isolation from man-made infrastructures makes (paradoxically) this engineering work the most valuable natural asset of the city.

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Bucharest: Between North and South
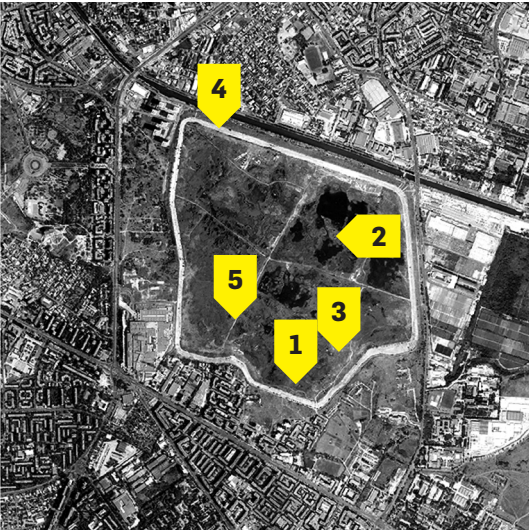
The surroundings of the lake are car-based and replete with spatial barriers. The high density of Berceni neighborhood in the South is supported by good infrastructural connections to the centre of the city: ring, radial, metro and surface public transport lines. However it is still extremely car-dependent and disconnected from the valley and the smaller low-rise communities in the North of Dâmbovița. The Western and Eastern sides of the lake are also occupied by high-speed ring-road connections.

Claudiu Forgaci   Bucharest: Between North and South
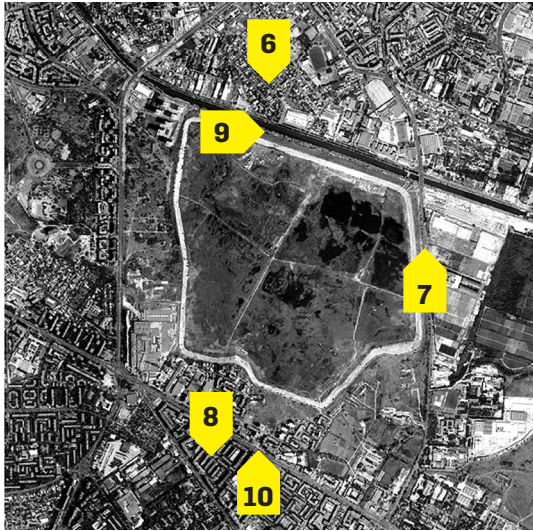
Lake Văcărești
...in the city
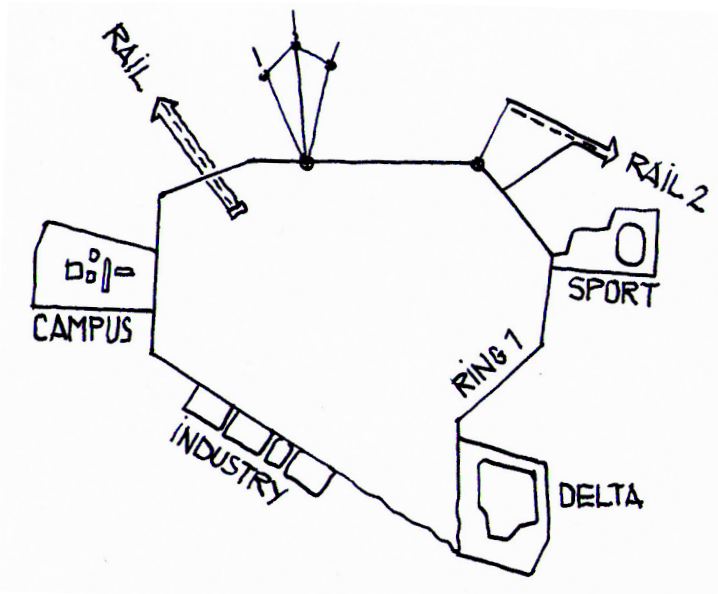
The site of the abandoned lake is part of a series of large projects with a metropolitan (or even nation)-wide importance. This high level of connetcivity and the already existing organization of these projects along the inner ring of the city, makes lake Văcărești a site with a strategic importance for the whole Bucharest.

...in the valley
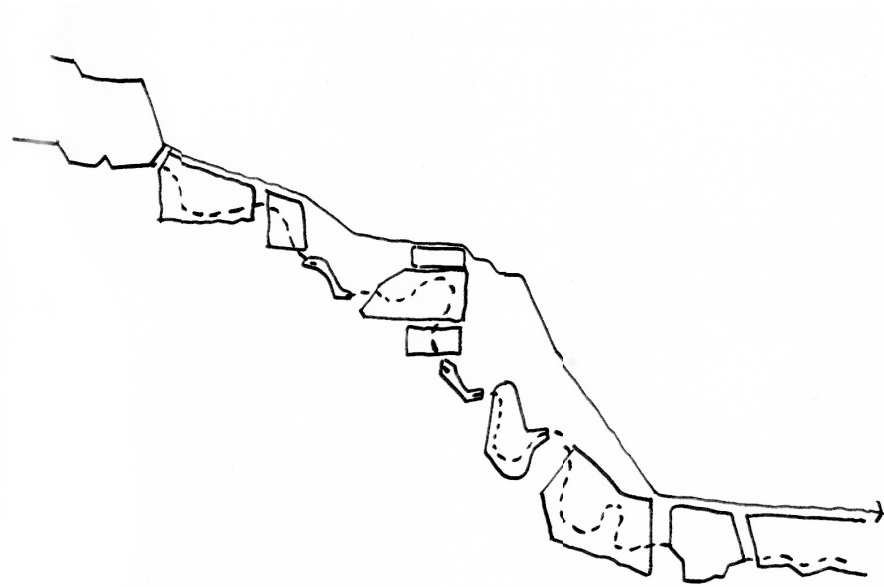
At the same time, the lake is part of the pearl of large spaces and structures of the valley, connected by the ridge of the former floodplain.

...in Văcărești
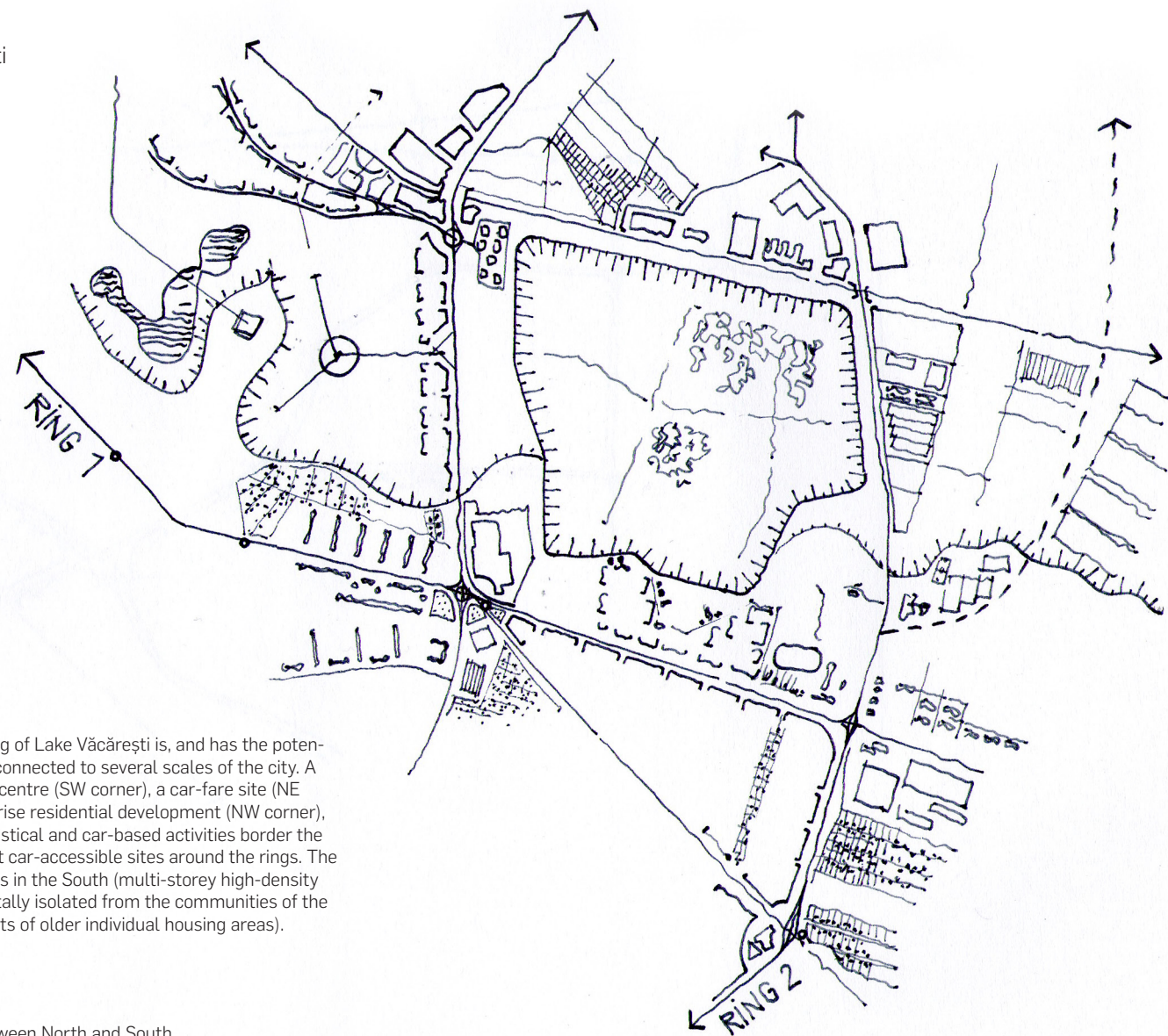
The local setting of Lake Văcărești is, and has the potential to be, well connected to several scales of the city. A large shopping centre (SW corner), a car-fare site (NE corner), a high-rise residential development (NW corner), and several logistical and car-based activities border the lake in the most car-accessible sites around the rings. The residential areas in the South (multi-storey high-density housing) are totally isolated from the communities of the North (fragments of older individual housing areas).

