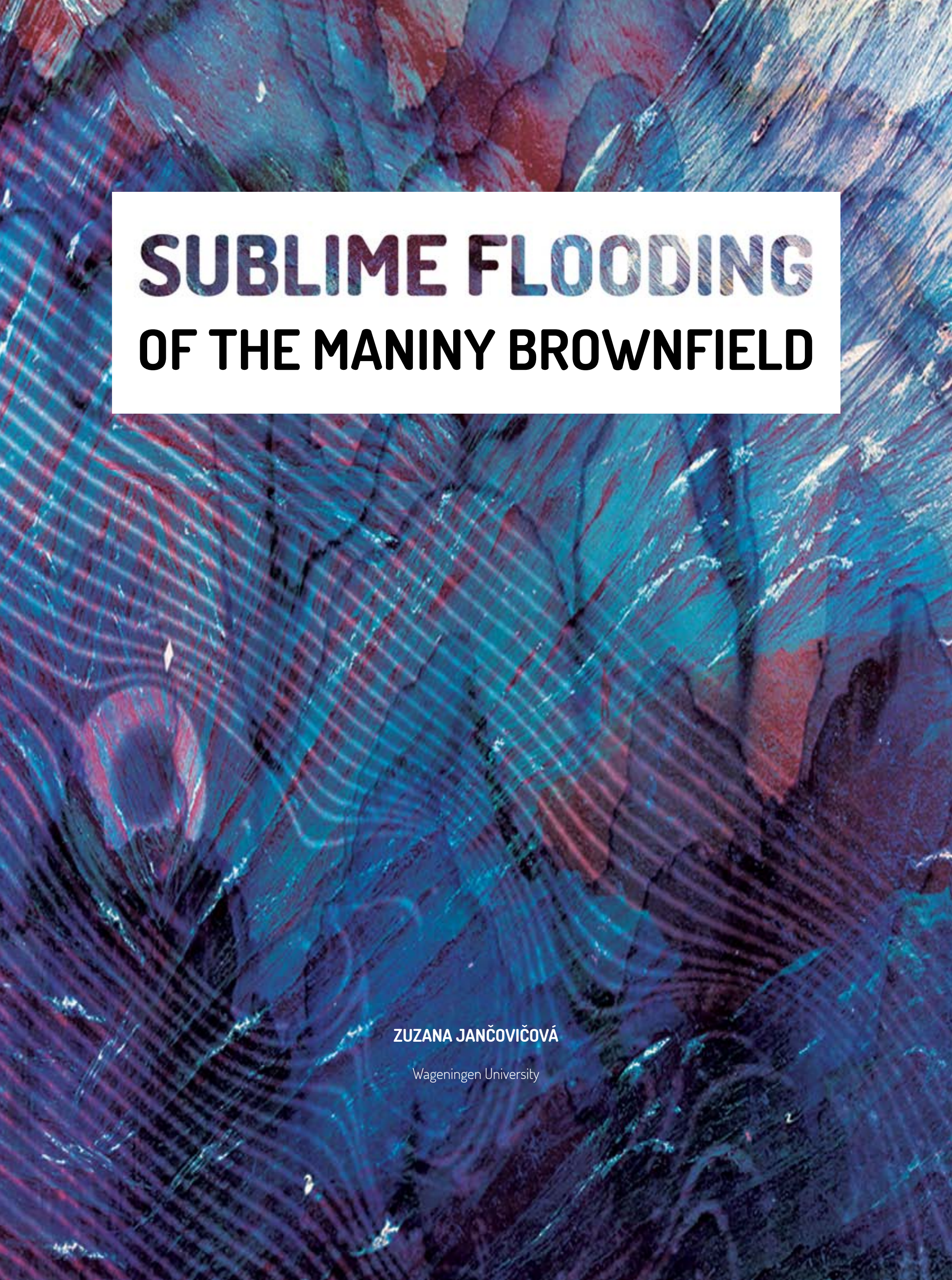

SUBLIME FLOODING
OF THE MANINY BROWNFIELD

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Wageningen University

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Awaking a sublime sensation by sustainable brownfield re-development

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This publication is written as a final master thesis report by order of the chairgroup of landscape architecture at Wageningen University.

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ACKNOWLEDGEMENTS

Thesis writing is a process. It is a learning curve of creation and reflection. Like everything in the life, the path of greater aim has its ups and down, which would be difficult without good people around. This way I would like to express my acknowledgement to all people who walked this long way with me. Dear friends and family, thank you for your endless support and great comprehension. Paul Roncken, thank you for your unbreakable patience and challenging guidance. VISTA colleagues, thank you for inspiring work environment. Katarína Jančovičová, Gilles Havik, Michael Schultz, Johanna Gutleben, Waeil Haider, Diana Lukjanska, Irina Hotkevica, Naiara Valcarlos, Eva Šimaková, Thomas Brabbs, Felix Krussmann and house Droef 99, Thank you.

Yours,
Zuzana Jančovičová

PREFACE

Water plays an important role in our existence. Without water there is no life. Our desire to live adjacent to water does not reflect only our physiological needs, but as well our cultural heritage and historic settlement patterns. Early age villages already followed and relied on the rivers and its resources. Because large water bodies are dynamically integrated in our biosphere and living space, water can be the best friend, however it can also grow to become a major threat. In the history our settlements and structures accommodated water, were resistant to flooding. Only recently in human history have we sought to find solutions that protect land through the engineering which rely on concrete to eliminate flood risk. The technological progress made us believe in our mastery over nature. And we keep building on the floodplains and the flood-prone areas. Because our climate is changing, we live in the constant risk of even greater floods. The challenges we face now should drive us back towards embracing the previously dynamic relation between land, water and communities. We should become aware of the potential danger water poses over us and thus to be respectful towards it by all the means.

SUMMARY

The communistically marked Prague (Czech Republic) is a city with great potential for a better urban future. Floods are the primary sculpting natural force which have changed the program and identity of the city many times. The topic of this master's thesis deals with the aesthetic category of the sublime and its contemporary reading of flood aesthetics. It provides a theoretical and a design framework in developing a brownfield re-development project, which deals with natural and man induced disturbances. The main purpose of this master's thesis is to examine how the aesthetic category of contemporary sublime can be relevant to the design of dynamic interrelationship between the city of Prague and its river Vltava. Explorative methods are used in order to investigate symbols and metaphors translating the unpresentable aspect of potential flood danger into the practical design interventions that serve safety purposes and the aesthetic character of the area. As such this master's thesis contributes to the up-to-date discourse about the value and the definition of the aesthetic experience in landscape designed sustainability.

Key words: sublime, flooding, brownfield, landscape experience, Prague

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GLOSSARY

AESTHETICS

Philosophy that studies dimensions of human sensory perception and cognition.

AESTHETIC APPRECIATION

The process of making meaning or understanding of phenomena by means of embodiment.

AESTHETIC EXPERIENCE

An immersive experience of deep mental and bodily engagement of an individual with a phenomenon. Digested response (positive and/ or negative) to perceptual qualities based on emotion and/ or knowledge. Result of act of aesthetic appreciation.

AESTHETIC OBJECT

Perceived physical matter of aesthetic appreciation or physical representation of phenomenon.

AESTHETIC QUALITIES

Perceptual properties of object or phenomena perceived by individual.

AESTHETIC RESPONSE

Positive or negative response to perceptual qualities based on emotion and/ or knowledge.

APHASIA

The dysfunction in the brain to create associations or language, when the absence of immediate depiction (the lack of context, perceptual void) is encountered.

APPERANCE

A combination of physical characteristics and sensory qualities of object.

ATTENTION

A mental faculty of individual to apply thoughts or energy to something or someone. Being present

BROWNFIELD

A devastated former industrial or commercial site located in an urban environment appointed for the future re-development.

CONSCIOUSNESS

A person's psychological state of awareness.

EMOTION

Complex response of an organism, which automatically engages and modulates many different psychological and physiological parameters (Karmanov, 2009).

FLOOD MITIGATION

Action taken to reduce or eliminate long-term effects of the flood hazard on human and his property by slowing down, absorbing, directing and storing flood water (FEMA, 2014).

GREEN INFRASTRUCTURE

A system of united and integrally connected natural and semi-natural green areas at the scale of the city, which provides a number of social and ecological benefits as for example flood protection, clear air, clear water, habitat provision etc.

IMAGINATION

The mental act of individual to reach beyond the beliefs and knowledge.

LANDSCAPE

The elusive physical and cultural concept, as well as the multifaceted scientific and artistic concept. Landscape is a complex open system of natural and social dynamics. Landscape is our mind and our body (Koh, 2013). Landscape is a cultural conception, where human beings not only construct and manage landscapes but they also look at them and make decisions based upon what the individual sees, knows and feels (Nassauer, 1995). Landscape is not just a system/process but also an embodied experiential phenomenon (Koh, 2008).

METAPHOR

Figure of speech denoting one idea in the place of another one, where analogy between them can be found.

NATURE

A life source, the forces and elements bigger than us.

PERCEPTION

The sensory encounter of the individual with an environment conditioned by one's cognitive stock, worldview, cultural and/or historical context (Brady, 2003).

PERFORMANCE OF APPERANCE

Act of altering one's mental state on bases of physical characteristics and/or sensory qualities of the object.

PHENOMENON

Thing or event presented to the mind of individual via perception. The phenomenon is made palpable via physical objects.

SENSATION

An immediate physical response of a subject resulting from something that happened or came to contact with the body.

SUBJECT

A person engaged in process of aesthetic appreciation.

SUBLIME

Quality or combination of qualities which afford paradoxical sensation. The sublime is an idea by imagination, where the reason and intellect of superior mind help to resolve struggle of absence or unfamiliarity of the external source. The unpresentable (see further in glossary) is the basic condition for such an experience. The sublime is flow of emotions and understanding, combining heightened physical sensations with an impressive intellectual realization (Roncken, forthcoming) which relates to the one's morals and an inbuilt ethical law, as it enables one to be proud of him/herself and gain in respect for external source.

SYMBOL

A sign or representation of an object or phenomenon, which lacks clear meaning when perceived only on its own means. This means that the different cultures or time periods may have different interpretations of a given symbol, or they have assigned different meaning to a certain symbol.

UNPRESENTABLE

The distance between what is experienced and how it is interpreted by the individual. Negative representation, the absence of immediate depiction, express not the object but instead the 'idea' that is concealed by the object (Roncken, forthcoming). It is a perceptual void that needs to be interpreted by a person's intellect and/or imagination.

INTRO: RESEARCH CONTEXT

The first part of presented thesis provides an introduction into the research context by paragraph on philosophical framework (the general line of thought that initiated and framed the work) and research introduction, which gives a clear notion about the problem statement, research objectives, research question and methods used during the working process.

1.1. PHILOSOPHICAL STANDPOINT

When we look at the design challenges current landscape architecture has to deal with (e.g. climate change, soil degradation, depletion of natural resource, social inequality etc.), there is no wonder that the ecological approach to design dominates our discipline today. Environmental problems became global in scale where concept of sustainable development derives from fundamental concern for the human society and its need for security. Fragmentation and pollution of the human environment in late 1960s and 1970s drove the formal foundation of the scientific turn of landscape architecture when ecological approach in design and planning has risen (Hauxner, 2011). This was pioneered by book such as *Design with Nature* by Ian McHarg (1969). During the late 90's, in the globalized world under the pressure from climate change and to the recognition of the human impact on the living environment, *nature became a top priority* (Hauxner, 2011: 71). The world leading conceptualization of sustainability became a matter of course in our era of financial crisis, geopolitical instabilities and digital revolution. Due to the current stage of nature and society, the ecological processes and sustainability are taken for granted. Today's landscape design is generally understood in relation to 3 principles of sustainability being such as *ecological health, social justice and economic prosperity* (Meyer, 2008). Landscape architects deal with and reflect upon sustainability in their designs, where the ecological aspect is a strong focus point (Meyer, 2008). Ecological design, based on scientific knowledge, is used as a tool for nature repair and conservation (Koh, 2008). It might seem that ecological restoration and elimination of human impacts on the environment became the main tasks of landscape architecture today. However, the concept of sustainability should not be only a general term for ecological cycles and technologies but it should also reflect our relationships, feelings and empathy towards our environment and ourselves. *It is important to expand the concept of sustainability beyond the ecological health realm into social practice and to the cultural sphere.* Landscape design *must perform socially and culturally in order to be sustainable* (Meyer, 2008: 16), because *culture changes landscapes and culture is embodied by landscapes* (Nassauer, 1995: 229). *To deal with landscape sustainability is to deal with landscape as aesthetics as well as the science* (Koh, 2013:11).

The point I want to make here is not to oppose the importance of ecological approach to design, but to make a remark from which landscape designed sustainability can benefit. Many experts argue that *ultimately human behaviour has to change in order to reduce environmental impact* (Jacobs, 2012). Therefore the culture at the level of the individual comes into scope. When creating for better future we pose our design decisions upon the general public. We directly influence the lives of other people in all its states of being. From the ontological point of view, our design decisions do not influence only the matter or powerscape of landscapes, but as well the mindscape, where the psychological inner reality of the individual comes to stake. Inner reality is constituted by the consciousness or state of mind, which involves our experiences, imaginations and associations (Jacobs, 2012). *The designed landscapes of the world take up a small amount of the globe's surface. Yet they are visited and inhabited by people who have a great impact on the environment in everything they do – where they live and how they commute, what they consume, and whom they elect to public office. The influence of designed landscapes might be much larger than their immediate influence on a local ecosystem* (Meyer 2008: 21).

The American environmental aesthetician Elisabeth Meyer (2008: 6), points out that the *aesthetic factor*, where the aesthetics understood as the philosophy of human experiences, *is rarely discussed in the sustainability discourse*. According to her, the intellectual and ethical agency of aesthetic experiences is being ignored. Meyer (2008: 7) argues that there is a little regard to *performance of appearance* in the current discourse of landscape designed sustainability. It appears that landscape's psychological effects on human beings and its metaphysical reference to things behind time and place are being ignored while referring to the sustainable designs. Even masters such as Olmsted, Capability Brown or Le Nôtre, believed in transformative abilities of landscape and its power upon the psychological state of individual. Olmsted trusted in deep responsive interaction between humans and their biotopes upon which the constant action and reaction between bodily and mental conditions take place (Olmsted 1995 in Roncken, Stremke, & Paulissen, 2011).

Because the appearance of landscapes communicates, it is important in our time of transition, to consider design as a tool which can help with restructuring priorities and values. The consideration of individual aesthetic experiences in the sustainability discourse can help to design in such a way to alter individual consciousness and thus to lead to recognition, empathy, love respect and care for environment (Meyer, 2008). *Designed landscapes should provoke those who experience them to become more aware of how their actions are affecting the environment and to care enough to make change* (Meyer, 2008: 6). Because to *see and experience is to know, and to know is to care* (Koh, 2008). By understanding aesthetic interaction between human and environment, we can design the landscape which will have positive impact on individual's psyche and vice versa. I believe that landscape architecture is a brilliant tool to provide places, which challenge human perception. We need to do it in order to alter people' s consciousness by creating more personalized environment, where mutual exchange and engagement between man and land is sustained for the good of life.

1.2. RESEARCH FRAMEWORK

1.2.1. Research context

This master thesis was developed as a part of the *Landscape Machine* group, the design research laboratory of Wageningen University founded by Paul A. Roncken in 2012. The group provided a participatory platform with and for students, where different topics related to the research and design were discussed. Regular monthly meetings stimulated development of fresh ideas and conscious interest in conceptualizing theories and methods for creation of living landscapes with productive qualities. The introduced thesis is related to the general concept of *Landscape Machines* from the perspective of aesthetics, of which *underlying artistic principles are agrarian rather than architectural and its aesthetic foundation is more sublime than beautiful* (Roncken, Stremke, & Paulissen, 2011). The presented work explores the value of the aesthetic experience in the sustainable redesign of the neglected everyday landscape.

1.2.2. Problem statement

As could be sensed from the philosophical statement introduced earlier (see 1.1), the problem assertion underlying this thesis work relates to the sustainability discourse and its need for expanding beyond the ecological realm into the cultural sphere. Meyer (2008) suggests that this combination is necessary for landscapes to be truly sustainable. The aesthetics, as a philosophy of human sensations and culture at the individual level, is rarely discussed in the sustainability discourse. However, if it happens and aesthetics is taken into consideration, it is usually conflating with the visible where beauty and positive sensations have become canons of an aesthetic life. Next to the neglect of the potentially negative forms of the aesthetic value (Brady, 2010), the *performance of appearance* (Meyer, 2008) is seldom regarded to in the cultural landscapes created today. This means that the contemporary landscape architectural practice pays rather little attention to what design can do upon one's consciousness. Or in other words, the relationship between the physical properties of landscape and its perceived experimental qualities are rarely discussed in relation to the landscape designed sustainably. Despite this obvious interconnection and relevance for landscape design there is little theoretical background acknowledging the performance of appearance in relation to sustainable landscape perception. Literature suggests that the aesthetics and embodied landscape experience are important in the sustainability discourse however, it does not address how and what should be designed to ensure sustainable landscape perception.

1.2.3. Hypothesis

Because sustainable landscape perception involves conscious response and engagement with the environment, the aesthetical category of the sublime becomes a possible answer to the question what and how to design to ensure such a connection. It is supposed that the performance of the sublime appearance has the best ability in altering one's perception and psychological state, as it involves strong emotions and curiosity. The felt quality of the sublime provokes those who experience/ encounter it to becoming more sensitive to what landscape affords in their immediate everyday atmospheres. The sublime with its paradoxical structure becomes an instrument in making of meaning and thus a relevant part of the landscape designed sustainability.

1.2.4. Knowledge gap

As already delineated in the *Problem statement* (see 1.2.2) the appropriate theoretical body studying the relationship between the physical characteristics and the sensory qualities of landscape and translating them as design material is lacking. This knowledge gap is noticeable even more when referring to the sublime theory, as the concept was never a subject of empirical research (Karmanov, 2009) or a consciously leading matter of any real project. The number of interpretations and high

degree of abstraction in the sublime theory results in its low practicability for the landscape architectural practice. The lack of a verified design framework and methodology related to this aesthetical category with regard to physical properties and their expressiveness frame the knowledge gap.

1.2.5. Research objectives

The introduced thesis aims to explore a practical application of the 21st century re-definition of the aesthetic category of the sublime in developing a project of brownfield which deals with natural and man induced disturbance. A contemporary reading of the sublime provides a set of methodological and design principles which are tested in the context of Maniny brownfield (Prague, Czech Republic). This location became the 'laboratory' ground on which the ambition to restore the imbalanced relationship between the city of Prague and its river being tested. The design proposal seeks to create for the landscape sensation, where the imaginative aspect of the site is enhanced by intentional flaws. The ultimate goal of the design is to make visitors aware of the water presence and make them recognize suggestions of its potential flood danger.

1.2.6. Purpose statement & Relevance

The main purpose of this thesis is to investigate a possible design application and the responsibility of the sublime theory in sustainable brownfield redevelopment. The relevance of this project can be seen in its conceptuality and attempt to grasp the unpresentable through artistic imagination. The possible practical significance lies in the increase of environmental awareness, where the imagination of the potential threat might be considered an important part of the city safety concept.

1.2.7. Worldview & Theoretical lenses

Because the researcher is the only reference to the qualitative research such this thesis work is, the specification of the worldview and the theoretical lenses is important as they are crucial pre-conditions of the research character. As Creswell (2009) states, the philosophical worldview is a hidden set of beliefs and values which influence our research agenda. As can be sensed from the research objectives, the human experience is an important topic; the constructivist worldview can be seen as an invisible base behind this thesis work. It focuses on human and culturally grounded perspectives, which are influenced by personal attitudes, beliefs and interactions. Constructivists believe that the individuals develop subjective meanings by engaging with world they are interpreting (Creswell, 2009). This is why the personal experiences and the aesthetic components of the landscapes became the subject of constructivist research. As the constructivist research methods are open-ended and make use of the alternative strategies of inquiry (Creswell, 2009), the subjectivity of research is inescapable.

The landscape approach to design, as a *distinctive and coherent method* (Koh, 2013), influenced the theoretical lenses, through which this thesis work was approached. The landscape approach defines the design for human experience of landscape as one of the key tasks of landscape architecture. It states that the landscape is as much science as our bodies, through which we perceive this dynamic and open phenomenon (Koh, 2013). The view on the theory and the research methods was influenced by this notion.

KIND OF NEW DESIGN KNOWLEDGE	Suggestive/ Individual meaning/ Contextual/ Qualitative/ New artefacts, projects/ Making tacit knowledge explicit, procedural
ISSUES THAT RESEARCH QUESTION ADDRESS	Social/ Interpretations and meanings/ New forms and artefacts/ Aesthetics
RTD METHODS	Creative reflection in action/ Personal involvement/ Question driven design process/ Thick description/ Intense designer involvement, immersion/ Systematic reflexive journal/ Triangulation
RESEACH EVALUATION CRITERIA & METHODS	Originality/ Dependability/ Transparency/ Credibility/ Effect on perception and feelings of users/ Shift in values/ Mainly qualitative/ Precedent comparison/ design competitions

Fig.0.: Knowledge claim of constructivist worldview and its implication for research through design (RTD) (Based on Lenzholzer et al., 2013)

1.2.8. Research questions & Methods

The main question that guides the introduced research through design follows:

What is the influence of the contemporary sublime in the design of an appointed brownfield area, which deals with the dynamic interrelationship between the city of Prague and the Vltava River, in the way to maintain both safety and a distinct aesthetic character?

In order to answer main question several sub-questions have been formed:

(1) What are the most influential ideas on the sublime in the course of history?

(2) What is the 21st century sublime in the realm of landscape design?

(3) What is the unpresentable aspect in context of Prague?

(4) What are the landscape aesthetic qualities of appointed brownfield area?

(5) What are the symbols and the metaphors relevant for the design of a landscape that induces the imagination of threat?

Designing is a complex process which captures activities of configuring landscape and lies at the heart of landscape architecture. The process was organized around the combination of research and design which builds the body of this work (research through design). Creswell (2009) states, that the qualitative research process is emergent where the initial research plan cannot be exactly prescribed because the individual phases may shift after the researcher enters the field of exploration, the same happened during this research process. In the design process, different information was used and employed. As an initial phase of the whole design process research for design was used, in order to get familiar with the design area and to understand the underpinning driving factors related to area of interest. The desk study and meetings with experts (Henry Hanson - Czech Technical University in Prague, Martin Skalský- Arnika NGO, and two experts from water management and the spatial planning department of Prague Municipality and Wageningen University) help to initiate thesis work and answer the third research sub-question. The whole design process could be divided into the 5 general phases, being Idea generation, Design, Assessment, Revision and Resolution, which intermingled and shifted between each other according the given needs. Milburn (2003) unites mentioned phases in the *concept-test model*, where design and research merge together.

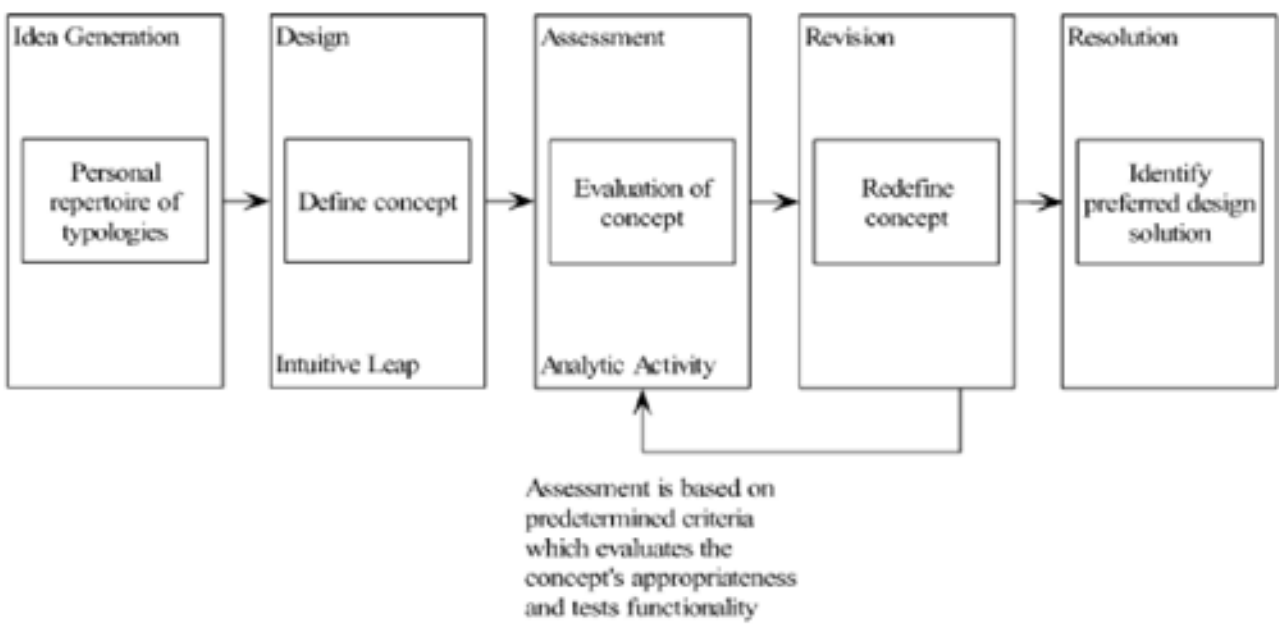


Fig.1.: Relationship between the research and design as identified by the concept-test model (Milburn, 2003 : 50)

In the following paragraph the used methods are generally described. Based on the introduced research sub-questions, different explorative methods were used in order to give an answer to the main research question. The first two sub-questions of this work were explored by means of literature study on topics such as landscape perception, landscape appreciation and sublime aesthetics. The developing theory of the contemporary sublime, with reference to forthcoming doctoral thesis of Ir. Paul A. Roncken (Wageningen University), provided the bases for the theoretical framework and design reasoning. The methods used to answer the fourth and the fifth research sub-question, were intuitive and self-intended, as precise methodology on how to design with the sublime does not exist. The arousal mapping (including emotional and attributes map) and picture reduction were made in order to explore landscape qualities and elements of the Maniny brownfield. The collages, as particular visual art-based research practice, were developed in order to define symbols and metaphors, which could be applied in the further design process. Each of the mentioned methods is more closely described in the part 4. *Synthesis*.

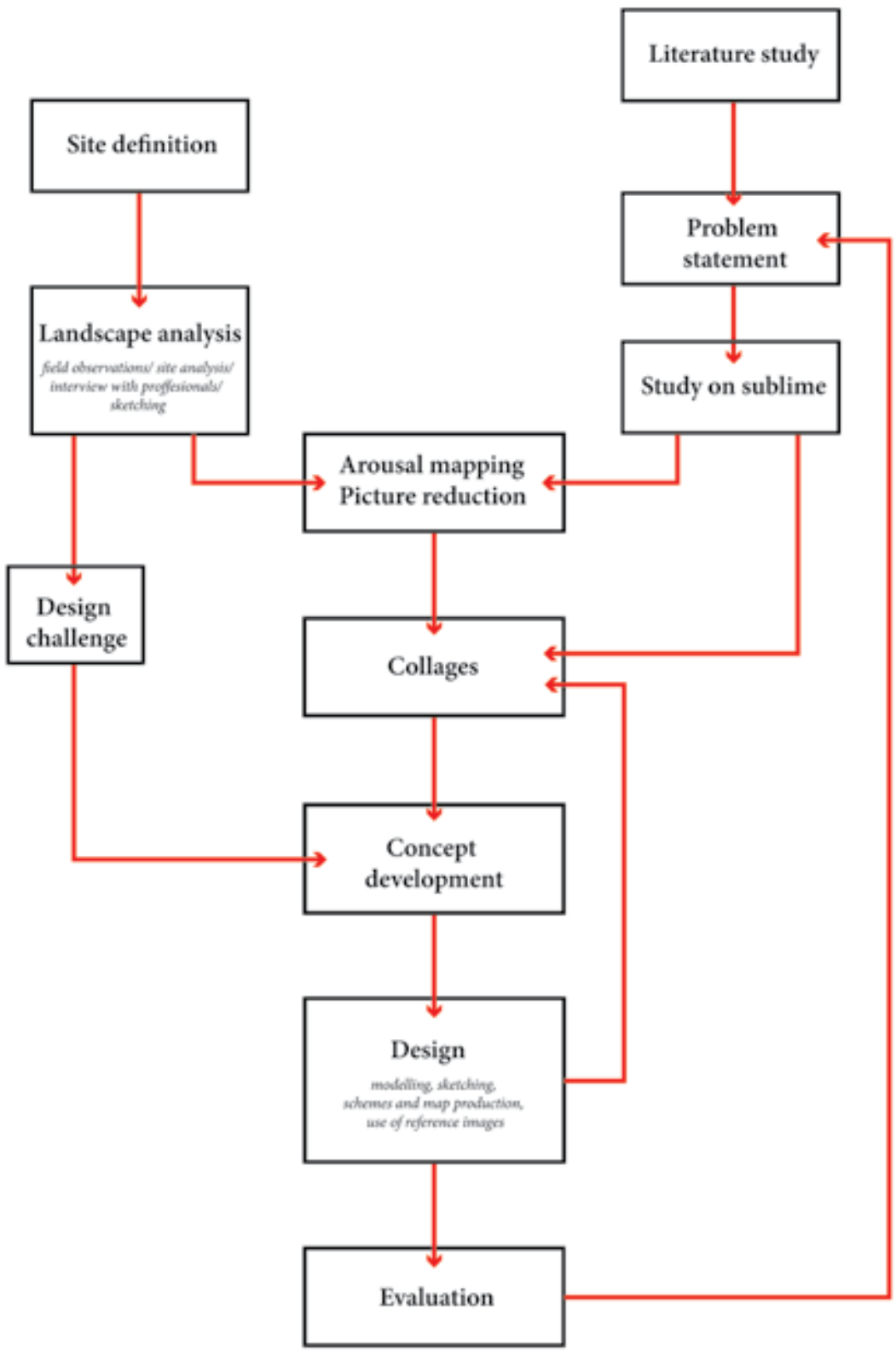


Fig.1.3.: Flowchart of research structure and process

THEORETICAL FRAMEWORK

In order to design for an aesthetic sensation, the basic knowledge related to the topics of landscape experience and aesthetics must be gained. Because the concept of the sublime has been in evolution since the classical era, understanding of the historical context is necessary for further re-definition of contemporary sublime. This knowledge gives us a notion about the undergoing perceptual processes and the specific characteristics of such distinct landscape experience.

THE PERCEPTION IS A CONDITION OF BEING

(Gobster, 2007)

2.1. CITY VS. NATURE

Try to imagine nature. What do you see? Of course, everyone has a different view of nature, which is influenced by many factors, but usually it is a picture of balanced, harmonic, inherently good and threatened entity. The idealised theological utopia of Eden paradise strongly influences our romanticised and in the same time politicized attitude towards nature (Sterling, 2011). In our collective image of nature, we still see it as a phenomenon of the physical world, including plants, animals, the landscape, and other features and products of the earth, as opposed to humans or human creation (Oxford dictionary, 2012). According to Cronon (n.d. in Metz 2011: 79) *paradoxically this imagination completely separates human from the nature, creating dualism between these two phenomena.* Our presence in nature by definition implies the downfall of nature. *The place where we are is the place where nature is not* (Metz, 2011: 79). Scientific knowledge and positivistic ecological values (Brady, 1998) in particular plays dominant role that continue to shape the aesthetic appreciation of nature associated with contemporary environmentalism (Carlson, 2000) and landscape management. This cognitive model of aesthetic appreciation claims that only pristine nature - nature in its natural state - is beautiful and essentially good. However, the pristine, *untouched nature has any real meaning today, given the spread of anthropogenic effects on environments* (Brady, 2010: 29). City and its artificial nature. Artificial not in the sense of plastic trees, but in the sense of the thoroughly designed, controlled and governed living environment. Truly, we do not like nature itself. We do not like its imperfections but rather the part of the nature which is in our comfort zone, the part of nature which we can control. We want to have a perfectly round and red apple without a worm inside. We want rivers but no floods. Nature is interwoven in our living environment in the form of a designed entity as a result of human activities. Nature is culturally generated. It is a cultural nature. As van Mensvoort (2011: 3) stated, *nature has become one of the most successful products of our time*.

In 2008, for the first time in history, more than half of all human beings lived in cities. Cities are growing in population as well as in their geographic footprint at an accelerating pace. They became our everyday landscape, where most urban growth is taking place in so-called medium-size cities of between 1 million and 5 million inhabitants (Ruble, 2012). Cities are becoming larger, denser, more diverse, and more fluid. However this tremendous system of urban landscape is not only a synthesis of abiotic, biotic and anthropogenic features, but as also a *great source of staggering sensations* (Roncken, forthcoming). Cities became complex in their functions, but as well in the sensations they provide. *Landscape and sensations are symbiotic* (Roncken, forthcoming). The sensational impulses in our everyday landscapes are expanding with the growth of the cities and activities within them.

2.2. BASICS OF LANDSCAPE EXPERIENCE

Human beings are an intrinsic part of the environment that extends in scale and changes over time. Landscapes surround us, permit movement and exploration and force us to be part of it (Nassauer, 1995). We are in a constant, dynamic relationship with the environment, where our responses to it are determined by the individual landscape experience. All experiences of the world begin with perception and thus a sensory encounter with environment lies at the centre of our aesthetic response (Brady, 2003). Human senses (vision, hearing, taste, smell and touch) are mediums which allow direct encounter with the environmental phenomena of the perceptible realm (Gobster, 2007). *The perceptible realm* is a scale of landscape in which individuals engage with environmental phenomena by perception and the scale in which they are able to understand, care about, and act purposefully upon the environment (Gobster, 2007). In this realm, sensory perception of different phenomenal (perceptual) qualities of the surrounding environment is mediated and transformed by the individual's metal capacities to have an aesthetic experience resulting in a particular aesthetic response and its associated value (Fig.3). Our everyday landscapes are the perceptible realm. The response to the everyday realm can vary from experience of pleasure or displeasure or other emotions and feelings, as awe, happiness or shock. A person's aesthetic experience is a result of the individual's (1) *sensory capacity*, (2) *cognitive stock*, (3) *worldview* and (4) *cultural & historical context* (Brady, 2003: 8). The experience governs all aspects of the human-landscape interaction, and its felt quality is instrumental in motivating, maintaining, changing and terminating our everyday interactions with landscape (Karmanov, 2009). Its quality defines our interaction and engagement with things and people in the world (Karmanov, 2009). The experience encompasses affective (emotion-based), cognitive or imaginative state of mind and thus influences what we think belongs in the landscape (Nassauer, 1992: 239). *The landscape perception is the key process connecting the human with ecological phenomena* (Gobster, 2007: 960). *If the human landscape perception, cognition, and values are closely related processes, all of which act in human aesthetic experience* (Nassauer, 1995: 233) then we can conclude that the human *landscape perception, cognition and values directly affect the landscape and are affected by landscape* (Nassauer, 1995: 229). *It determines how we feel and what we do* (Karmanov, 2009:19). This is the reason why it is meaningful and relevant to understand the aesthetic interaction between human and its environment.

2.3. ENVIRONMENTAL AESTHETICS

The natural environment, human-influenced and human-constructed landscapes became a subject matter of a new aesthetic debate in the second half of 20th century, due to growing public concerns for the quality of the environment. Environmental aesthetics is a relatively young discipline with a broad theoretical and philosophical framework concerning the human aesthetic experience of environments. It is rooted in the Western 18th century tradition concerning the aesthetics of nature. With the rise of secular science and art, the appreciation of nature has been objectified. Nature, rather than art, was seen as an *ideal/paradigmatic object of aesthetic appreciation* whose theoretical centrality reached a climax with Kant (Carlson, 2000).

The aesthetic appreciation of *the world at large* - any environment which envelops human in their day-to-day existence, the world in which people work, play, and live (Carlson, 1998, 2011) - is different from the aesthetic appreciation of Western paradigmatic works of art. The main differences concern the object of aesthetic appreciation and the way we aesthetically appreciate this object. *Aesthetic appreciation of art frequently provides misleading guidelines for appreciation of nature* (Carlson, 2000: 5). Environmental aesthetics extends the object of aesthetic appreciation beyond the narrow scope of a paradigmatic work of art (as for example a Rembrandt's painting, a Mozart's symphony or a Dostoevsky's prose) towards aesthetic appreciation of world at large (Carlson, 1998, 2011). On the contrary to highly specialized and isolated conventional artistic objects, *there is no theoretical limit to what can become the object of an aesthetic experience* (Saito, 2007: 13). The basic assumption of environmental aesthetics is that, *every environment, natural, rural or urban, large or small, ordinary or extraordinary, offers much to see, hear, to feel, much to aesthetically appreciate* (Carlson, 2000: xxi). We are immersed within the object of aesthetic appreciation, which vary in size from tiny room till vast extraordinary mountain ranges. We occupy or move around and among such an object, which impinges upon all our senses. It is in constant motion. No physical frames of object, no limitations in time and space (Carlson, 1998, 2011). The only limitation is the human being himself and his/her capability to experience only a particular part of environmental phenomena at the time (Gobster,2007).