Lake Văcăreşti
Site profile

Barriers

Scale

Residential

Non-residential

Open space

| 0 | 0.5 | 1 | 3km | roads   private   abandoned   natural | min.   max. |

secondary roads   residential areas

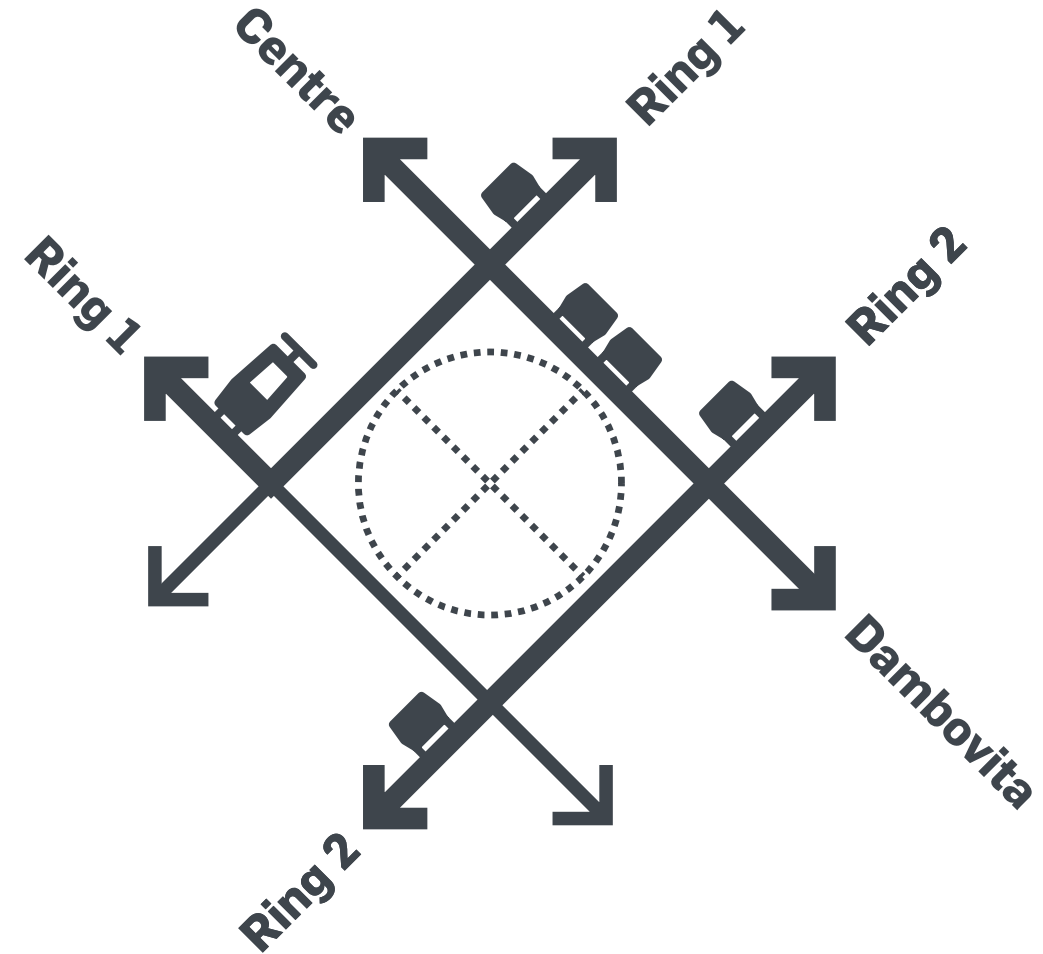primary roads   non-residential areas

river structure   open spaces
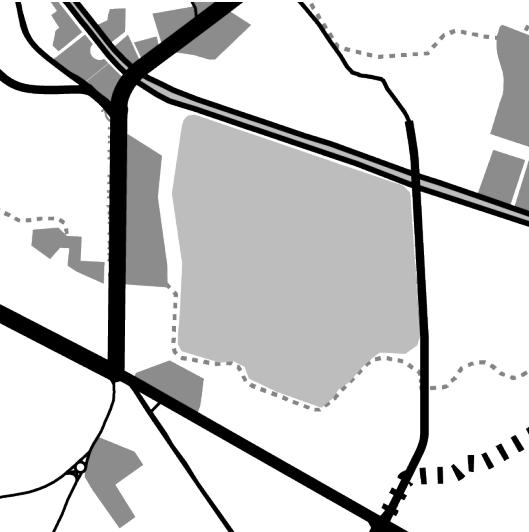
The site is well connected to the global structure of the city, but the infrastructure used for this level of connectivity and the large scale of car-based uses clustered around it create a high concentration of barriers between the Northern and Southern communities. The scale of the island containing the structure of Lake Vacaresti is considerably higher than its surrounding fabric. It is either bordered by primary road infrastructure crossing the valley or it ends in unfinished fragments of urban fabric, especially in the 'backyard' of the residential areas in Southern side of the lake.
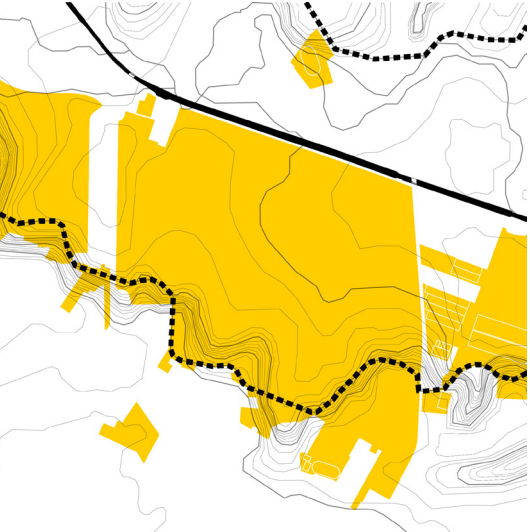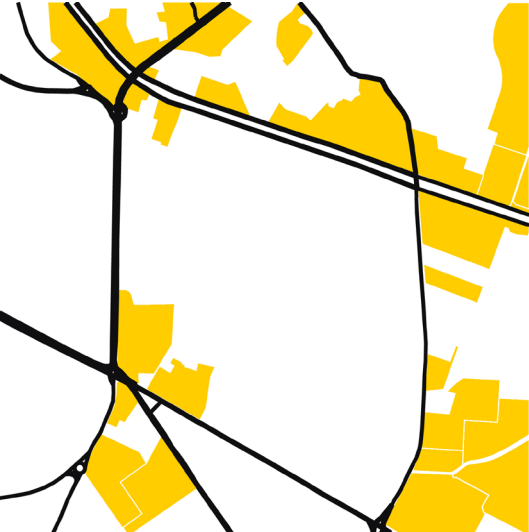
The secondary road network is strongly related to how residential areas are distributed in the area. In this sense, the configuration of this network is partially responsible for the North-South divide. The site's good connectivity to the primary network, especially to the two inner rings of the city, encouraged the concentration of non-residential, car-based - especially logistics, car parks, car fares, industries - in this part of the city. Still, the large and open spaces of Dâmboviţa's valley cover half of the study area.
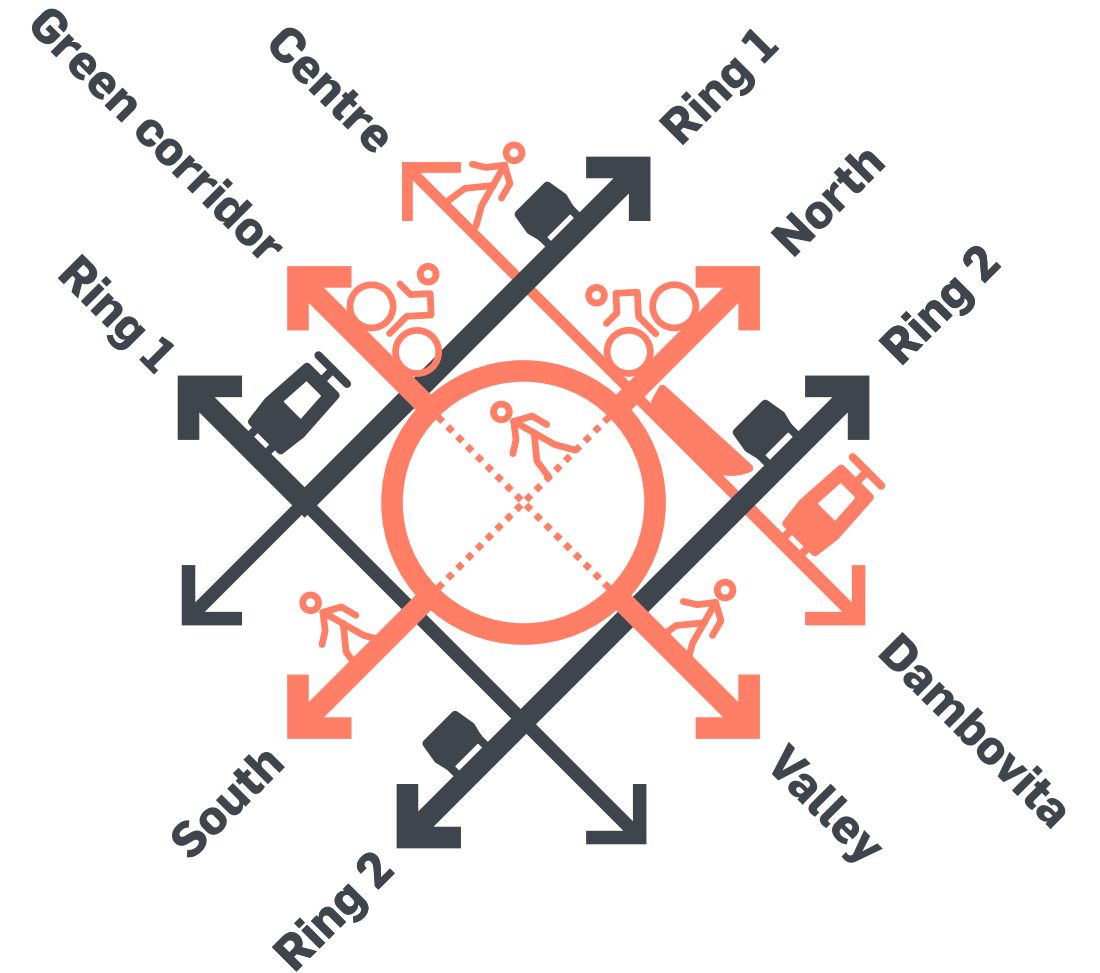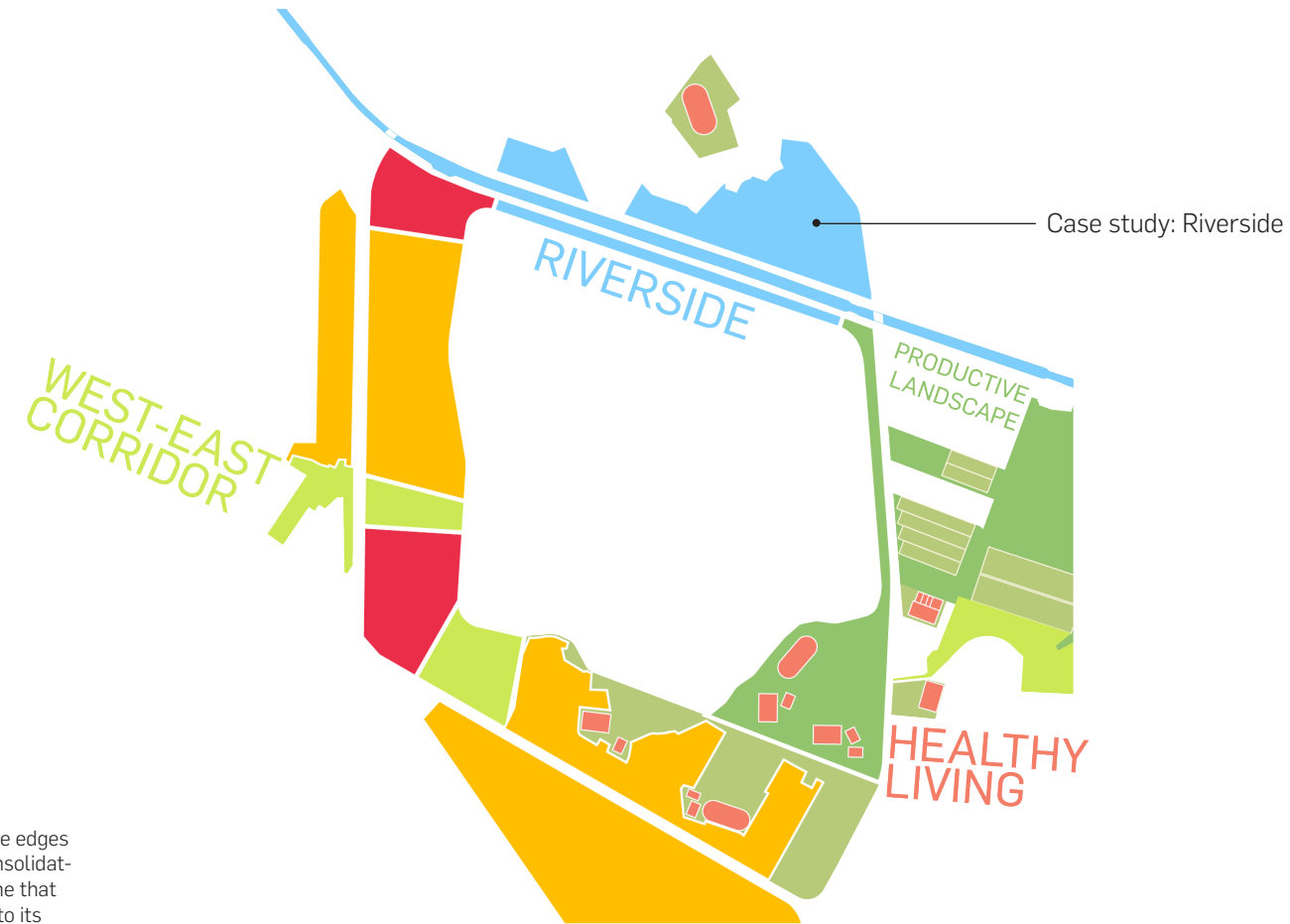
Lake Vacaresti
Existing structure

Centre

Ring 1

Ring 1

Ring 2

Dambovita

Ring 2

Currently, the site is bordered exclusively by car-based structures and connections, totally disconnected from the lake.

Lake Vacaresti
Proposed structure

Green corridor

Centre

Ring 1

Ring 1

North

Ring 2

South

Dambovita

Ring 2

Valley

The proposal integrates the lake as infrastructure in the slow-mobility backbone proposed in the strategy. More exactly, the edge of the lake becomes a bicycle ring, distributing the flows from East to West, along the valley, and from North to South, across the valley.

Claudiu Forgaci

Bucharest: Between North and South

Programme

RIVERSIDE

PRODUCTIVE LANDSCAPE

WEST-EAST CORRIDOR

HEALTHY LIVING

Case study: Riverside

In the proposal, the edges of the lake are consolidated with programme that connects the site to its surroundings and acknowledges the presence of to the delta.

Effects

The future outhcomes of this programmatic structure may be various. However, a few interventions are necessary in order to trigger and guide them: the enforcing of the metro station in the SW of the site as a an entrance
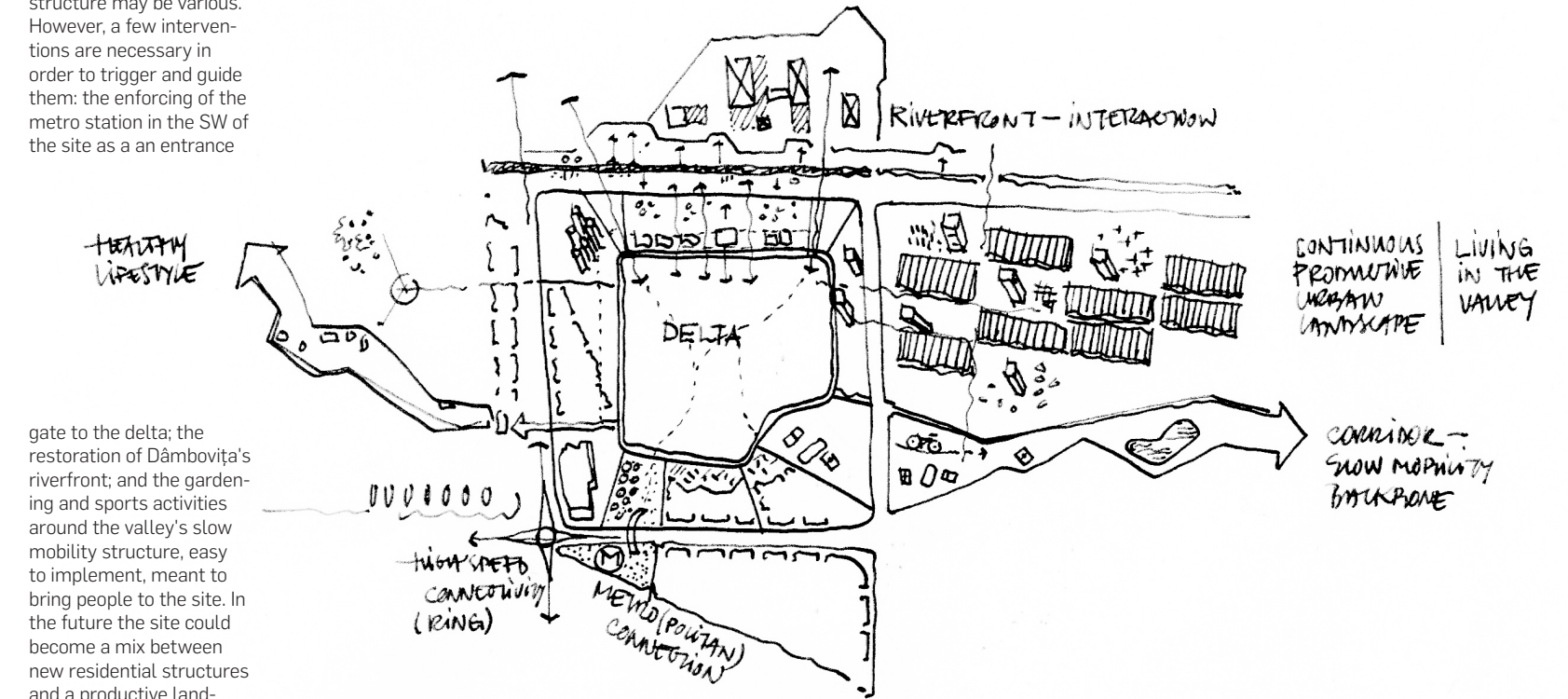
gate to the delta; the restoration of Dâmbovița's riverfront; and the gardening and sports activities around the valley's slow mobility structure, easy to implement, meant to bring people to the site. In the future the site could become a mix between new residential structures and a productive landscape, between new and recycled built structures, recreational and production, bound together with a ballanced slow/fast mobility structure.

RIVERFRONT – INTERACTION

CONTINUOUS PRODUCTIVE URBAN LANDSCAPE

LIVING IN THE VALLEY

HEALTHY LIFESTYLE

DELTA

CORRIDOR – SLOW MOBILITY BACKBONE

HIGH SPEED CONNECTION (RING)

METROPOLITAN CONNECTION
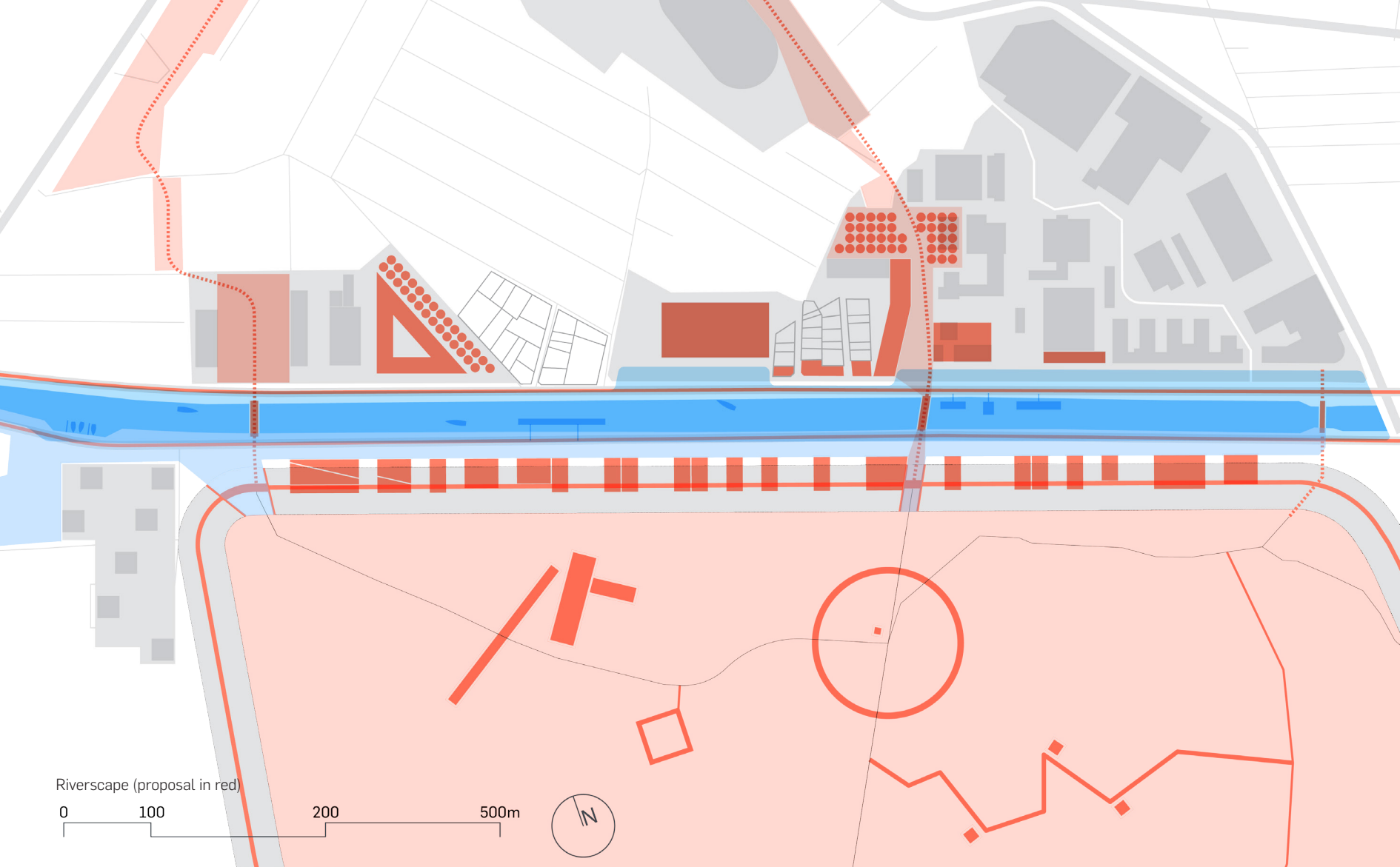
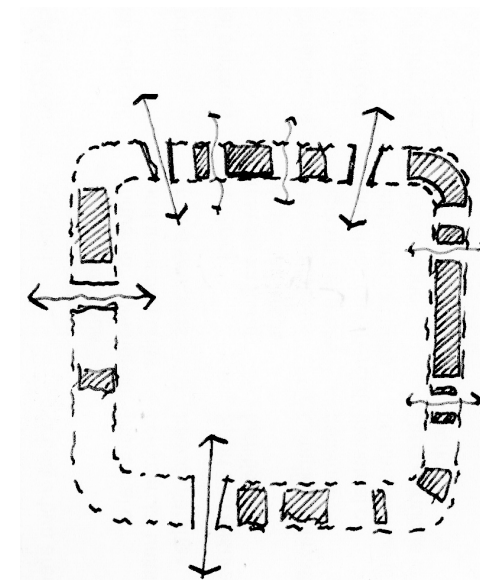Riverscape (proposal in red)

0   100   200   500m

Rule-based design
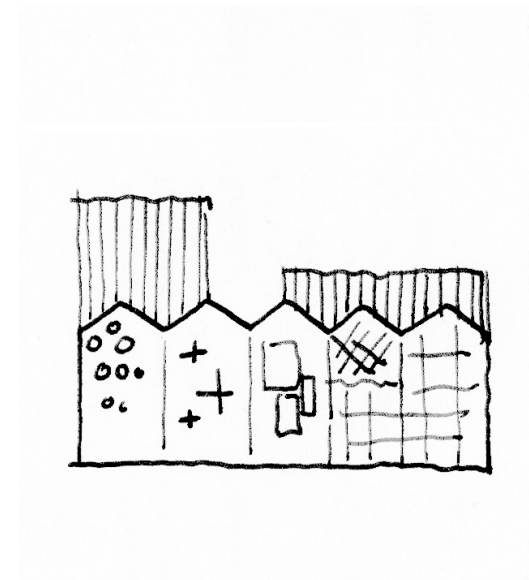
Recycling

Industrial buildings may be heightened, sub-divided and reused. The use of a building can be changed to anything as long as it does not require direct car accessibility, it is 100% un-polluting and it contains at least 50% public services.
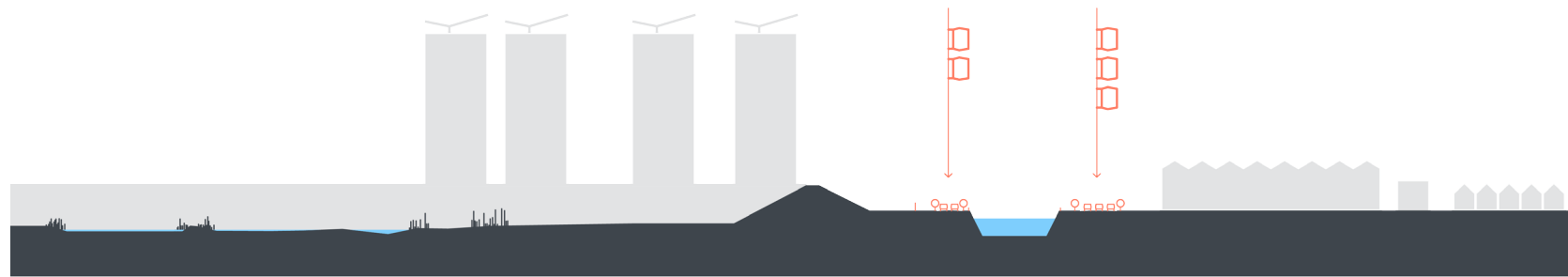

Building on the dike

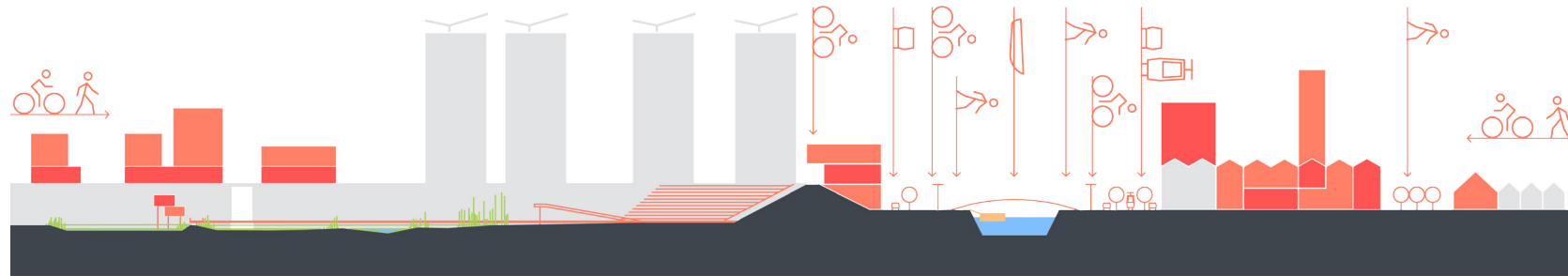The dike may be built on the whole length of it except on the segments where it is broken by the new entrance 'gates' into the delta.
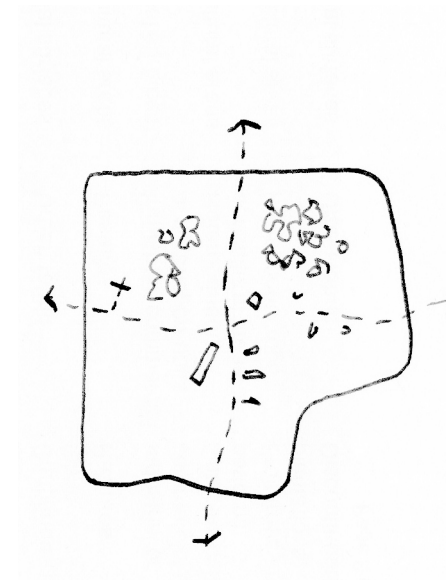
Path continuity

The delta will be preserved but the paths crossing it must be adapted to 24h safety for pedestrian and cycling use.

Existing situation

Proposed situation - section (simulation)

Proposed situation - pavement (simulation)

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Bucharest: Between North and South
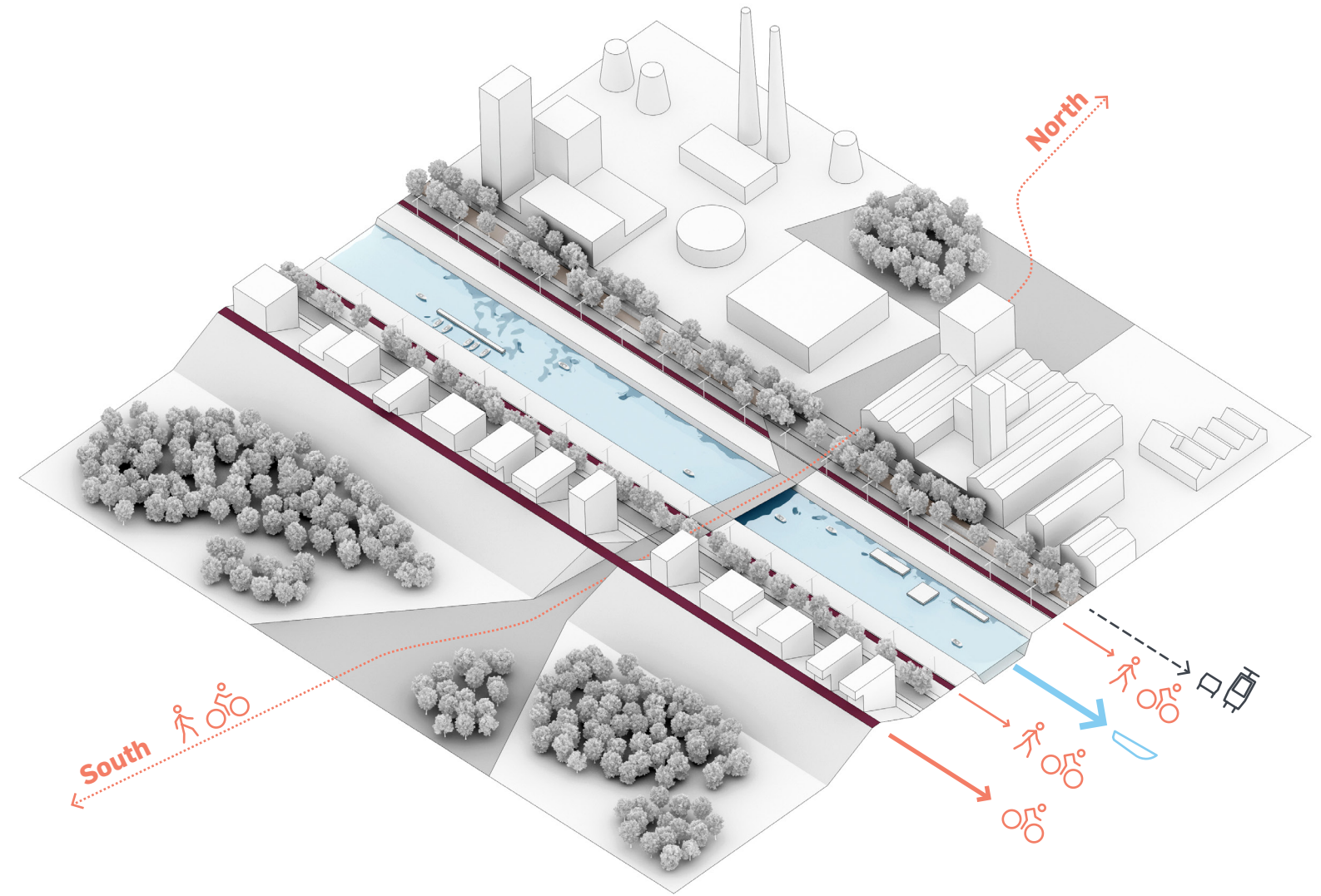
Riverscape - from barriers to a place of interaction.

Dike - cycling ring and architecture

Delta - nonintrusive interventions - raising awareness, providing connections and a healthy lifestyle
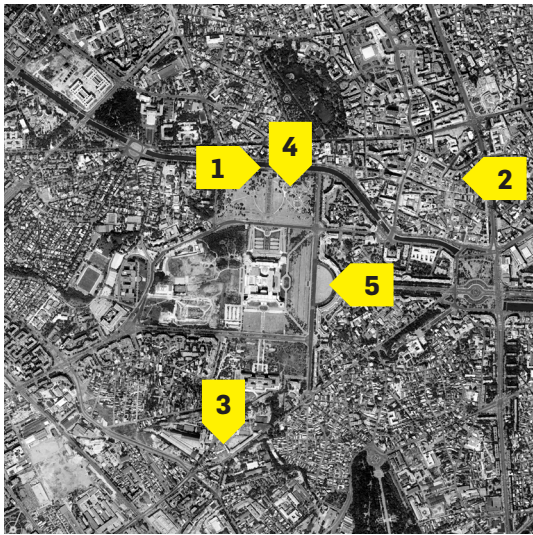
Claudiu Forgaci

Bucharest: Between North and South

Crossing the valley

The site of the second project features three important places, three anchors of the North, the Valley and the South: the historic centre, the Palace of Parliament in the Civic Centre and an abandoned industrial site. The old centre is already a hotspot for public activities, while the Palace and the surrounding large spaces are isolated from and isolating the surrounding fabric and activities. The industrial site chosesn for this proposal is very close to the centre of the city, but it is still part of a much larger industrial structure of the South. With recycling activities already taking place there in order to integrate the city's creatve class and local communities, it is chosen as a potential site for the connection of North and South.
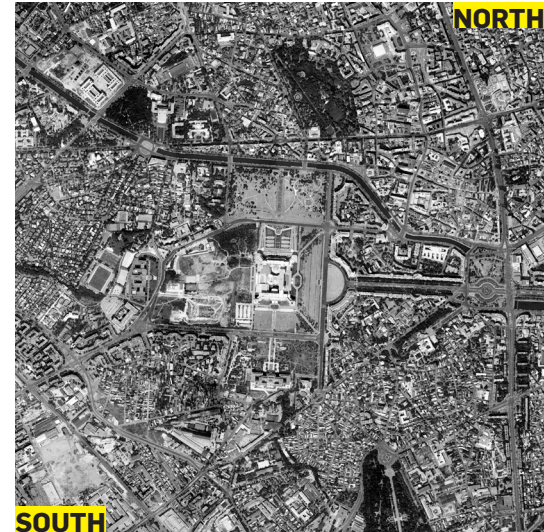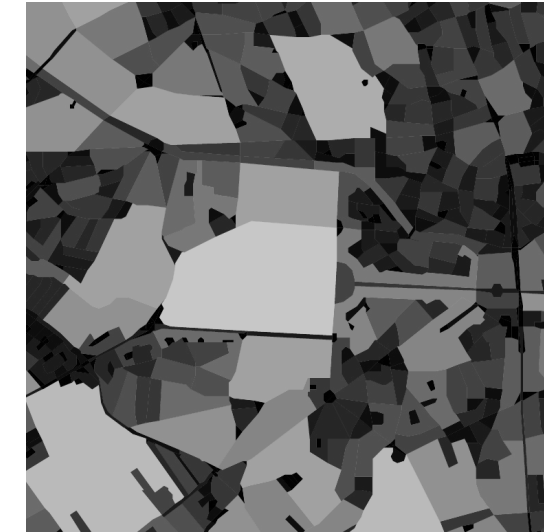
Centre(s)
Site profile

Barriers

Scale

Residential

Non-residential

Open space

NORTH

SOUTH

|0 |0.5 |1   3km| roads   private   abandoned   natural   min.   max.

secondary roads   residential areas   primary roads   non-residential areas   river structure   open spaces