Due to the lack of *artistic context* (Brady, 1998) and the *frameless character* (Saito, 2007) of the aesthetic object of the world at large, one's own mental capacities such as imagination and creativity are the basis of the own frame for the aesthetic

Fig.3.: Simplified diagram depicts the process of aesthetic appreciation (Jančovičová, 2013. Based on: Brady/2003, Gobster/2007, Karmanov/2009)

Fig.4.: The simple infographics visually explains the relationship between the subject and object of aesthetic appreciation. By changing the object's aesthetical qualities, the aesthetic experience of subject can change.However, by adjusting subject's aesthetics values, the aesthetic appreciation of object can change as well (Jančovičová, 2013. Based on: Brady/2003,Gobster/2007, Karmanov/2009)

Fig.5.: The sea of ice - Caspar David Friedrich (1824)
Panting symbolically depicts Burke's sublime as the terrifying forces of raw nature (Source: Internet)

experience. Our perception and experience are not directed by prescribed institutional rules. We build up and engage with the object of our own aesthetic experience in the way we prefer. This depends on our *imagination, judgement and aesthetic taste* (Saito, 2007: 19). The second central philosophical issue of environmental aesthetics relates to question 'how'. How do we appreciate the elusive concept of landscape since it lacks frame or guidelines? Although the aesthetic appreciation of art does not directly provide an adequate model for the

Fig.6.: Wanderer above the sea of fog - Caspar David Friedrich (1817-18)
Panting symbolically depicts Kant's sublime as a state of mind (Source: Internet)

appreciation of nature (Carlson, 2000: 6), it suggests two resources which guide and frame our aesthetic appreciation: *(1) the appreciator (subject)* and *(2) object of appreciation* (Carlson, 2000; Brady, 1998). The role of the designer is typically taken up by the appreciator and that of design by object (Carlson, 2000: xix). By emphasis on one of the resources, two major overarching positions in contemporary environmental aesthetics can be identified. They are alternatively labelled as non-cognitive vs. cognitive approach (Stanford Encyclopaedia of Philosophy)/ non-science based vs. science-based model (Brady, 1998) / engagement vs. natural environment model (Carlson, 2000 originally 1979a). The non-cognitive approach has as its basic assumption the notion that environments completely surround us and that they work upon all our senses, where such an engaged experience is the essence of aesthetic appreciation. It stresses immediate sensory involvement and feeling responses to the environment. The central point of the cognitive approach is guided by the nature of the object of aesthetic appreciation as information about origins, types and properties which are necessary for appropriate aesthetic appreciation (Carlson, 2000). Information and knowledge about object is necessary for an appropriate aesthetic response. Knowledge guides us in framing our aesthetic appreciation. It stresses that the object of appreciation should be appreciated on their own term (Saito, 2007). As the concept of landscape is multifaceted and elusive, thus the landscape architecture cannot be approached just by one of the models, because landscape is the ecology but as well the culture, which involves human beings and their experiences. Proper aesthetic appreciation should be drawn upon both cognitive and non-cognitive accounts.

2.4. CURRENT AESTHETIC DEBATE

Our relationship with and towards nature has changed. In the modern world where the provision of food and safety are no longer full-time jobs and technology makes us increasingly independent from the physical conditions of the environment, one could equate the aesthetics of nature with beauty, pleasure and positive aesthetic values only. We have espoused the romantic perception of nature as a place for enjoyment. *Nature and landscapes are increasingly becoming idealised places where humans do not find food but comfort* (Roncken, 2011: 209, 111). We accommodate ourselves in these pleasing experiences, where beauty and positive sensations has become the canon of our aesthetic life.

Emily Brady (2010: 28, 39) claims that *contemporary aesthetics tends to neglect an exploration of potentially negative forms of aesthetic value. Positive aesthetics presents incomplete environmental aesthetics, risking an attitude which ignores the true diversity.* With the diminishment of negative sensations we forget that unpleasing experiences are also part of nature and life in the broader sense. In another words, by diminishing the negative experience, we degrade part of nature and our lives. One can argue that the source of our incomplete notion of aesthetics springs from its definition. Aesthetics is often seen as *the philosophy of sensation, concerned with the appreciation of particular objects when they strike senses in a pleasing manner* (Carlson, Allen; 1998, 2011). Aesthetics is often seen as an equivalent to beauty and it is *generally misunderstood as a set of special effects that must entertain people and perhaps cure them of their bad habits* (Roncken, Stremke, Paulissen, 2011: 70). One problem connected with such an idealised image of landscapes is *the preoccupation with visual appearance* (Roncken, 2011: 111). To deal with landscape as a 'framed' scenery of linear perspective vision and fixation on the image, becomes problematic (Koh, 2008, 2013). *We need multiple forms and forums for carrying and learning about the impact of our actions on the planet: some visual, some textual, and some experiential* (Meyer, 2008: 21). To create, learn and sustain landscapes we need to accept their positive and negative aspects. The experience of full range of emotions can deepen our experience of other humans, other creatures, and things unlike ourselves (Brady, 2010). In order to become holistically immersed with our environment, to become one with it, we need to open ourselves up to the object of aesthetic appreciation and allow ourselves to be thoroughly engaged with it; because *immersive landscape experience can assist in restructuring the priorities and values of people* (Meyer, 2008: 10). To create an immersive landscape experience is to create a full mental and body engagement, where the design must be palpable to make an impact (Meyer, 2008).

By revision of the statement that landscapes influence our perception and that our perception and behaviour also influences landscapes, one can ponder upon the question: *What performance of appearance* (Meyer, 2008) *has the best ability in creating meaning and thus connecting people with the environment on the scale of perceptible realm?* To be able to answer this question properly, we first need to consider the general history and early theories of the aesthetic appreciation of nature.

2.5. IMMERSIVE LANDSCAPE EXPERIENCE IN HISTORY

The ambition to arouse an immersive poly-sensual aesthetic experience is common in the western tradition of garden and landscape design. After the classical period dominated by aesthetics of paradigmatic art, and times where nature was appreciated only through the representation in art and literature, the 18th and 19th century was a turning point which has proven a development of ideas about individual sensations and collective acceptance of clarifying categories of landscape appreciation (Roncken, forthcoming). Aesthetic dimensions of nature have been developed in terms of three classical conceptualizations: *Beautiful, Sublime and Picturesque*. In these times, Nature has been used as a paradigmatic and exemplary object of the aesthetic experience. Natural beauty was a superior to that of art. In the 18th century the boundaries between aesthetical categories were relatively clear and stable. The beautiful represented the positive evaluation of understanding and unity, which pleased the senses. It has been associated with qualities such as inherent good, peacefulness, harmony, balance, smoothness, easiness, order, delicacy etc. (Meyer, 2008, Brady, 2010; Eco 2004). Beautiful was usually associated with man-made aesthetics as artwork or garden design. In landscape language the pastoral equalled the beautiful. The sublime was perceived as a contrast to beautiful. Because of the demonic connotation linked with wild nature of 17th century (Brady, 2003), the experience of the sublime had a distant negative evaluation and was associated with characteristics such as challenging, powerful, vast, obscure, intense and terrifying. Sublime was associated with creation by God or Nature exclusively. The distinct aesthetic category of the picturesque was developed later as a need to mitigate between the extremes of vast of sublime with intimate beautiful (Brady, 2003; Roncken, forthcoming). The picturesque ('picture-like') was a middle ground, which advocated aesthetic appreciation in which the natural world is experienced as if divided into art-like scenes, which ideally resembled works of art, especially landscape painting, both in subject matter and composition (Stanford Encyclopaedia of Philosophy, 2007). In the middle of 20th century, the philosophical study of the aesthetics of nature was at the lowest point. We can talk about the neglecting of the aesthetics of nature. The discipline was completely dominated by an interest in art and the appreciation of nature was not seen as aesthetic, until the discourse of environmental aesthetics emerged.

2.6. TRAGEDY

Let me come back to the idea of Meyer (2008) and her claims about the sustainability discourse and altering one's consciousness. Elisabeth Meyer is environmental aesthetician, exploring the importance of aesthetics in sustainable design, who claims that an aesthetic experience can change the human attitude towards the living environment. In particular, she believes that the immersive experience of *strange beautiful* has ability to *assist in reconstructing the priorities and values of people* (2008: 10).

However, can a positive experience such as the beautiful change people's value? The notion of tragedy in classical theatrical performance will help us discuss this question. The western precedent of arousing a strong immersive experience can be traced back to ancient Greek culture and the theatrical tradition of drama. Great Greeks as Sophocles or Euripides knew already that negative experiences, portrayed in their tragedies, create powerful emotional responses (Wikipedia, 2014). The audience became a part of the possibilities and let their own imagination get ahead of the situation. Tragedy arouses not only pity but also fear, because audience can envision themselves in a situation. Also Kant considered *negativeness* as a strong emotion which can perform in a surprisingly positive way, when we are moved to higher emotional and ethical levels. It means that terrifying landscapes are more powerful in altering the consciousness of users and thus changing their values, than beautiful landscapes. However, should landscape design enhance such drastic anxieties? As it was already mentioned in philosophical standpoint (see 1.1.), designed landscapes *should provoke those who experience them to become more aware of how their actions are affecting the environment* (Meyer, 2008: 6) and let his own imagination go ahead.

2.7. DIFFERENT SUBLIMES

The sublime is an intensive aesthetic category, which characterizes distinct relationship between subject and object of aesthetic appreciation. Sublime is pleasure, sublime is terror, sublime is a paradox. The concept is in the evolution since the classical era and has been the source of inspiration for a number of philosophers (e.g. Burke, Kant, Nye, Hitt etc.) and artists (e.g. Pollock, Newman etc.). Because of the elusive character of the sublime, there exist variations in its interpretations. Some might consider it as an encounter with the extreme beauty to some it might be frightening aesthetic experience. The central question related to the concept of the sublime (in western intellectual discussion) does not discuss only, what the sublime is, but as well what is a source of such challenging experience. In the next paragraph, a brief introduction of the most influential ideas on the sublime by its three godfathers, Longinus, Burke and Kant, is offered.

LONGINUS (3rd century)

In the history, the first known elaborated notion about the sublime dates a long way back to the ancient times. Great Greek rhetorician Longinus dealt with the sublime in the literary context, as a specific type of storytelling in elevated manner, when audience get carried away. He has written the oldest essay '*On the Sublime*', where the term sublime is not used directly, but rather than *Peri Hypsous*, which can be translated as *Great Height / Great Soul* (Roncken, forthcoming).

BURKE (1759)

Edmund Burke was romantic 18th century philosopher and the political theorist born in Dublin, who positioned the sublime as a contrast to the beautiful. Because nature was the phenomenon having psychological and somatic effects on individuals in the area of enlightenment, Burke materialized the sublime by horrifying features and powers in raw nature, where the distance is necessary for real danger to be enjoyable. Sublime was terror which cannot hurt us (Eco, 2007), *containing something so big or so complex that it seems to be supra human* (Roncken, forthcoming). The feeling of emptiness, solitude

Fig.7.: Longinus and his powers of uplifting rhetoric (source: Internet)

and silence could be viewed as pleasant, when we experience terror from the distance (Eco, 2007). The vast powers of natural forces were full of fear, which created an overwhelming extraordinary experience of mixed feelings enabling to be moved towards a higher psychosomatic encounter. *The sublime is idea which belongs to the self-preservation* (Roncken, forthcoming). Burke ascribed the sublime to the physical characteristics of nature such as darkness, solitude, silence, greatness, vastness, infinity, difficult, loudness or suddenness (Eco, 2007; Roncken, forthcoming; Brady, 2003; Karmanov, 2009).

KANT (1790)

A paradigmatic shift took place the age of enlightenment . The 18th century can be called as well as the Era of Reason, where the search for the truth and clarity took place. Nature turned into a place where free expression of the imagination and the liberation of the emotions was possible (Brady, 2003). The mind was an important concept and central stance in apprehending the sublime. There was a shift in ascribing the sublime from the physical nature and rhetorics towards human perception. Immanuel Kant was one of the leading philosophers supporting the idea that imagination and its play with reason are in the centre of the sublime experience. He emphasized that the sublime is a feeling rather than objective quality and that no object in this world can be sublime. The sublime is state of mind. *Sublime is a capacity of thinking* (Chou, 2007). Kant opened idea of the sublime to the purely fantastic and conceptual level which does not need any environment (Roncken, forthcoming).

However it is questionable if these classical categorizations are accurately valid in 21st century (Roncken, forthcoming), because contemporary individuals do not interpret their sensations according to the 18th or 19th century mind-set. As Malene Hauxner (2011: 71) assumed, *changes in nature and social conditions lead to the development of new uses and the new aesthetics*. So what is and what does the sublime mean in 21st century? What is the sublime in the age of globalization, digital revolution, geopolitical instabilities, advanced technologies and concerns about the climate change? To what purpose the sublime can serve? To fundamentally answer envisaged questions, we will take a closer look at the anatomy of the sublime experience.

2.8. BASIC ANATOMY OF SUBLIME EXPERIENCE

Kant introduced a modern and powerful distinction between the beautiful and the sublime. He did not define the beautiful and the sublime as the opposite sensations, but rather through the relationship between the object and subject of aesthetic experience (Fig.8). The object of aesthetic appreciation can be appointed as beautiful, when the appreciator has the impression that what is perceived is known, familiar and perceivable (positive representation). The beautiful strikes a free and harmonious play with the concept of subject's understanding (Roncken, forthcoming). The positive representation indicates that there is an actual object present upon which appreciator builds his/hers subjective aesthetic response, which might be positive (pretty) or negative (ugly). On the contrary, the Kantian sublime is associated with the struggle of nature's formlessness (Brady, 2003) and the unknown (negative representation) that can be both natural and social situation. The source of the sublime might not a present or palpable object; however appreciator is still able of subjective response. The spring of the sublime is a phenomenon, which we cannot sense or comprehend, the wonder which exceeds the ordinary, is endless, too complex or self-organized in a non-human scale (Roncken, forthcoming). We are overwhelmed. The appreciator has an impression that what is perceived is not familiar or in fact not perceivable at all. The negative connotation related to the sublime does not linked with the unpleasant features as such, but rather with a distance between what is perceived and how it is interpreted (*the unpresentable* (Roncken, forthcoming)). To deal with such a struggle we have to use our imagination to resolve what is absent. The appreciator must use his own intellect and imagination to classify the situation. The imagination helps us to identify our own meaning of the unfamiliar phenomenon and relate to it in the case of future encounter. By doing so, we help ourselves to overcome the overwhelming feeling and the first-time anxiety (Roncken, forthcoming). *Finally when we look back at this whole event we find ourselves proud of our mental capacity to be able to deal with such grand and complex situations, while at the same time feeling awe and respect for the source of the event* (Weiskel in Roncken, forthcoming). *Imagination enable us to feel nature's might and at the same time to recognize something valuable and meaningful about ourselves. In our freedom we feel able to cope with the challenges and danger of nature as the sublime. In that recognition we discover our strength as moral beings. This engenders a feeling of respect for both nature, in its might, and ourselves, as moral beings* (Brady, 2003: 37). We communicate with our soul.

Thomas Weiskel was a young contemporary scholar and the assistant professor of English at Yale, who provided the most up-to-date notion on the sublime sensation and imagination. He used psychological and psychoanalytic theory to understand the process of *meaning making* by imagination, when one encounters the unknown. The imagination, as a creative interpretation, is the key element of the sublime experience, as it helps us to overcome temporal state of *aphasia*, the dysfunction in the brain to create associations or language, when confronted with the unpresentable. According to Weiskel, there are two possibilities of breaking down the meaning or digesting the landscape and the world around us: as *(1) reader* - understanding through reading (rational left brain) or *(2) poet* - understanding through associations (intuitive right brain). The *reader's sublime*, is a difficulty in reading what is happening when corresponding associations cannot be made. *In such a case we are unable to relate to that what overwhelms us. This temporary lack of human capacity causes great anxiety by the presence of a pressure* (Roncken, forthcoming). To overcome this type of aphasia, the reader creates the symbol, which arises from the tension between an enhanced sensation and an absent interpretation possibility (Roncken, forthcoming). The symbol can be accepted or not by the perceiver. The example of a widely accepted symbol can be notion of God, where the church is a symbol of this unpresentable phenomenon. In many landscape designs the accepted symbol is represented by placing a group of trees, views, images or structures such as temples which are often linked to surprise or the unexpected (Roncken, forthcoming). The unaccepted symbol can be superstition in bad signs but as well undesirable exotic plants in the local biotope (Roncken, forthcoming). The second type of sublime is the *poet's sublime*, where the difficulty with the unknown is represented by the uncontrollable flow of associations. One can speak and associate freely but is not able to create structure by means of language. The abundance of associations and memories causes the fusion of time, space, place and meaning, *where things of the past come to life and what is mile away can be sensed as nearby. The time and space become fluid perception. There is no distinction between imaginative memory and actual memories, nor local or causal relationships* (Roncken, forthcoming). A poet overcomes aphasia by imaginative projections when one creates new images that are randomly different from the original source yet contain the same flavour. *The poet's sublime may seem to be a pleasurable response. For a while we can be joyful and submitted and feel accepted in the illusion, yet at other moments we can become frightened and even paralyzed if we sense a danger and avoidability* (Roncken, forthcoming).

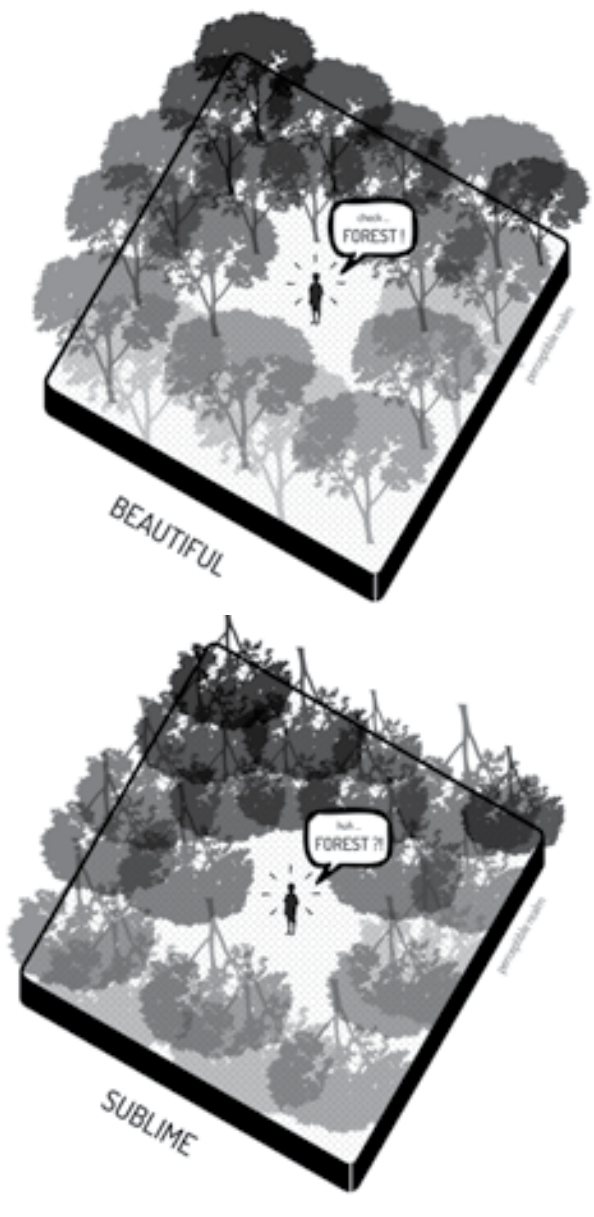


Fig.8.: The schematic illustration of the Kantian distinction between the aesthetic categories of beautiful and sublime. The figure refers to the position between an object (a source) and a subject (an appreciator) of aesthetic appreciation. In the case of the beautiful, there is an actual, familiar object that may be accompanied by a subjective response. In the case of the sublime, there is an unfamiliar object or even no actual object, however, the appreciator may be capable of a subjective response (Jančovičová, 2014; Based on: Kant, Weiskel in Roncken, forthcoming)

2.9. FUTURE SUBLIME

The following section can be seen as a conclusion to the discussion of theory relating to the contemporary sublime. It is divided into five parts and will review what are the main characteristics of the 21st century sublime, but also what is the responsibility of such an distinctive aesthetic category in the discourse of landscape designed sustainability.

2.9.1. The sublime is beautiful

The dualism between the sublime and the beautiful as opposing aesthetic categories is a mind-set which we adopted in the 18th century; beautiful was objective, sublime was subjective. However, *maintaining the difference between the sublime and the beautiful denies a proper mechanical understanding of aesthetics* (Weiskel in Roncken, forthcoming). They both *stream from the same mechanism and share a common empirical structure* (Roncken, forthcoming), as they are immersive aesthetic categories which work upon human psyche by entering the mind via the senses. In this line of reasoning, they both involve imagination as the *instrument in the making of meaning* (Weiskel in Roncken, forthcoming) and therefore, technically speaking, beautiful is not different from sublime. They both have a transformative ability to alter our consciousness, including an equal incapacity of both our senses and reason to fully grasp the occurring sensation (Roncken, forthcoming). Roncken (forthcoming) in his PhD thesis brings the discussion on aesthetics even further by suggesting that *aesthetics can be defined as energy related interaction and thus essentially every aesthetic sensation is a negative presentation of formless energy, where the object and the subject of aesthetic appreciation can be seen as kind of messengers.*

2.9.2. The sublime is omnipresent

Although it might be rooted in historical context, that the sublime belongs exclusively to nature, today we can argue otherwise. Sublime, as a struggle of reason, can be encountered in urban circumstances as well. Within the increasingly pluralistic environment of our cities *we often sense that our lives are fashioned by forces beyond our control, which underpin and drive acts of thinking or representation* (Morley, 2010: 38). Cities, similarly to nature, are an equally valid source of overwhelming and complex situations, where one has to use one's own imagination to resolve what is absent or to classify the moment. Sublime is all around us. Arnold Berleant states that the *sublime captures 'most compellingly' the perception of contemporary everyday world, both in sense and in meaning. It confronts us unprepared and we have not yet developed cognitive and social structure to deal with the inherent changes it provides* (Berleant, 1997, pp. 78, 79; 2009, 2011 in Roncken, forthcoming).

2.9.3. The sublime is an instrument in making of meaning

The superior mind of the sensitive individual is able to contemplate concepts and ideas about anything and thus resolve even complex struggle with the fundamentally negative presentation of sublime. Imagination as a psychosomatic faculty becomes the *instrument in the making of meaning* (Weiskel in Roncken, forthcoming), where meaning relates to our relationship, attachment and existence. *Meaning becomes the way to connect sense of place to the sense of self* (Roncken, forthcoming). If pleasing is what the beautiful does, then activating is what the sublime does (Roncken, 2006). The sublime landscape activates us to fantasize about symbols and concepts that represent aspects of nature, the divine or even ourselves. The sublime is not the maximised drama in over-romantic depictions, as generally understood, but rather the *cultural project of 'sublimation'* (Roncken, forthcoming) that reveals our most inclusive learning process by affecting the senses, imagination and intellect. *Sublime sensation establishes a learning curve in which we are at first overwhelmed as it grasps both our physical and mental attention* (Roncken, Stremke, & Paulissen, 2011: 70). The imaginative capacity connected to sublime sensation enlarges the meaning and value of the elements that are perceived. *As such the sublime in all its unpresentable qualities can convey an equally unpresentable quality of ethical norm* (Roncken, forthcoming). *The contemporary interpretation of the sublime shifts towards aesthetic concepts that deal with the personal reflection and integrity. It is less object-related but more precise in describing and interconnectedness between observer and context* (Roncken, 2006: 18). The act of recognition and understanding creates a rewarding feeling of proudness of one's mental faculties and at the same time a gain in respect for the external source due to the ultimate challenge (Kant in Roncken, forthcoming).

2.9.4. The sublime is a flux

When talking about the meaning, we often associate it with something becoming more profound, more important. However, this assumption brings us back into the preference based mode of aesthesis, where by focussing on comfort and pleasure as dominant aspects of designed landscapes, we block potentially negative forms of experiences. As nothing in this world is perfect or permanent, similarly landscapes should be designed not only to gain meaning but to also diminish meaning (Roncken, forthcoming). Through the decrease of meaning we can gain new perspectives or use it overcome obstacles/challenges. Encountering the unknown or uncomfortable (diminishment of meaning) also can help us gain meaning. The sublime is the fluctuation of meaning, which belongs to our growing process and us being part of the world.

2.9.5. The sublime is a survival mode

The sublime is a process of *saving fiction* (Roncken, forthcoming); the mechanism which helps to overcome a temporal state of aphasia. It is a compensating self-invented idea, the immune system developed as a mean of the self-preservation, against the endless struggle with the unknown. Roncken (forthcoming) argues *that the idea of the sublime is a name for a typical human capacity that is both generous and frightening*. He *states that the sublime is not only related to survival, it is the indication of the inborn mechanism for survival; and aesthetics is therefore the field of study that captures all the possible variable results*. The comfort and the *current preference based view on aesthetics* (Roncken, fortcoming) are the enemies of the sublime because by consumer friendly interpretation of aesthetics we *block any demanding or unpleasant form of experience and instinctive awareness* (Roncken, Stremke, Paulissen, 2011: 70). With the advances in the technology and societal tools, it is no longer an issue to learn how to survive in the wild despite *the fact that the imagined experience of having to do so still exists* (Roncken, forthcoming). If we keep creating only what people prefer they will never: be in survival mode, learn how to survive and discover the epistemic value rising from diversity, bizarreness and imperfection (Brady, 2010). Perhaps we as landscape designers should create landscapes of intentional flaws and stress, which can pull us out from the routine like state to break down the habitual relationship with our surrounding and to make space for imagination and individuality to cherish.

Fig.9.: READER'S SUBLIME - It can be compared to the feeling of being lost, the perceptual overload when we cannot grasp the sign or make sense of the relationship. It is like when horizontal ad vertical merges together (Source: Internet)

Fig.10.: POET'S SUBLIME-It is feeling of everything being too familiar, where the time and space become a fluid perception. Feeling can be compared to the déjà vu phenomenon, the "already seen"(Source: Internet)

IDENTIFYING THE UNPRESENTABLE

Although to design for and with the sublime is to design for and with the unknown, understanding context is the major part of design because conditions dictate what is required and what is not. We need to be familiar with the general terms of this research area to be able to identify the unpresentable as the potential source of the sublime sensation and thus answer the third research sub-question. In the following chapters the identification and description of the appointed research area, the Vltava River in the context of Prague, will be introduced.

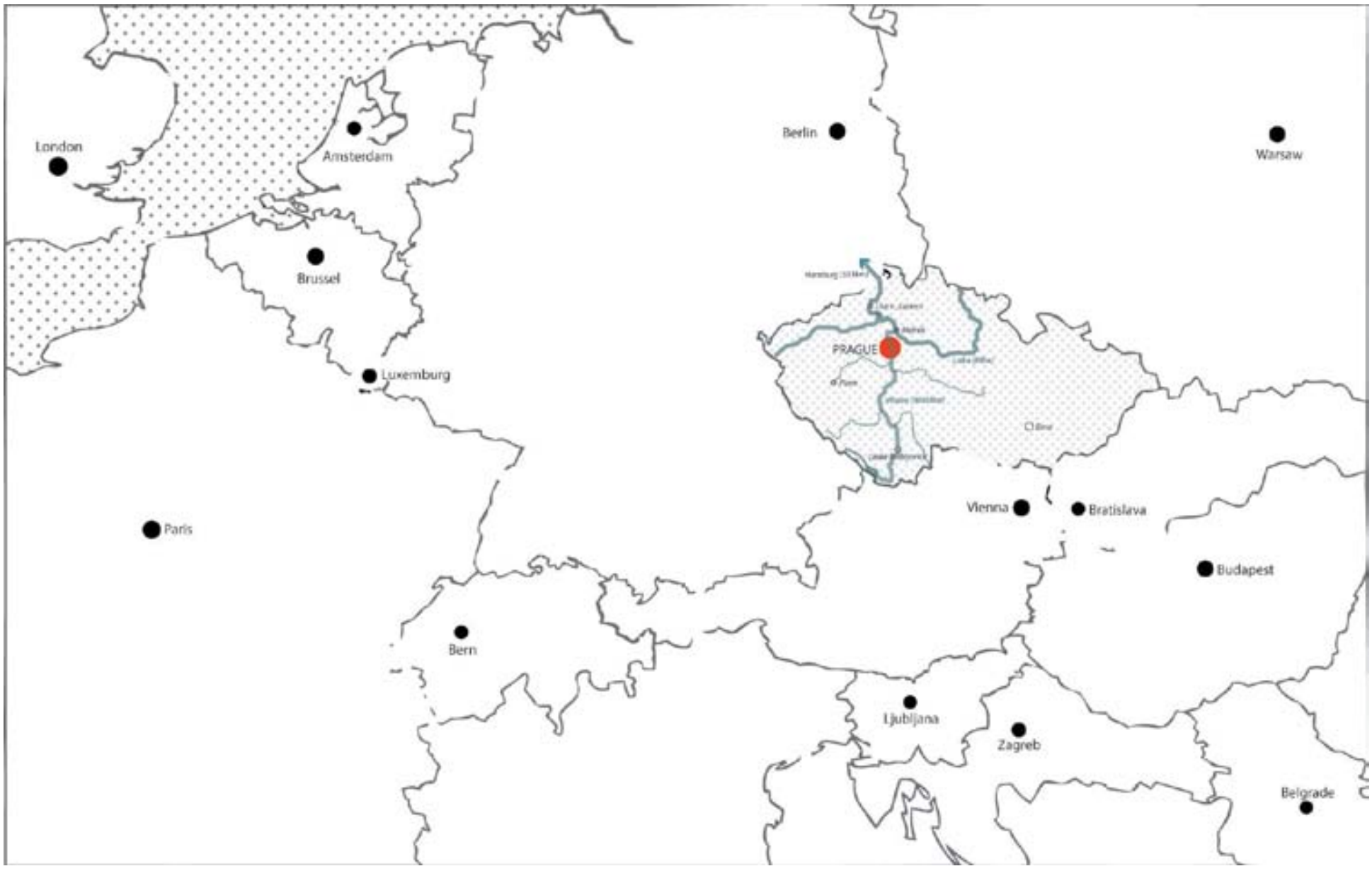


Fig.11.: Central position of Czech Republic in Europe.

3.1. VLTAVA RIVER IN CONTEXT OF PRAGUE

3.1.1. Prague

'The Mother of Cities', 'The Golden City' or 'Hundred - Towered', these are all epithets for Prague. Prague has been a political, cultural and economic core of central Europe with waxing and waning fortune during its 1 100 years of existence. During its history, Prague was not only capital of Czech Republic, but also capital of Holy Roman Empire, important city of Habsburg Monarchy, Austrio-Hungarian Empire and after World War I., it became the capital of Czechoslovakia. With its current 496 km^2 and 1,2 million inhabitants, Prague is the biggest city of Czech Republic. Prague rose in between two hills of Prague's castle and stronghold Vyšehrad on broad banks of the river and its floodplain. A dynamic landscape of massive rocky hills crowned by cathedrals and castles reflect Prague's golden glory in the wide curves of Vltava River (as well known under German name Moldau). Huge and ragged river basin characterized life around the river for centuries. The river has become the driving force which pulled life on the banks together. The Vltava was a main development axis of the city, fortification, waterway connecting Bohemia´s capital with Hamburg (Germany) and the source of subsistence for fishermen. The identity and atmosphere of Prague essentially connects with Vltava River and its heavy curves. The majestic river flow has inspired many world artists to glorious production. The classical composer Bedřich Smetana, '*father of Czech music*', wrote the symphonic cycle 'Má Vlast" (*My Fatherland*), where the symphonic poem 'Vltava' (The Moldau) describes river's course through Bohemia. Vltava River has become a national symbol and pride, which over time transformed from the romantic and in the same time majestic natural force towards a photoshopped trademark on postcards.

3.1.2. Water phenomenon: Vltava River

Vltava River can be characterized as a medium sized regular European river of mild inland climate. With its length of 433 km and river basin of 28 090 km^2, it is the longest Czech river and the biggest tributary of Labe River (German name: Elbe) with confluence northwards of Prague at Mělník. The river basin of Vltava and Labe drains 66% of overall Czech territory. Vltava springs in the hilly south called Šumava in height of 1 172 m.a.s.l. as two small babbling streams and flows through hills, piedmont regions and plans, which are located on various geological substrates. Precipitation and snow melting are the main sources of river water. The yearly average precipitation of Vltava river basin is 659 mm, what represents around 50 milliard m^3 of rain water. In the winter period the snow cover in the mountain areas can reach from 70 cm up to 200 cm, which can cause flooding danger during sudden rainfall events (Simon, 2005). After more than hundred kilometres Vltava enters Prague on its confluence with Berounka Brook. The river runs through Prague over 31 km and is crossed by 18 bridges. The average run off of Vltava River measured in the gauge station Prague-Chuchle is around 150 m^3/s. The river's natural hydrological regime is influenced by the nine dams of Vltavská kaskáda (*Vltava Cascade*), which were initially built in 1950s as power plants.

3.1.3. Relevant properties of Vltava catchment

Next to the evaporation, geological structure, morphology, hydrogeological quality of soils and vegetation (Herber, n.d.), there is a connection between land surface characteristics and

Fig.12.: Position of Vltava River and its catchment area within the map of Czech Republic. Northwards of Prague, confluence of Vltava and Labe can be visible.

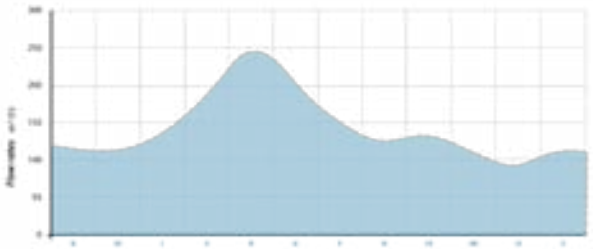


Fig.13.: Average annual flow rates in gauge station 'Prague-Chuchle', based on long-term monthly and yearly average measurements (Based on: Simon, 2005)

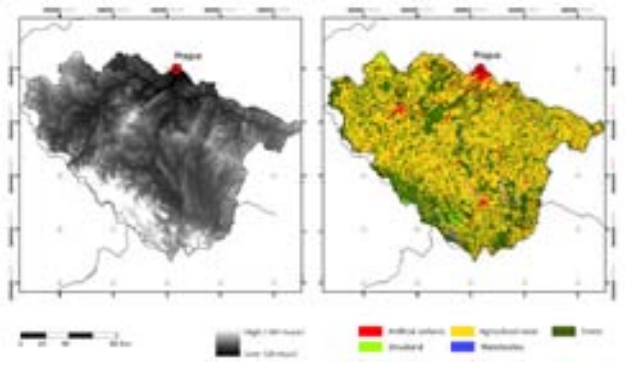


Fig.14.: Landscape properties of the Vltava catchment 2006 where (Gauge Prague). (Source: ASTER, 2011; CORINE, 1994)

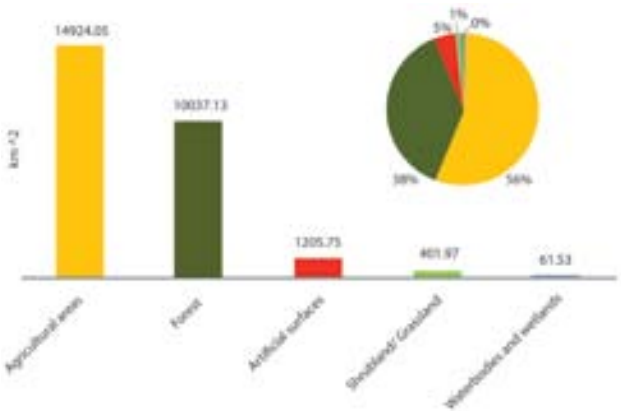


Fig.15.: Land Cover properties of Vltava catchment (Source: CORINE, 1994)

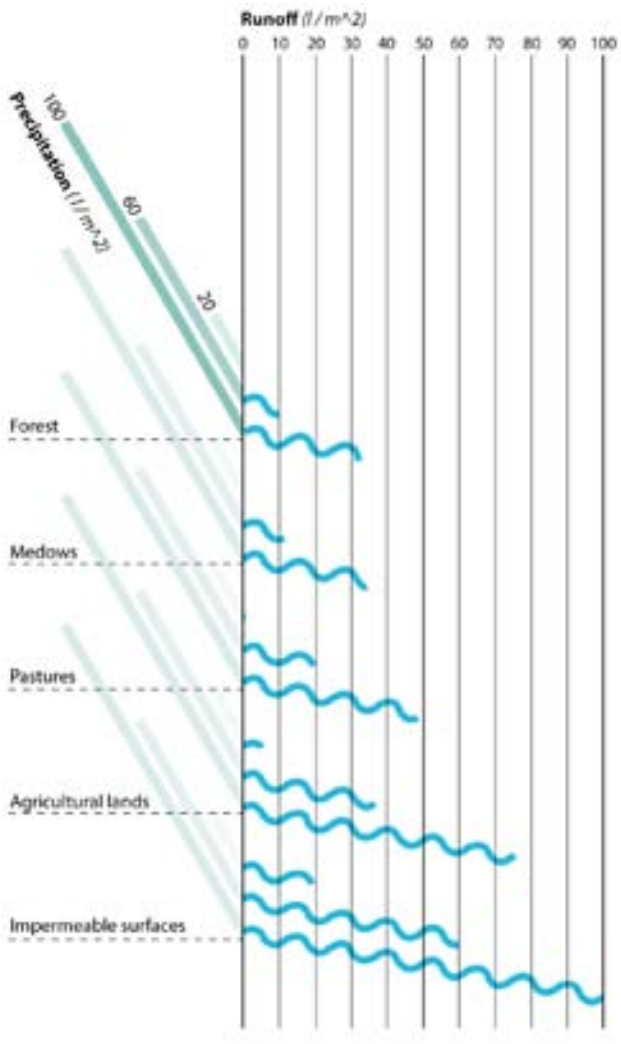


Fig.16.: The chart illustrates the ratio between the precipitation volume and water runoff on different landscape covers. Vegetation is able to detain more water than impermeable surfaces. The higher and denser the vegetation is, the better retention capacity of l andscape is performed. (Based on: Slavíková, 2007)

1	2	5	10	20	50	100	years
855	1090	1770	2230	2490	3440	4020	(m^3/s)

Fig.17.: The probability of a flood is normally expressed as a likely return period for a certain depth of flood water. In a recognised floodplain it is possible to estimate from records the likely level of different flood frequencies. Table describes Vltava's flow rates attained on gauge station Prague Chuchle (Source: ČHMÚ, 2013)

Fig.18.: Head sculpture of bearded man called Bradáč. There exists a saying, that this man was an Italian architect of first Prague's bridge (Source: Internet)

the hydrological regime of the river. Understanding the impact of the Vltava River on Prague requires an acknowledgment of its land cover catchment properties, which plays a critical role in the river's hydrological cycle. Land cover can affect degree of infiltration, run off following precipitation events, evaporation, humidity and other (Palamuleni, 2009).