The most central of all proposals, the site is most densely crossed by barriers. The infrastructure of the inner ring and the industrial strip i n the SW, the Civic Centre, the canalized river are the major structures spanning parallel to the valley. The scale of the Civic Centre is much higher than the surrounding historical fabric, leading to several spatial conflicts: discontinued street network, isolated communities, etc.
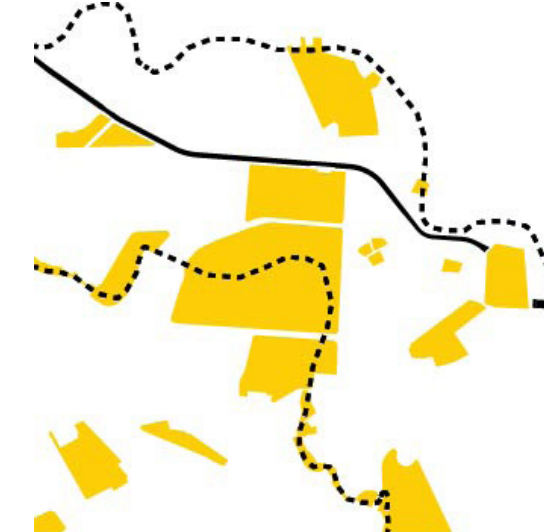
Out of all case studies, this is the most inhabited in the valley. The residential structure is more or less well distributed. Non-residential uses are mainly industrial in the South, state-related in the valley and cultural-mixed in the North. The open spaces follow the line of the ridge.
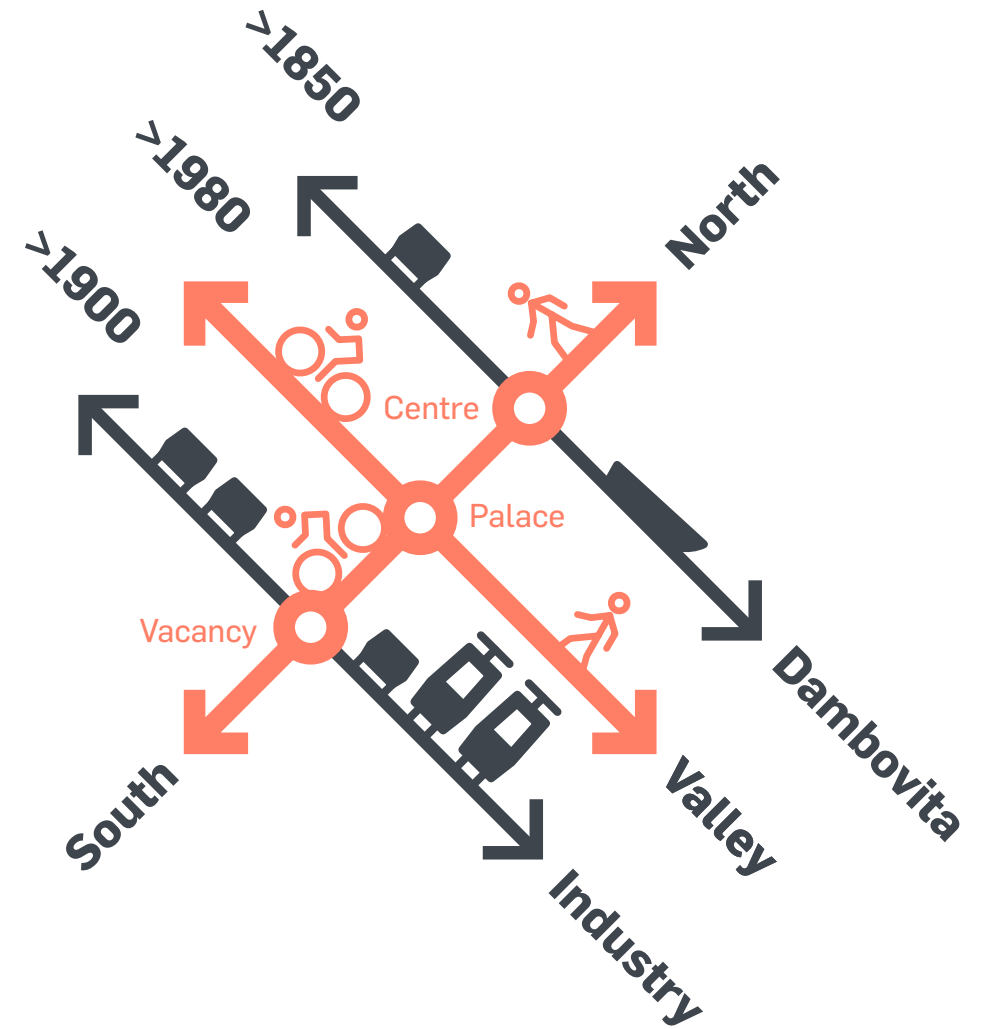
Centre(s)
Existing structure

>1850
>1980
>1900

Centre

Palace

Vacancy

Dambovita

Valley

Industry

The berriers descibed above separate different fragments of the city, from different periods in history. The north still keeps a large part of the Ottoman city, the valley is dominated by the 80's communist developments while the Sothern part of the study area still keeps structures from the beginning of the 20th century.
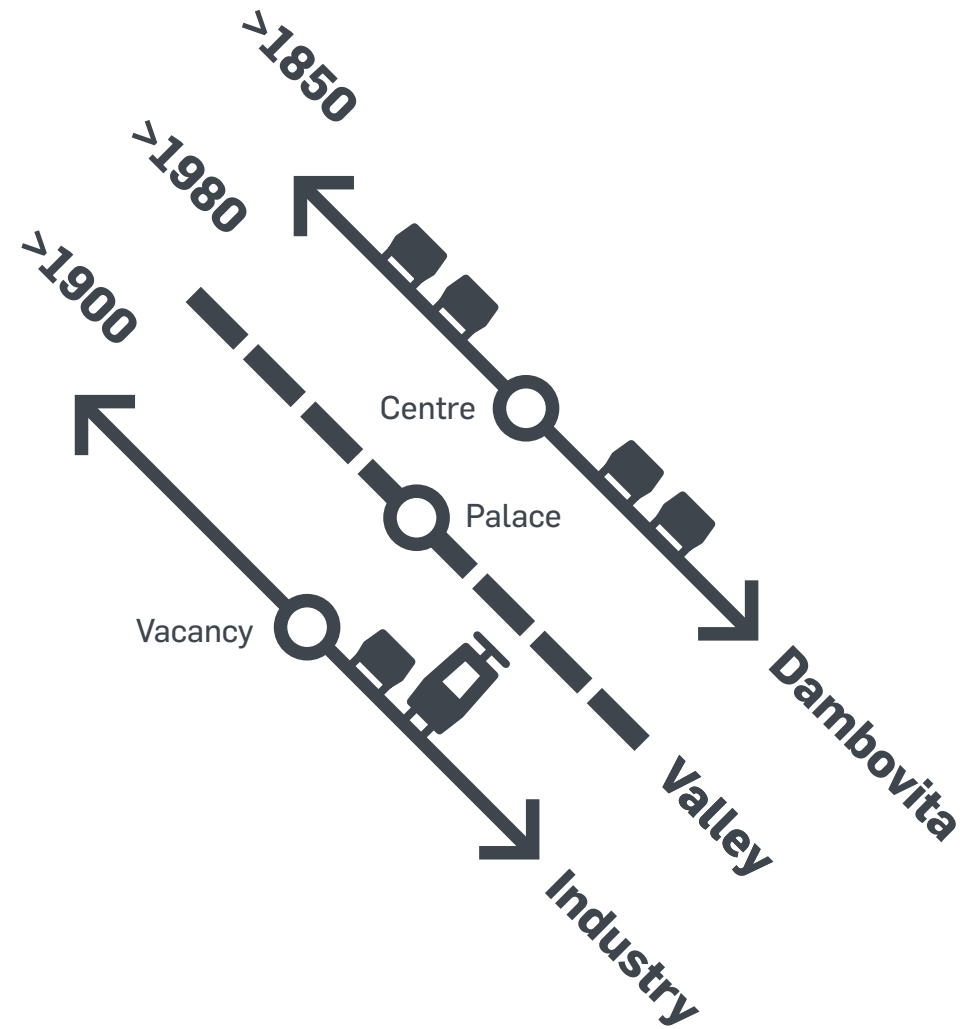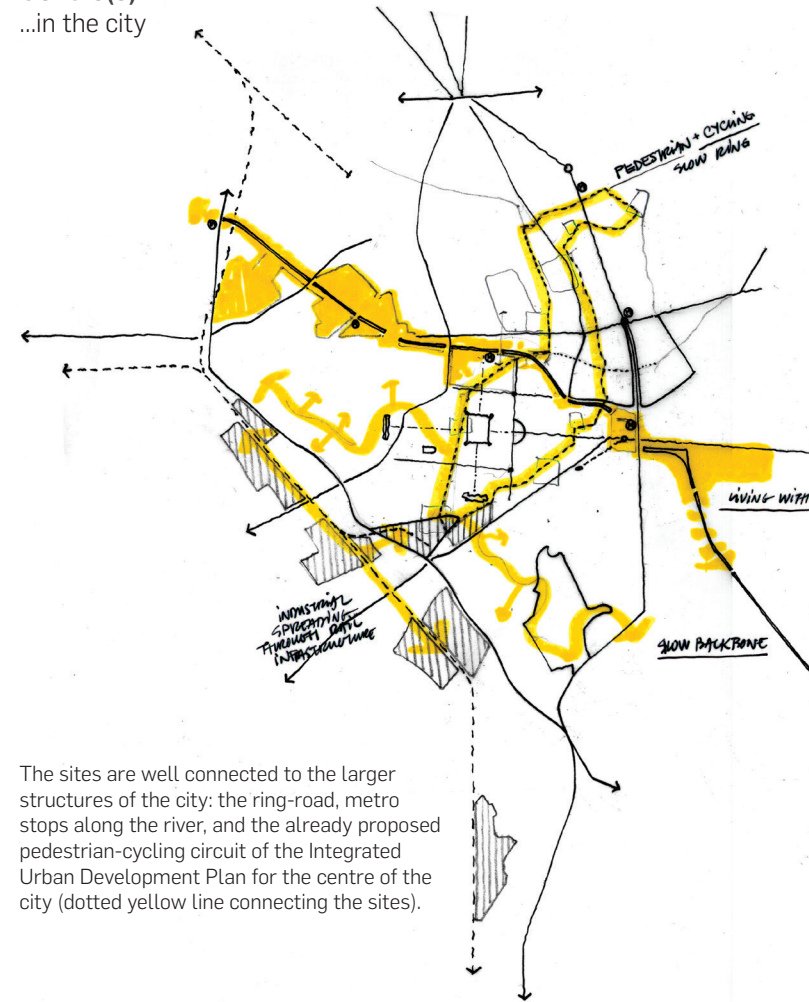
Centre(s)
Proposed structure

>1850
>1980
>1900

North

Centre

Palace

Vacancy

South

Dambovita

Valley

Industry

The proposal integrates the three anchors in a slow mobility system meant to restore the local integration of the urban fabric and to connect the three worlds that they represent.
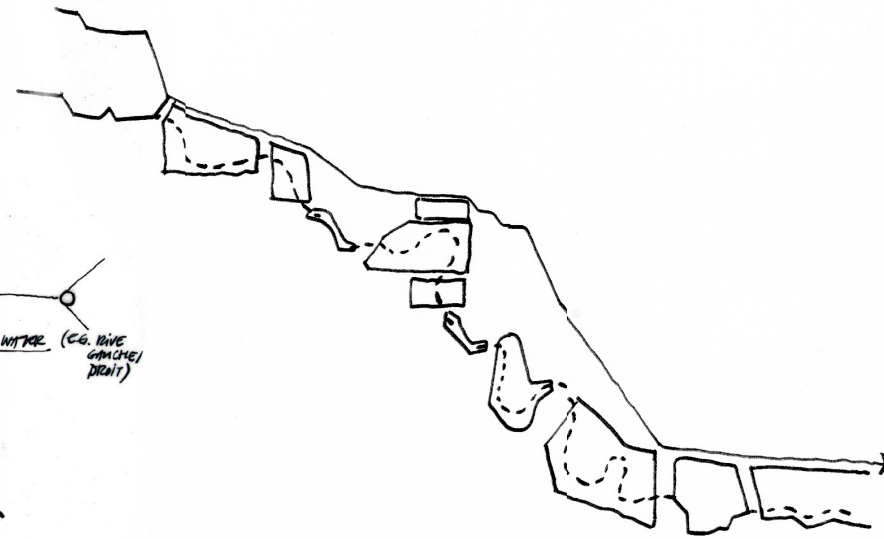
## Centre(s)

...in the city

The sites are well connected to the larger structures of the city: the ring-road, metro stops along the river, and the already proposed pedestrian-cycling circuit of the Integrated Urban Development Plan for the centre of the city (dotted yellow line connecting the sites).
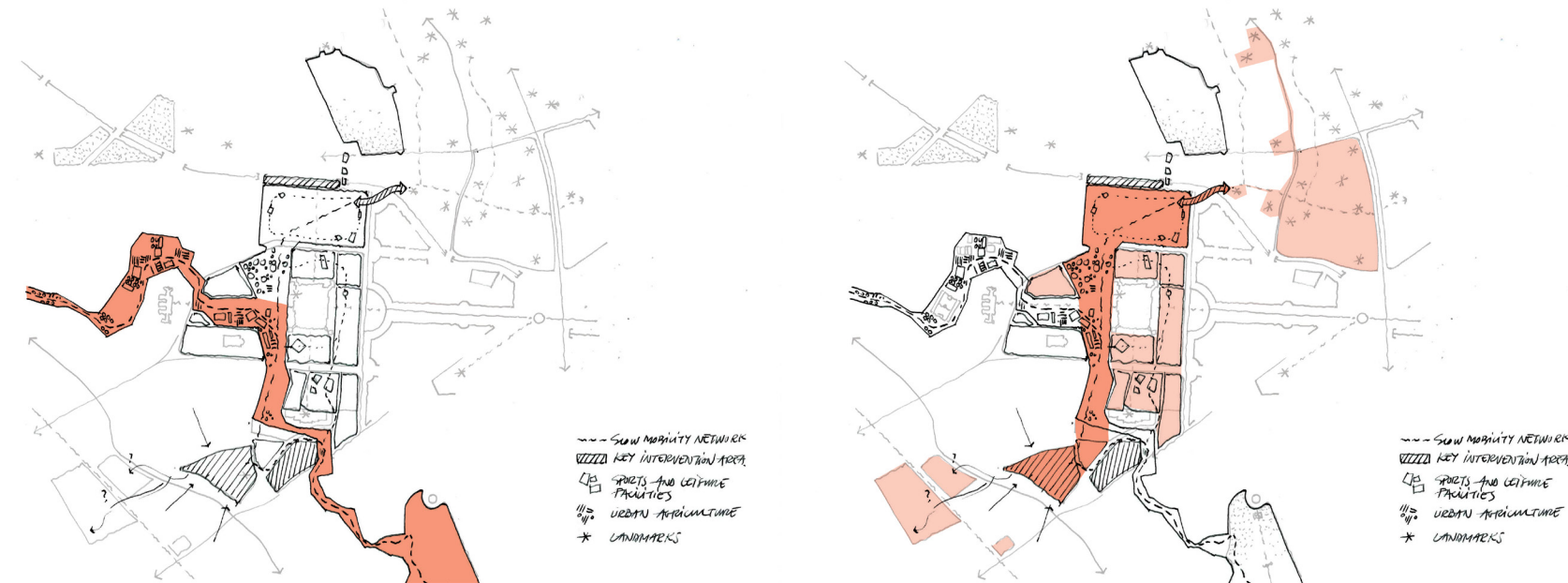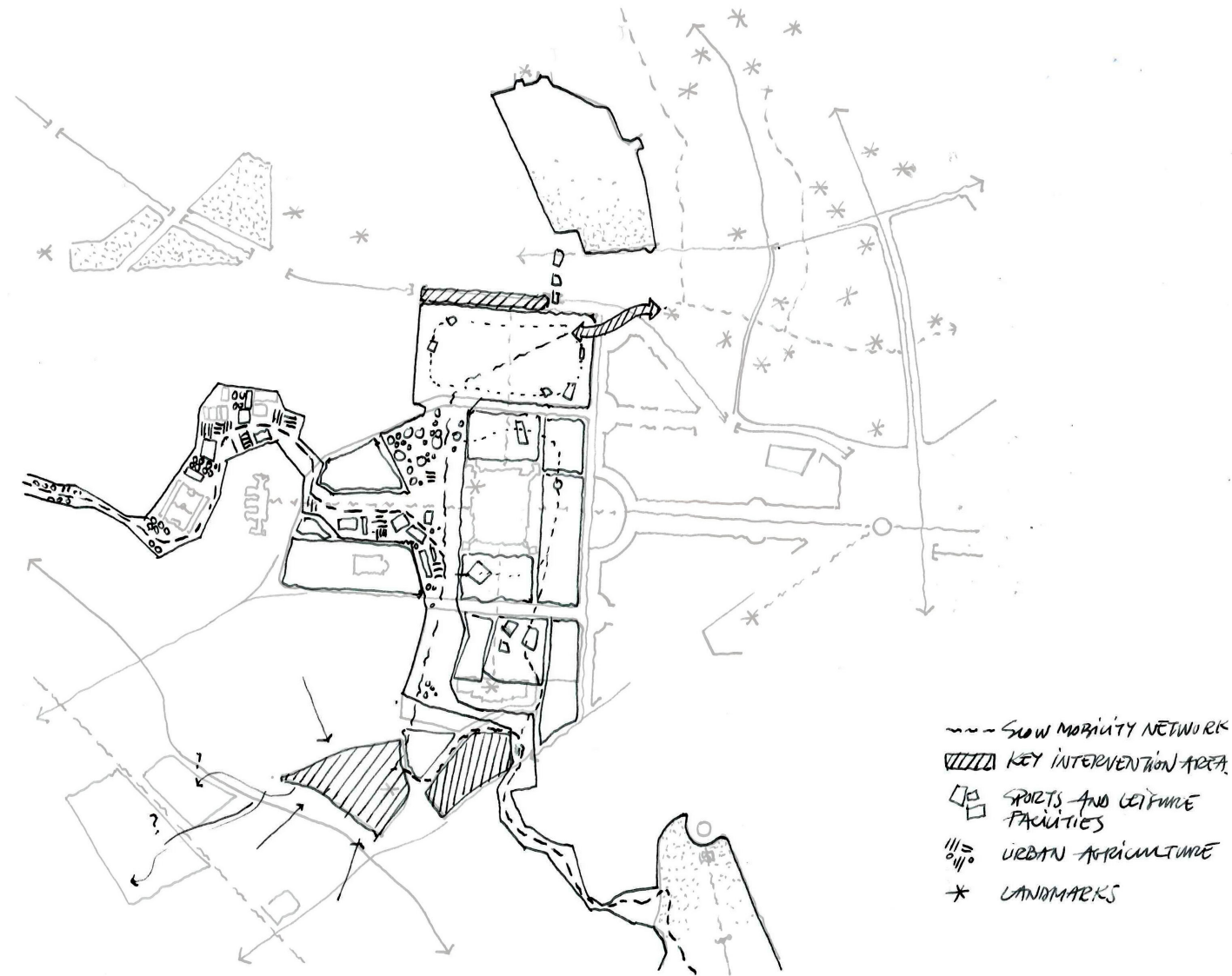
...in the valley