The majority of Vltava River catchment is covered by agricultural areas (Fig.15). The second largest land cover class is the forest. Agricultural areas largely dominate the catchment and exceed forest areas by 20% (Fig.14). Generally speaking, the higher and denser vegetation is the better the natural retention capacity of landscape works (Slavíková et al, 2007). Areas covered with forest store more water during and after precipitation events than agricultural areas (Fig.16). The temporal response of the water flowing towards the rivers is much higher in agricultural areas than in forested areas. As the ratio of agricultural use in Vltava catchment is higher, the precipitation on these areas increases the runoff of the river. The high and faster run off, caused by heavy precipitation in combination with the above mentioned land management policy within the Vltava catchment, impacts Prague with sudden (flash) fluvial flood events (Bronstert et al. 2002).

3.1.4. Characteristics of the Vltava River basin in Prague

City of Prague is located in the geological region of *Prague's basin*, which was formed in the Tertiary by the running water. Prague's basin is formed by soft rocks such as shale, offal, sandstone, and limestone but as well a number of sediments brought by Vltava. The river and its tributaries (24) have constantly deepened their route through landscape, thus creating unique spatial scenery of steep rocks and river terraces rising above deep valleys of water streams (Malý, 1999). The scenic beauty of far-reaching views is particular feature of the city. The resistant bedrock on the foot of historical centre conditioned the formation of first Prague's meander, which diverted the water stream eastwards (Jandáček, 2010 in Bečková, 2010), where it again turns back (Fig. 22) and creates the second curve of Maniny meander. By depositing river sediments, Vltava created several islands. Their number and location have been changing over time due to the great natural force of floods. Currently river wraps 10 islands.

Among the most represented soil type in Prague's basin belong a rich variety of light brown soils on sandstone. The vast majority of brown soils are saturated with the various degree of stoniness. Geological diversity, rugged topography, soils and hydrological relationship have created the conditions for a diverse ecosystem, which are however quite strongly affected by human activity. In the primeval time, when nature had not been influenced by man much, Prague was the naturally wealthiest parts of Central Bohemia. Until recently, Vltava represented an important biocorridor for various plant and animal species (Němec, Ložek, n.d.). Valuable communities are tied not only to the suburban forest units, but often to the steep and rocky outcrops habitat which allows nature to get closer to the city centre. Prague is one of the few large cities, which are in addition to the historical monuments, significant in their natural values too (UPP, 2008).

3.1.5. Historical floods & Formation of urban landscape

Floods were always a part of life in Prague. They occurred usually twice a year destroying bridges, swamping cellars, ruining buildings and contributing to collective memory of inhabitants. In history, floods didn't bring only direct damages, but they were almost invariably followed by epidemic, plague, crop failure or famine (Malý, 1999). The old stony head sculpture of the bearded man called Bradáč from 1481 (Elleder, 2003) had been used as an original water mark for estimating flood intensity (Fig.18). If the water reached until his moustache, it was a time for evacuation. In the 15th century, extreme waters reached Bradáč only three times, however, already in the 16th century it was eleven times, due to the human induced changes into the river basin (Slavíková et al, 2007). Between the biggest floods with the water discharge over 2 200 m^3/s occurred in the years 1119, 1432, 1787, 1845 (Fig.19) and 1890 during which the Charles bridge was destroyed (Fig.28).

Vltava has formed the city of Prague and city formed Vltava. Next to the political and economic driving forces, the extreme water situations had great share on the city transformation over the history. In the last thousand years human activities changed the natural river basin rapidly. The main reasons were water energy usage, fishing, improving shipping conditions and protection against the flood events (Slavíková et al., 2007). With the industrial revolution the stone walls and waterfronts were built (between the years 1840 – 1846) in order to protect city and keep the river in its boundaries (Malý, 1999). Due to the narrower riverbed and sailing safety regulations, the high bridges and stony waterfronts were built (Malý, 1999). This creation disturbed the notion of the graceful uprising of the city from the water. However, this was not the only touch of human hands. The most significant changes into the river basin took place by the end of the 19th century, when the ambitious plan of canalization was borne. The definitive project of Vltava regulation in the inner city was created after the catastrophic flood in 1890. Next to the river banks reinforcement, the straightening of river bed, the backfilling of river arms and interference with the island, narrowed riverbed by 40 cm at some places (Slavíková et al., 2007). From the natural river became a canal. The whole project was finished in 1950's by 9 dams of Vltava Cascade located over entire Vltava stream.

3.1.6. The modern floods: 2002 disaster

The human interventions, mentioned in chapter above, have influenced and are still influencing the character of re-occurring floods (Slavíková et al., 2007). Since Vltava Cascade and the river regulations were finished general opinion prevailed that Prague is perfectly protected against any flood event. The massive transformation of Vltava laid a false belief of human domination over natural forces. However, August 2002 broke all assumptions. On the 14th of August 2002, the biggest and the most destructive flood in Prague's history hit the city. It was caused by continuous heavy rains in the south and south-west of Czech Republic. With the water flow of 5 160 m^3/s (ČHMÚ, 2006) water level culminated on 785 cm (Slavíková et al., 2007), which was 10 times more than the average (Fig.20). It was indicated as five-hundred year flooding (Q_{500}). Flood caused severe damage on infrastructure,

historical heritage sides and individual properties (Fig.29). Several people died. The most recent flood, which threatened Prague, occurred at the turn of May and June in 2013. The run off reached 3 210m^3/s with the water level of 545 cm (ČHMÚ, 2013).

3.1.7. Flood defence system

The flood is a phase in the natural hydrological regime of river, when a large amount of water overflows its normal limits (Oxford dictionary, 2014). These extreme water events can occur irregularly in time and place with different levels of intensity (Slavíková et al., 2007). River spillage is not a problem on its own until the moment of contact with the buildings or other man-made elements. The likelihood of flood occurrence has certain seasonality. The higher ratio of flood danger threatens Prague in the winter period between February and March, or in the summer period between June and September (Elleder, 2003). The summer period by the beginning of June is also known as Medard's drop (based on Czech-Slovak proverb), which represents deviation from the normal weather trend, when the airflow from Atlantic Ocean brings moist air to Central Europe (Elleder, 2003). The Czech hydro-meteorological institute (ČHMÚ, 2013) defines three grades of flood activity, which characterize degree of flood danger linked to particular water stream. Since the average flow rate of Vltava River in Prague is 150 m^3/s, the first flood grade (*State of watchfulness*) was calculated for discharge volume of 450 m^3/s. The second degree (*State of emergency*) was calculated for discharge 1 000 m^3/s and it defines a state when flood protection measures are carried out according to the flood plan. The third state (*State of danger*) has flow rate of 1500 m^3/s and it represents a risk of large scale damages or threat to life (Wikipedia, 2013).

The hundred year commemoration of flood in 1890 became stimuli for extensive discussions about the flood defence system of Prague. The flood defence project was prepared in 1997 on the basis of 1890's flood characteristics (hundred years flood - Q_{100} (Fig.17)) , however the flood protection properties had to be changed after devastating flood in 2002 (Q_{500}). The main aim of flood defence was to protect historical heritage, private and public assets, but as well lives and health of inhabitants. The flood defence system of Prague has strong technocratic attributes of linear features determining floodplain boundaries (Fig.26). This system was designed to protect the city against the water of discharge 5 190 m^3/s (Cabrnoch, 2007). The mobile flood defence system became the preferred solution in the historical centre. In the peripheral areas the stable measures, such as steel-concrete walls, dikes, pump stations and other are used. In the street profiles the strong seals on sewage network can be found. The whole flood defence system was divided into 8 phases and realized in the time horizon 1999-2008. Standard responses to the risk of flooding are often not well integrated with the overall architecture and landscape design, resulting in poor quality and badly functioning neighbourhoods and streetscapes. Flood barriers limit opportunities for linkage as they are often both physically and visually isolating which in some cases results in poor quality of public and private spaces. According to councillors, Prague should be protected against catastrophic flooding. However, there does not exist absolute protection, because floods always were and always will be part of the life in Prague (Bereš in Slavíková et al., 2007).

3.1.8. The unpresentable aspect of Prague

As it was already mentioned in the chapter *Relevant properties of the Vltava catchment* (see 3.1.3), Prague is under constant risk from fluvial flash floods. Based on the current and historical flood records and the heightened precipitation predictions due to the climate change, the notion of the potential danger of flooding can be understood as t*he unpresentable aspect* in the city of Prague. Floods do not happen every day, however the possibility is always there. The potential threat from the river can be understood not only as a physical and psychosomatic concern but also as an un-escapable force, which we can hardly anticipate. Despite the technical advances in the flood protection, the natural forces still lie beyond total human control. As we deepen our appreciation of human kind as embedded within a larger system of life we may accept the loss of control over the natural world and to celebrate nature with all that it brings. To invigorate urban life with a more direct experience of potential flooding means to embrace the sensibility by means of the sublime theory. The sublime may allow deeper and more vibrant interaction with nature in the city, where dwellers will personally encounter the imaginative capacity connected to the potential flood danger. This encounter might increase respect, meaning and value of the Vltava River in the context of Prague. However, to be able to research delineated hypothesis, a proper test location needs to be identified.

Fig.19.: The comparison of historical flood culminations in Prague between the years 1827-2002. (Source: Slavíková, 2007. Year 2013- author's note)

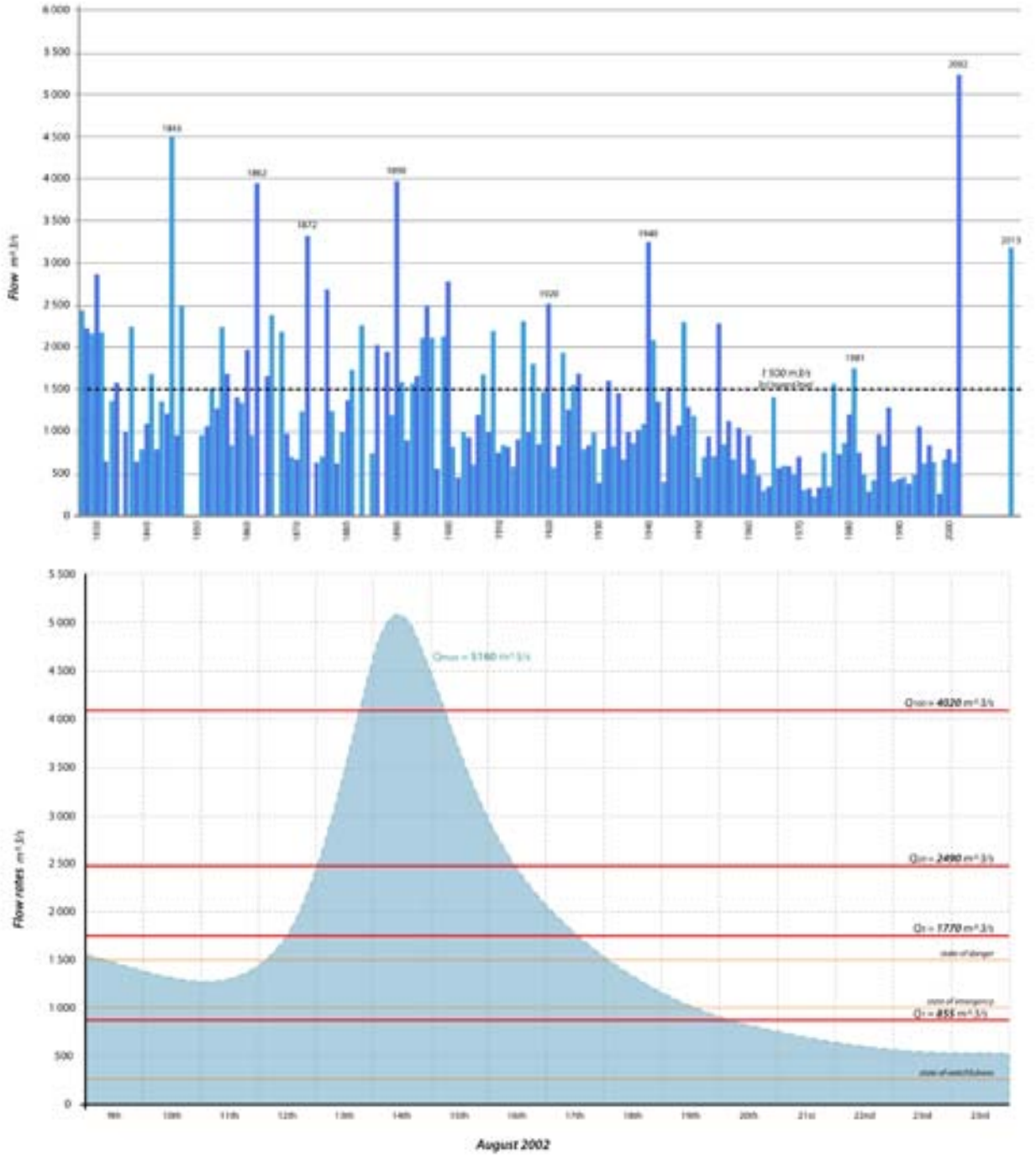


Fig.20.: Image illustrates the daily runoff average and course of 2002 flood (Based on: Slavíková, 2007).

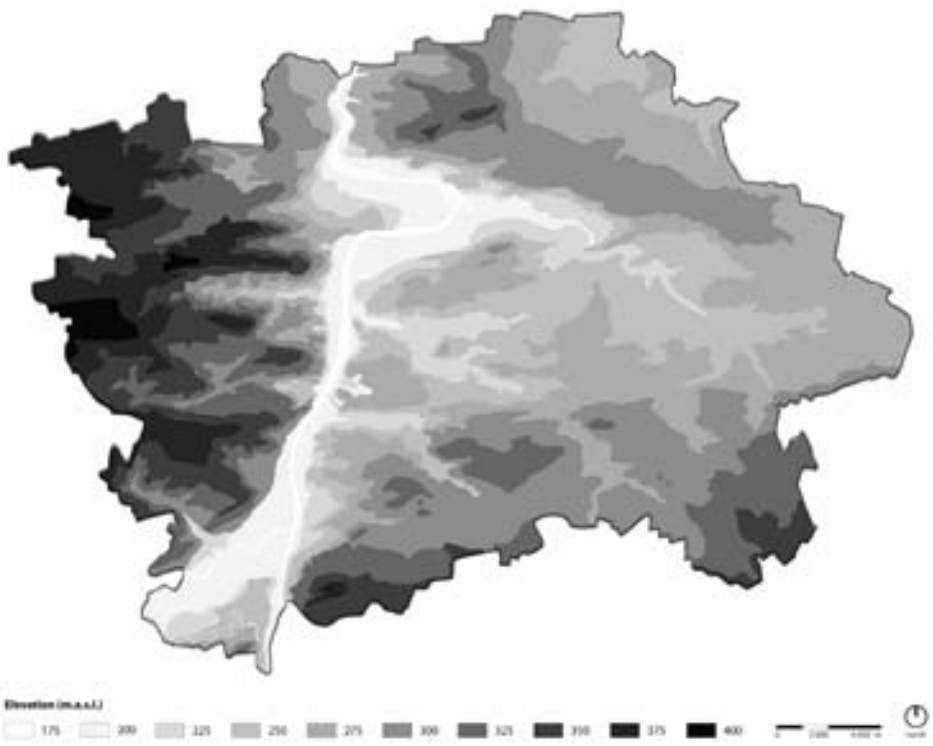


Fig.21.: Terrain elevation. Dynamic landscape of Prague with the height margins between 50 to 200 m (Based on: Spatial plan Prague -concept, 2010)

Fig.22.: Branching blue network of Prague. Vltava and its tributaries (Based on: Spatial plan Prague -concept, 2010)

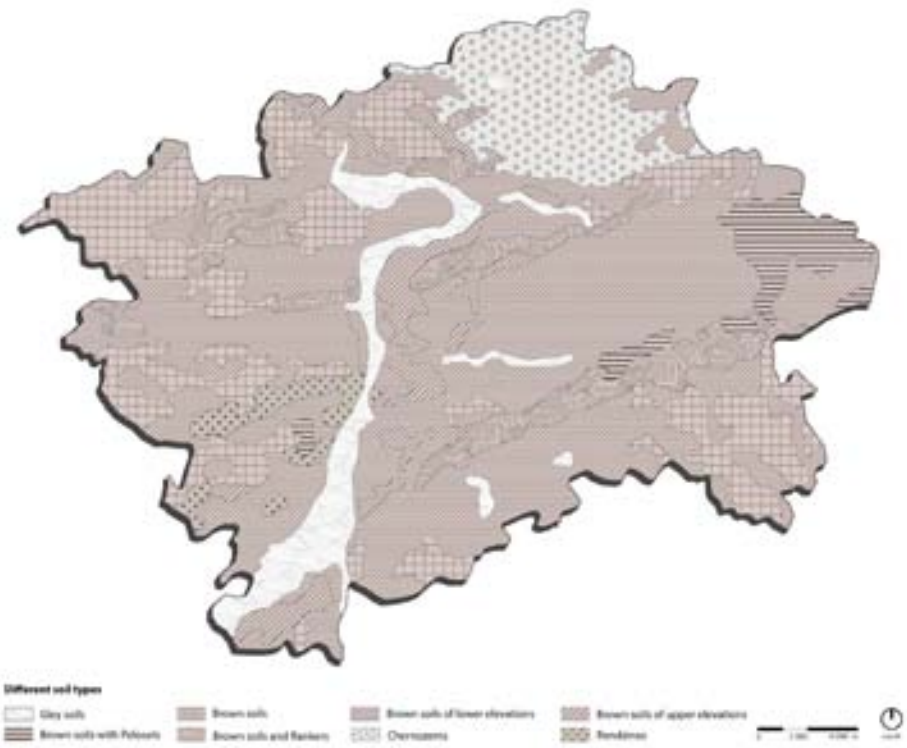


Fig.23.: Varied soil composition (Based on: Spatial plan Prague -concept, 2010)

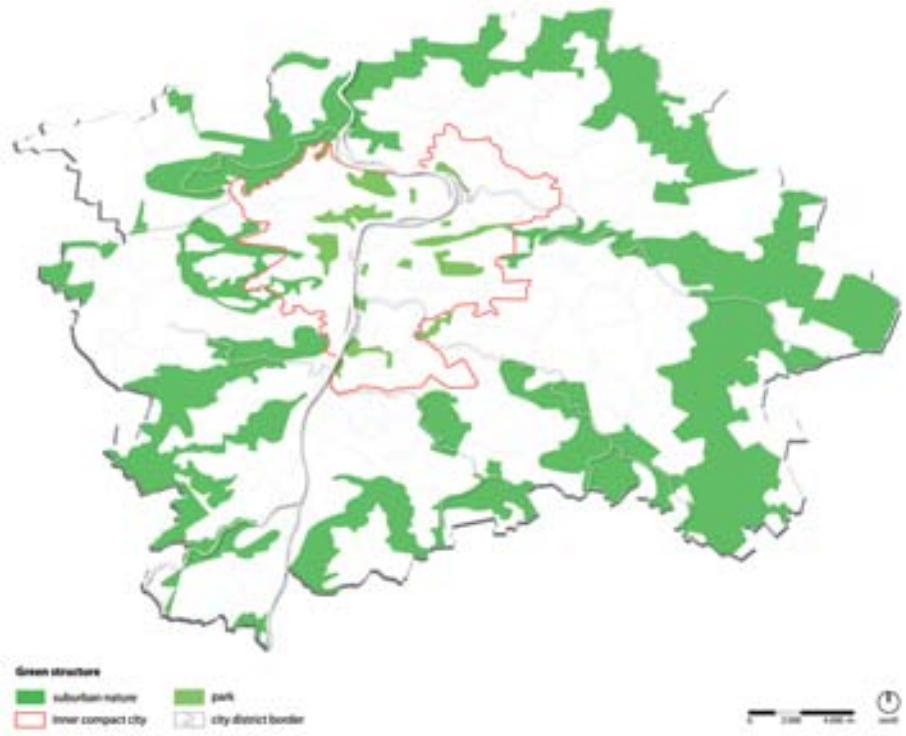


Fig.24.: The rich green network of the outer city is represented by the suburban forest of steep hillsides and vegetation of water streams slightly penetrating borders of compact inner city. On the contrary, inconsistent patchwork of green park elements represented by historical gardens and parks decorates compact inner city (Based on: Spatial plan Prague -concept, 2010)

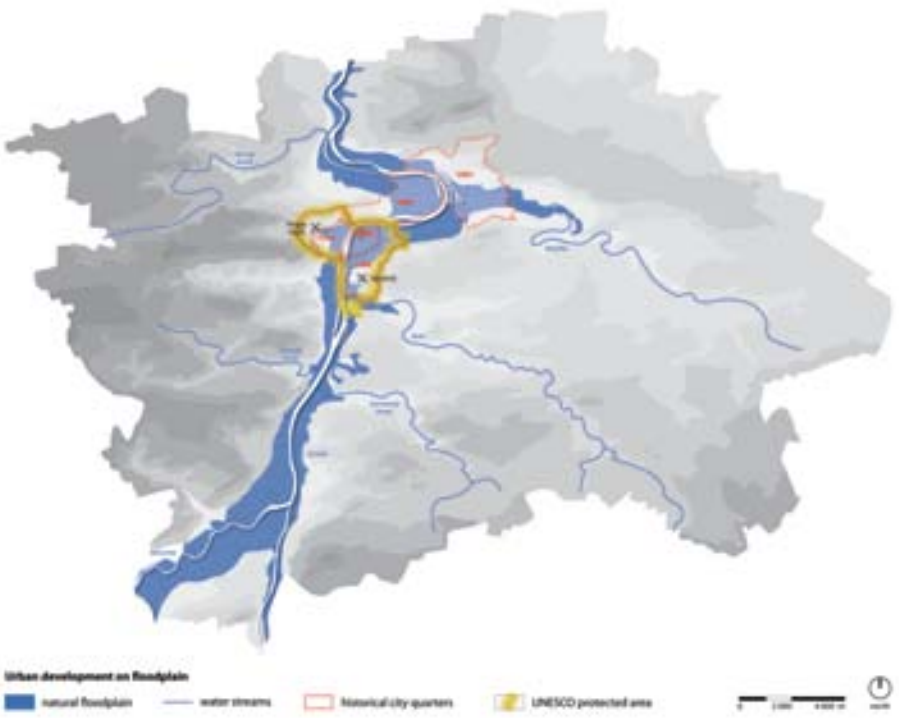


Fig.25.: Map depicts the early settlement development of Prague on the natural floodplain and foundations generated by erosive and accumulative activities of the river. The historical city entre and inner compact city (Old Town, Lesser Town and Holešovice quarter) have been built up on the fluvial deposits of the river what underlines an innate relationship between the city and its river.

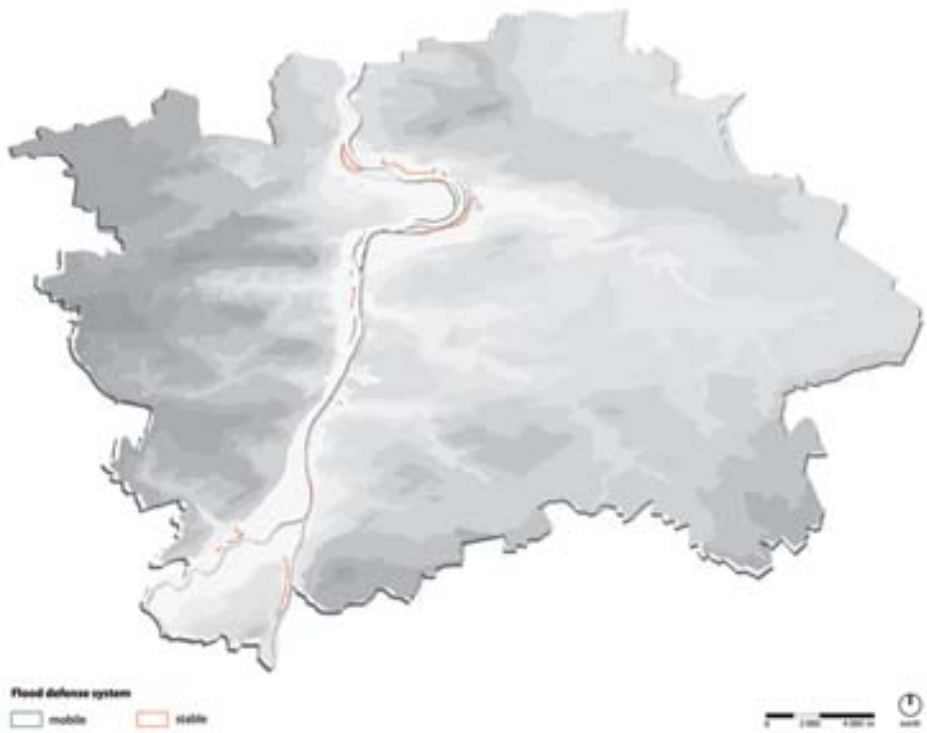


Fig. 26.: The mobile and stable elements of flood defence system restrict river's natural floodplain into the minimal space possible (Based on: Spatial plan Prague -concept, 2010)

Fig.27.: Prague's identity can be characterized by its 18 bridges which connect banks and accent presence of Vltava River. The most famous bridge, braided by many myths, is Charles Bridge (first at the picture), which was together with the historical city centre included in UNESCO list of World heritage sites in 1992 (Source: Internet).

Fig.28.: Destroyed Charles bridge due to the flood in 1890 (Source: Internet).

Fig.29.: Images document the vast damages after the 2002 flood. First four images are taken in the Karlín district, which was one of the most damaged part of the city. The last image (bottom right) depicts water level of Vltava during flood in 2013 (Source: Internet)

3.2. REALISING THE POTENTIAL

3.2.1. Brownfields = Opportunity

As well as the increased threat from flooding, which is related to climate change, a high number of brownfields and re-development areas challenge the appearance and use of Prague's compact city. Brownfields are neglected everyday landscapes, places that have lost their function over time, which represent potential sites of re-development where unique physical and socio-economic challenges can merge into a vibrant place. The end of Europe's division into two blocks after 1989 changed the position of Prague and other capital cities of the former socialist block. The city is *quickly de-industrialising and becoming a typical service centre stimulated by the market economy* (Musil, 1997: 36). One of the results of the rapid de-industrialization is a high ratio of underutilized or devastated sites. The concept of Prague's spatial plan, initiated by the Municipal Assembly in 2010, recognizes two basic types of re-development areas appointed for functional or structural transformation and they are (1) *Conversion areas including brownfields* and (2) *Alteration areas*. Due to their scale and position the *Conversion areas* (1832 ha) are important space reserves for the city. They represent development potential for the city's needs and interest related to the gradual deficit elimination in the functional systems such as transportation, technical infrastructure, landscape, recreation, and thus for the overall improvement of life in the city. Prague's train stations (Bubny, Žížkov, Smíchov and Masaryk station) hold a specific importance in the conversion context due to their immediate contact with the city centre. Prague's spatial plan (2010) distinguishes three types of alteration areas (Fig.30). (1) *Urban alteration areas* (4428 ha) are important for equal city development and are often intended to sustain a high build up. (2) *Recreational alteration areas* (720 ha) are planned to improve both the quality and the opportunity for short-term recreation; these places are located near water bodies. (3) *Landscape alteration areas* (2354 ha) are equally distributed throughout the city in the places that lack greenery and thus allows for the creation of green corridors.

3.2.2. Vltava River as catalyser

In Prague, there exist a number of important green areas in the inner compact city, as well as in its surrounding. Nevertheless, these places are often not connected and in some cases difficult to access. When we compare the map of the current green infrastructure (Fig.24) with the map of Prague's areas of re-development (Fig.30) we can easily identify a unique opportunity lying within the underutilized sites. The brownfields provide an ideal possibility for enhancing new sustainable urban development and strengthening the green-blue infrastructure of Prague.

In the proposed concept of urban-nature connection the Vltava River is seen as an axis connecting rather than dividing. The river becomes a catalyser and valuable bio-corridor, which by re-developing adjacent brownfields creates a link between different city quarters. The initial aim of this new green network along the river is to minimize flood impact and to develop valuable natural areas. As well as the ecological functions the corridors also provide the possibility for the enhancement of social functions such as recreation and traffic calming infrastructure. The new bike path system along the river banks is proposed as a mean for connecting different parts of the city. The overarching concept of Prague's new green infrastructure was inspired by Olmsted's *Emerald Necklace* where the linear system of parks and green spaces offered an opportunity for recreation as well as for ecologically important urban wilds, which are able to improve problems with air quality, noise pollution, floods, rain water infiltration etcetera.

On following pages cross-sections of the Vltava River basin, in two scales of detail, are introduced as a means to identify future research areas and apply the general principles of the proposed new green infrastructure. The first simple symbolic cross-sections (Fig.32) were made along the course of the river to depict different characters and interactions between Vltava and the city. The character of the river banks change from natural (cross-section 1) to something increasingly urban (cross-sections 2,3,4,5) and back to natural (cross-section 6),as it flows through Prague. There is often infrastructure, roads, highways or railways, placed in close relation to the river, which creates a barrier between the city and its waterfronts. The red line in the cross-section demarcating the 2002 flood-water level creates a dynamic representation of its potential danger and impact on different parts of the city. To give a better understanding of the river water bod, a physical model depicting its morphology was made (see appendix 3). The cross-sections which have a second level of detail represent zoom-ins depicting the river's character and atmosphere closer to. Elementary text descriptions supplement each drawing for better explanation of the city-river interaction. If applicable the concept of green infrastructure and its placement along the river is also depicted.

Fig. 30.: Map of re-development areas of Prague clearly shows the number of extensive brownfield areas located in the inner compact city or its immediate proximity. (Source: Concept of Prague's spatial plan, 2010).

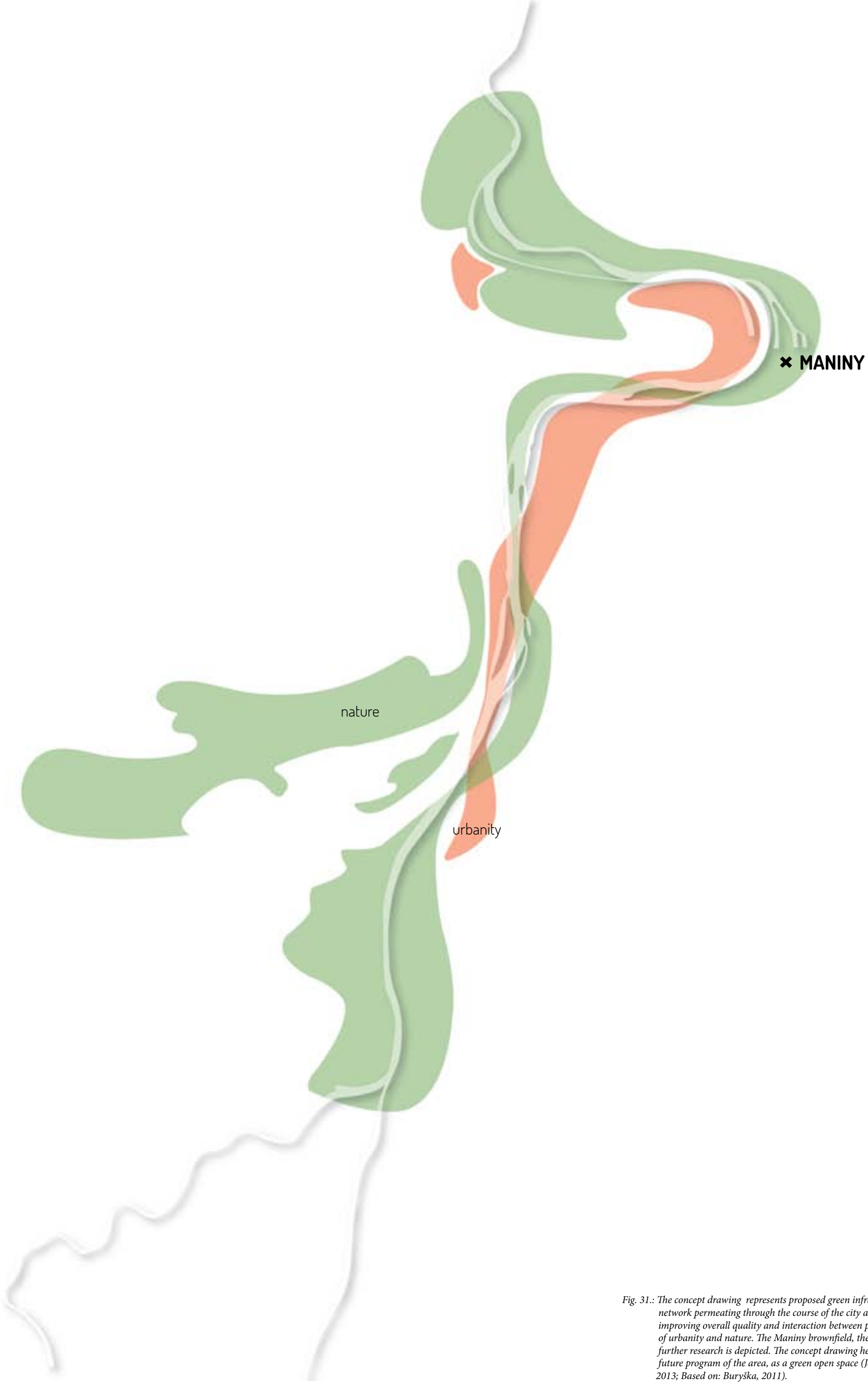


Fig. 31.: The concept drawing represents proposed green infrastructure network permeating through the course of the city and thus improving overall quality and interaction between phenomena of urbanity and nature. The Maniny brownfield, the location of further research is depicted. The concept drawing helps to identify future program of the area, as a green open space (Jančovičová, 2013; Based on: Buryška, 2011).

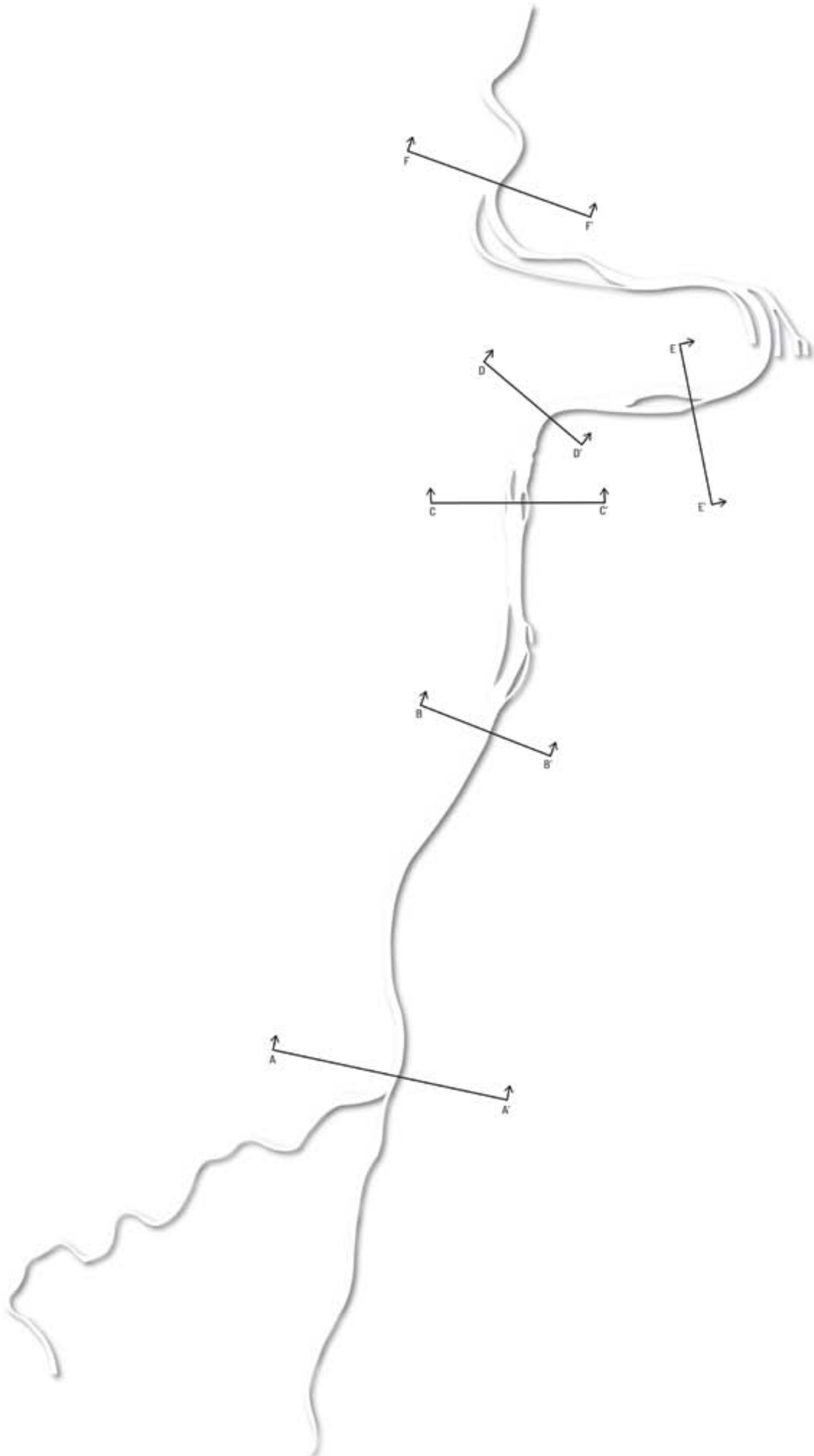
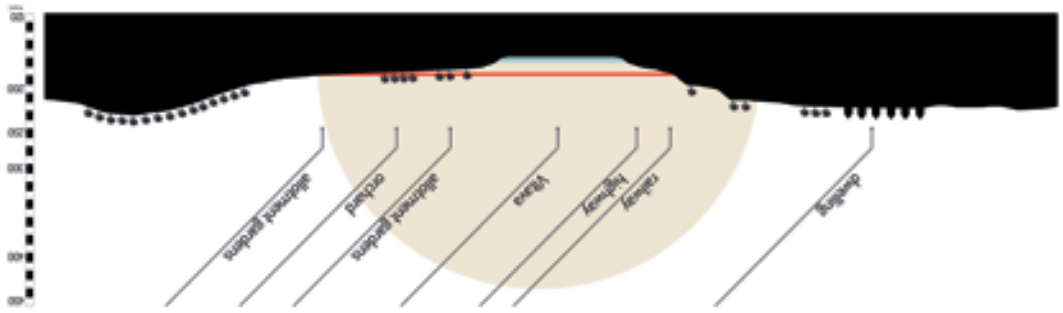
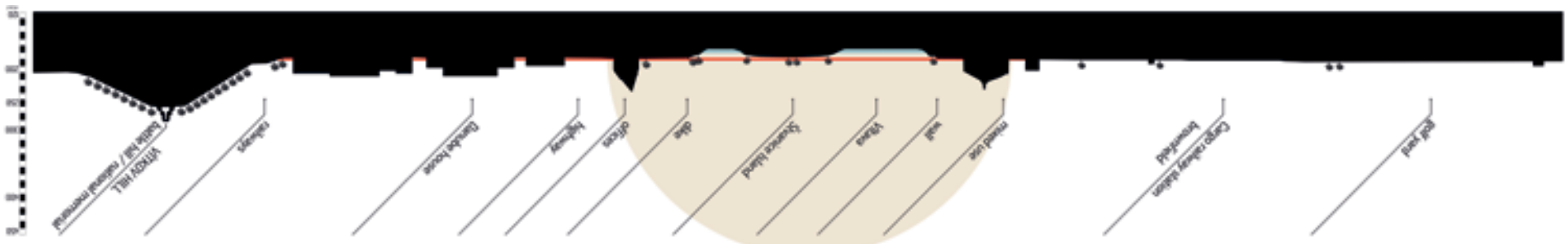


Fig. 32.: Cross-sections in the first scale of detail, through the course of the river in Prague. The beige half-circles represent the location and reach of further zoom ins (Jančovičová, 2013).

FF'



EE'



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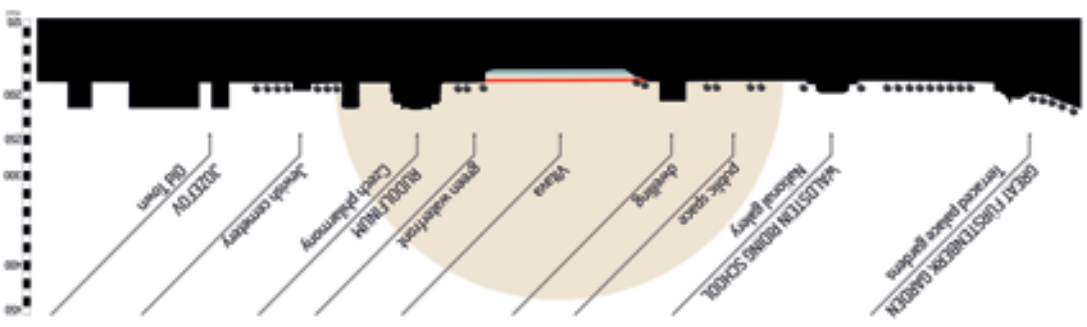

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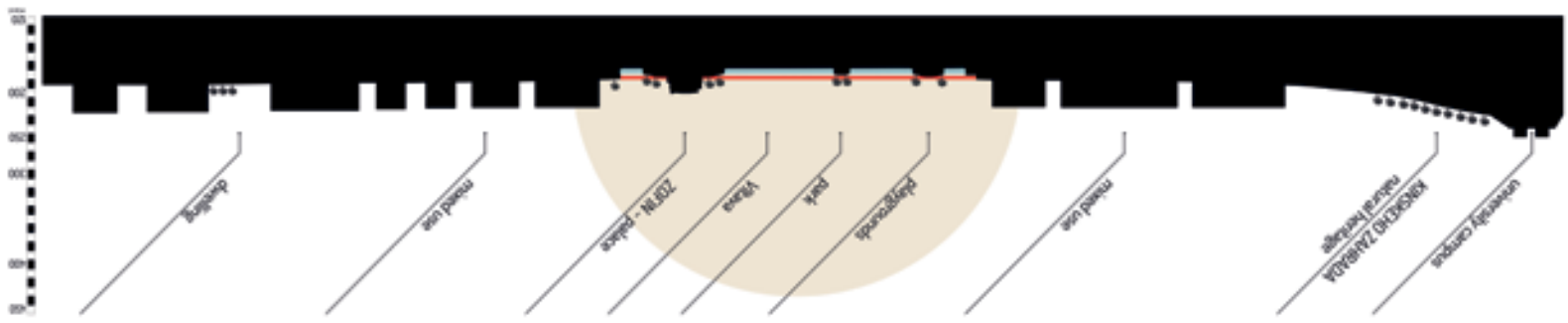

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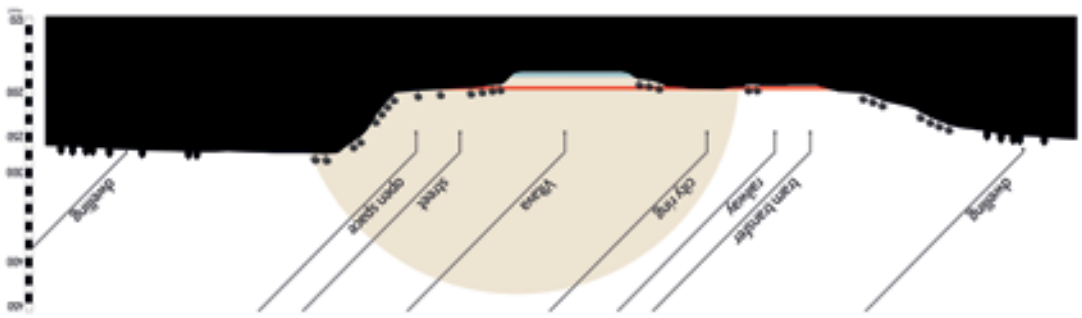

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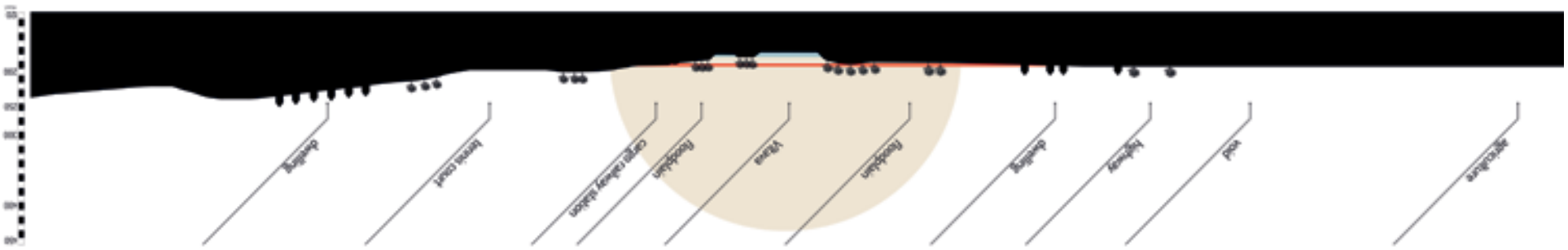
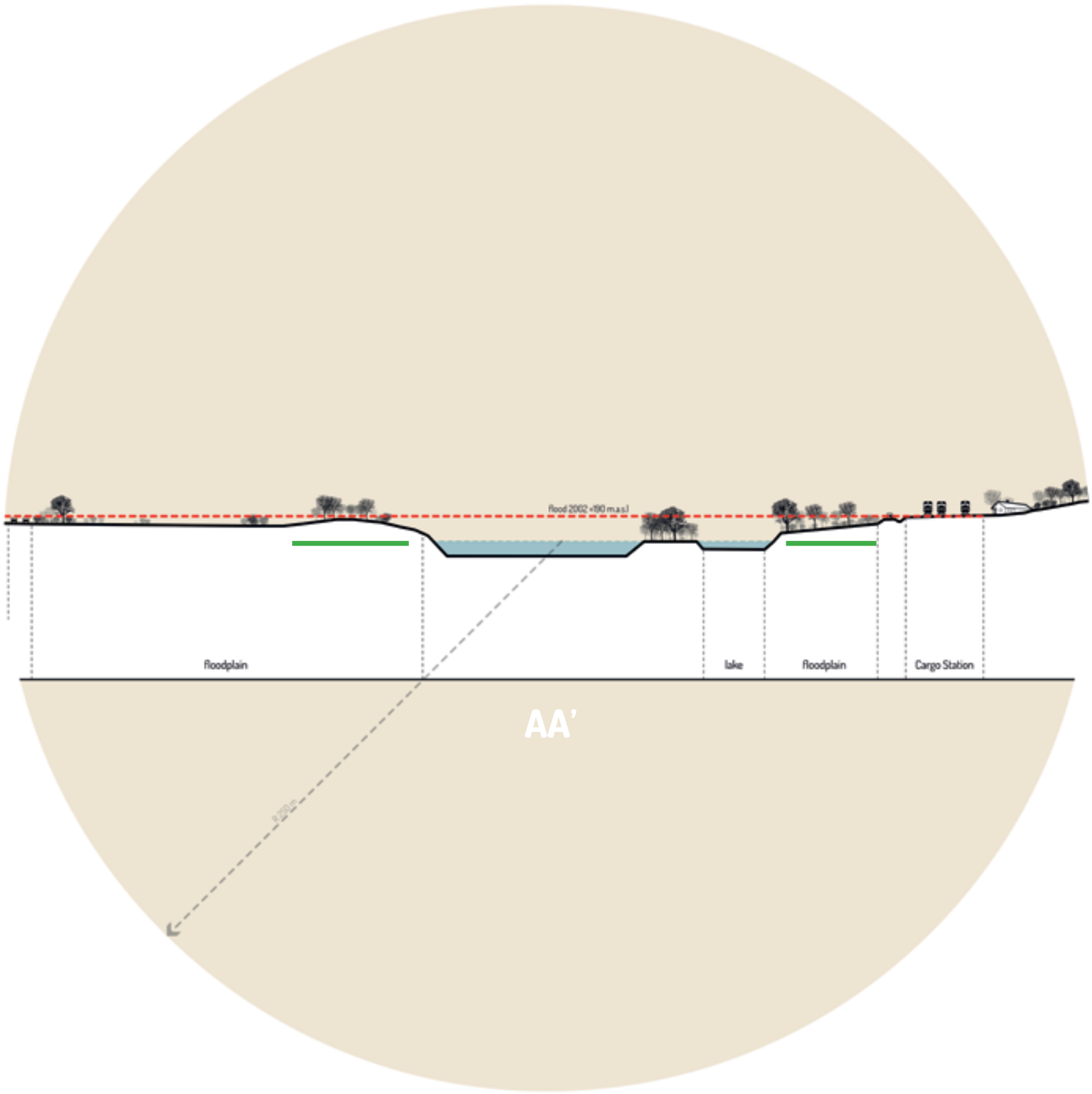
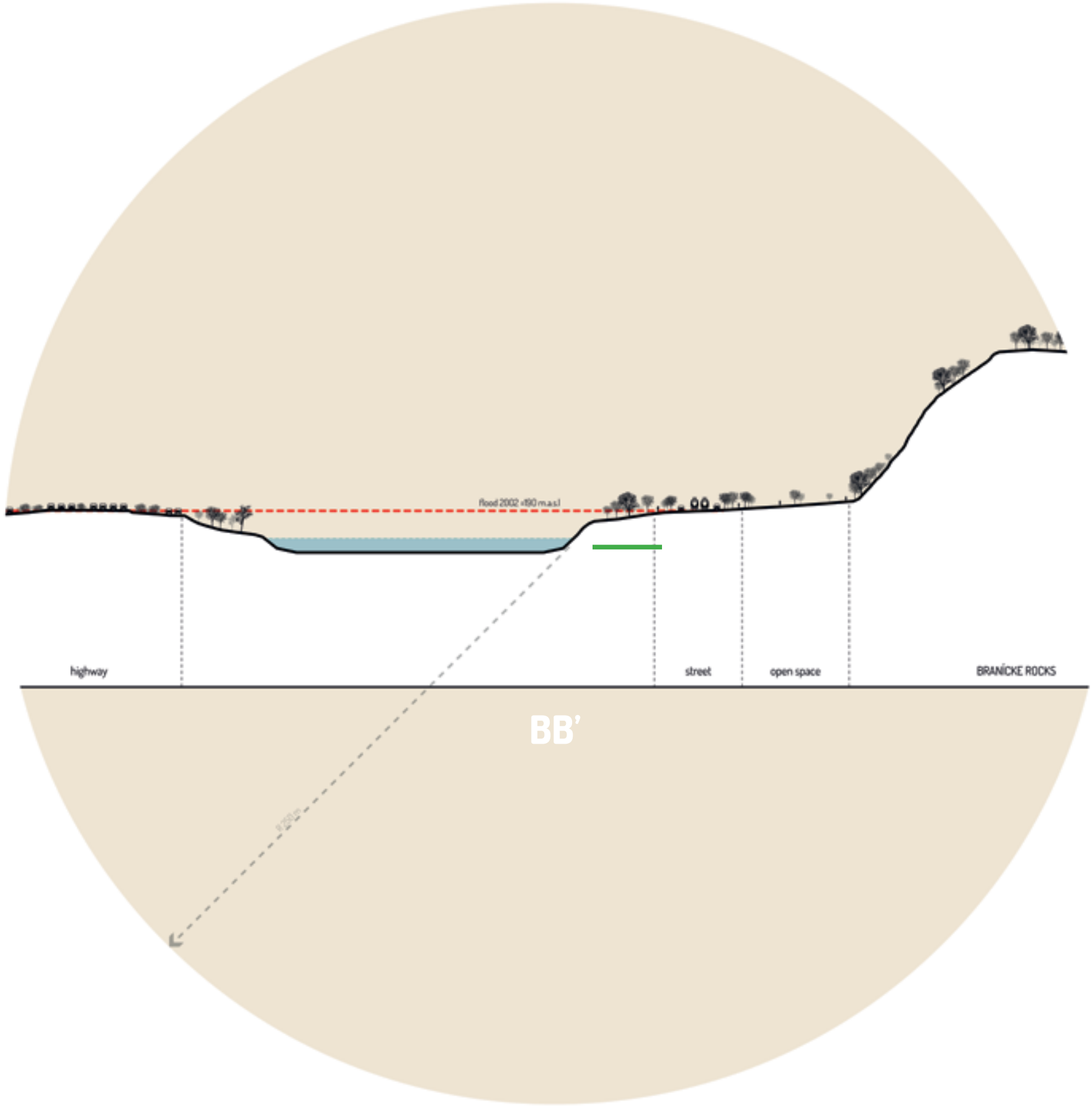




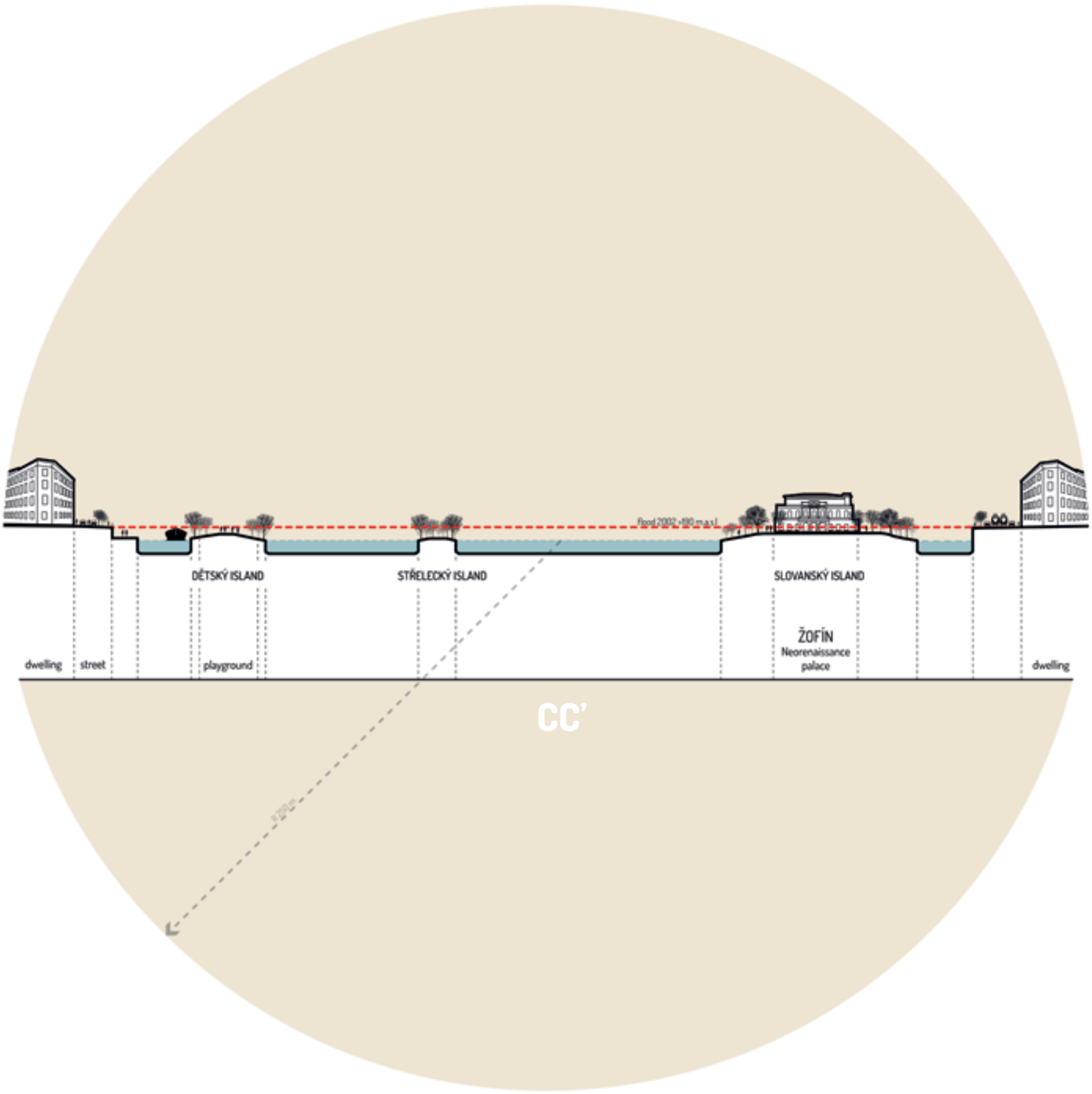
location of proposed green development

Detailed cross section of Prague's periphery depicts the river character as it enters the city. The natural flood plain with any other related activities could be visible. The 2002 flood water level is bit higher than at the some other places, as this areas lies on the confluence of Vltava and Berounka stream. With the proposed green infrastructure concept, the floodplains natural character will be enhanced and complemented by the bike paths along the stream.

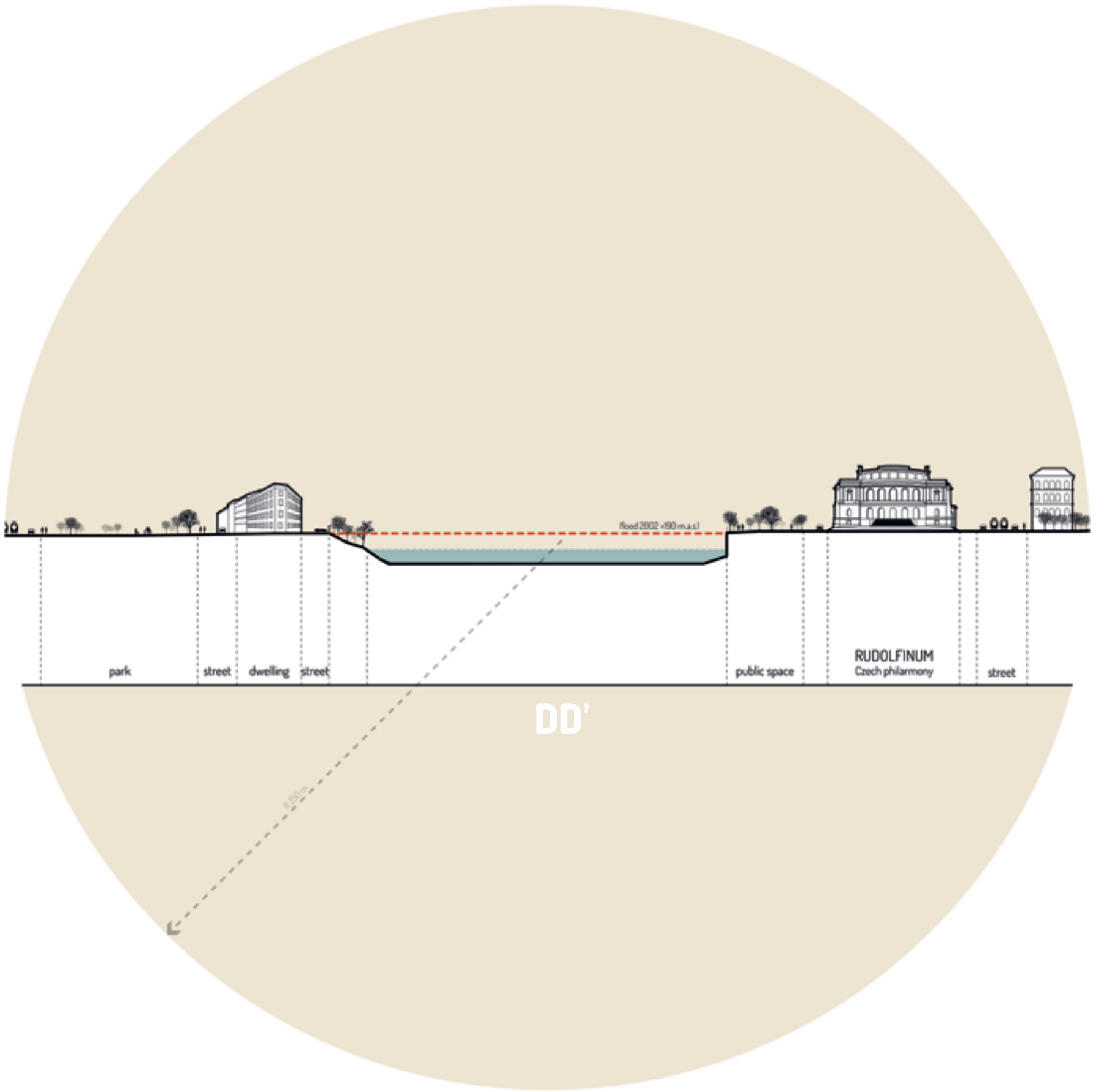


location of proposed green development

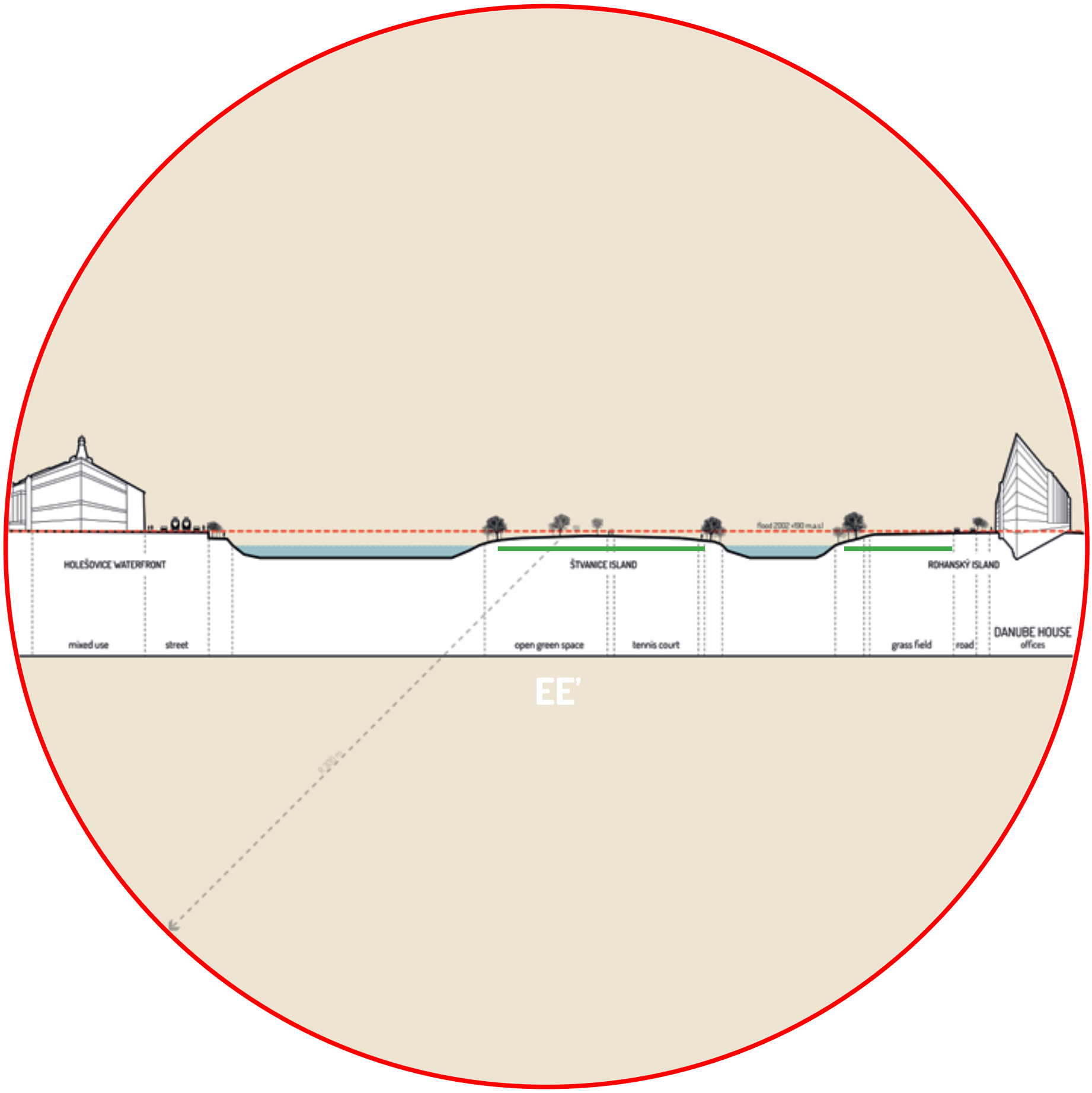
The suburbs are specific type of landscape occupying banks of the river stream located just on the edge out of compact inner city. Unfortunately, the residential houses are not visible on cross-section, as dynamic terrain of high rocks provides a safe place for locating buildings. On river level, strong traffic of highway (left bank) and suburban streetscape (right bank) can be visible. According to the green infrastructure concept, area should become the interesting mix between urbanity and nature, where inhabitants will be able to not only took but as well touch water.



The character of river completely changes as it enters the compact inner city. The high embankment walls are typical for the centre of Prague, where in the river's majestic flows few island can be found. Some islands are beautified by the historical buildings, which survived onrush of floodwaters through the years. The recreation is a prevailed function of islands. In the proposed concept, the current character of the river will not change only enhance.

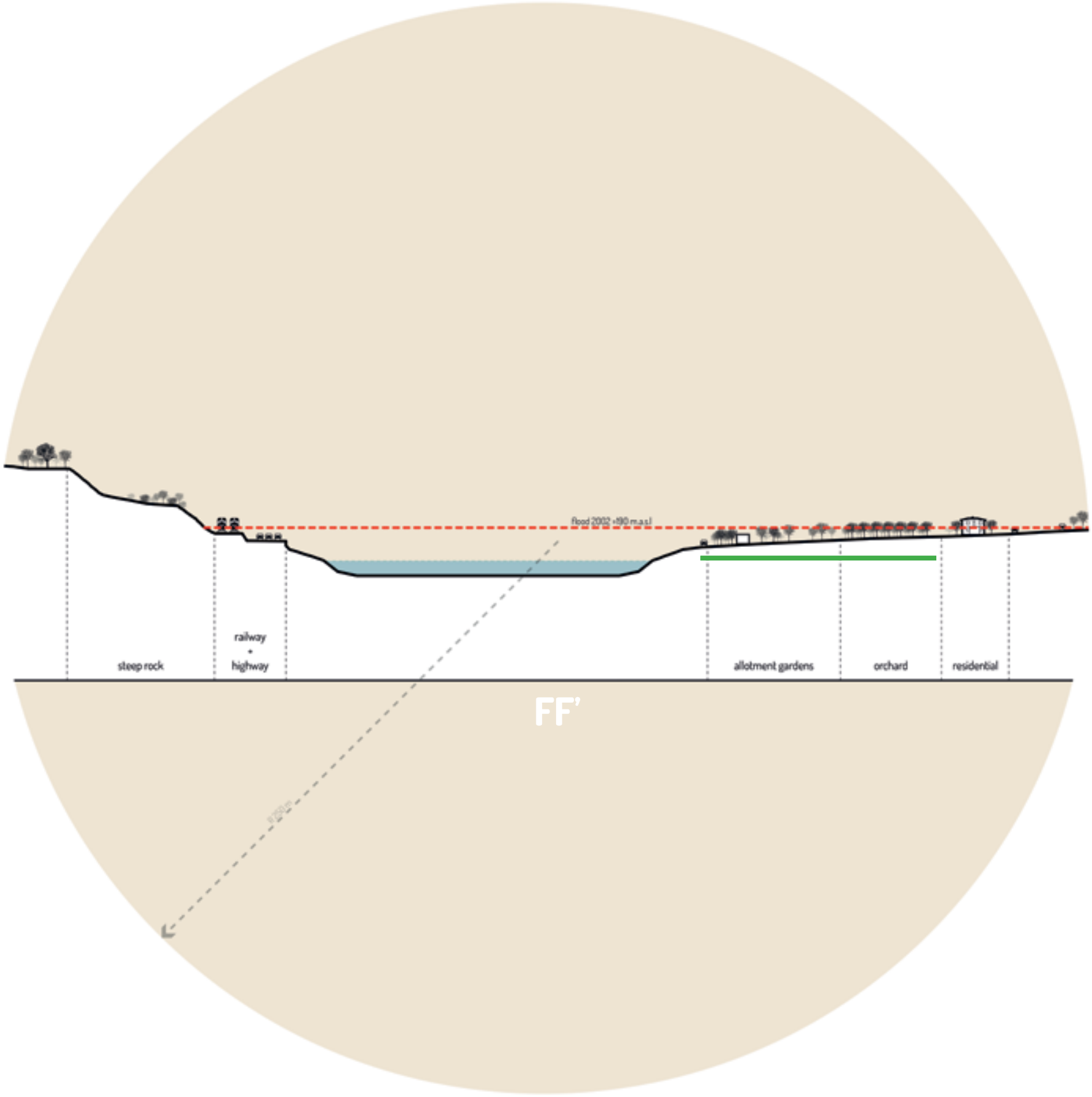


The cross section from the historical city centre, the high embankment walls are visible. These walls create a canal from the Vltava River, which is kept under control and was designed sufficiently to protect Prague against floods.



location of proposed green development

The area around the Štvanice Island was one of the most destroyed places during the 2002 flood. Due to its position in the heart of the city with no high embankment walls and the size of the river flow, it is a vulnerable area, which deserves our attention. Because of mentioned reasons the area eastwards and including Štvanice Island will become the area of interest for further design research. As indicated by concept drawing, the area will become green opens space where ambitious measures of flood mitigation will be taken.



location of proposed green development

The detail of last cross section depicts the river on its course out of the city of Prague. Similarly as at the cross sections 1 and 2, the heavy traffic on the riverside is characteristic. At the moment, area can be seen as forgotten, however greening and enhancement of allotment gardens and urban farming can help to restore a new type of resilient relationship between the city and its water.

3.3. TEST AREA – MANINY BROWNFIELD

Fig.33.: Site definition. Appointed parts of Maniny area. Area of interest and its different parts. Locations: 1. Štvanice Island, 2. Rohanský Island, 3. Maniny, 4. Blind river arm, 5. Libeňský port, 6. Rokytka brook, 7. Libeňský Island, 8. Holešovice port, 9. Libeňský bridge. The following locations bound the area of interest: 10. Rohanské nábřeží, 11. Thomayerove sady, 12. Bíla Skála (Source: Internet)

3.3.1. Site definition

The Maniny is an extensive re-development brownfield area (app. 130 ha) appointed by the Spatial plan of Prague, lying in the 45 minute walk distance from the historical city centre (4 km) (Fig.35). The brownfield is located in the inner compact city on the banks of Vltava meander. The project site consists of brownfield Rohanský Island, Štvanice Island, Libeňský Port, Libeňský Island, blind river arms (former docks), Holešovice port and the narrow stripe along left bank of Vltava River. However, for the purposes of this thesis, Maniny will be the name denoting this entire area (Fig.33).