The palace of the parliament and the open space surrounding it occupies one of the most privileged high spots in the valley.

...in the centre
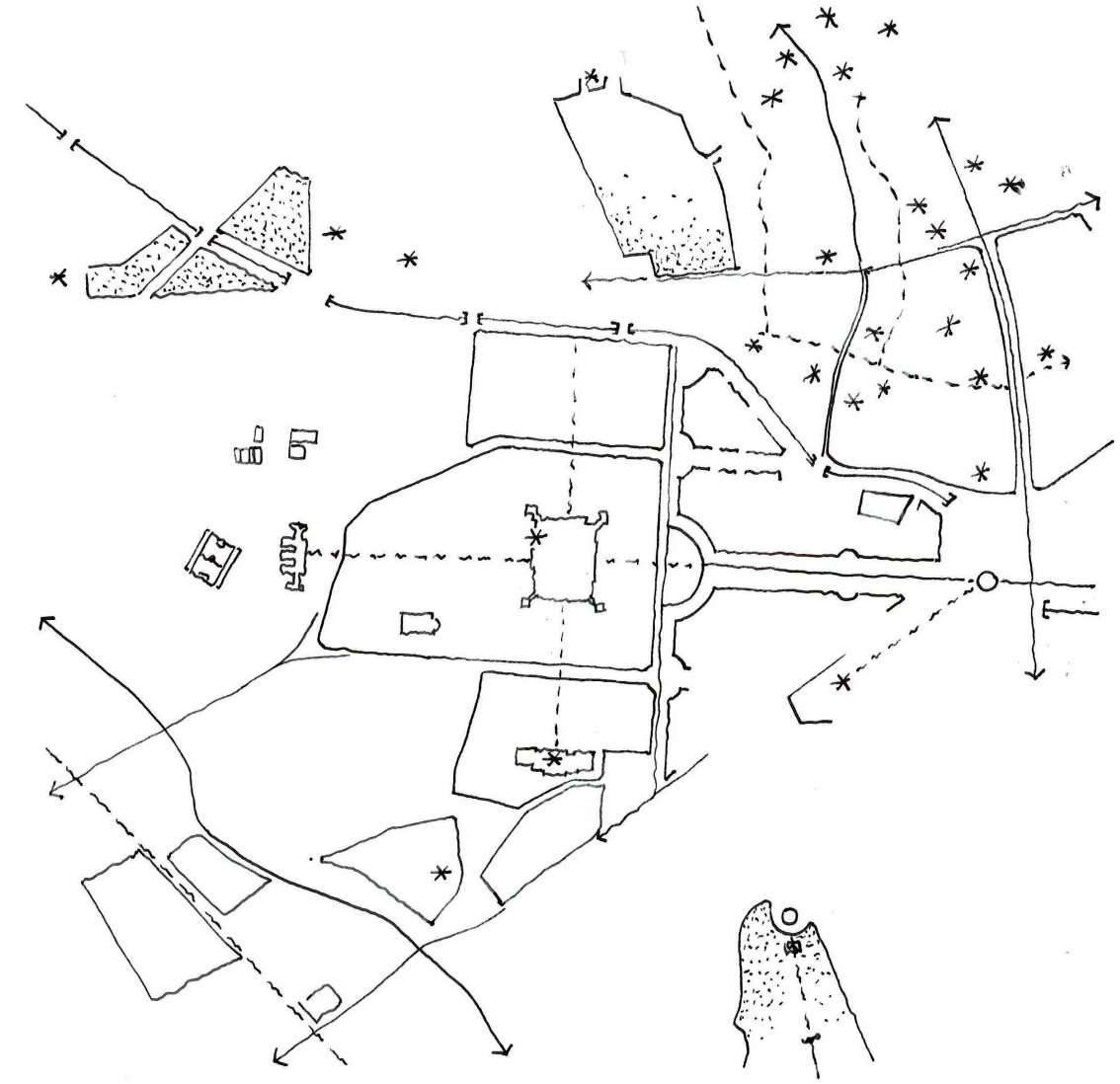
As mentioned above, the area is occupied by several different and isolated structures. The public use (represented by cultural facilities - stars - in this drawing), however, is concentrated in the Northern part of it.

Slow mobility network
Key intervention area
Sports and leisure facilities
Urban agriculture
Landmarks

Slow mobility network
Key intervention area
Sports and leisure facilities
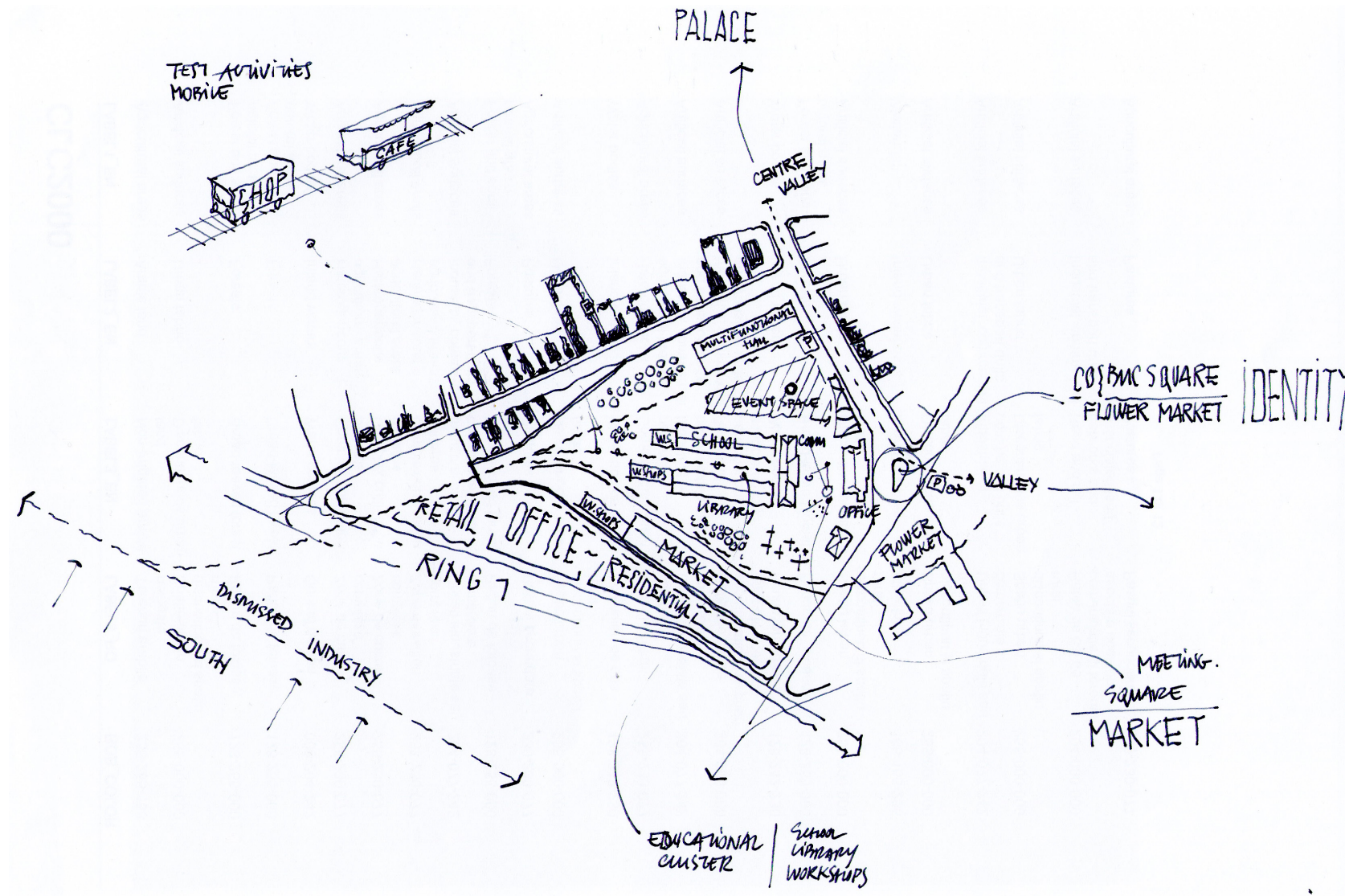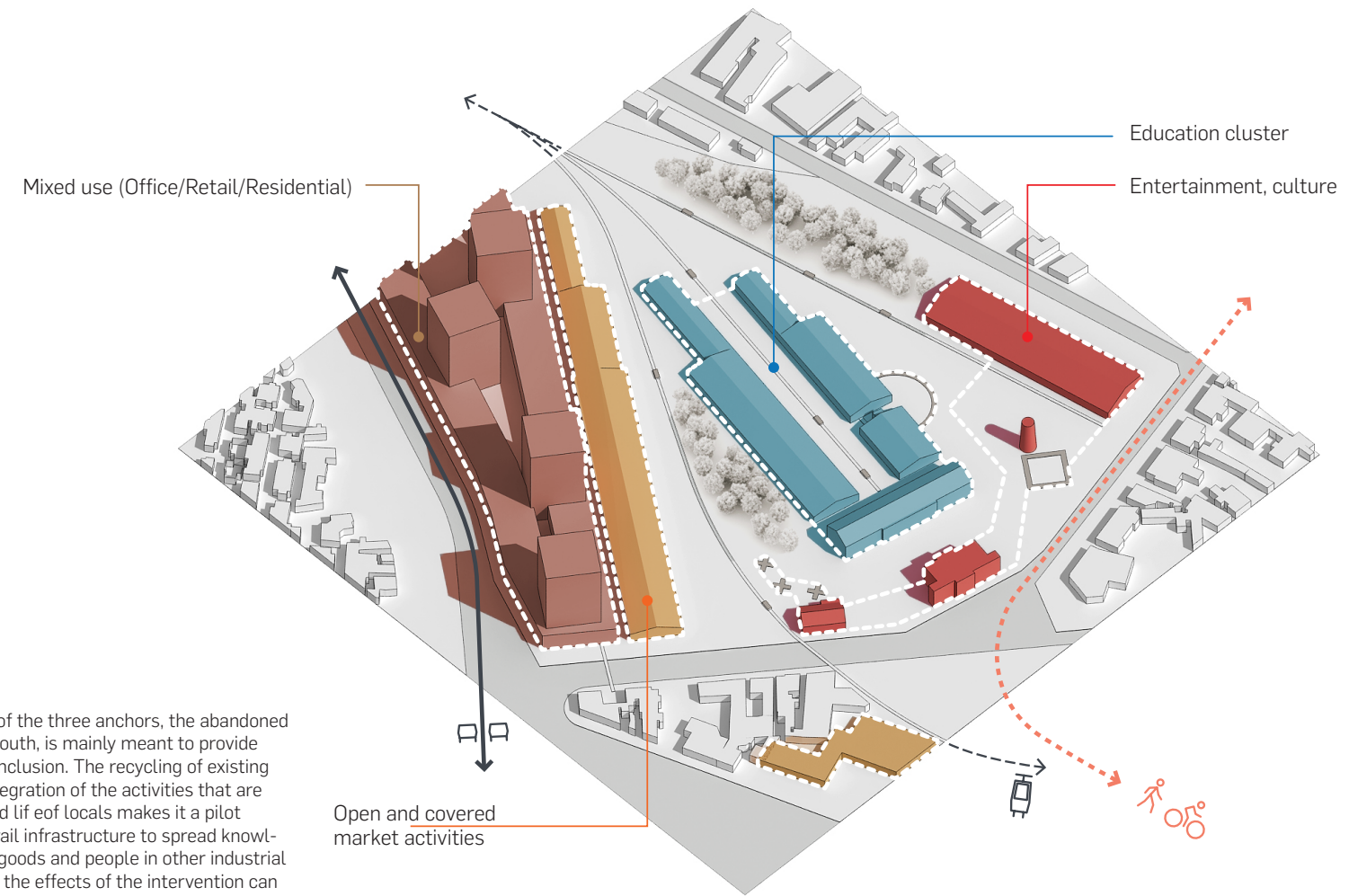Urban agriculture
Landmarks

The proposal connects to the ridge-open space structure of the whole corridor, dominated by community gardens, orchards, sports activities organized around the slow mobility line, promoting a healthy lifestyle and community engagement, expressed in the strategy.

Slow mobility network
Key intervention area
Sports and leisure facilities
Urban agriculture
Landmarks

The second, cross connection uses the cultural concentration of the North and extends it to the other two anchors, so that it becomes accessible to the poorer communities in the South of the site.