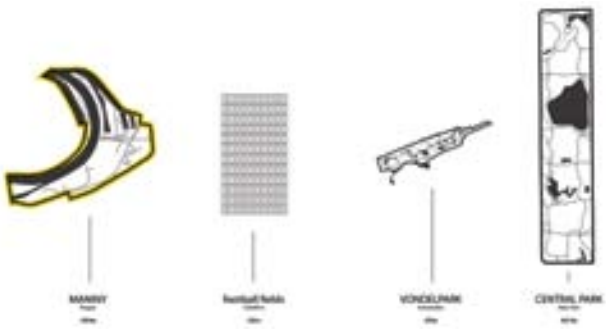


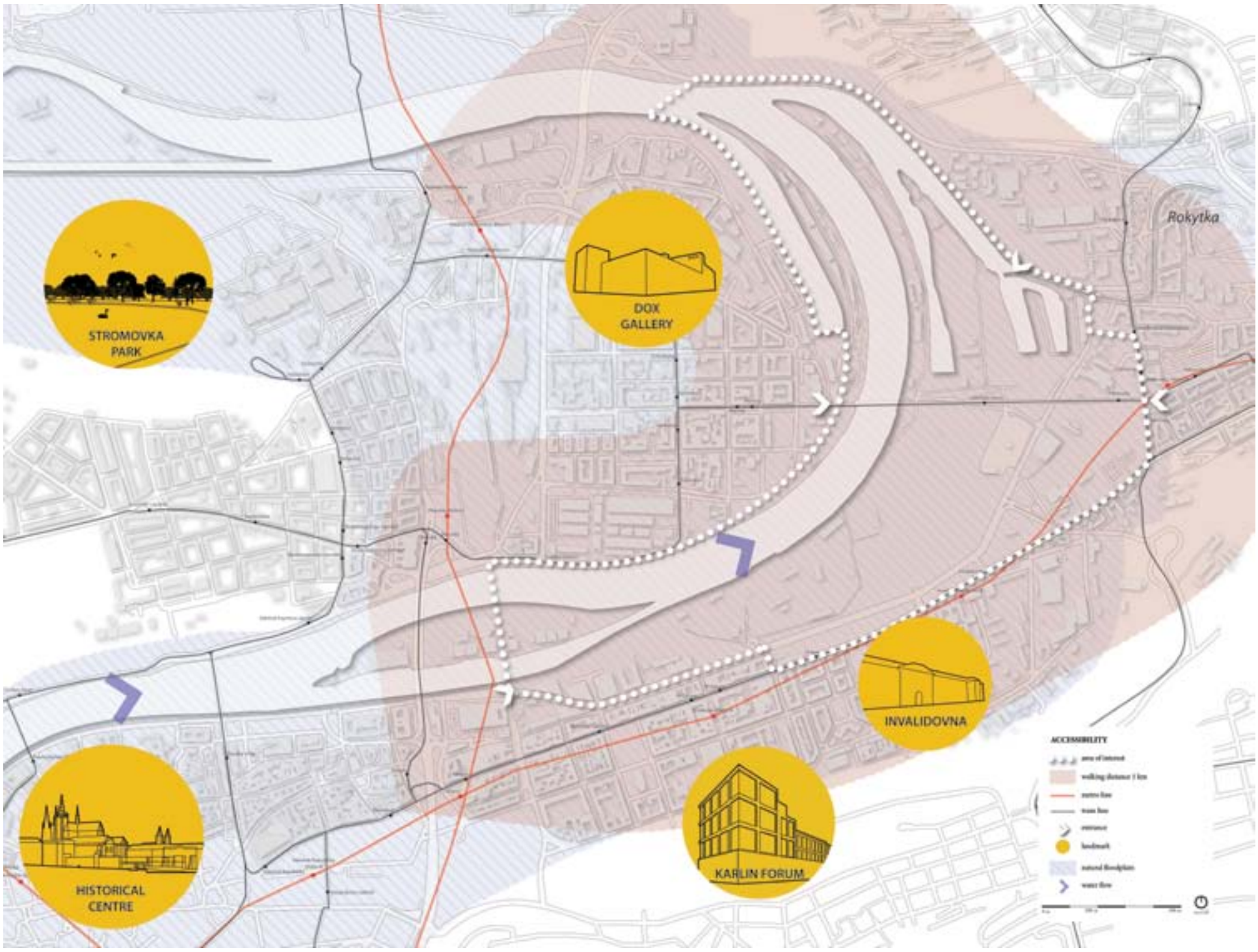
Fig.34.: Representation of scale compared to the Vondelpark and Central Park (Jančovičová, 2013)

Maniny lies in the cadastre of Karlín and Libeň city quarters. The place is joined with Holešovice (another city quarter) by the 1920s' landmark, Libeňský Bridge, which together with Vltava River, represent the vertical and horizontal axis of the site. Maniny area is a place of former floodplain, river branches and alluvial islands, which were joined with the land because of flood danger. Currently, it is a place of no identity. It is a place of strong contrasts, stabbing parking lots, concrete factory, car bazaars, golf court, tennis area, allotment gardens and relicts of industrial wilderness inhabited by homeless people.

Maniny area is bounded by road arteries of *Rohanské nábřeží* (south), which partially cuts through area on south-east and the Bubenské nábřeží on the west. From the north-east, area borders with *Thomayerove sady* what is park from the beginning of the 20th century, which was established by famous Czech garden architect František Thomayer on the confluence of Rokytka brook and Vltava River. From the north area is bounded by natural heritage *Bíla Skála*, which used to be used by people, as mining place or artillery aim of military trainings. The area is very well accessible by the means of public transport (tram/ metro) and is surrounded mainly by dwelling and commercial use (Fig. 35 & 38). The industrial history of Karlín, Libeň and Holešovice districts is still present by the erected chimneys and decaying ruins.

Fig.35.: The area of interest and its relationship towards other city parts and important cultural institutions or heritage. Maniny is well accessible by means of public transport as metro or tram (Jančovičová, 2013).

Fig.36.: Theme maps represent important physical features, which create Maniny landscape. The higher ration of derelict places and ruins can be found in the southern part of the area, where former docks were located. Interesting is also the theme map 'New development after 2002', which reveals where the new development took place after the flood in 2002 (Jančovičová, 2013)



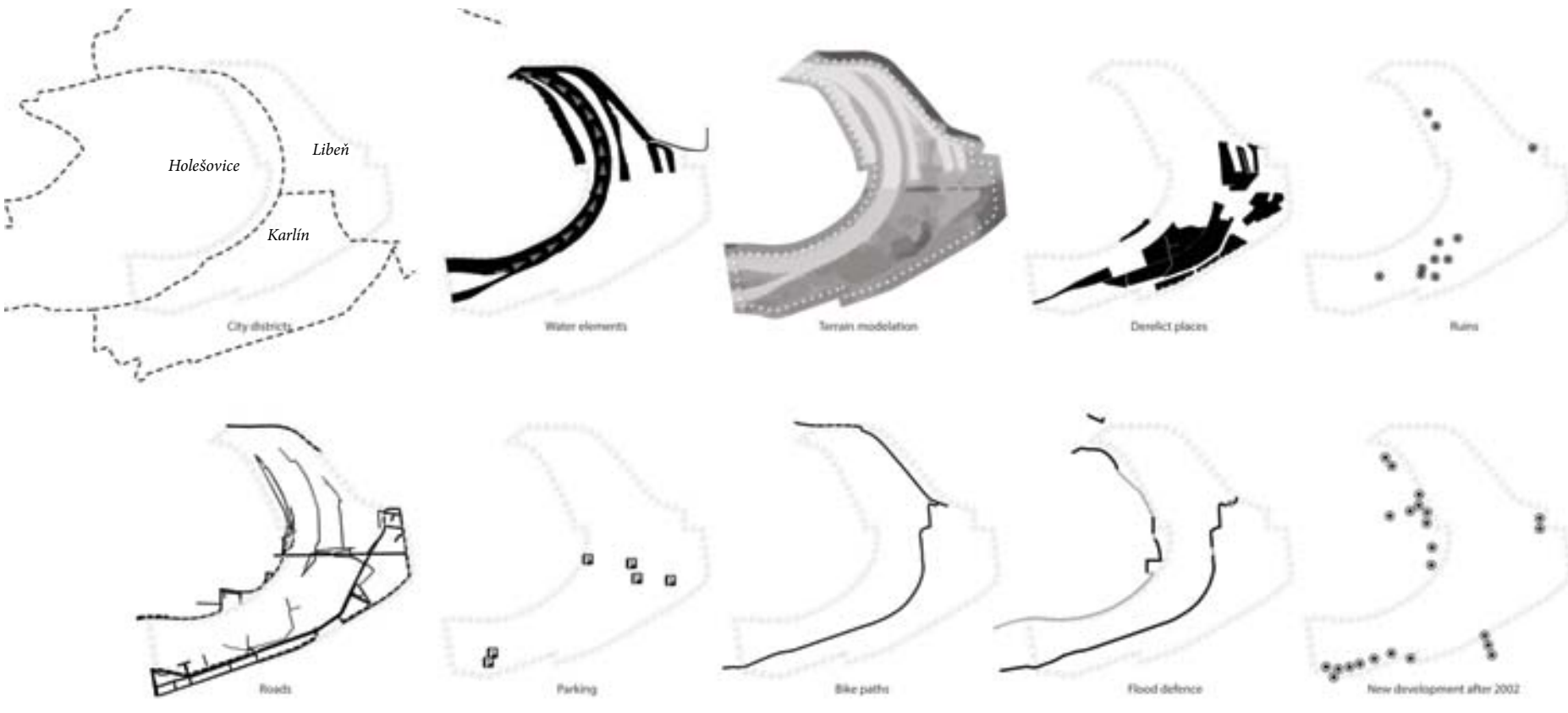


Fig.37.: Reseach area Maniny and its desolated landscape (Source: Google maps)

Fig.38.: Map of current land use reveals a high ration of residential or mixed function in the close distance from Maniny brownfield (Based on: Spatial plan Prague -concept, 2010)

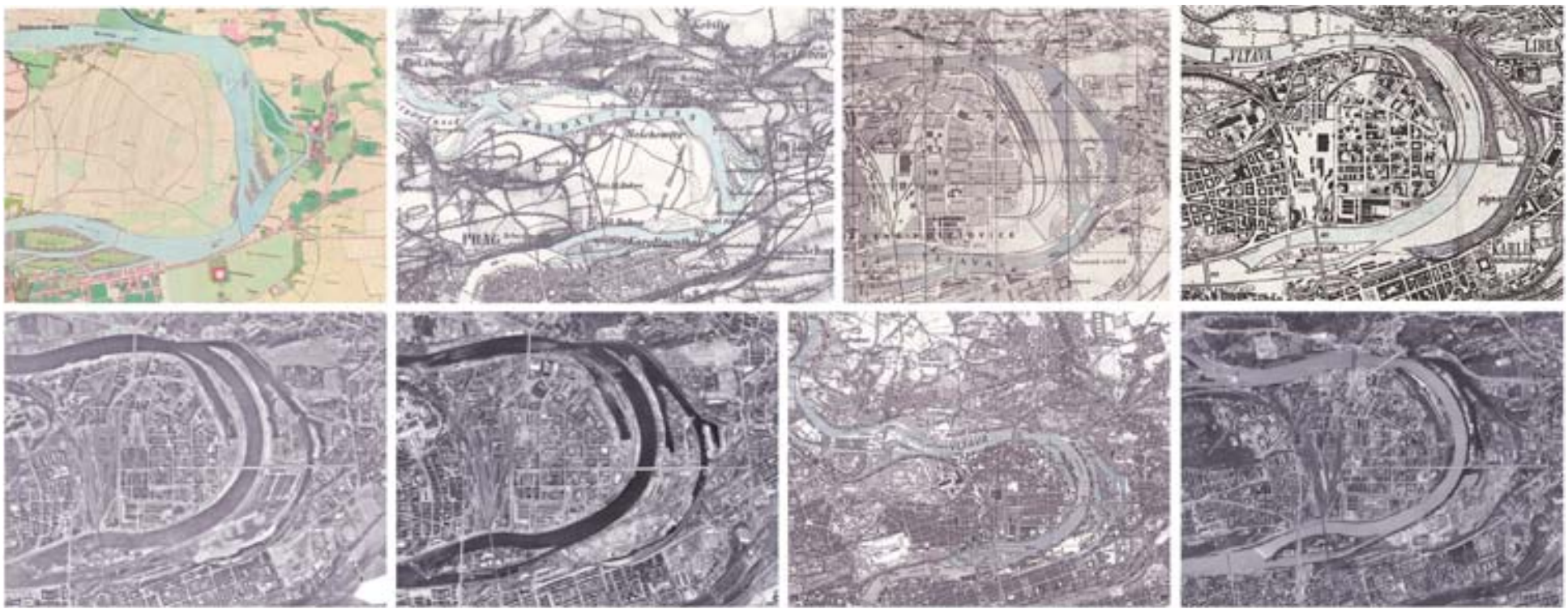


Fig.39.: Changes of Prague' s meander through the course of the history (Source: Za Starou Prahu 3/2010)

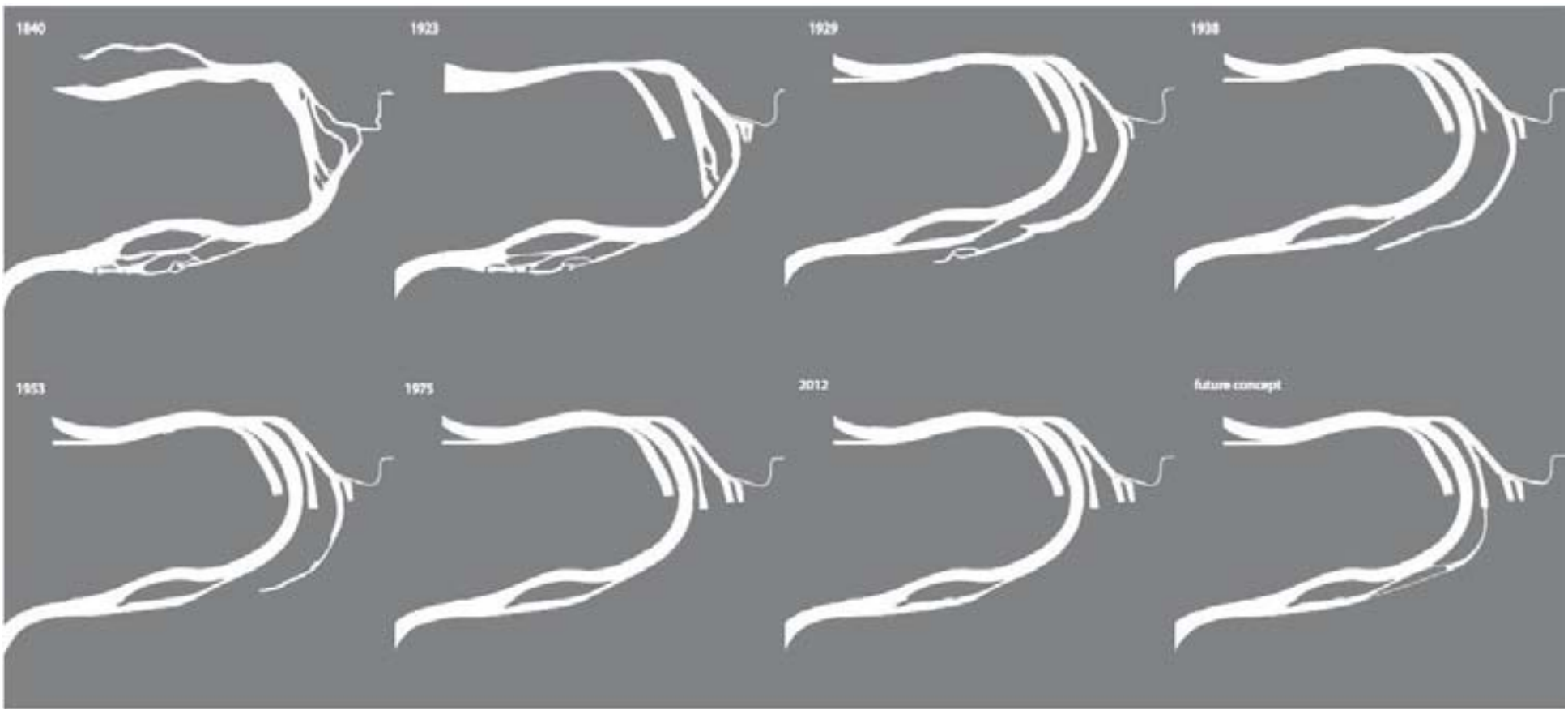


Fig.40.: The schematic representation of Vltava's meander transformation. Modifications into the riverbed influenced extinction of former Maniny floodplain (Based on: Za Starou Prahu 3/2010, ÚPP, 2008)

3.3.2. History

BEFORE 19th CENTURY

History of Maniny area is closely linked with the history of Vltava. In 14th century the river beautified medieval Prague with its shallow wide flow and picturesque natural banks (pastures, vineyards, forest). Thanks to the sediment deposits under the weirs, which served to improve sailing conditions, few small islands had been created. The former archipelago 'Veľké Benátky (Big Venice)' with the alluvial islands Primátorsky, Korunní, Jerusalémský and Rohanský (Fig.39. image 1.), were shaped by floodwater and its deposits. Štvanice Island was the biggest island of this archipelago, which served as a recreational island of Prague's high society. Vltava did not change for the long centuries since then.

19th CENTURY

By the end of the 19th century Prague held two ports. One of them was trading and cargo port Karlínsky, located in between industrial city quarter of Karlín and Rohanský Island. Area was important dock connection with Germany, as Vltava River ran to the Labe and then further on to Hamburg. After World War I. and the demolition of fortification walls, the historical core of Prague united with the surrounding villages into one economical whole. This caused the rapid development of industrial suburbs such as Karlín, Libeň, and Holešovice. The original medieval city contours disappeared. At the turn of the 19th and 20th century human hand changed the river again. Two new ports were built (Holešovický and Libeňský) and the surface area of Rohanský Island was extended by joining two small islands. Through this place the train track was led to connect Karlín waterfront with the new island. In this time, Štvanice Island found itself in between two industrially developing districts of Karlín and Holešovice. Despite this fact, Štvanice Island did not lost from its recreational status, and it became the popular natural swimming pool in the middle of the city. Even wooden theatre and the number of inns were built here. The extensive floodplain of Maniny was lying on the left side of the river and it belonged to Holešovice district. In this time Maniny were used as a military training ground and the place of the fist spartakiad, a mass gymnastics display.

20th CENTURY

Vltava River underwent strict technical adjustments in the 20th century. In 1923 relocation of the riverbed started. The aim was to accelerate river flow to improve shipping conditions. Originally river flowed eastwards. Finally after relocation in 1929, Vltava was replaced westwards closer to Holešovice district. Due to this technical change, the extensive area of river floodplain Maniny practically disappeared. Similar destiny waited for Karlínsky Port, which was gradually filled up. This meant that Rohanský and Libeňský islands became part of Karlín waterfront. In this time, Rohanský Island lost its status of the island and became part of the land. Over the centuries Vltava River underwent number of changes that created it from the majestic life-giving force to domesticated cripple with cut veins. Since 1930 (Za Starou Prahu 3/2010) the extensive area of Rohanský Island and Maniny became a fenced place of warehouses, concrete factory and landfill where the debris from building of metro was stored. Average citizens did not have any chance to enter this area for more than half century. Because of that, this part of Vltava disappeared from the mental map of Prague's citizens.

Fig.41.: Karlínský Port around the year 1905 (Source: Muzeum hl. m. Prahy in magazine Za Starou Prahu 3/2010)

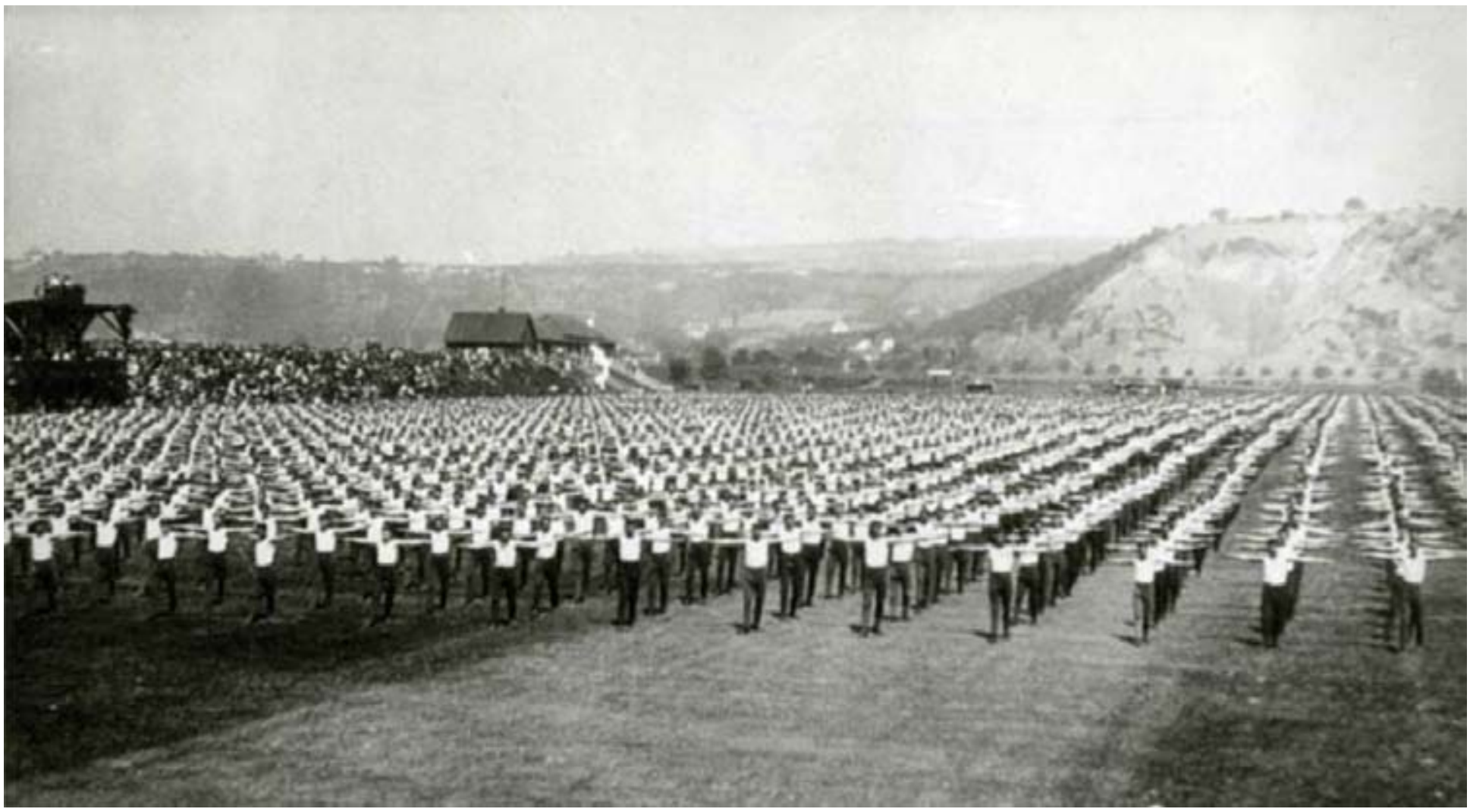


Fig.42.: First spartakiad in 1921 on Maniny floodplain, (Source: Muzeum hl. m. Prahy in magazine Za Starou Prahu 3/2010)

Fig. 43.: View on Libeň district and unregulated Vltava riverbed from the Vítkov hill around the year 1900. At the foreground military training ground and areal of engineering company Ruston can be seen (Source: Internet).

Fig.44.: The area abound the Libeňský Bridge is the spot where the appearance of the river changed the most. At the picture, Vltava's river arm in its former state before filling up (Source: Za Starou Prahu 3/2010).

3.3.3. Pollution levels

The topic of the environmental quality and pollution are important criteria when discussing potential of brownfield re-development. At the moment there does not exist any complete official documentation that precisely declare the pollution levels of Prague's brownfields. In 1999 at the initiative of municipal authority the revitalization of the southern part of Maniny area began. All waste and debris were removed and recycled. The soil was cleaned and enriched so the new grass fields could be created (Group 5, 2009). However, 2002 flood destroyed area completely and new debris and ruins occurred. From the environmental point of view, the existing brownfield does not affect quality of air, as the areas was never completely built up and used for long time as dump site, so the emissions consists in majority of dust. The only factor, which affects the air pollution here, is a cement factory and vivid car traffic at the adjacent road infrastructure. Regarding to the soil and groundwater pollution, the main pollutants are petroleum, chlorinated hydrocarbon and the heavy metals, which quantities however could be even less than maximum load limit (Groep 5, 2009, Arnika, 2010). The problems with the pollutants are technically solved when the brownfield starts to be redeveloped. Since everything has been destroyed by the power of the water, the green elements have wild and self-seeding character.

3.3.4. Impact of the 2002 flood & Future development

The strident changes into the Vltava riverbed in the 19th and 20th century affected course and the impact of the 2002 flood on Maniny brownfield (Elleder, Munzar, 2004). Maniny and the adjacent quarters of Karlín, Libeň and Holešovice were the most damaged city parts. The infrastructure and public transport were strongly affected, dozens of houses were irretrievably damaged and thus lots of people had to move away. Flood water weakened or completely destroyed buildings, which stood in the south part of the area. The allotment gardens in the northern part of Maniny area were literally flushed away. In 2007, the defence system in this part of the city has been finished. The dike and the strong dam were created to keep river in its given boundaries and to under the control. The dike creates the illusion of safety. On the contrary, the 2002 flood significantly accelerated re-development and decision-making process. Due to good accessibility, lucrative position towards city centre, direct relationship with the river and visual connection with Prague Castle, Karlín/ Holešovice/ Libeň have become dynamically developing city quarters. Karlín' low cast post-industrial character is gradually changing towards modern commerce and dwelling district. Holešovice is slowly gaining a city importance and the status of new creative centre of Prague, where contemporary art and design have place.

In Prague there are no strategies and the regulations for the brownfield re-development. The only official framework which regulates the city development is Spatial Plan. The whole area of appointed Maniny brownfield is awaiting changes. The southern part of the area, Rohanský Island, will become an island again. According to the concept of Prague Spatial Plan (Fig.46), the municipal authority is planning to revitalize former river arm and thus to reconnect one of the blind river arms back with the Vltava river. This means that the Maniny will be separated into two parts, a front of the dike and behind the dike. According to the Spatial Plan, the unsafe area between the flood barriers and the river should be devoted to the green park space with the recreational activities and the sport facilities. The area behind the dike should become lucrative build up area. The car bazaars, golf yard and allotment gardens should disappear from the map of Maniny area in the future. However, we need to re-think the river of Vltava as a dynamic element in Prague's society and its future because increasing flood risk cannot be ascribed only to the climate change, but it is as well of massive loss of floodplain and water retention areas after years of settlement and river regulations.

3.3.5. What if nothing happens

Since the year 1998 the project River City Prague had been prepared intensively. In the southern part of the research area, right on the authentic spot of former alluvial islands, the urban development of 120 000m2 is in the construction phase. At the moment there are already built four massive commerce buildings (Danube House (2003), Nile House (2005), River Diamond (2007), Amazon Court (2009)). According to the plan two dwelling blocks and hotel should be constructed. In 2007, the project of Rohan City (202 000 m2) was introduced, but did not pass the official acceptance yet. If the project will pass through, the location of the former riverbed and its adjacent floodplain, will find itself built up entirely. The project planned to develop private dwelling area, which would just create soulless 'ghetto of wealthy', the gated community with low social inclusion. The place on the river will be just place for those more fortunate. From the environmental point of view, the planned water canal will not serve as fully functioning ecosystem, but only as mean of beautification and background of modern architecture. The projects do not respect river and its forces, and pose the false believe in the man victory against the natural forces, of which the 2002 flood should remind us. From flooding point of view it is questionable whether urban development on so far unbuilt place of river floodplain is right thing to do.

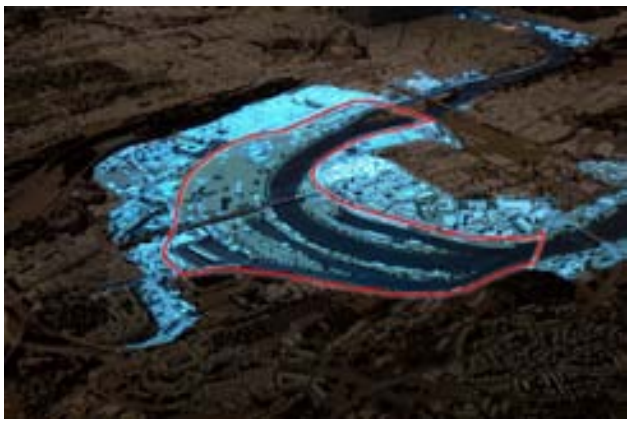


Fig.45.: Model of Prague, the light projection of the 2002 flood and its impact on Karlín, Holešovice and Libeň districts (Source: Internet)

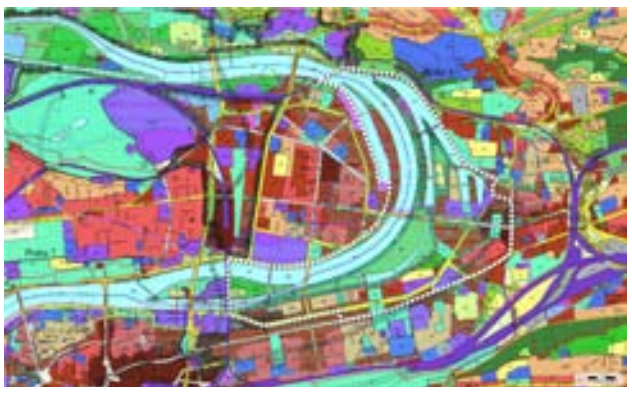


Fig.46.: Future development plan for the area of interest proposed by the municipal authority. The plan for river arm reconnection visible (Source: Geoportal Prague)

Fig.47.: Project of River City Prague (Source: Internet)

Fig.48.: Project of Rohan City (Source: Internet)

FUTURE DESIGN RECOMMENDATION:

BASED ON THE CONCEPT DRAWING OF THE GREEN INFRASTRUCTURE (Fig. 31) AND PARTIALLY ON THE FUTURE SPATIAL PLAN (Fig.46), THE MANINY BROWNFIELD SHOULD BE RE-DEVELOPED IN SUCH A WAY TO MEET STRICT FLOOD PROTECTION AND SOCIAL REQUIREMENTS.

PARK, WHERE THE FLOOD MITIGATION MEETS THE SOCIAL FUNCTIONS IS PROPOSED AS PREFERRED PROGRAM OF FUTURE RE-DEVELOPMENT.

SYNTHESIS

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The forth part of this thesis focuses on the methodology that was used with the aim of logically triangulating between the appointed design area, theory and design. Since we identified the potential flood danger as the unpresentable aspect in city of Prague we need to materialize it in the light of a test area, as the negative representation needs to be tangible in order to design with it. The arousal mapping, picture reduction and collages became the instruments in making of meaning.

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4.1. INTRODUCTION TO METHODS

This part of the thesis describes the process of theoretical digestion connected to the deeper exploration of the appointed test area. It is a stepping-stone in between theory and design, which suggests the basis for further design reasoning. As the contemporary interpretation of the sublime is still undergoing development (with reference to Paul A. Roncken's PhD. thesis, Wageningen University), a clear methodology for approaching this phenomenon does not exist. However, as a proper reading of the sublime needs to include over history accumulated ideas and peculiar personal views (Roncken, forthcoming), several explorative methods has been used. The aim of the following methods is to get a grip on the source of the sublime sensation, the unpresentability of the potential flood danger and how this negative representation can be made palpable in order to design with it.

Being in and moving through landscapes affords a number of sensations which relate to oneself via an *interpretative interaction between the subject and the object* (Roncken, 2013) of aesthetic appreciation. We are embodied actors with the *ability to identify something external according to ones' internal categories* (Roncken, 2013) when interacting with the world. The phenomenology is popular theory discussing landscapes through means of individual aesthetic experiences. *It is a sensuous encounter, a lived, embodied and affective experience, from which arises both sense of self and the sense of landscape* (Wyllie, 2013: 58). In another words phenomenology is a philosophy that explores the understanding of the sensuous digestion of reality. It is about depicting the *perceptible realm* (Gobster, 2007) in the mind of the individual, where the *aesthetic experience is simply the recognition of reality* (Dee, 20012:10). In the light of phenomenology *aesthetic experience is the encounter of things as they are, and as we are bound to them (non-dual) in momentary conditions* (Dee, 2012: 10). However, because the interpretation of the contemporary sublime is defined as a difficulty in the sensuous perception, phenomenology used as a research strategy on its own is not satisfactory enough to qualify the negative representation. For the purposes of this thesis the notion on phenomenology is rather informative and understood as being in the world.

Because the sublime operates on the individual level human scale analyses are necessary. *The sublime as an expression exists in various forms that are related to very personal affections* (Roncken, forthcoming). If Kant is right and the sublime is not based in the object itself but rather in the mind of the subject, then it is difficult to restrict sublime landscapes to architectural composition only. This makes it difficult for designers to deal with the sublimity because the physical landscape is generally understood as the fundamental medium of a design. When we acknowledge the fact that the current state of the Maniny brownfield is a result of natural disaster, a flood in 2002, then an investigation into the area's aesthetics is necessary in order to understand how the flood phenomenon shaped appearance of landscape. We need to know not only what it is we experience but also how different environments determine our appreciation. The object-based definition of Burke's sublime comes into consideration with the *arousal mapping* (see 4.2) and the *picture reduction* (see 4.3). The aims of these investigations are to identify: where the heightened attention to one's body and/or surroundings occurs (arousal map), what are the landscape elements which trigger such expression (attributes map) and what qualities those elements hold (picture reduction). Because the sublime is a negative representation that cannot only be understood by senses or logic, it is necessary to be imaginative. The design driven need for defining the metaphors and symbols as a medium to providing meaning arises. *Collages* (see 4.4) as a visual arts-based research tool (Leavy, 2008) are used to grasp the unpresentability of flood danger and to provide hints on what basis the appreciator is able to make his/hers own interpretation. On the following pages the fourth and fifth research sub-questions (*What are the landscape aesthetic qualities of appointed brownfield area?; What are the symbols and the metaphors relevant for the design of a landscape that induces the imagination of threat?*) are being examined through the use of sketched research methods.

4.2. AROUSAL MAPPING

As it springs from the theoretical sources the sublime sensation has always been associated with the increased attention of the individual in order to survive or to overcome complex and demanding situations. Environmental psychology defines arousal as *heightened attention to one's body or surrounding* (Jacobs, 2006). In another words it is the level of excitement or alertness felt by individual within landscapes. Arousal theory was originally developed by an American psychologist and philosopher called Berlyne as a general aesthetic theory; a theory that explains our aesthetic response to anything. It is closely related to other concepts such as attention and motivation. Arousal level can depend on variations in the subject's body and arousing features of the landscape. According to the theory (Berlyne, 1973 in Jacobs, 2006: 33) the arousal potential, which is the arousal-increasing capacity of situation, depends on 3 types of factors: (1) *Psychological factors* (e.g. colour, intensity, degree of change of stimuli), (2) *Ecological factors* (factors that influence motivation) and (3) *Collative factors* (structural or formal features of the environment, such as the degree of novelty vs. familiarity, stability vs. variability and ambiguity vs. certainty). According to the Berlyne the stimuli that provide the optimal arousal potential are those that mix arousal increasing and decreasing properties. Therefore *these stimuli make it cognitively difficult to understand the situation, but at the same time make it possible to resolve the problem* (Jacobs, 2006: 33). The optimal arousal potential *motivates us* and *trains our cognitive skills* (Jacobs, 2006), which are capacities we need to survive. With regard to the earlier mentioned statements, the paradoxical aspect of the sublime and need of imagination as an instrument in making of meaning can be identified.

4.2.1. Description of research conditions

As the arousal level can depend on variations in the subject's body and arousing features of landscapes, it is important to specify the conditions in which the research investigation was performed. The area of interest were visited three times in total. The first time it was during a sunny day at the end of the summer (August 2011) with a group of three local inhabitants. During this visit the research proposal was initiated and the site was defined. The second visit, during which the arousal mapping occurred, was on a sunny day in March 2012, but this time alone. The third time area was visited in December 2013 to inspire design interventions. The planning of the visits was spontaneous and depended upon the needs of the research development and the personal circumstances.

Movement through an environment or locomotion is critical to human exploration of what environment affords (Nassauer, 1995: 232). Because the landscape experience is archetypically gained by walk (Brook, 2013) and the combination of muscular power and hand-eye coordination is *major trend as an awareness raising experience* (Roncken, 2013), the arousal mapping was made on a basis of bodily movement. The act of walking enabled the viewer to open up towards the stimuli afforded by different landscape elements. The total distance walked was approximately 10 km and occurred over a time spam of two days (March 2012). The exact walking route was not defined beforehand but resulted from given environmental conditions and personal motivation. During the walk, two types of information were recorded. The first set of information indicated the location and the intensity of heightened attention and the second the landscape elements that afforded such a response. In the following paragraphs the emotional and attributes maps, the two components of arousal mapping, will be described in detail.

4.2.2. Arousal and Attributes map

The *arousal map* (Fig.49) is a result of recording the arousal level experienced while walking around the Maniny brownfield. The map aims to visualise the relative attention intensity of the individual and the location of the encounter. The arousal map does not distinguish between which sensory input's arousal level was affected, but rather aims to grasp the aesthetics of the area in general. It either does not differentiate between the positive and the negative experiences, as they are both possible for arousal to arise (Jacobs, 2006). This means that responses are not depicted exactly but rather are portrayed as relative intensity caused by different landscape elements or situations. The coloured dots of arousal map represent the intensity fluctuating from low (grey) to high (red) rates. The map should be read as a gradient rather than as individual events. Based on Plutchik's wheel of emotions (Williams, n.d.), small grey dots represent less intensive responses (e.g. serenity, acceptance, apprehension, distraction, pensiveness, boredom, annoyance and interest), medium pink dots represent mid-intense responses (e.g. joy, trust, fear, surprise, sadness, disgust, anger and anticipation) and large red dots represent more intensive responses (e.g. ecstasy, admiration, terror, amazement, grief, loathing, rage and vigilance).

For a better understanding attributes and arousal map should be seen and read as complementary representational means as they were made simultaneously. The aim of the *attributes map* (Fig.50) is to identify what are the landscape elements and situations which trigger arousal. Most of the time the maps depict arousal-increasing stimuli, which leads to heightened attention (red dots). Attributes maps can be seen as a collage-like inventory, blending image with text (annotation clues) in order to provide better understanding of the area and to create ones *'reality' and find meaning. The textual collage is both work of art and an information-*

bearing subject. The juxtaposition of words and images opens up new meanings that would not be possible without the incorporation of both text and visual imagery (Leavy, 2008: 222). The representational hybrid, which the attributes map is, depicts the author's reality and stimulates the reader to create their own image of the area.

4.2.3. Arousal mapping results

Landscape aesthetic theory is related to the human mind and human sensory capacities, yet it is at the same time related to the appearance of landscape (Roncken, 2013). The aim of the method introduce previously was to investigate the aesthetic character of Maniny in its current state. Allocation of researcher's arousal level and identification of attention affording stimuli were mapped. As the arousal and the attributes maps (Fig. 49 & Fig. 50) show, high arousal situations are most concentrated in the southern part of the area, where the ruins and derelict places are located. These elements provide the highest arousal levels, as they are complex in their physical appearance and provide a number of associations linked to them. Ruins are elements which remind us of previous human presence. The other arousal-increasing elements of Maniny brownfield include: the Libeňský Bridge, cutting area through in the middle, a dense vegetation enveloping one and the concrete dam located in the north-west. The attributes map also reveals that we, as human beings, might arouse in situations when other people are encountered in unexpected situations. Landscape elements such as water bodies, allotment gardens, car bazaars or modern buildings afford relatively mild arousal levels. The arousal in the urbanized areas, golf course or along the streets is relatively low as they might appear familiar or monotonous. Because plain inventarisation of the landscape elements is not enough to fully understand the aesthetic character of the Maniny brownfield, picture reduction was also used to provide a closer investigation of the landscape's qualities and elements.

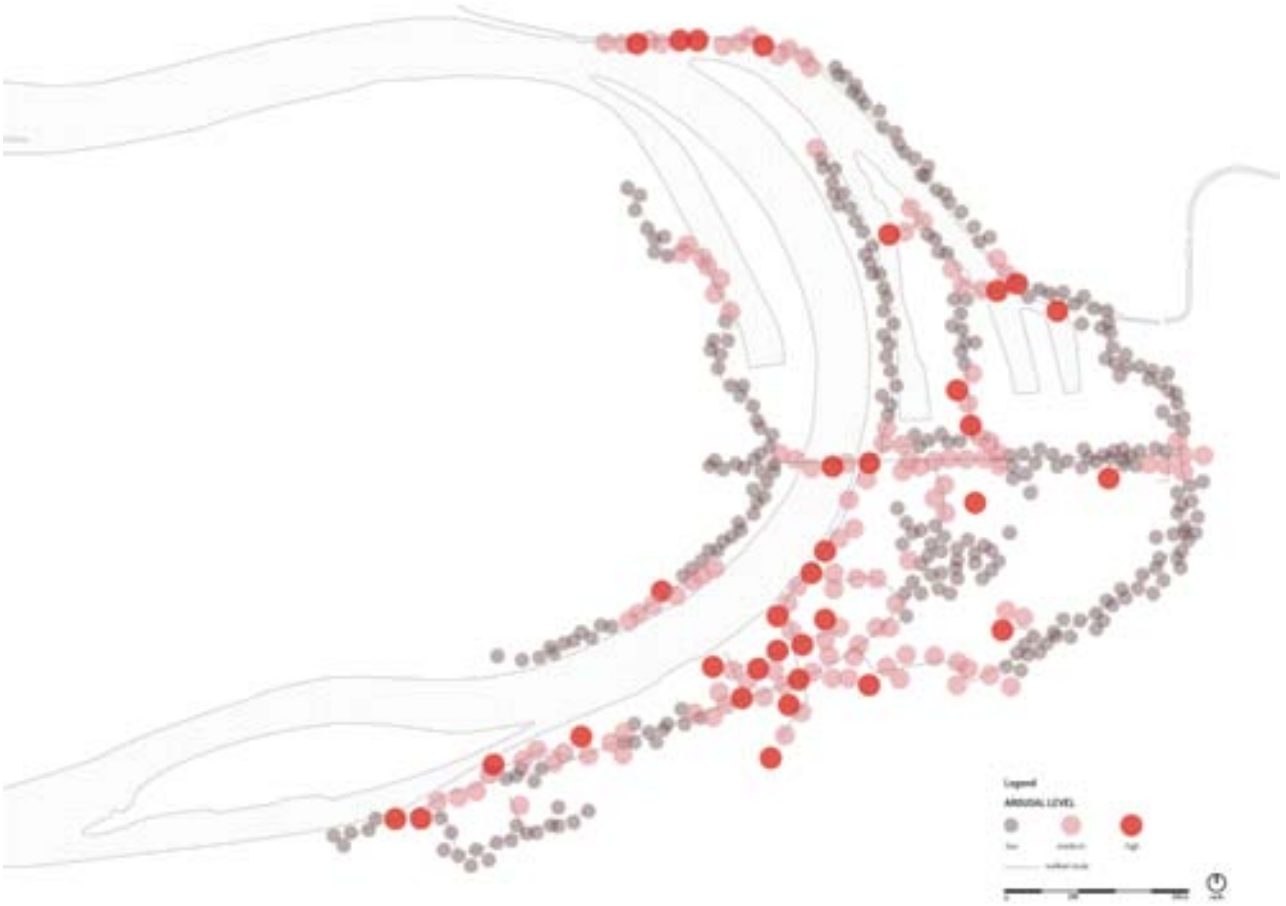


Fig.49.: The arousal map depicting arousal level felt in the area while walking (Jančovičová, 2012)

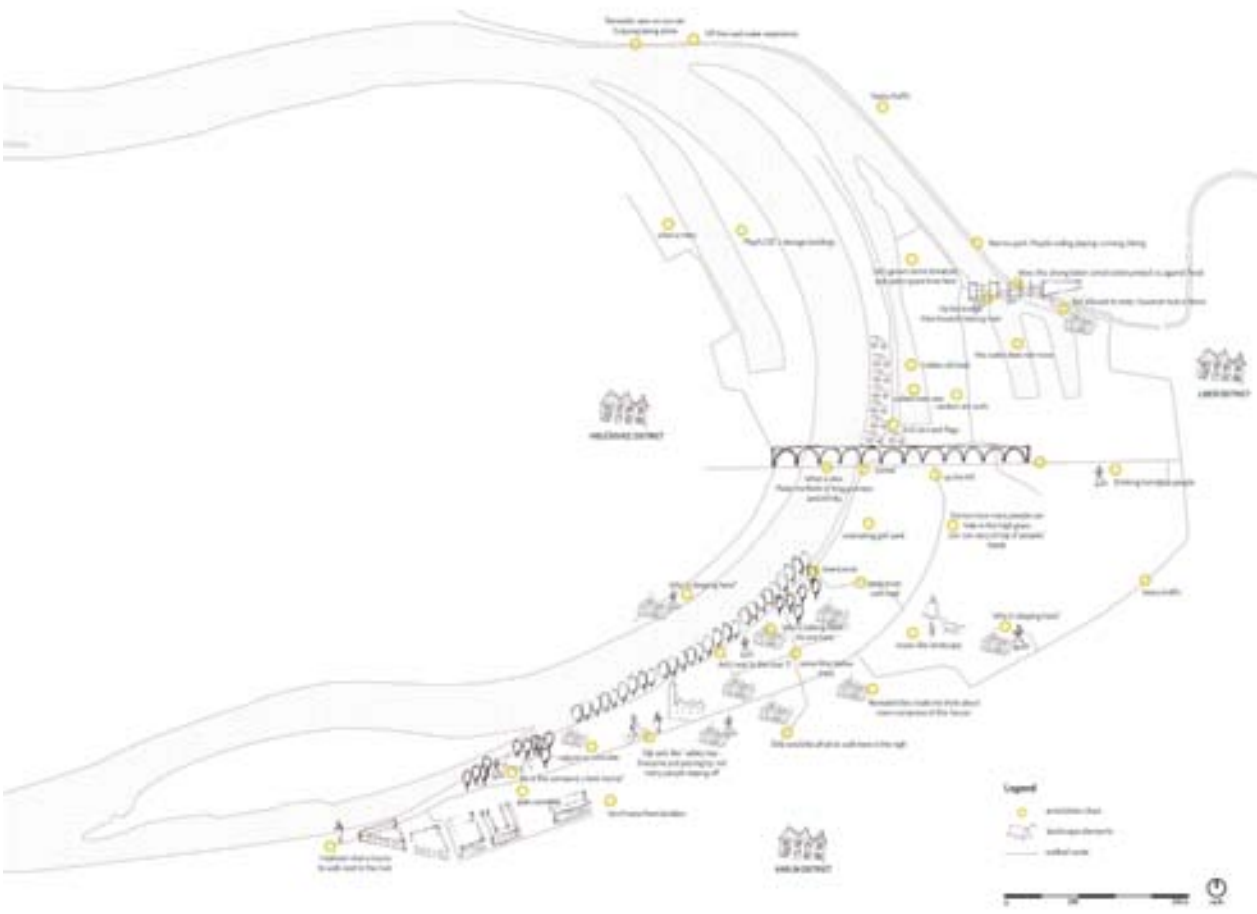


Fig.50.: The attributes map, is the compulsory representational mean illustrating the source of the heightened attention (Jančovičová, 2012)

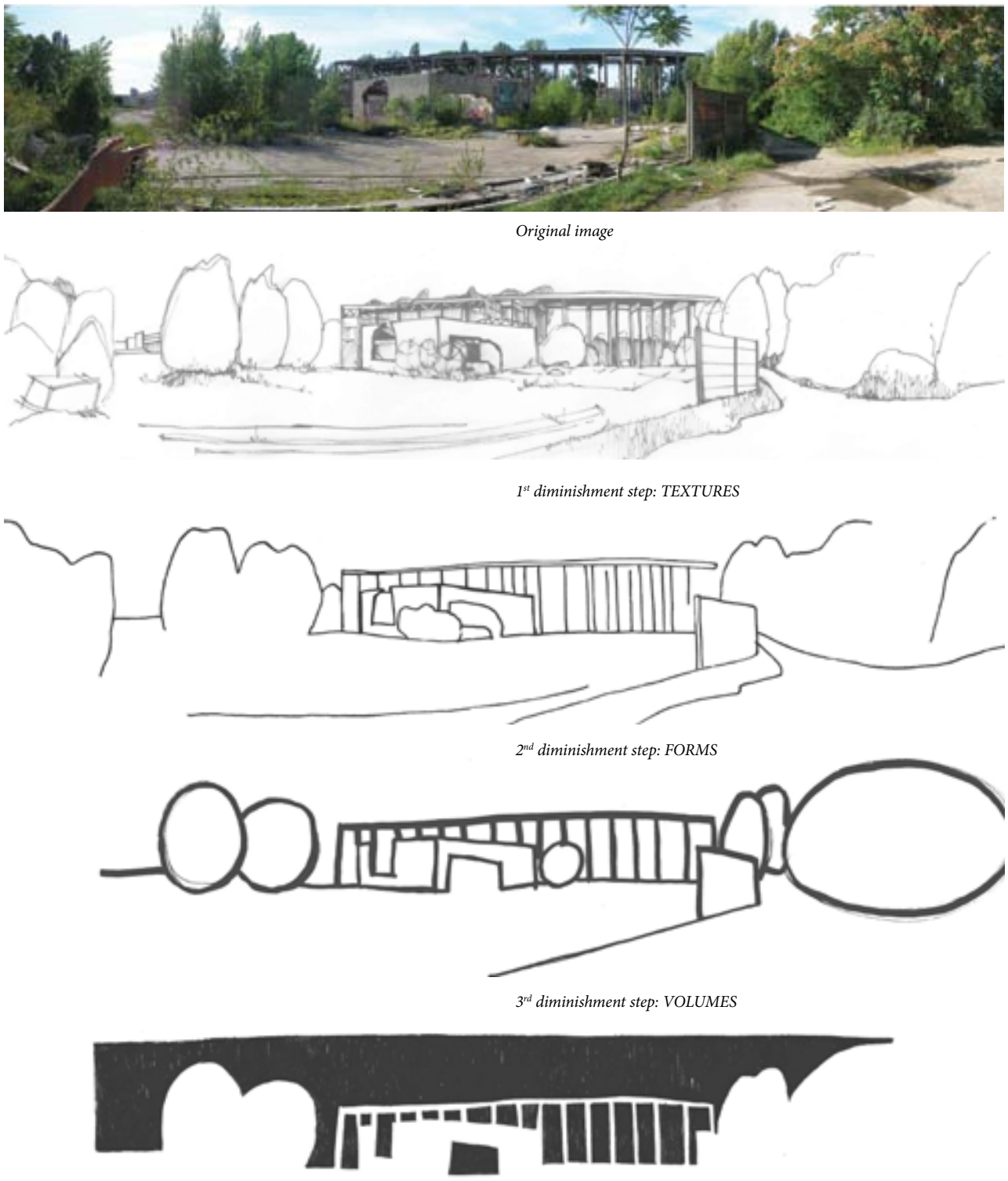
AROUSAL LEVEL	LANDSCAPE ELEMENTS
LOW	Streetscape, golf course, bare landscape
MEDIUM	Modern buildings, allotment gardens, car bazaars, cement factory, water elements, people
HIGH	Ruins, derelict places, dam Libeňský bridge, wilderness, concrete slabs, heavy traffic

Fig. 51.: Summary of landscape elements and to them assigned arousal level (Jančovičová, 2012)

4.3. PICTURE REDUCTION

As human experience cannot be understood separately from the environments in which they occur (Leavy, 2008), it is important to become familiar with the setting and properties that the particular landscape holds. Since we identified different elements causing different arousal levels, we also need to understand how those features build up the landscape to afford an increase or decrease in one's attention. The following research method aims to explore and identify the structural landscape qualities and formal properties of the Maniny brownfield.

Because design thinking and knowledge are articulated by and through visual media, the drawings represents the primarily method of communication (Dee, 2012). Picture reduction is a qualitative research method with a three-step simplification, where photographs are diminished from the most complex situation towards its basic geometry; it is deconstruction by drawing. This research method provides hands-on understanding of different landscape elements and their materialization. It is a process of revealing the visible and invisible structures of physical features.The act of drawing helps to understand various details and patterns present in the area, which might not be otherwise perceived. Each reduction steps reveals different elements and associations linked with them. By re-drawing the images, the landscape represented in them become less complex and different openings, textures and views are unmasked. Picture reduction can be seen as an additional in-depth means of landscape analysis.



Original image

1st diminishment step: TEXTURES

2nd diminishment step: FORMS

3rd diminishment step: VOLUMES

additional diminishment step: INVERTED VOLUMES

Fig.52.: The example of different diminishment stages used in the picture reduction method. Original image is decomposed by the act of drawing, from the complex to its schematic representation (Jančovičová, 2013)

4.3.1. Description of research strategy

A selection of 23 panoramic photos, which use the *architectural painterly viewpoint* (Loidl, Bernard, 2003), were chosen as a starting point for the picture reduction method (see appendix 1). Photographs were taken during the site visits in August 2011 and March 2012. Pictures were taken in daylight, where the horizon is positioned approximately in the middle of the image. There was no emphasis on any specific object or detail. The reduction method is an instinctive process where personal intuition plays an important role when downscaling complexity. In other words when deciding which elements should be drawn in each step, designer intuition is key to the decision making process. We could call this phenomenon the *thinking hand* (Pallasmaa, 2009). The following reduction principles operate regardless of scale, location, design brief and context. The first step of the image reduction, called '*Textures*', represents a precise drawing with the aim to reveals detail and structure of the depicted landscape. The second decline in the picture reduction is called '*Forms*'. It is a line drawing that reveals the position of the landscape elements and gives a clear notion about how particular features are arranged in the landscape. It shows spatial composition and the relationship of different elements towards each other. The third step, called '*Volumes*', is the most reduced drawing and depicts the basic geometry of that particular view. It is a raw representation of geometric shapes and forms. As an additional step for some photographs the '*Inverted volumes*' process was also used and is a schematic representation based on the 'Volumes' step. In this drawing volumes become voids and voids become volumes.

4.3.2. Picture reduction results

After the initial arousal mapping and identification of landscape elements that afford heightened attention, a further investigation into the landscape precedents was performed. Through the process of artistic abstraction, reduced images provide clues about the structural landscape qualities and formal properties of the appointed area. After the destructive flood in 2002, the Maniny brownfield became an underutilized space without function and had distinct environmental characteristics from the surrounding cityscape.

In the first step of the reduction processes, *Textures* (Fig.53), the character of the original landscape and its complexity can be easily recognized. A focused exploration of textures helps to develop appreciation for the capacities of a landscape's surfaces in relation to touch. The colours of the landscapes are diminished, however the light and shadow interplay reveals different patterns and its felt appearance. It is easy to distinguish the natural patterns from the cultural ones. Nature is soft, dull, porous and complex whereas culture manifests itself in the roughness, hardness, smoothness and sharpness of the materials. Ruins and other places of decay are biased to this distinction as they are in a fragile balance between nature and culture, dirt and maintained forms and brutality and quietness. They are complex in the details and associations connected to them. Ruins echo not only the architectural forms but, in a conceptual sense, can be understood as traces of time. In this light environments become fluid, where the movement and natural processes define temporal state and order. Paths and flux represent symbol of time.

As the image becomes more abstract in the second state of the diminishment, *Forms* (Fig.54), the difference between culture and nature decline. Landscapes appear strict and robust and the passage of time is less perceivable. Vegetation and ruins

become less complex and water bodies invisible; most of the time the only indirect reminder of the presence of water is the depiction of the bridge and dam structures. The bridge becomes a symbol (culturally accepted) of the presence of water and the dam the symbol of the power of water. When liquid surface are still, water is manifests itself as are flection of the surroundings. Regarding the local weather conditions and the sky, they also become formless and were already diminished in the first step of reduction (*Textures*). In this diminishment stage the Euclidean geometry of rigid man-made forms is not too different from the oval shapes of summer trees canopies; winter canopies still maintain variations in their shape. The openness of the landscape becomes a quality depicted in the long perspectives and linear landscape elements, such as the water body, tram lines, dike/ bike path or buildings.

The resulting drawings of the third reduction level, *Volumes* (Fig.55), appear to be not very different from the results of the second reduction step. This is because the process of diminishment is taken over by the act of accentuation. This technique has the potential effect of intensifying dominant landscape elements. In other words the result of the third reduction is a collection of abstract patterns, which have the ability to reveal dominant landscape elements in its simple form. The thick lines of black marker slowly reject spatial correlation between the different landscape elements, allowing landmarks to appear. Between the most appearances prompt elements of the Maniny brownfield belong: dam and bridge structure, linear character of concrete slabs and tram lines and vertical character of old dock buildings. The long perspectives from the previous reduction step are depicted by the repetition of the tree's oval shape.

4.3.3. Landscape aesthetic qualities

By using both arousal mapping and picture reduction several of the landscape aesthetic qualities of the Maniny brownfield could be identified. Because the test area is a devastated and un-managed space, the lack of legibility is very noticeable while walking through the landscape. There is no intention or maintenance and elements such as ruins, fences, wilderness etc. make it cognitively difficult to read and clearly understand the landscape and its structure. The given appearance of the environment (low legibility) creates uncomfortable feelings such as insecurity or uncertainty, causing one's attention to rise in order to stay fully aware of the situation. Lack of legibility can be considered as one of the crucial sources of arousal (heightened attention). The Maniny brownfield is quite distinct from the surrounding cityscape thanks to its contrasting landscape. Juxtaposition of elements such as maintained lawn versus concrete slabs or golf course versus derelict places creates contrast not only between the physical characteristic of the area, but also on the societal level. Confrontation between wealth (business people playing golf) and the poverty (homeless people sleeping in the ruins) creates strong emotion and not always pleasing social pressure. Contrast as a landscape aesthetic quality can be a link to other qualities such as fragmentation, where different landscape types and functions are posed next to each other. One of the landscape's aesthetic qualities that has a seemingly positive connotation is the notion of landscape resilience, which in the case of Maniny is strongly linked with time and flux. The power of nature and its succession process manifests itself by self-seeding vegetation taking over rigid man-made structures. Although ecological complexity is normally desirable, sometimes reduced complexity is necessary for human use of space (Dee, 2012). Absence of one or more vertical vegetation layers can be noticed where the formal urban function took place. The openness of the landscape is enhanced by the long view over the body of the Vltava River or derelict places and parking lots in the north-west of the area.

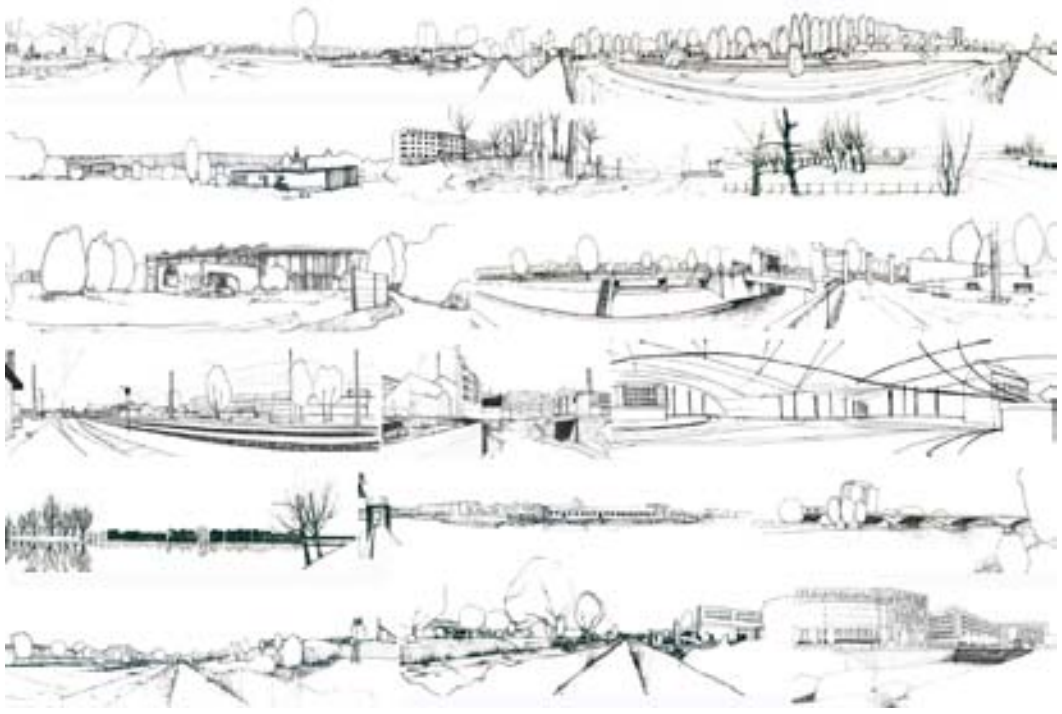


Fig. 53.: Collection of 16 selected images as a result of second step of reduction (Textures) (Jančovičová, 2013).

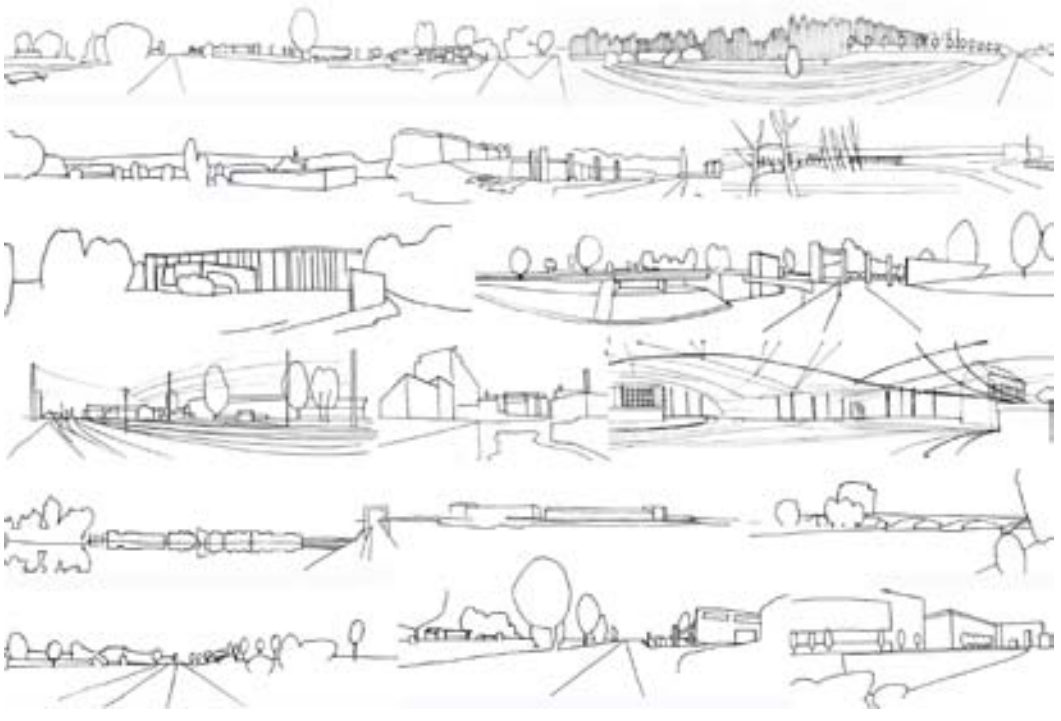


Fig. 54.: Collection of 16 selected images as a result of first step of reduction (Forms) (Jančovičová, 2013).

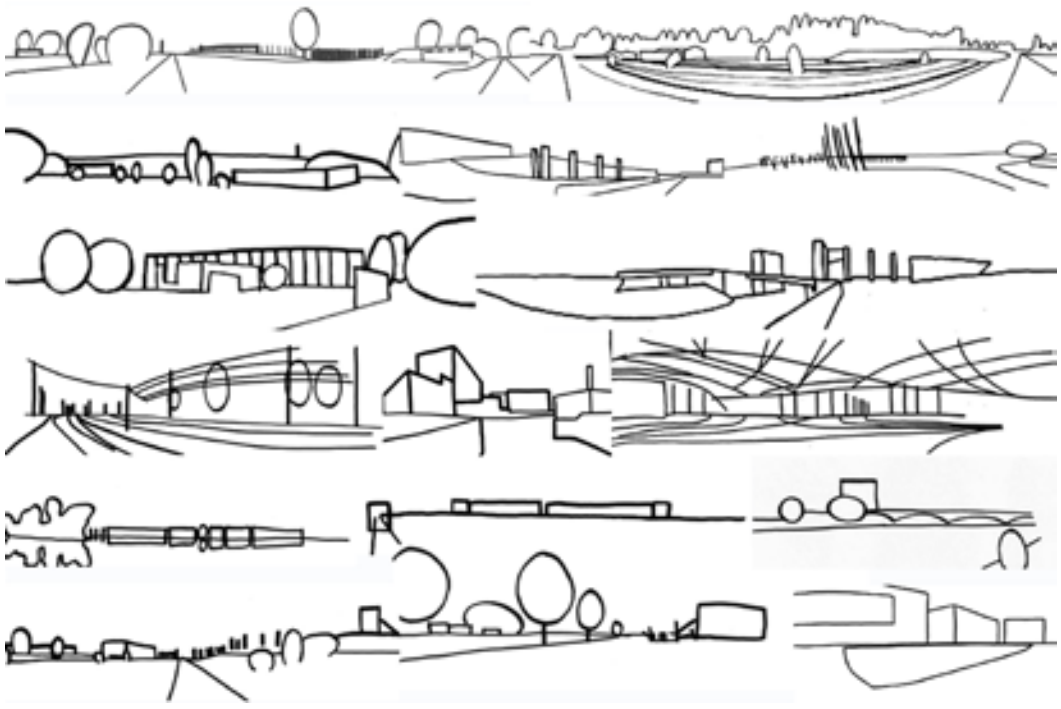


Fig. 55.: Collection of 16 selected images as a result of third step of reduction (Volumes) (Jančovičová, 2013)

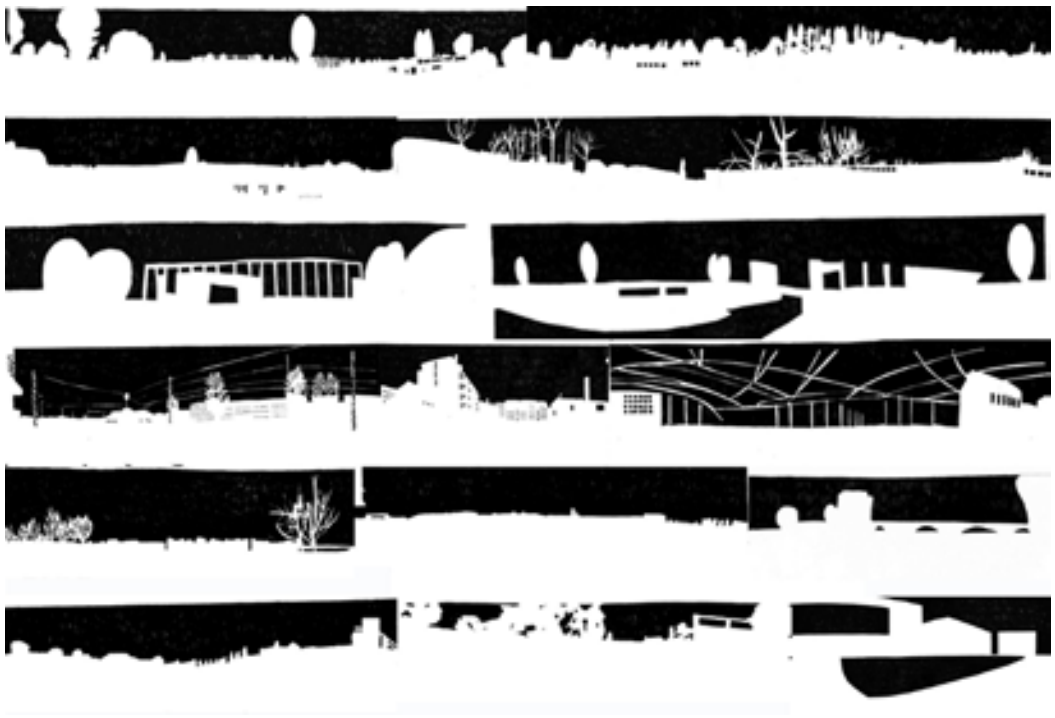


Fig. 56.: Collection of 16 selected images as a result of additional step of reduction (Inverted volumes). In this step sky and posiibly hollow spaces become visible, helping to accentuate not dominant features of the landscape but as well reveal difference in the textures between natural and cultural (Jančovičová, 2013).

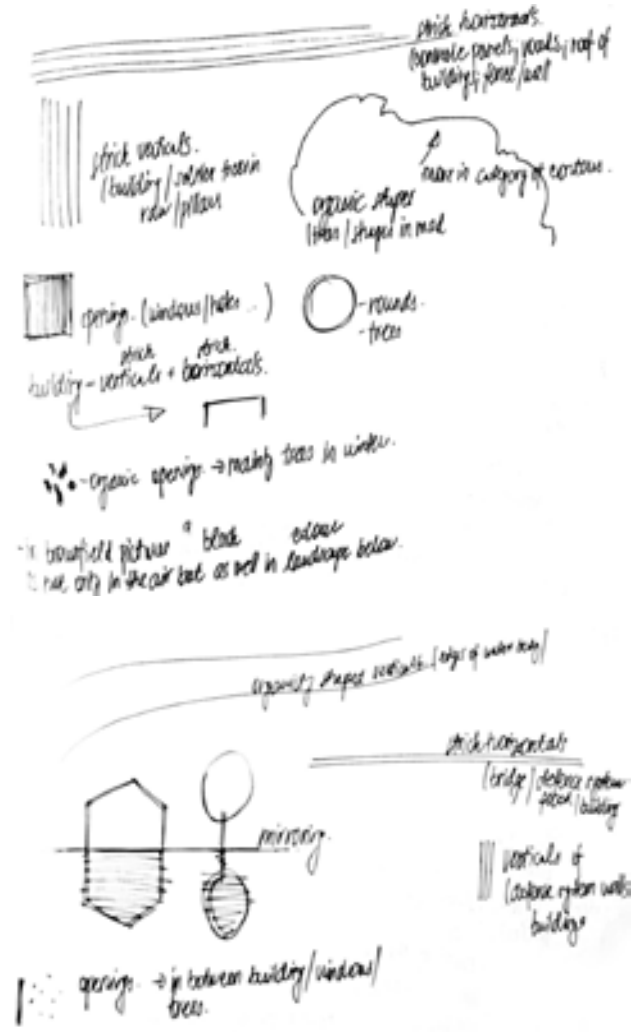


Fig.57.: Sketch investarization of the different forms and shapes of Maniny brownfield, indicated by use of picture reduction. The strong verticals and horizontals of buildings and man-made structure, or the eye-pleasing organically shaped vegetation appears soft and dull thanks to the openings in its canopy, are one of common structures found in the area (Jančovičová, 2013).

LANDSCAPE AESTHETIC QUALITIES	LANDSCAPE ELEMENTS	PERCEPTUAL PROPERTIES
LOW LEGIBILITY	ruins, high grasses, litter, debris, no roads, fences, wilderness, no visitors, homeless people, bare soil, raw materials	no maintenance, no intention, disorder, decay, complex detail, repetition, no clear function
CONTRAST	golf course vs. derelict places modern buildings vs. ruins lawn vs. concrete slabs wilderness vs. park	juxtaposition
RESILIENCE	self-seeding vegetation on concrete slabs and ruins dam & dike	Strong materials, size, rarities & flaws, natural processes
FRAGMENTATION	car bazaars, allotment gardens, office buildings, golf yard, derelict places, wilderness, parking lots, dam, dike, tennis courts, cement factory, bridge, bare soil	No clear function, disorder, no intention, devastation
OPENNESS	water bodies, derelict places, concrete slabs, bare soil, parking lots	Long views, reflection, absence

Fig. 58: Table structuralizes the landscape qualities of Maniny brownfield and to them related landscape elements that create such an expression and the perceptual properties of related landscape elements group. Table makes it easier to understand and depict the research area (Jančovičová, 2013).

4.4. COLLAGES

Because the basic definition of the sublime determines the negative representation and imagination of key pre-conditions, it is not sufficient to understand landscape elements and their aesthetic qualities. To design for the sublime landscape of Maniny moreover means to investigate upon how those elements could become a source of one's fantasies. Collages as a *particular visual art-based research practice* (Leavy, 2008) become an intuitive tool for exploration and an experimental way of defining valid symbols and metaphors that grasp the unpresentability of the potential flood danger. They can be seen as a *call on the researcher to juxtapose found images in intentional way that imparts a set of meanings* (Leavy, 2008: 263). The method represents a crucial step in bridging the gap between sublime theory and landscape analysis to aid the process of design by the presentation of relevant concepts. Collages are a *method of gathering, selecting, analysing, synthetizing and representing* (Leavy, 2008). In the process of creation the real and imaginary merge together. By connecting these two phenomena the peculiar personal view and original perspectives rise as *the use of collage and metaphor inform new meanings* (Leavy, 2008: 223). Each collage represents a *saving fiction* (Roncken, forthcoming), the instrument in making of meaning that helps to resolve the conceptuality of the sublime by stretching the imagination.

4.4.1. Description of research strategy

The results of the picture reduction inform the design of the collages. Six dominant landscape elements (dam, ruin, tails, bridge, net and water's edge), defined in the previous section (see 4.3.2), became a foundation for six different collages. This means that one of the dominant landscape elements is used as a starting point of each collage. Images are made in Adobe Photoshop CS4 software as a series of layers (other images, textures and patterns) overlapping each other in different ways. The creative design process was intuitive, influenced by the notion of water or flood, where the final results are often outcome of coincidence. Due to the careful layering collages do not reflect a single idea but rather provide space for different interpretations. They open up multiple meanings that are *determined not only by author but as well by the viewer and the context of the viewing* (Leavy, 2008: 225).

On next pages, each collage will be represented separately, on the basis of three following questions:

(1) What does the collage represent?
(2) What symbol or metaphor does it reflect?
(3) What characteristics of the sublime it does contain?