Claudiu Forgaci

Bucharest: Between North and South

Community anchor
Recycling industry

Mixed use (Office/Retail/Residential)

Education cluster

Entertainment, culture

Open and covered
market activities

The proposal for one of the three anchors, the abandoned industrial site in the South, is mainly meant to provide a platform for social inclusion. The recycling of existing structures and the integration of the activities that are part of the identity and lif eof locals makes it a pilot project. By using the rail infrastructure to spread knowl-edge, services, small goods and people in other industrial transformation areas, the effects of the intervention can be tested and spread on a much wider area in the South.

D3: The water park
Lake Morii
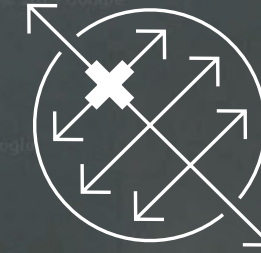
Lake Morii

Lake Morii is part of the systematization project of Dâmboviţa and it is still used as a retention lake meant to control the flooding of the whole valley across the city. It is surrounded, on on hand, by large urban functions, such as the politechinc campus, and communities of the periphery, both in individual and collective housing area, on the other. Its Western bank is bordered by a wetland connecting it to the extraurban environment. Activities only take place on national show here, a few days a year, while, in the rest of the time it is unaccessible to the public.
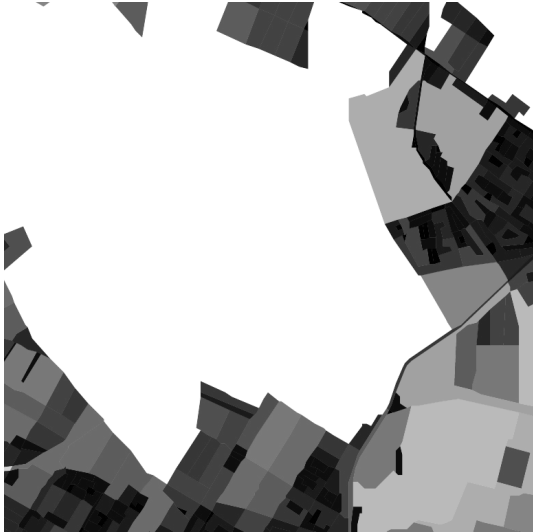
Lake Morii
Site profile

Barriers

Scale

Residential

Non-residential

Open space

NORTH

SOUTH

| 0 | 0.5 | 1 | 3km |

roads   private   abandoned   natural

min.   max.

secondary roads   residential areas

primary roads   non-residential areas

river structure   open spaces

The fact that the lake ant its surroundings are inaccessible to the public makes it a barrier between the Northern and Southern communities. Due to the engineering purpose of it, the scale of the lake is much larger than the urbanized areas around it.

Northern and Southern residential communities are clearly separated, not just by the lake, but also by other urban uses downstream the river. The university campus in the SE and some scattered industrial areas are the non-residential uses of the site. The continuity of the open spaces is supported by the vegetation running along the ridge and the safety distances around the lake.
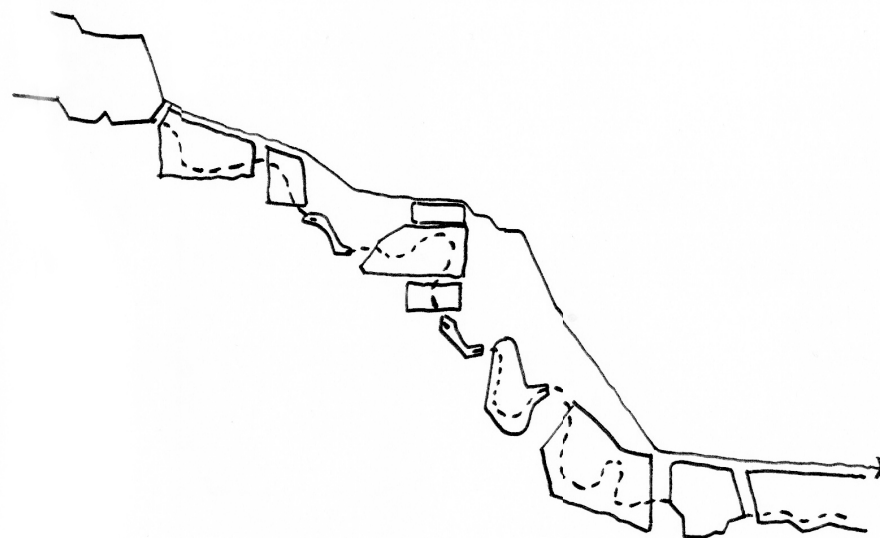
Claudiu Forgaci

Bucharest: Between North and South

Lacul Morii
...in the city
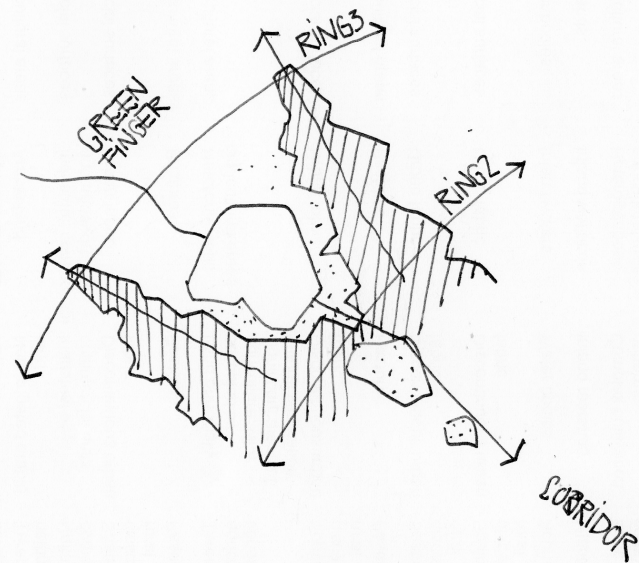
Lake Morii is one of the citie's green fingers between two of major radial urbanized areas. In fact, it seems to be a green finger, but it is part of the corridor, more important than other green penetrations in the city (except the corridor of the other river, Colentina).

...in the valley

This 'green finger' represents the interface, entrance of the outer environment into the West-East corridor.

...at Lacul Morii
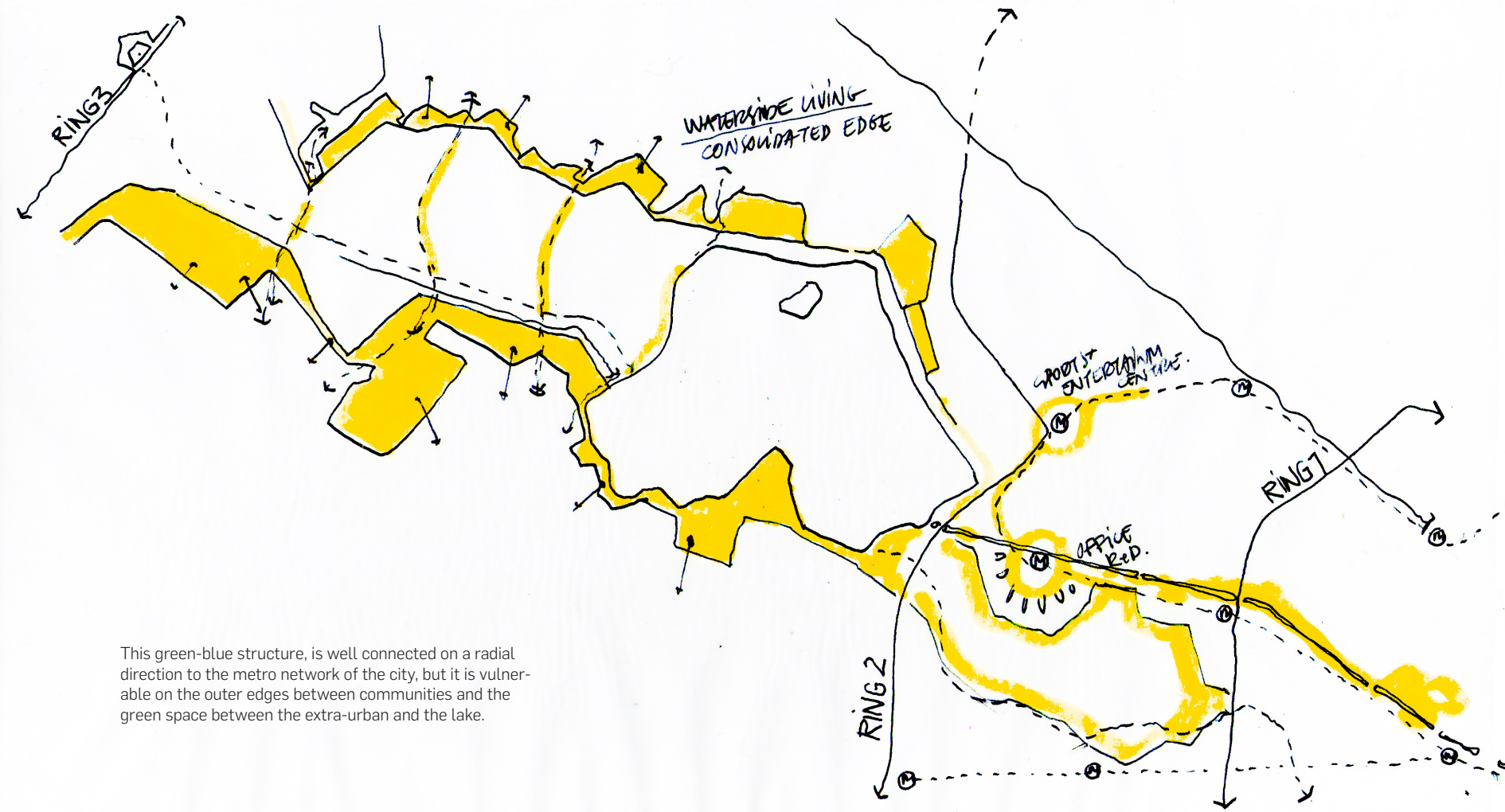
This green-blue structure, is well connected on a radial direction to the metro network of the city, but it is vulnerable on the outer edges between communities and the green space between the extra-urban and the lake.

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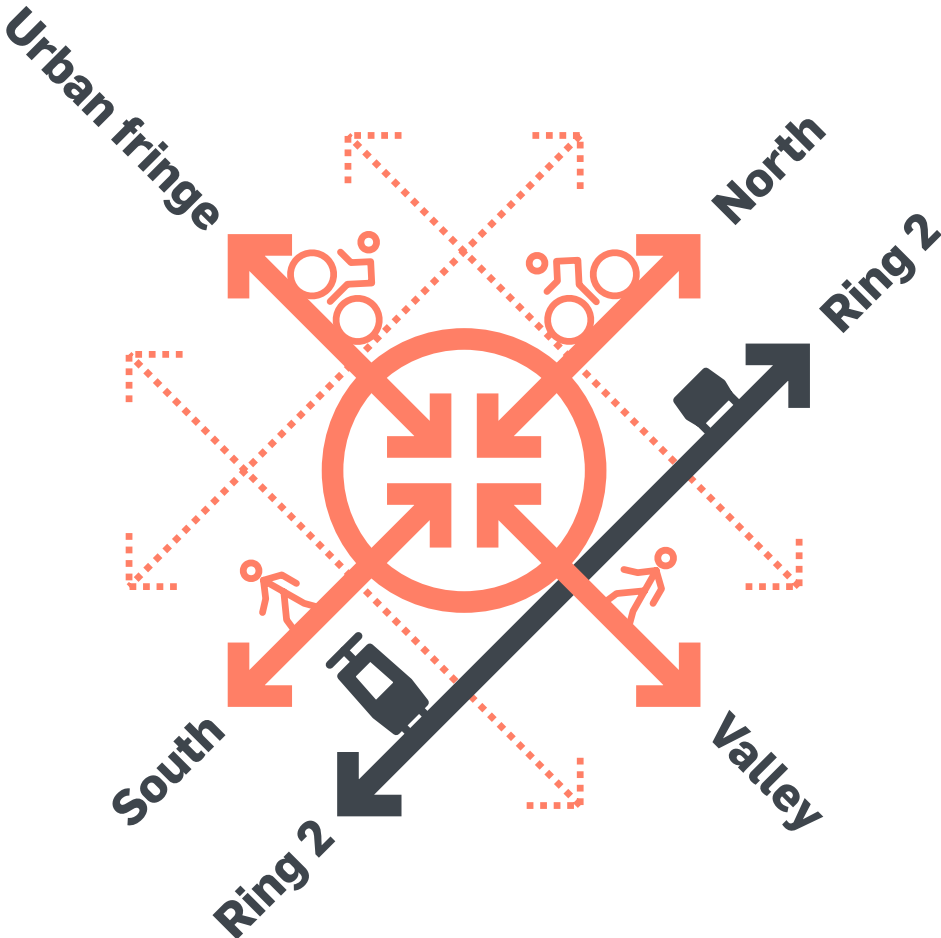
Bucharest: Between North and South

The water city
Existing structure

Existing local cross
connections are weak, due
to the site's peripheral
position in the city. Still it
is well connected to the
second Ring and the road/
public transport axis along
the river.

Ring 2

Ring 2

Dambovita
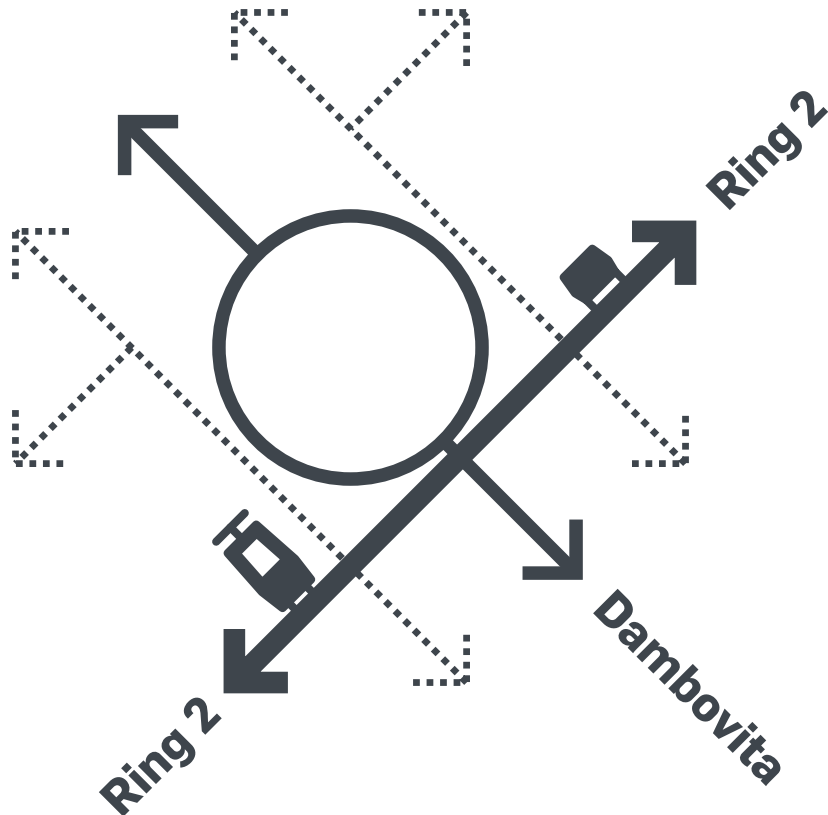
The water city
Proposed structure

By transforming the lake
into a destination and
by integrating it into the
general structures of the
strategy, local connections
are encouraged in the
proposal.

Urban fringe

North

Ring 2

South

Valley

Ring 2

Claudiu Forgaci

Bucharest: Between North and South

The water city
Existing situation

With its large, inaccessible
and abandoned spaces,
lake Morii is still a poten-
tial for its enforcement
as a natural structure
penetrating the edge of
the city.

GIULESTI
STADIUM

DÂMBOVIȚA

CAMPUS
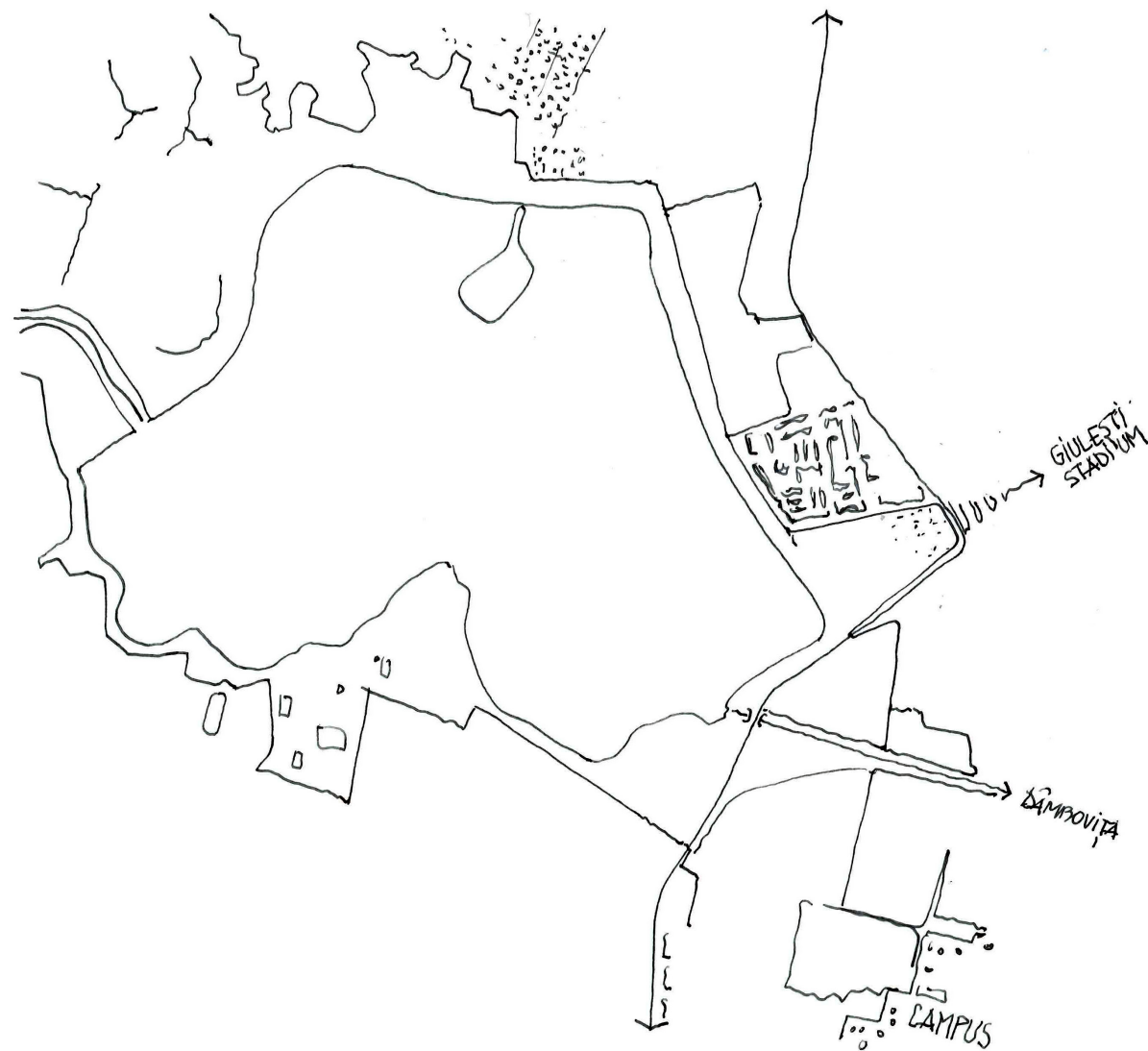
The water city
Proposal

The proposal aims to
integrate and strengthen
the public and residential
uses around the lake. The
identity of each different
area is preserved and
integrated into a mixed and
flexible programme. The
Lake becomes the 'Water
Park', integrating educa-
tion, entertainment, sports,
recreation, nature, water
mobility and waterside
living.

GIULESTI
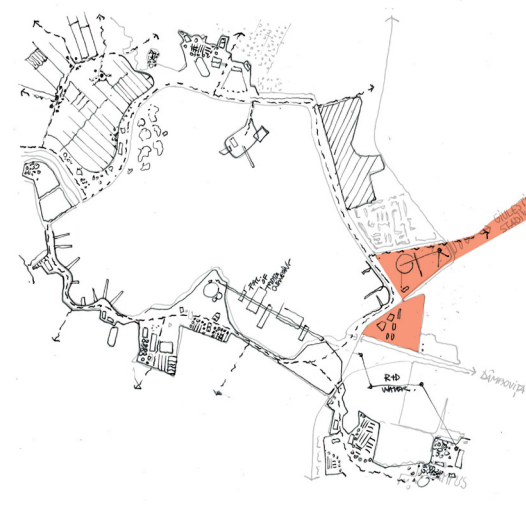STADIUM

DÂMBOVIȚA

R+D
WATER

CAMPUS
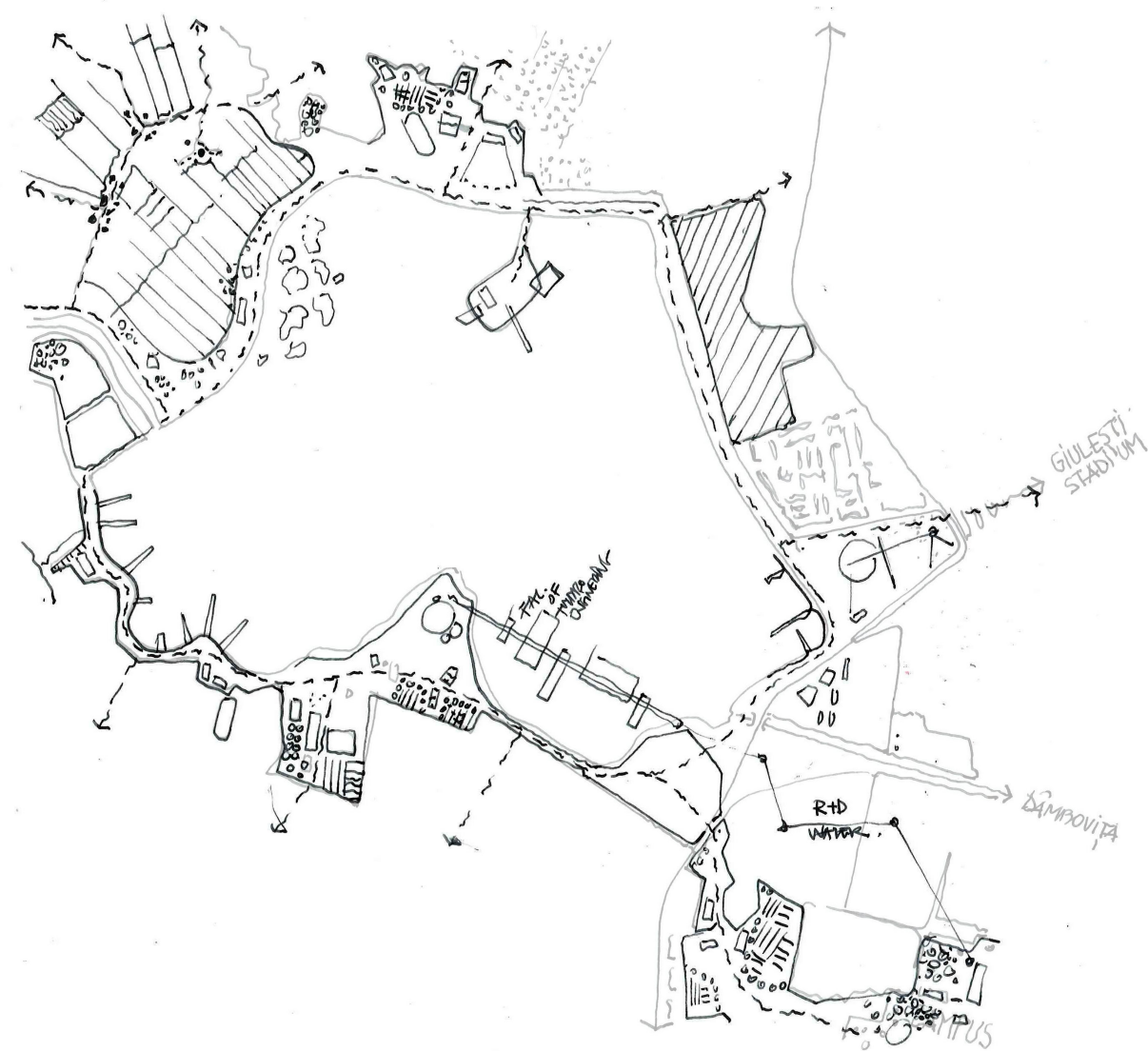
The ridge structure of the valley, together with the gardening, sports and leisure uses overlap with the Southern edge of the lake. Bicycle accessibility is provided on the whole perimeter of the Water Park.

The agriculture and wetland in the Western side of the lake are preserved and supported by fishing activities, nature watching, hydro-culture and small scale farming.

The politechnical campus is merged with the existing office park into a Research and Development cluster, extended and represented by the faculty and research centre for Hydro-engineering on the lake.

Giulești stadium, in the proximity of the lake sends sports activities with a green structure to the Eastern edge of the lake.

The existing island started to host festivals during the summer. The proposal brings this further and provides the conditions for a permanently available entertainment cluster.
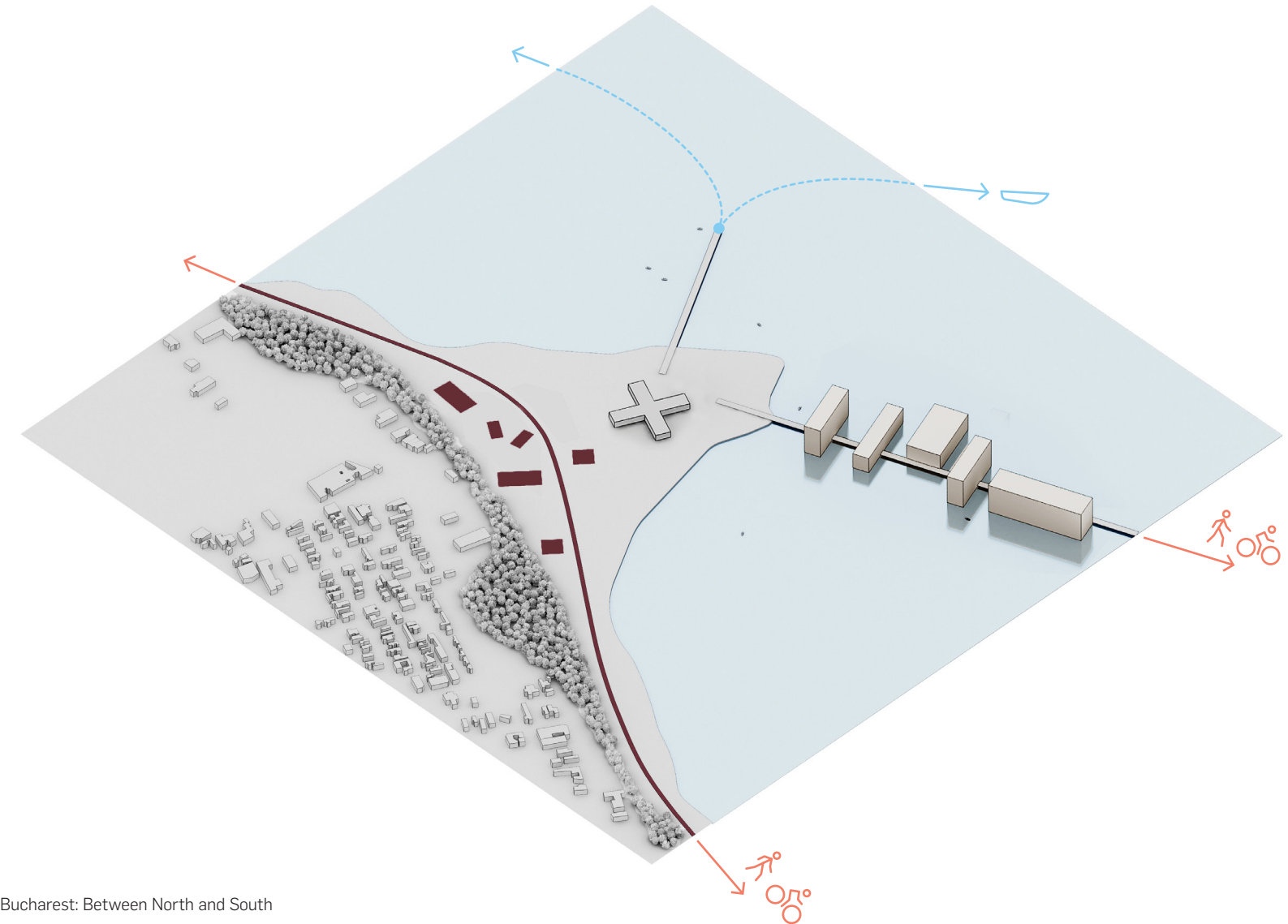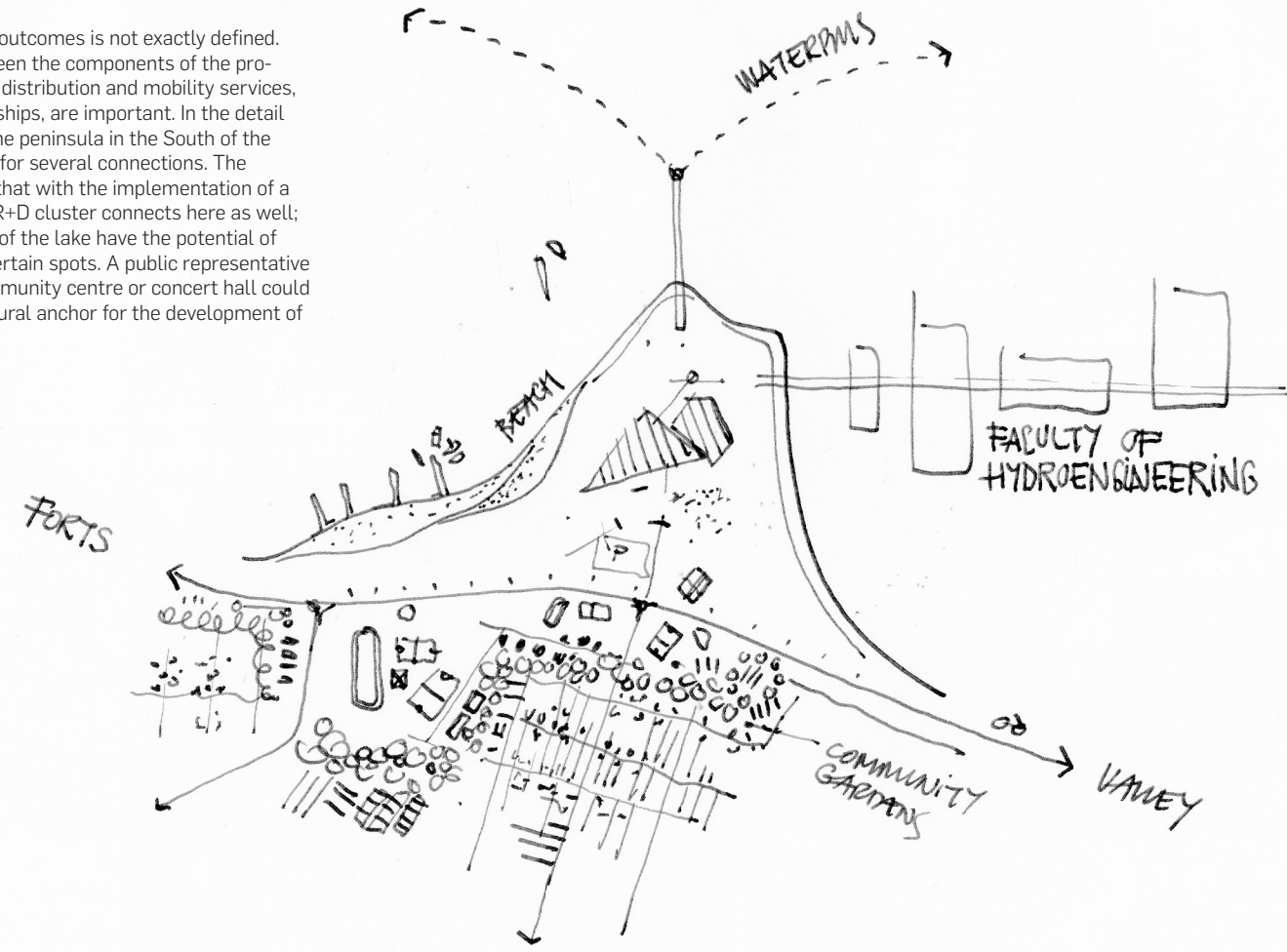
The edge of the lake is 100% accessible to the public. This is supported by the integration of small public space services (commercial activities, safety, health, etc.).