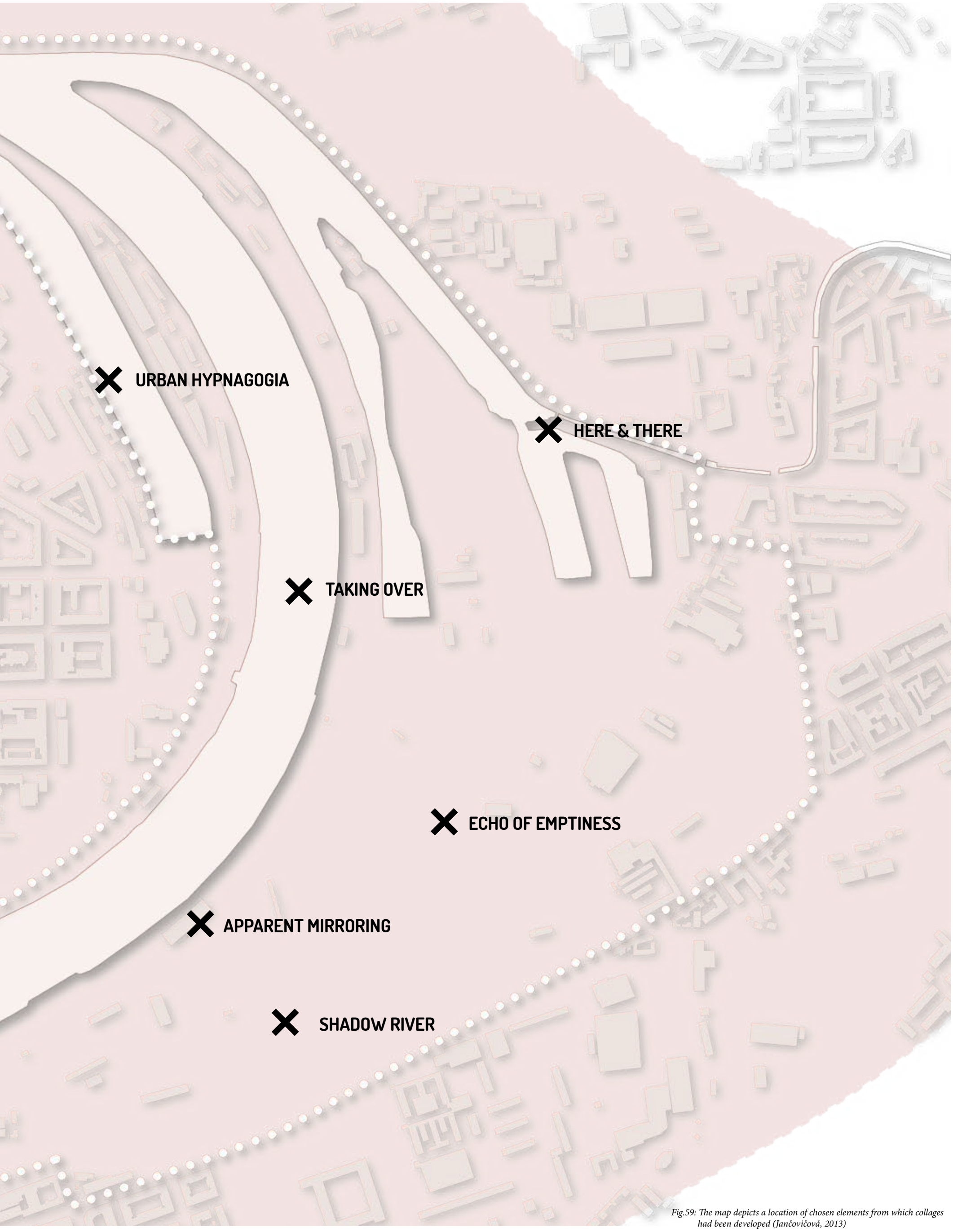


Fig.59: The map depicts a location of chosen elements from which collages had been developed (Jančovičová, 2013)

4.4.2. Apparent Mirroring

What does the collage represent?

The rigid remains of an old industrial dock building became a starting point of this collage. The fantastic landscape of urban and natural wilderness merges together into the imagination of something that is not present; the past industrial activity contrasted to the city of future high rise buildings. The apparent mirroring of linear man-made and natural structure creates the perception of water although no liquids are present. The déjà vu feeling of the impossible is created by the duplicity of primitive animal, which represents the creeping of wild nature into the viscera of the city. The collage can be viewed from different angles, where rotation upside down, reveals a new intriguing image.

What symbol or metaphor does it reflect?

The collage gives a notion of water through the act of mirroring. Dark sky and its apparent reflection on the water's surface evoke a feeling of quiet uneasiness before the storm, which is itself the source of the water in our rivers. The depiction of the animal represents the presence of nature.

What characteristics of the sublime does it contain?

Contrast / Emptiness / Solitude / Silence / Repetition/ Wilderness / Illusion

Fig.60: Apparent mirroring (Jančovičová, 2013)

4.4.3. Echo of Emptiness

What does the collage represent?

There is always something seductive about the stark contrast between the uncompromised urban grid and the natural setting. The collage depicts an open bare landscape of three unfolding scenes, where the strict structure of remaining tiles became the starting point of this image. The foreground of a perpendicular grid conflicts with the organically shaped waves of an imaginary flood. In another words, dynamic water in the middle of collage contrasts static water of tail ponds. Red line emphasise this contrast. The person standing on the border line facing the dark backdrop of the city can hear only the distant sound of traffic and is imagining the life in the former building, which has been washed away by the forces of the water. He is there alone in the silent majesty of full emptiness.

What symbol or metaphor does it reflect?

Echoes of emptiness tell the story of memory and time. Landscapes are fluid and ever-changing where our cities and elements in them are just traces from the past and for the future. The red line in the collage represents a metaphor of distancing ourselves from the water bodies by the robust barrier and waterfront.

What characteristics of the sublime does it contain?

Contrast/ Emptiness/ Solitude/ Silence/ Juxtaposition/ Void/ Hollow/ Memory/ Melancholy/ Time/ Stillness

Fig.61: Echo of emptiness (Jančovičová, 2013)

4.4.4. Here & There

What does the collage represent?

The monumental structure of the solid concrete doors of the existing flood defence system became the basis for this collage. The peripheral position of the dam on the confluence of the Rokytka brook and Vltava River creates a gateway into the research area. It is a port in between two realities, the urban one and the wild one, where the water streams are being unchained. The presented collage was created using the principle of cubism; where different sides of the object are represented in one view, trying to symbolically depict the relative position of the city to the flood plain. The massive concrete structure allows us to imagine a forceful flood against which we have to protect our fragile lives. One can wonder how strong the power of the river must be when such a strong technical element is needed.

What symbol or metaphor does it reflect?

The collage represents a symbol of a gate, which is a medium of transition between different realities or stages. The scale, monumentality and materiality of the protective doors are the negative representation of the water forces.

What characteristics of the sublime does it contain?

Monumentality/ Terror/ Overwhelming / Power/ Materiality/ Scale

Fig.62: Here & There (Jančovičová, 2013)

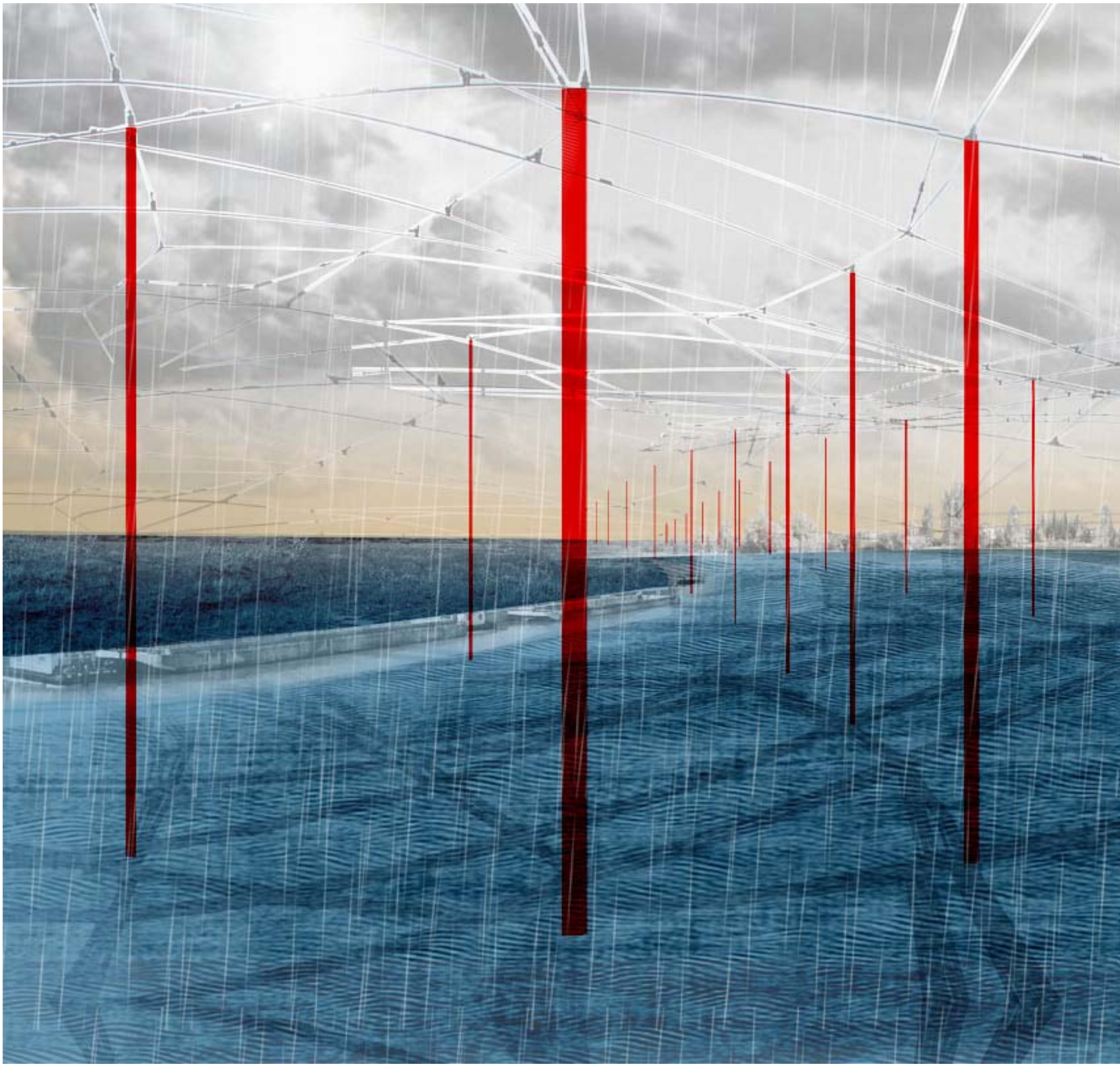
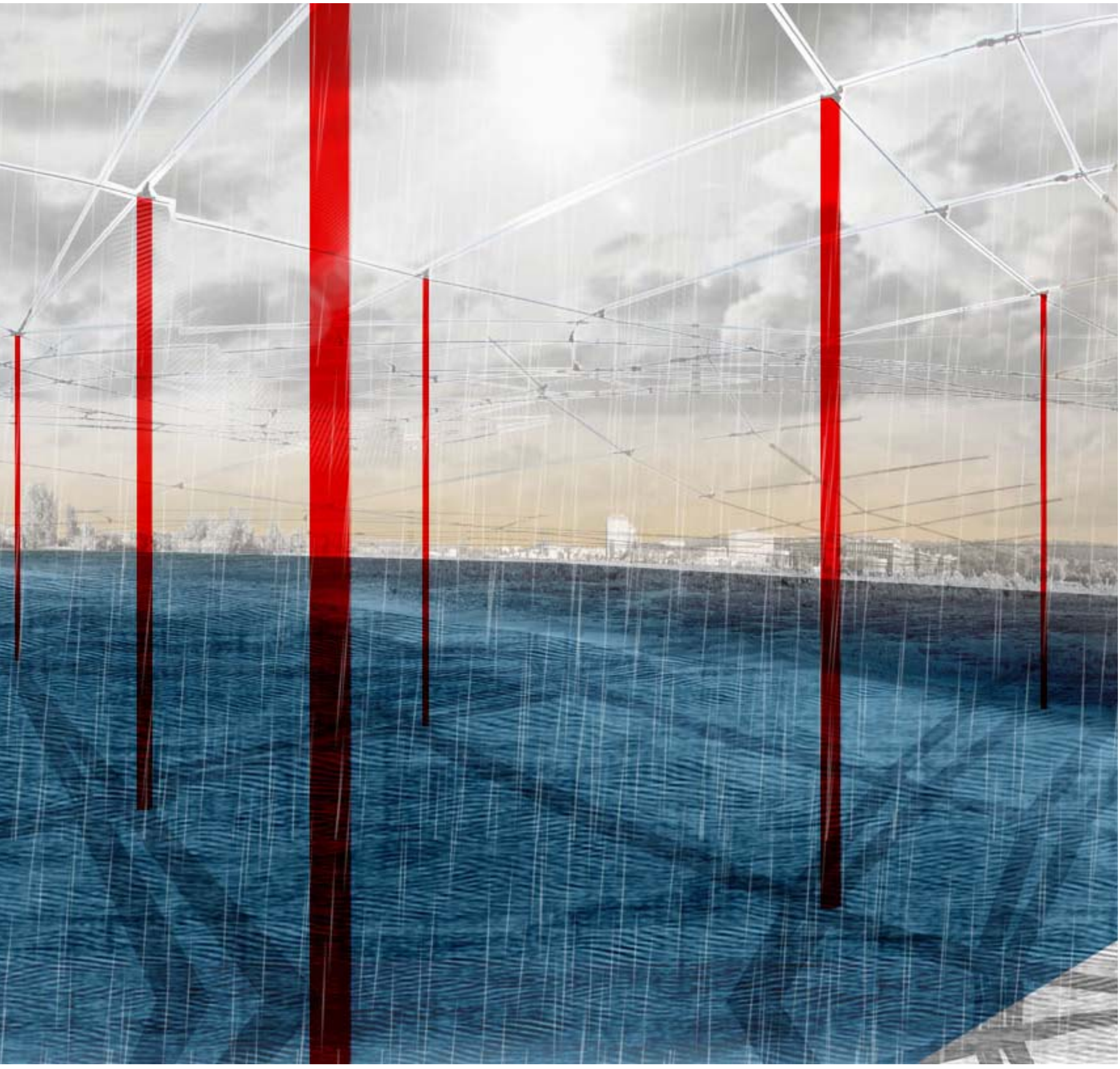


Fig.63: Shadow River (Jančovičová, 2013)



4.4.5. Shadow River

What does the collage represent?

The collage represents a lost landscape, the phantom river arm that disappeared due to the man induced changes of the Maniny landscape. The floating net became the basis for this image as a strong symbol related to water issues. It extends over the phantom river arm and the red lines supporting the net disappear into the horizon. They extend and reveal the notion of distance and the past. The poles are solid structures against which the rising and falling water level can be perceived. The artificial rain is created, capturing water during rain fall and releasing it during dry periods. The passage of time, day and night; and summer and winter manifests itself in the shadows cast by the net and poles as the sun changes its position.

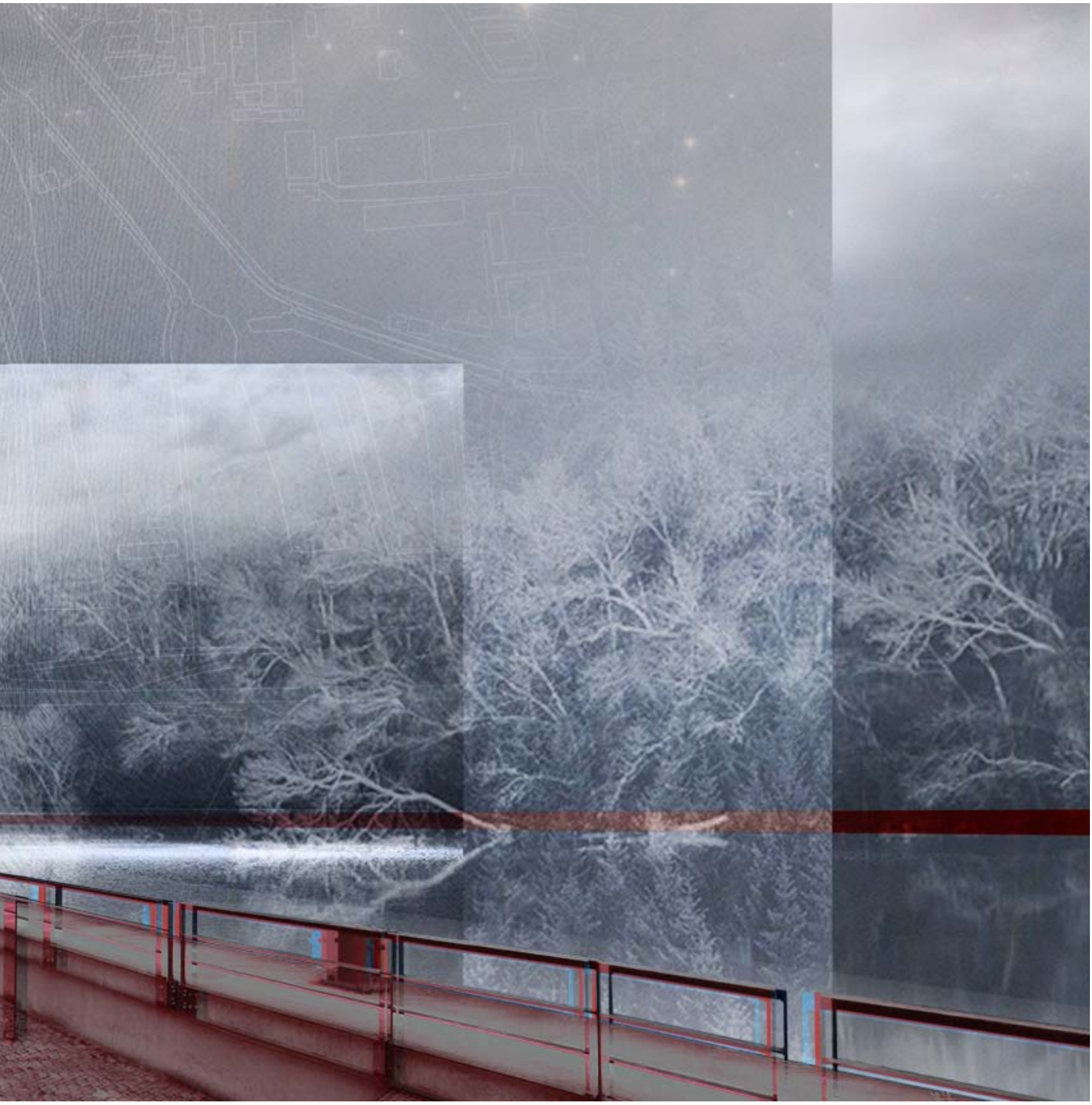
What symbol or metaphor does it reflect?

Shadow is one of the most archetypical symbols of negative representation, revealing the impression of time and natural dynamics. Red poles, similarly as along view over the river course provide an association to distance and travel.

What characteristics of the sublime does it contain?

Movement / Dynamics/ Succession / Uniformity / Interactivity/ Distance/ Rhythm

Fig.64: Urban Hypnagogia (Jančovičová, 2013)



4.4.6. Urban Hypnagogia

What does the collage represent?

Hypnagogia is an experience of the transitional state from wakefulness to sleep; from reality to dream. The line of the industrial waterfront became the starting point for this image. The fragile line represents the eclectic blur between urbanity and nature that seems every moment to disappear. It is about the intimacy and tension that this contrast creates. The waterfront becomes an interface between a harsh city opposing sturdy natural world, as if two massifs press each other in order to find the balance.

What symbol or metaphor does it reflect?

The collage represents the metaphor of the apparent mastery over the natural powers, where a linear man-made element is enough to survive.

What characteristics of the sublime does it contain?

Intimacy/ Contrast / Transition/ Tension

4.4.7. Taking Over

What does the collage represent?

The historical photograph of the 1890's flood became the base for this collage. When people stop paying attention nature will take over. Natural resilience transforms an abandoned human world and reclaims back the 'borrowed' space. Destruction does not need to mean the end but rather a new start. Animals are nesting and sheltering in the disordered wreckage and plastic bottles from the flood. It reveals the power of the natural; its adaptability and resilience to given conditions. Fallen trees under the prominent Libeňský Bridge let us dream about the primordial riparian forest where the embodied interaction with the landscape challenged our ability to improvise and overcome obstacles.

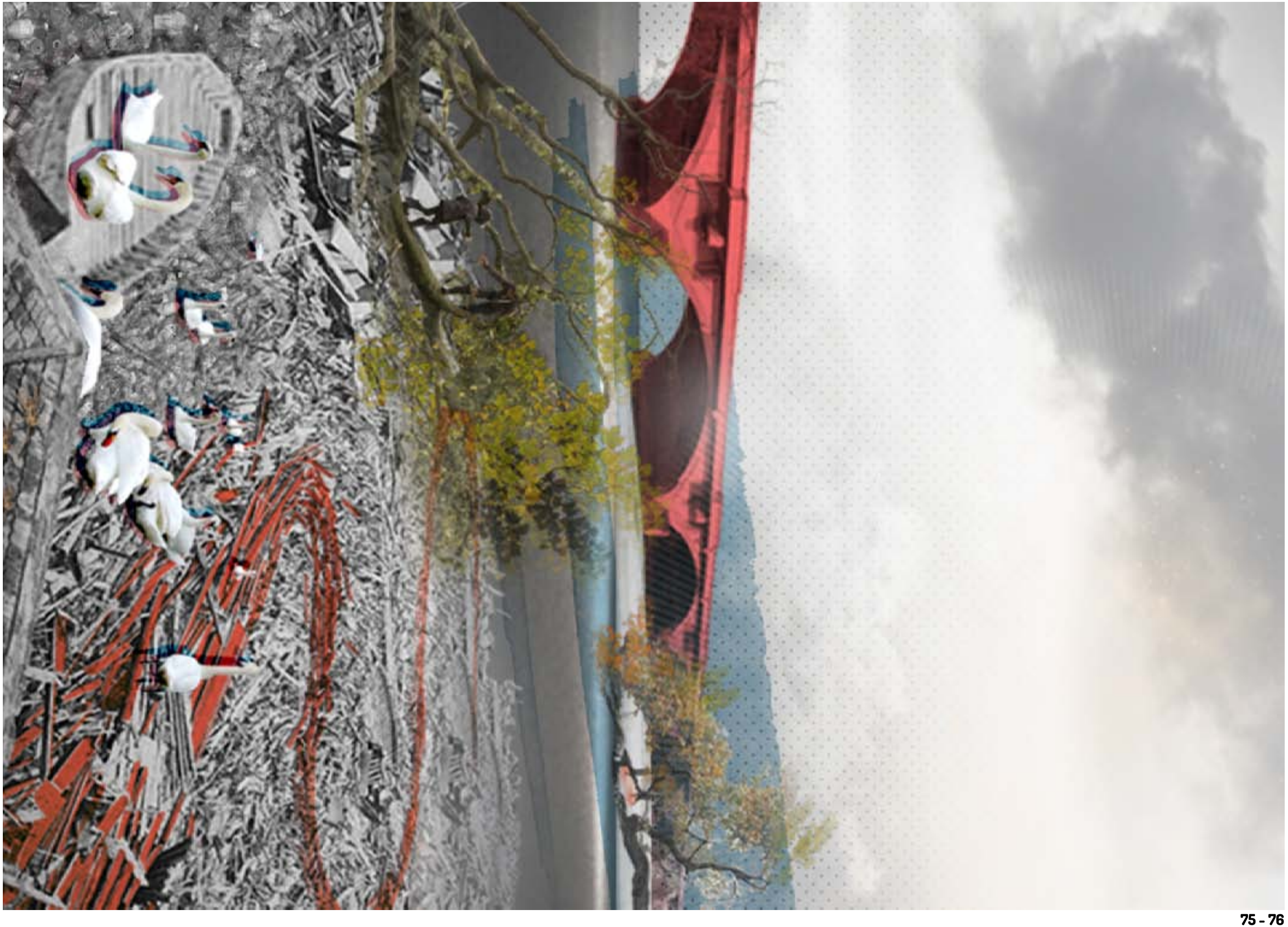
What symbol or metaphor does it reflect?

A bridge is a very basic, culturally accepted, symbol associated with the notion of water. When a bridge is encountered it is immediately linked to water as it connects two riverbanks. Our imagination of a wild untouched forest is associated with a primordial being and survival instincts.

What characteristics of the sublime does it contain?

Wilderness/ Discomfort/ Natural resilience/ Overcoming / Survival/ Uneasiness/ Ritual

Fig.65: Taking over (Jančovičová, 2013)



4.5. SYNTHESIS
CONCLUSION

An investigation into the aesthetics of the Maniny brownfield has been carried out over the previous pages. The meaning of the unpresentable flood danger was examined on two ways. The first was the methodological part linked to arousal mapping and picture reduction, which aimed to answer the question of the current aesthetic qualities of the landscape. The method of arousal mapping was informative and served as a gateway to further research rather than providing valid answers itself. The method of picture reduction served as a means of reading and understanding the landscape through its decomposition. It was method that produced meaning through the diminishment of the visual. With reference to the contemporary reading of the sublime theory, picture reduction can be perceived as a method linked to the reader's sublime as it provides meaning on the basis of simplification and clarity through reducing the landscape's complexity. The second methodological sphere is represented by the collages and aimed to get a grip on concepts, symbols and metaphors related to imagery of future floods. Collages are a method of making meaning through the imagination and, according to the contemporary sublime, can be correlated with notion on the poet's sublime. The key link between the poet's sublime and the collages lies in the layering, where the images confront one with multiple meanings and interpretations. They are a source of fantasy and individuality. In this way landscape context is the starting point and the medium of design.

Symbols can be characterized as a representation of their original source, which is not exactly the same but captures its essence. Metaphor is defined as a figure of speech denoting one idea in the place of another one, where analogy between them can be found. Both the picture reduction and the collages of Maniny brownfield provide a set of symbols and metaphors; the most important ones are:

Symbol / *Methaphor*

BRIDGE / water, bridging two banks
DAM / water's powers
GATE / new dimensions, transition
WALL / water's powers, distance between people and water
MIRROW / water
RUIN / memory, passage of time
ANIMALS / nature
SHADOW / time, natural dynamics
PERSPECTIVE / distance, travel
WILDERNESS / survival

Because to design is to take an action and because the synthesis is about connecting theory to design, the collection of sublime characteristics found in Maniny is represented in the verb list of actions (Serra, 1967 in Dee, 2012). The verb list is open-ended and only partially formed with the aim to inspire strategies in design.

TO REPEAT
OF ILLUSION
OF MELANCHOLY
TO TIME
OF MEMORY
OF HOLLOWNESS
OF INTIMACY
TO CONTRAST
TO TRANSIT
OF TENSION
OF WILDERNESS
OF DISCOMFORT
OF RESILIENCE
TO OVERCOME
TO SURVIVE
OF UNEASINESS
TO MOVE
OF DYMANICS
OF SUCCESSION
OF UNIFORMITY
TO INTERACT
TO DISTANCE
OF MONUMENTALITY
TO TERRORISE
TO OVERWHELM
TO SCALE
TO POWER
TO MATERIALIZE
OF EMPTINESS
OF SOLITUDE
OF SILENCE
TO JUXTAPOSE
OF VOID
OF RHYTHM
OF RITUAL

EXPLORING DESIGN SOLUTIONS

1

2

3

4

5

This part of the thesis work gives an overview on the proposed design solutions informed by the knowledge gained during the synthesis phase. In the first section the design challenge and its solution are described. Further on, the narrative of the project built up is inducted and islands describe individually. The final part places design within the bigger context of Prague and concludes acquired accomplishments.

6

FLOOD IS FORCE. FLOOD IS DRAMA. FLOOD IS SUBLIME

5.1. DESIGN CHALLENGE. THE BOTTLE NECK

The current state of Maniny brownfield is a result of the natural and human inducted distortion. The 2002 flood had severely destructive impact on the location and adjacent city quarters. The extremely high water situation can be assigned to the strict changes into the Vltava's riverbed in the 19th and 20th (Fig. 40). Due to the hard bedrock, northwards of Maniny, and the relocation of the original river stream from east to west, the bottleneck was created. The term bottleneck refers to the narrowed waterway on the river bend, through which a large volume of water, from the wide flood plain, needs to be pressed (RIBA, 2009, Nijssen, Schouten, 2012). The restriction or obstacle in the riverbed acts like a dam avoiding water from draining away. Consequently this results in higher water levels upstream from the blockage. The bottleneck on Vltava River strongly influenced the water course during the 2002 flood (Fig.45), when the flood water extended the riverbed volume more than 8 times (Fig.66). Although the flood defence system (Fig.68) in this area has been completed in 2008, the city *responds to each water crisis with narrow solutions which address immediate need at minimum cost, but ignores the need to promote water conservation* (Spirn, 1984: 141). In this proposal, the design challenge of bottleneck is tackled and related flood mitigation measures are taken into consideration.

Fig.66: Infografic depicting the water volumes of different flood intensities calculated for the area of interest (Jančovičová, 2013).

Fig.67.: Bottleneck. By overlaying the historical map from 1840 and the map of the current situation from 2010, the radical changes into the riverbed are made visible. In the northern part of the city, a narrowing in the riverbed reveals the risk of flooding to adjacent neighbourhoods. The red circle appoints the location of the bottleneck (Source: Municipality of Prague)

Fig.68.: Different flood volumes and their spatial impact on the quarters of Karlín, Holešovice and Libeň.. The position of the former river arm is visible at the places where the highest flood frequency occurs. The map also indirectly reveals topography and the formerly filled up phantom river arm (Jančovičová, 2012. Based on ÚPP, 2008).

5.2. ROOM FOR THREAT

Droughts and floods are part of the same cycle. Freshwater falls as a rain or snow, is absorbed into the ground, flows down through the river into a sea and returns as rain. This is a planetary hydrological cycle which we cannot control, however we influence it by our actions. The basic notion on the sublime can be sensed here as the natural element of the water and its life giving cycle is bigger than us. Perhaps we are wrong by treating floods as a dangerous hazard to be blocked when it becomes discomforting. We should rather see it as a precious resource to be harvested. By shifting the reality and revealing the unpresentable, the lived imagination of water and its flood danger is being designed. A park is an opportunity for an illusion where dynamic rhythms of nature intermingle with the dynamic rhythms of the city. The ambition of the proposed design is to restore the imbalanced relationship between the city of Prague and its river by making visitors aware of the water presence and its potential danger. If the aim of the design is to serve utility, then our task is to find a form to meet such a need. In the upcoming section practical interventions of flood mitigation are being addressed.

5.2.1. Blue network & Flood mitigation

Water always looks for the equilibrium. This means that as much water enters the riverbed the same amount has to be drained away. To tackle water accumulation in the places of Maniny brownfield and its adjacent neighbourhoods, the bottle neck needs to be opened. Because flood is simple but monumental through its scale, the proposed flood mitigation measures fulfil these characteristics. To provide space for the surplus water to be drained easier, the river bed in its northern bend is widened (Fig.70). The underutilized bank of the Holešovice district provides an additional space where the flood defence line is replaced closer to the city and thus reveals stress on the river. Because of the limited space for the river bed extension, the additional flood mitigation measures are implemented. The new blue network system is proposed to accommodate expansion of the water during its high levels.
The concept of 'Room for the River' (Dutch Ministry of Transportation and Water Management in Sijmons, 2009) and its fundamentals (Fig.69) informed proposed changes.

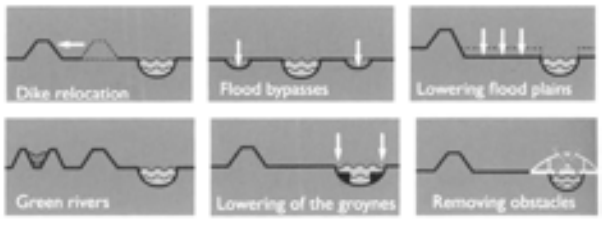


Fig.69.: The concept of 'Room for the river' indicates various options for increasing safety (Source: Sijmons in Topos, 2009)

The principles of flood bypasses and the dike relocation are used to provide space for the river. On basis of historical maps (Fig.39) compared to the current condition (Fig. 67) and different flooding situations (Fig.68), retorted river arms are being reconnected to the main river course again. In addition to the blue network definition and its form exploration, the designerly method of modelling was performed (see appendix 2). By restoring the formal riverbed and its river arms, system of 7 islands is created (Fig.72). As if it is written by the calligraphic

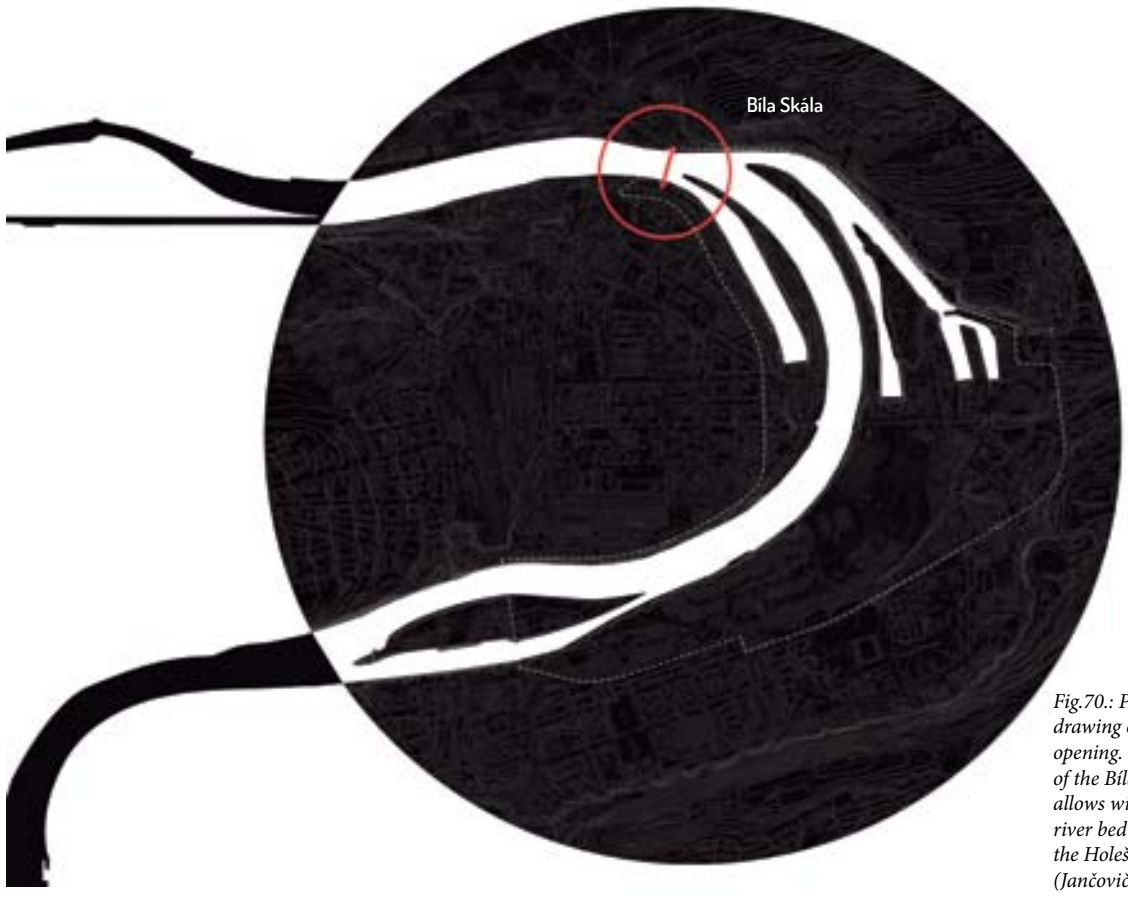


Fig.70.: Principle drawing of bottle neck opening. The hard rock of the Bíla Skála hill allows widening of the river bed just towards the Holešovice bank (Jančovičová, 2014)

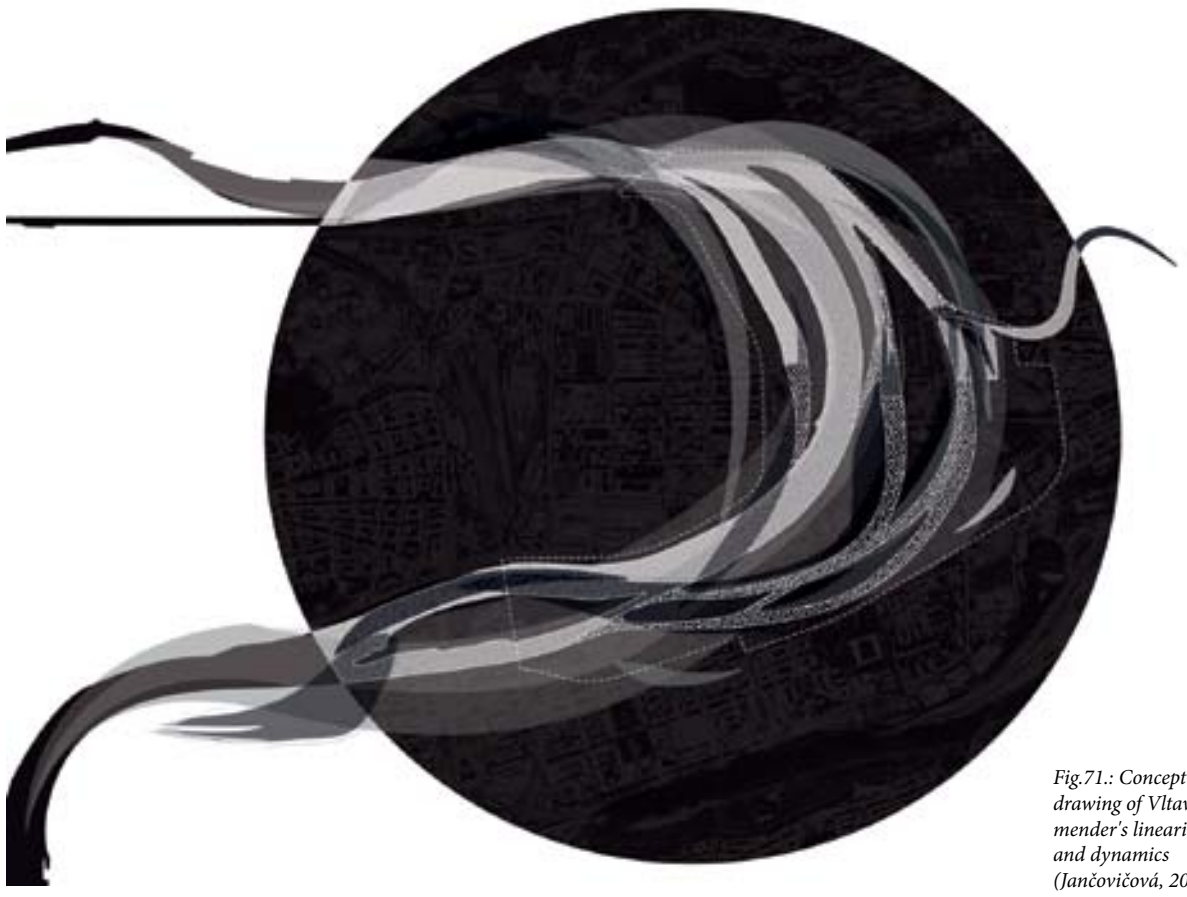


Fig.71.: Concept drawing of Vltava mender's linearity and dynamics (Jančovičová, 2014)

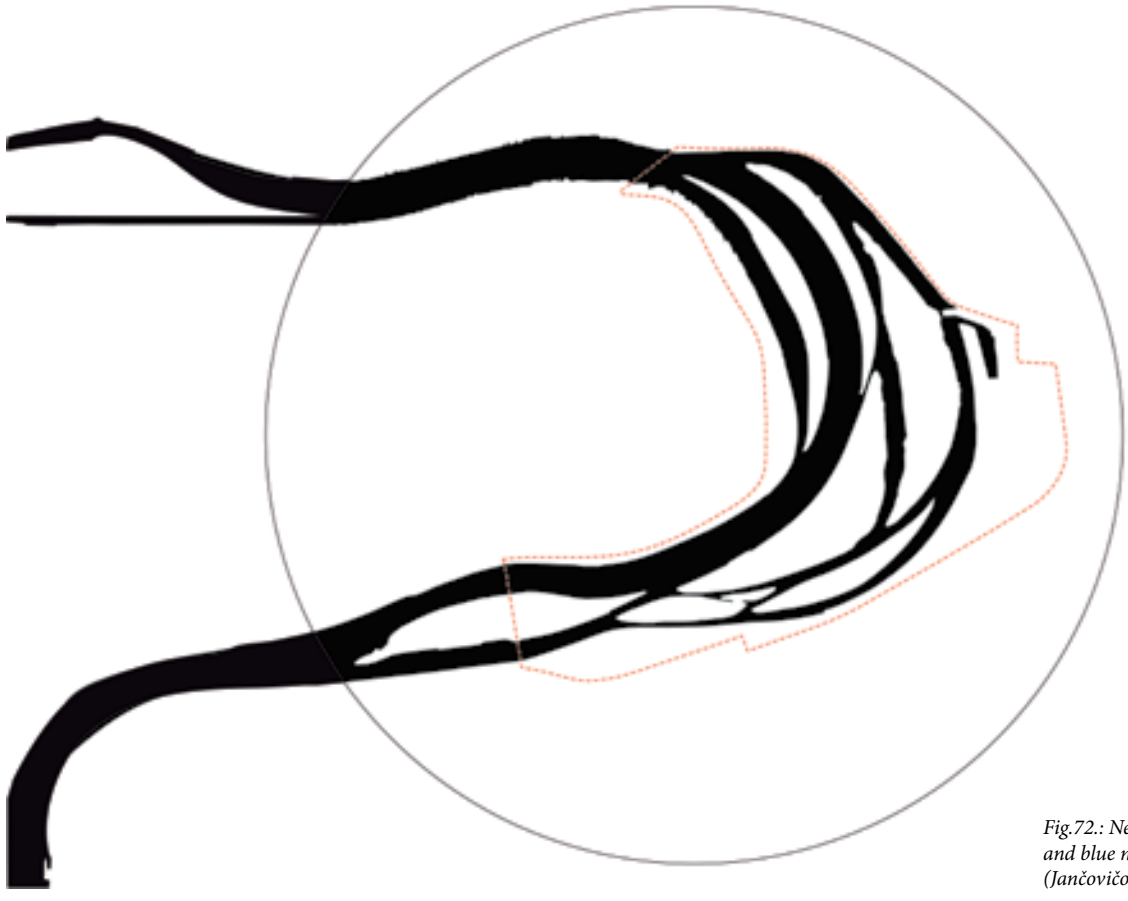


Fig.72.: New archipelago and blue network (Jančovičová, 2014).