The exact shape of the outcomes is not exactly defined. The relationships between the components of the proposal are. Thus, spatial distribution and mobility services, enabling these relationships, are important. In the detail shown in the drawing the peninsula in the South of the lake is a meeting place for several connections. The water itself is used for that with the implementation of a water bus service; the R+D cluster connects here as well; and the concave banks of the lake have the potential of becoming beaches in certain spots. A public representative function, such as a community centre or concert hall could be used as an architectural anchor for the development of this side of the lake.
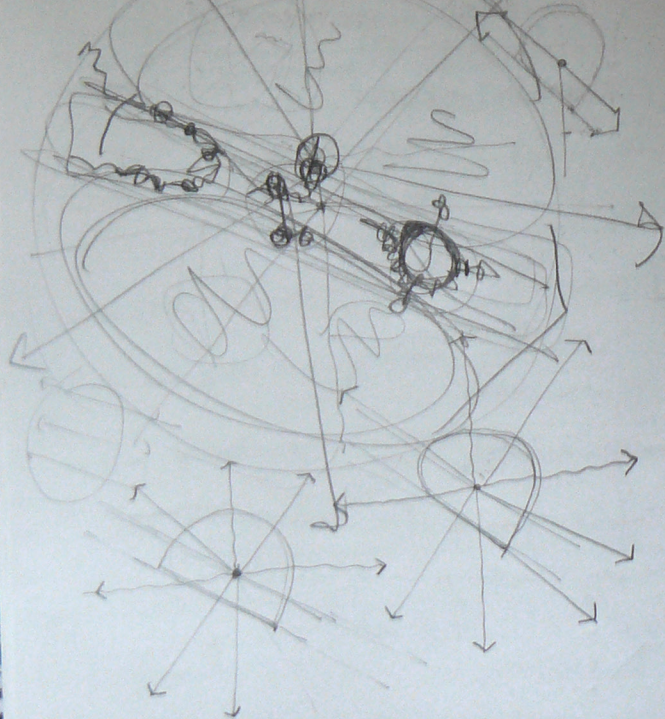
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North and South structure

Can we speculate than on how the three case studies contribute to the interaction of North and South? How is the structure of the city reorganized by the new valley?

If we imagine that the valley is an urban structure containing various projects meant to improve the quality of the urban environment, we can assume that the organization of the city will be reoriented along the West-East direction, leading to a different urban structure that interacts with its wider territory in a more synergetic way.

Existing structure

Possible structural transformation
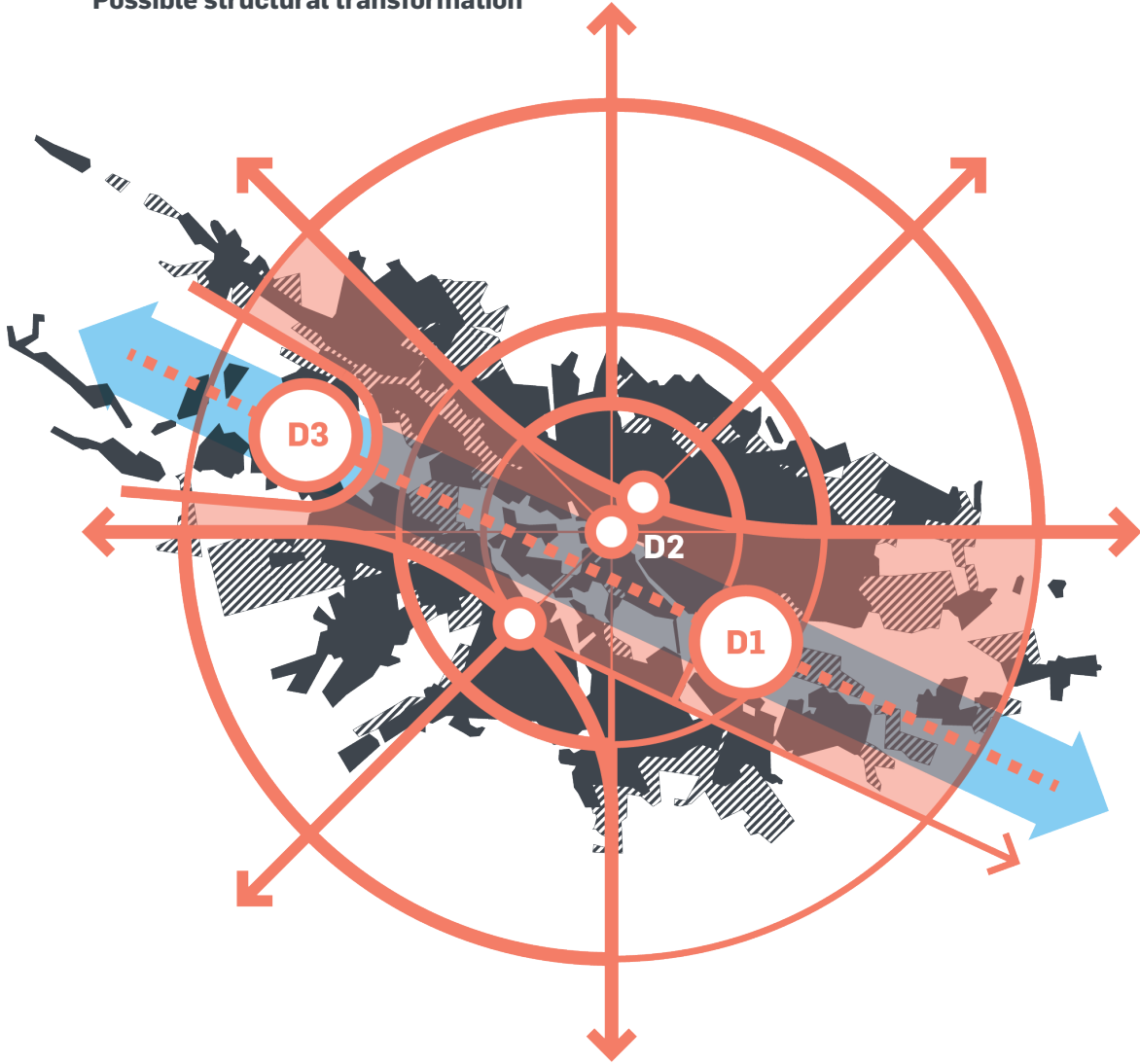
The valley as a separate spatial entity connecting the spaces resulted from the unfinished projects of the city.

Urban transformations in the post-communist transition process supported by a spatial and socio-economical vision.

A city structure that negotiates the West-East linear structure of the territory and the radial-concentric configuration of the city.

Reflection

The three case studies, concluding this study, are simulations of a myriad of possible spatial outcomes. So, maybe not so much the spatial consequences, but the principles involved in guiding them are important. This is why these last lines are not conclusions, but a reflection on a process, on the applicability of the pr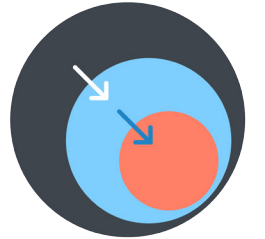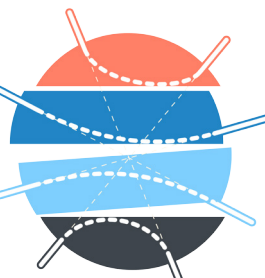ocess to wider urban contexts, or even on the profession itself. So how does this study position itself in the debate on how we perceive and work with the contemporary city? How does it generally speak about divided cities, about post-communist cities? Can or should this 'treatment' be repeated in other places? What is the role of morphology in a networked society? What kind of tools are used here that can help us work with complex urban environment?

Thus, the relevance of this thesis lies not just within the borders of the intervention, not just in Bucharest itself. We must learn from one city and make that particular knowledge available to others, and vice versa. Bucharest is not just a post-communist city, it is also a Balkan, European, even a Global city, a round city, a flat city, a city with a moderate-continental climate, and so on. The specificity of a city is born at the superposition of all these groups or types. This is important because we, as research, planning or design professionals of the city, have the responsibility to understand and regroup them, and to make that knowledge available to other cases as well.

So before moving away from the case of Bucharest, let's question this project and its relevance to other divided or post-communist cities. We learned here that communist regimes usually leave behind large structures and spaces that very often have a conflicting relationship with their environments. The answers that post-communism must give to these preconditions have to be as strong (or radical) as the preceding communist interventions. This didn't happen in the case of Bucharest, but it did, for instance, in the case of Berlin. Where once the wall separating East and West was, important transformations have happened that provided the contemporary city with plenty of public space and centralities. Slower or faster, post-communist cities had more or less the same transformation patterns. However, what this thesis emphasizes is that post-communist transformation is not only about adaptation to capitalism, to new socio-economic patterns, but also the understanding of the specificities of urban form, for every separate case. Post-communism shouldn't be a process of mass-production or copying of capitalism, as it partially happened in the detriment of urban identity of Bucharest. Thus, what we can learn from this divided post-communist city is that they have a high spatial potential (land availability), that their barriers have to be transformed into places of interaction and that the instruments have to be not just socio-economic but firmly spatial as well.

Therefore the subjects tackled in this thesis require a wider reflection on how the specificity of a place can be read. First, territorial synergy refers to the quality of interaction between city and nature. More than ever, we live in an urbanized (and urbanizing) world that is in a growing tension with its environment. Not just the depletion of resources, pollution and, in consequence, climate change are to be addressed here. Our spatial relationship with nature is equally important. Undefined urban fringes, deforestation, lack of protection, resistance to natural dynamics, are just a few such relational aspects that have a rippled effects on the larger environment. More and more, the city is considered sustainable only if it's resilient with its environment. We learned from the case of Bucharest that the floodplain of Dâmbovița, even though canalized, controlled, systematized and fragmented, still maintains its natural traces embedded in the structure of the city. Maybe it is not a floodplain anymore, but it is a safe valley that still has a different vegetation structure, fauna and subtle topographic features. Briefly, it represents a unique natural asset for the city. Still, the fact that it is not structurally embedded by urban structures, but almost neutralized with a radial-concentric structure, contributes to several conflicts, such as the phenomena of urban divide. Thus, the mission of future city planners, designers and builders, must put the structural importance of this corridor on the front of their agenda.

This, however, doesn't mean that existing structure need to be replaced. They must be understood and built upon. Here we can imagine that nature represents the world of topography while the radio-concentric structure is the representative of topology. In my opinion, the radial-concentric structure is the expression of the fact that Bucharest is an articulator of networks at several scales. It is the answer to the demand for connections of a capital city. But networks don't necessarily need to follow the same spatial and invisible structure of relationships. It is not even possible to do so to the full extent of their rhizomatous configuration. The spatial expression of these networks, the infrastructure itself, must mitigate spatial (topographical) and networked (topological) relationships.

The second theme suggested here is the use of scale and limits (alternatives to barriers) as research and design instruments. Scale, both in consciously planned and historically emerged urban structures, is very specific to post-communist cities. Still, if we consider it not just a spatial device, but also a measurement unit for the city as a topological mechanism, it becomes a strong tool of analysis in any contemporary urban context. Similarly, the limit represents a system of relationships. Just as the ecotone or ecocline in ecology, it is characterized as a place where relationships between two neighboring systems are the richest. Existing borders, like the Dâmbovița of Bucharest, have the potential of being transformed into such a limit of interaction. This is, again, an urbanist's task. Connecting broken urban patterns, improving the transition between scales, transforming spatial barriers into areas of interaction, are some of the operations undertaken in this thesis with the two concepts.

Just as in the concepts used to employ scale and limits in the design process, metaphors help to deal with complexity. We cannot grasp the detailed extent of many issues that we study, but we can synthesize them in metaphors, concepts, that are not necessarily architectural, urbanistic or spatial. The Matryoshka system, described at the beginning of this book is an example of how systems of relationships and scale can be related to spatial organization, without being taken per se as dolls nested in each other. It rather helps to establish a position towards the problem of scale and to translate that problem into a design task.

To sum up, even though it has a strong morphological mindset, this thesis is an attempt to work with conflicting and potential relationships. It builds upon a structural and spatial outset, but tries to support and measure those structures in destinations. Scale, limits of interaction, topology, are all telling a story about relationships, and, by having scale in this succession, about the relativity of those relationships. So, to return to the ideas launched at the beginning of the thesis: what is human scale? Where does architectural scale end and urban scale start? How does the global incorporate the local? These are still open questions, but at least framed and speculated in a case study: Bucharest, a city born between Orient and Occident, but divided between North and South.

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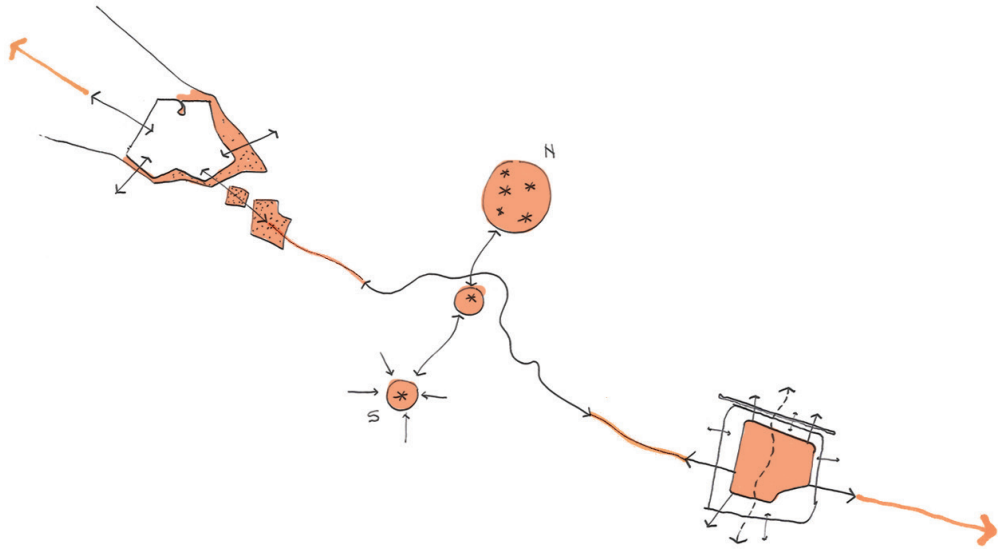
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