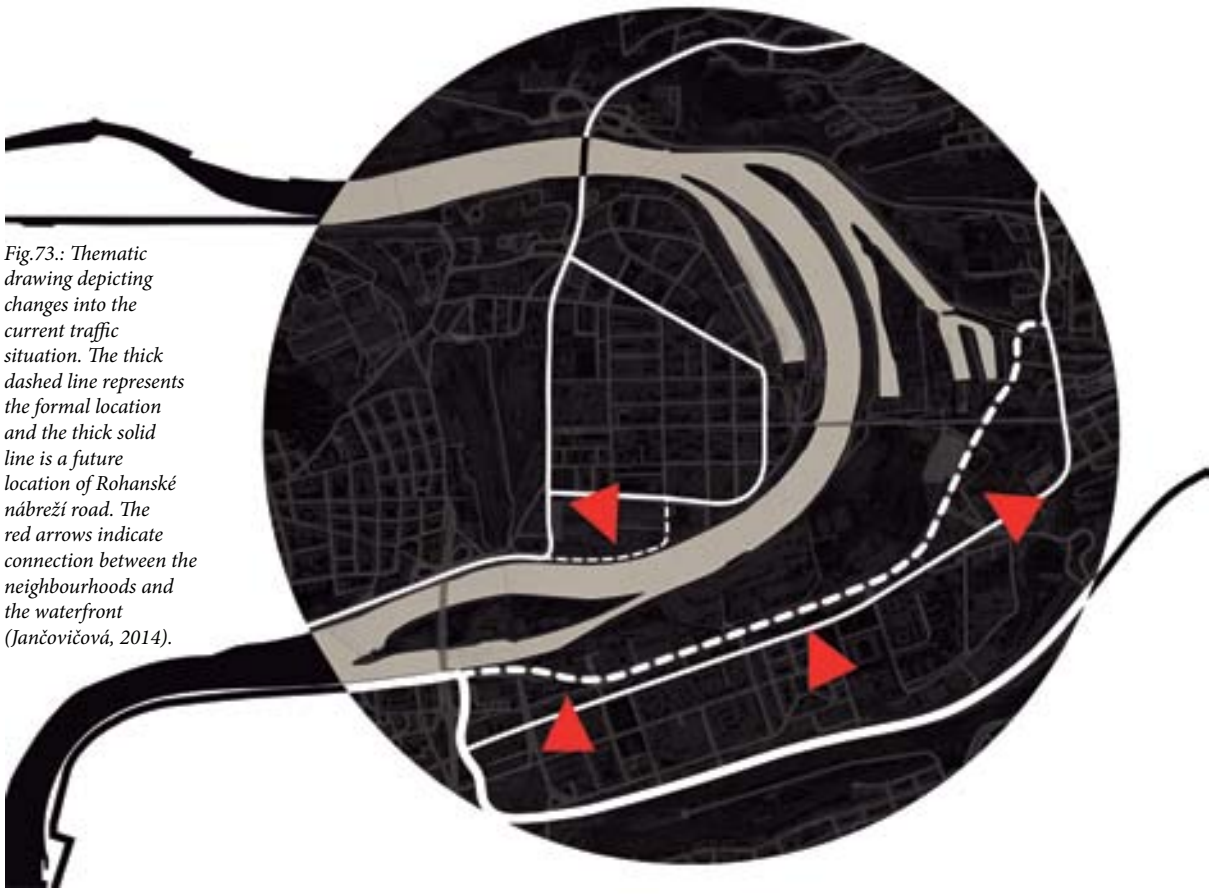


Fig.73.: Thematic drawing depicting changes into the current traffic situation. The thick dashed line represents the formal location and the thick solid line is a future location of Rohanské nábřeží road. The red arrows indicate connection between the neighbourhoods and the waterfront (Jančovičová, 2014).

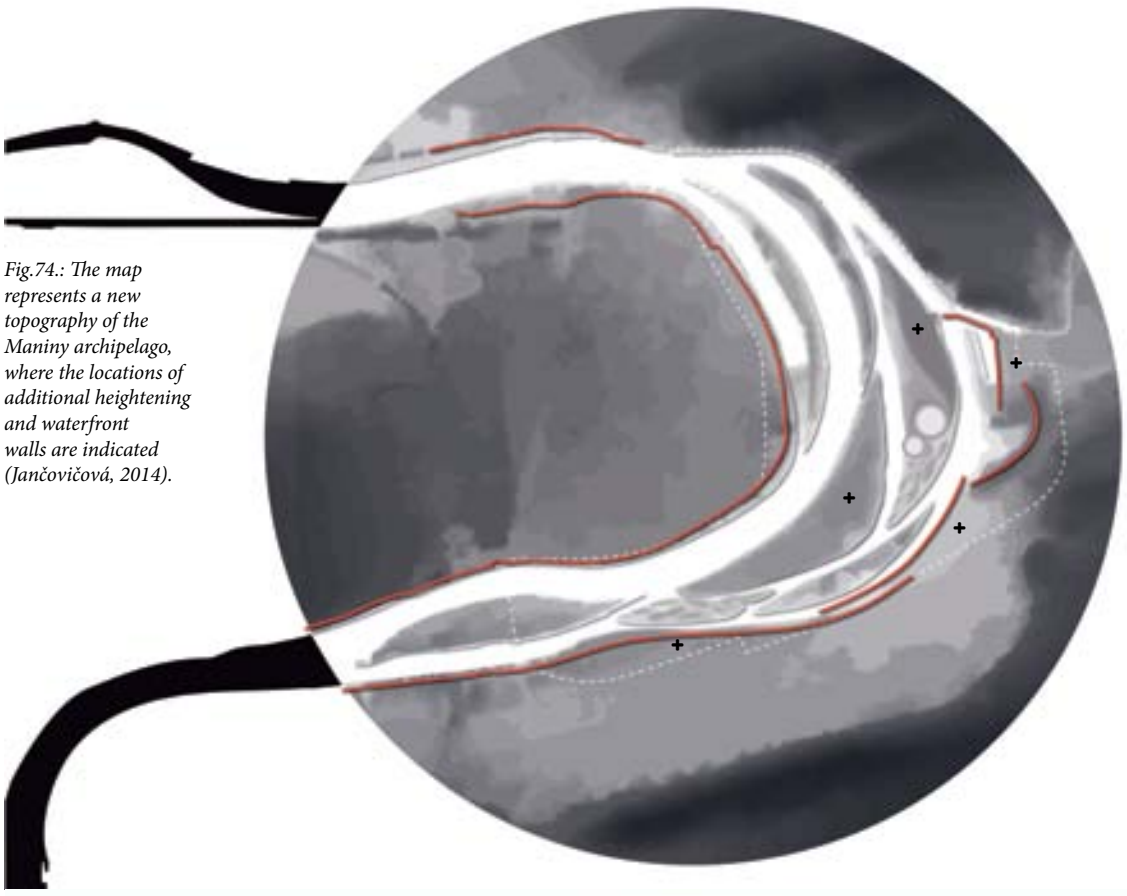


Fig.74.: The map represents a new topography of the Maniny archipelago, where the locations of additional heightening and waterfront walls are indicated (Jančovičová, 2014).

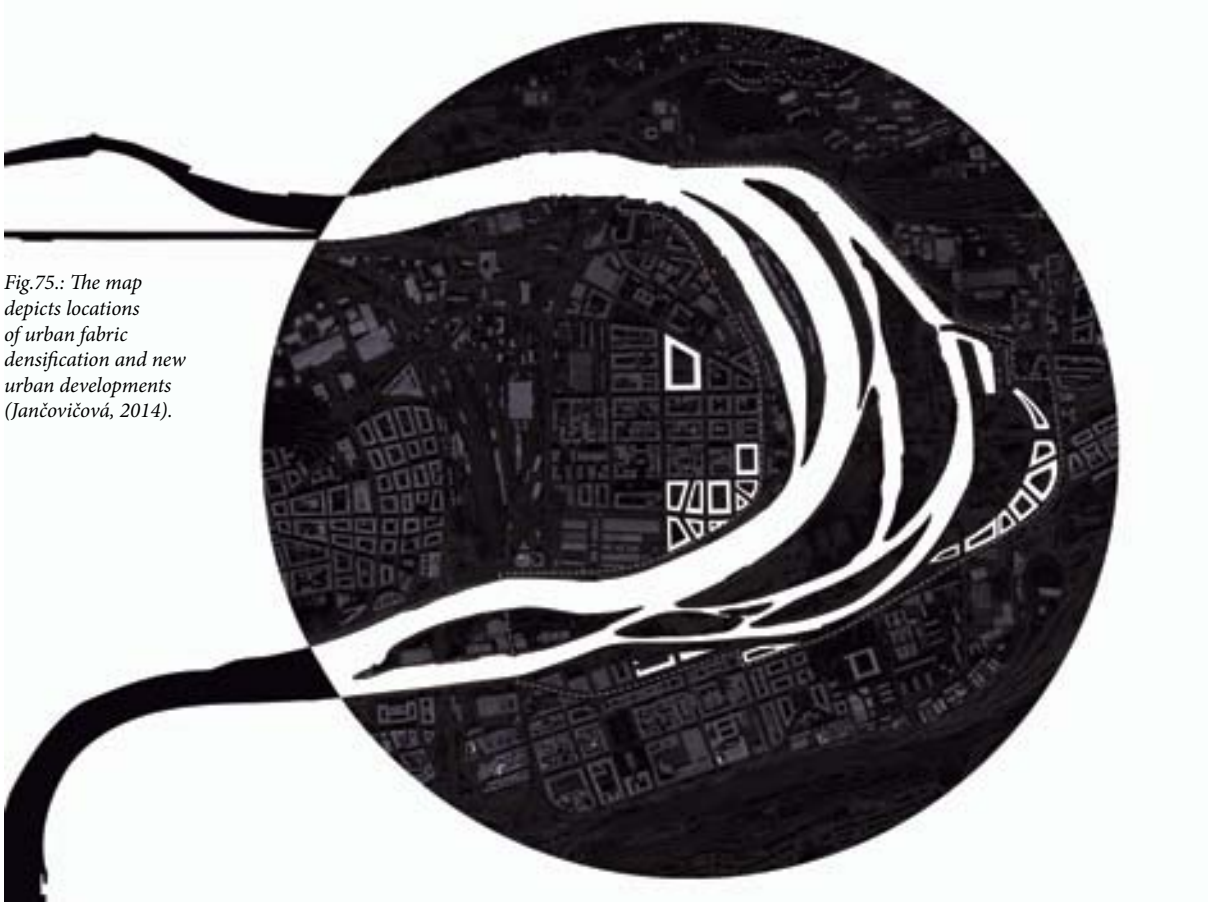


Fig.75.: The map depicts locations of urban fabric densification and new urban developments (Jančovičová, 2014).

pen of an artist, the proposed archipelago maintains the linear and dynamic character of Vltava's meander (Fig.71). The flood mitigation principles, such as slowing down, absorbing, directing and storing (FEMA, 2014) of the flood water are employed. New blue network and its adjacent natural islands help to improve the flood control capabilities where the ecological functioning of the river is restored.

5.2.2. Creating opportunities

To establish optimal conditions for the blue network construction and successful park development, changes into the current traffic situation have to be made. The relocation of the *Rohanské nábřeží* road (cutting design area south-east) is necessary as the first step in acquisition of further design solutions. By its removal, a better connection between the river site and adjacent neighbourhoods is provided. The appointed brownfield of Masaryk train station (Fig.30) and to it linked railway connection provide an opportunity for *Rohanské nábřeží* road relocation. As it is proposed (Fig.73), after *Tešňovský tunnel* the road is re-directed southwards where behind the Karlín district it replaces an existing railway track and eastwards joins the road artery *Spojovací*, connected to the city ring leading traffic out of Prague. By this intervention, the heavy traffic disconnecting Karlín district and the river is relieved, creating more possibilities for further design interventions. Similarly at Holešovice next to the city market, car free waterfront is proposed to ensure better connection towards Vltava River.

5.2.3. Topography & Reinsforcement of edges

The design of water is also topographic design. The creation of new blue network is closely linked with the terrain modelling and topography transformation. The soil surplus from the river arms excavation is reused (Fig.76). Excess of the soil volume provides an opportunity for protecting vulnerable areas and increasing their resiliency by heightening appointed locations up (Fig.74). The constructed topography strengthens the urban waterfronts where a new program and functions can take place. Next to the topographical transformation, waterfront walls are proposed as an additional flood defence measure to reinforce and define city edges of Holešovice, Karlín and Libeň quarters. The densification of the urban fabric and new urban development are proposed for such places (Fig.75).

Fig.76.: The schematic drawing of dealing with the excess of dug out soil (Jančovičová, 2014)

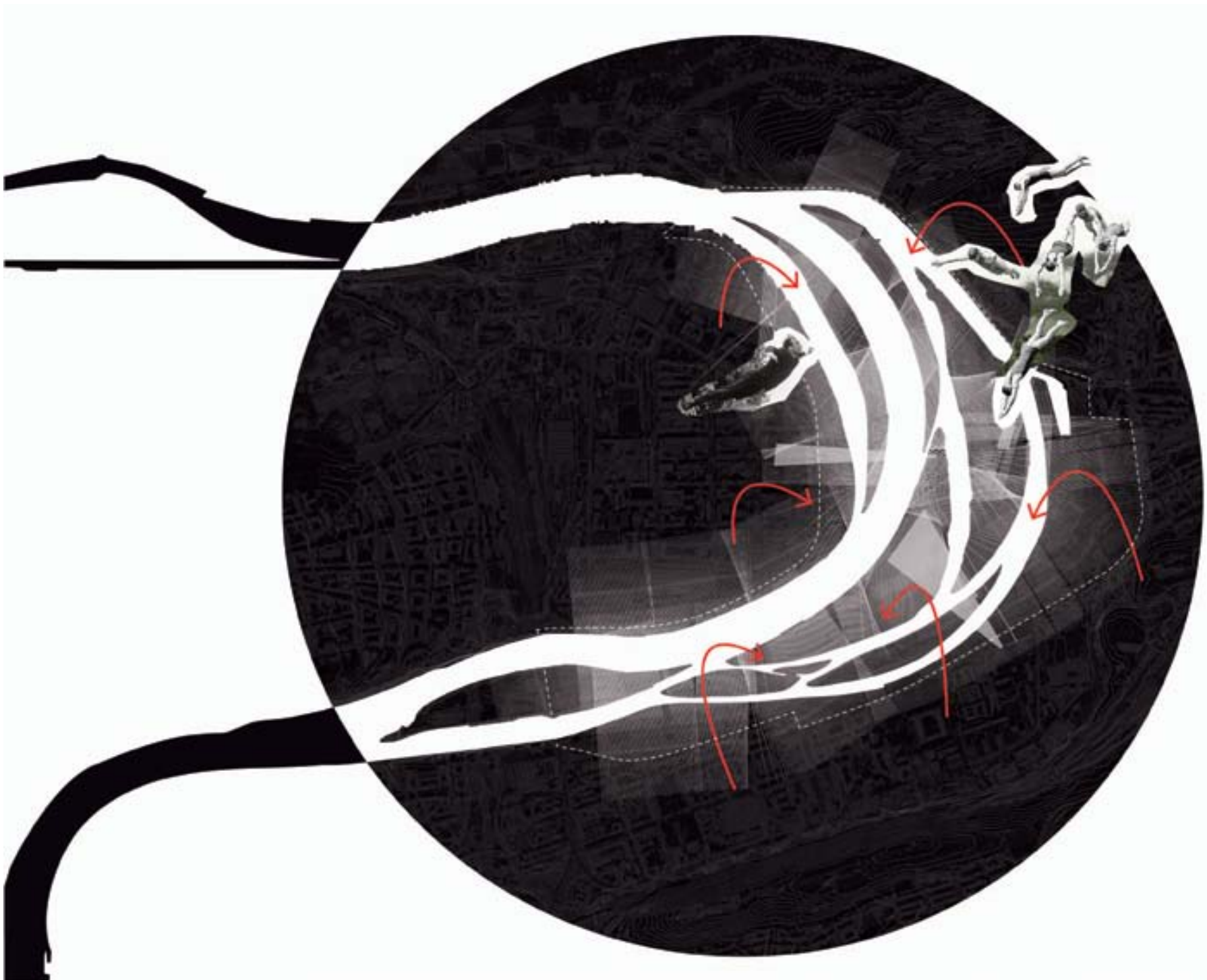


Fig.77.: Drawing refers to the general concept of the design- Leap into the void, where the Maniny archipelago represents contextual void in the middle of the dense urbanisation. One can leap into to the void to get out from the everyday routine (Jančovičová, 2014).

5.3. DESIGN CONCEPT

With reference to the sublime theory, the proposed design is an investigation of absence. Although the archipelago is a group of islands lying in the extensive ecological and cultural matrix of the city, its physical context resembles isolation, distance and detachment. Islands provide an opportunity for counterpointing a general trend of the urban densification, where the piece of land surrounded by water becomes void in city context. The idea of vacancy also links to the flood mitigation requirements, where the unchained natural powers can expand freely. The proposed park area (as recommended in section 3.3.5), will become a resonance of the natural might. Leap into the void (inspired by Yves Klein, 1960) is name and the leading thought behind the design concept. It tells the story of absence and freedom. It is about taking a day off, walking and liberating the mind from the everyday routine, when new inspiration and unexpected situations can occur. It can be seen a way or the place of embracing the irrational and celebrating groundlessness in the age of knowledge and information. A leap into the void can involve danger but it can also lead us out of it. It is something that scares us and draws us at the same time and no matter we do or where we go, we often cross threshold with the unknown where imagination shapes the understanding.

5.4. ISLANDS CLOSELY

On the following pages, each island of the Maniny archipelago is described in more detail. Islands, in some cases adjacent waterfronts, and explanatory cross-sections are introduced in the sequence based on river flow, from the south-west towards north. If applicable, reference to the collages (see 4.4) supplements description of the islands. For the easier structuring of the section detailed design interventions are presented in the chapter 5.6. *Expected Sublimes*.

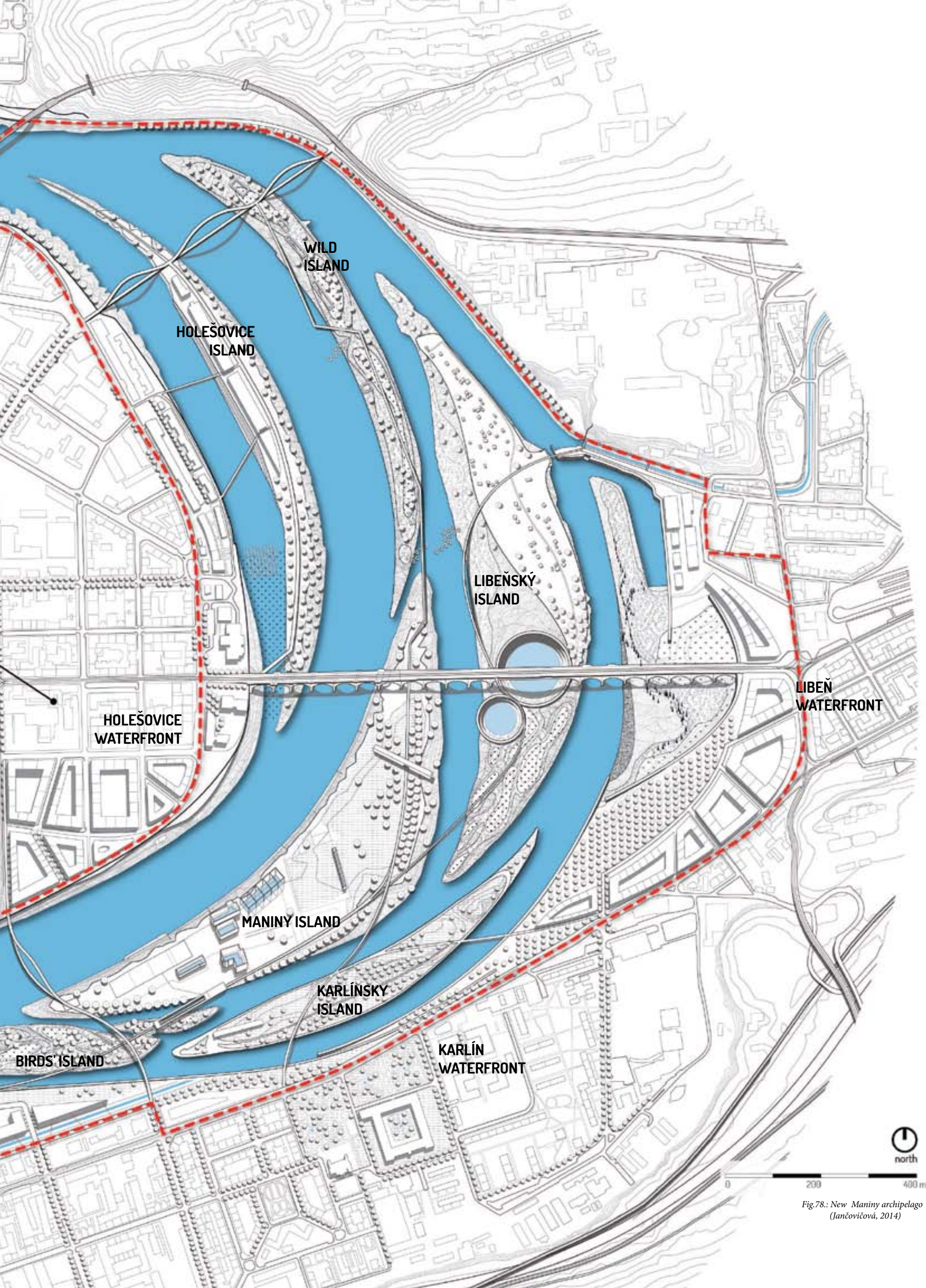
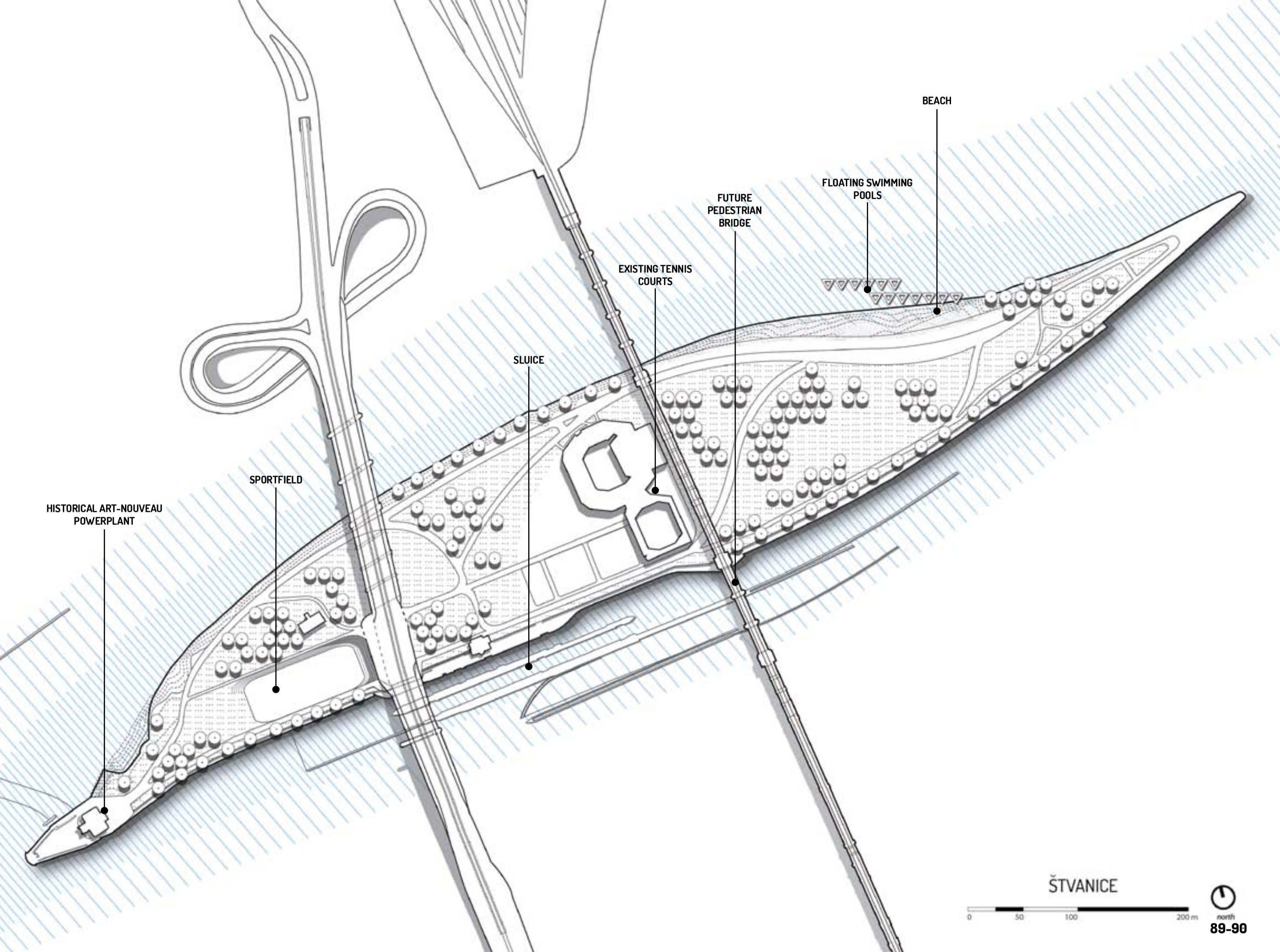


Fig.78.: New Maniny archipelago (Jančovičová, 2014)

5.4.1. Štvanice

Štvanice Island is not a new island. In history it was the biggest island of the former archipelago Veľké Benátky, which was due to the flood danger linked with the Karlín shore. In the proposed design solution, Štvanice will keep its current program of active recreation. The existing structure of tennis fields will be supplemented by new football and basketball facilities. The beach and the adjacent floating swimming pools, north-east site, will re-embrace the lost pleasure of swimming in the Vltava River. The new path network connects the green east with the active west site. The historical art-nouveau building of former power-plant with the beautiful view towards the Prague Castle will be transformed into the bar/restaurant facility, providing refreshments for sportsmen. This design proposal takes into consideration the future municipal plans of railway bridge re-development. By creating a green pedestrian bridge, inhabitants of Holešovice and Karlín district will gain easier access in between mentioned quarters and the island itself.

Fig.79.: Design proposal for Štvanice Island (Jančovičová, 2014)


BEACH
FLOATING SWIMMING POOLS
FUTURE PEDESTRIAN BRIDGE
EXISTING TENNIS COURTS
SLUICE
SPORTFIELD
HISTORICAL ART-NOUVEAU POWERPLANT
ŠTVANICE
0
50
100
200 m
north

5.4.2. Rohanský Island & Holešovice Waterfront

Rohanský Island (south) and the Holešovice waterfront (north) are designed to be purely urban. The strict edges, straight lines and the designed elements supplement ongoing urban development of this area, where everyday work rituals are performed in the modern glassy buildings. At the moment, there is no direct physical presence of the water as the Vltava River has been cut off from the Karlín neighbourhood a long time ago. However, by the proposed road relocation (Fig.73), Rohanský Island will become an conceptual island. On place of former river arm, new urban streetscape and the interactive art project are proposed. The street canon serves as a storm water collector and the public space, where the light installation refers to the lost landscape of buried river arm. The irregular shape of the art piece, attached in between the buildings, reveals the depths and heights of the former river topography. The *Shadow river* collage (see 4.4.5) became an inspiration for such intervention, where the sublimity manifests itself in the distance of unknown past and its current representation. The installation is powered by the water energy of the adjacent river and thus provides an indirect experience of the Vltava where the intensity of the light changes depending on the force of actual water current. The art installation lightens up brighter with the stronger water flow and vice versa. The indirectness of the object makes observer use his/her imagination in resolving the hidden clue.

Regarding to the ongoing process of urban renewal after the 2002 flood, the importance of the Holešovice district is growing. The neighbourhood is becoming the next city centre where design companies and creative industries settle. The restructuralization of infrastructure and densification of urban fabric are proposed. Along the Holešovice bank, 1500 m of two-levelled, car-free waterfront is proposed as a mean of river's civic space reclamation. The protective urban balconies serve as a promenade and the flood resiliency reinforcement, which frames new Holešovice skyline. The proposed slow-traffic bridge connects Karlín and Holešovice river banks and thus makes the connection between two cultural centres of *Dox* and *Karlín Forum* easier.

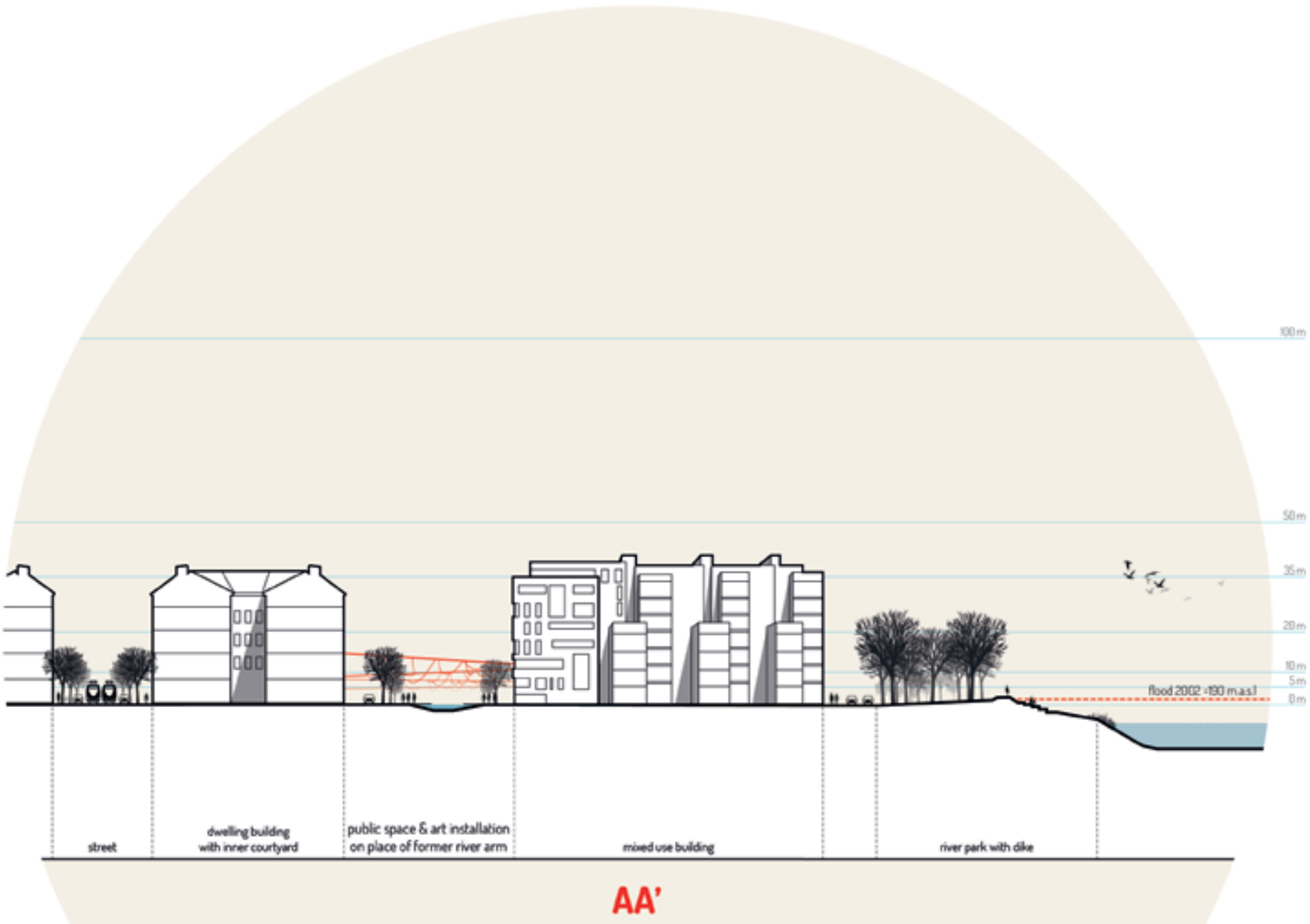


Fig.80. (left): Cross-section through Rohanský Island (Jančovičová, 2014)

Fig.81. (right): Design proposal for Rohanský Island & Holešovice waterfront (Jančovičová, 2014)

URBAN BALKONIES

NEW PEDESTRIAN/
BIKE CONNECTION

CITY MARKET

SLUICE

LIGHT ART INSTALATION

POWER GENERATOR

NEW OFFICE &
DWELLING BUILDINGS

PROTECTIVE EDGE

HILTON HOTEL

A'

A

ROHANSKÝ ISLAND &
HOLEŠOVICE WATERFRONT

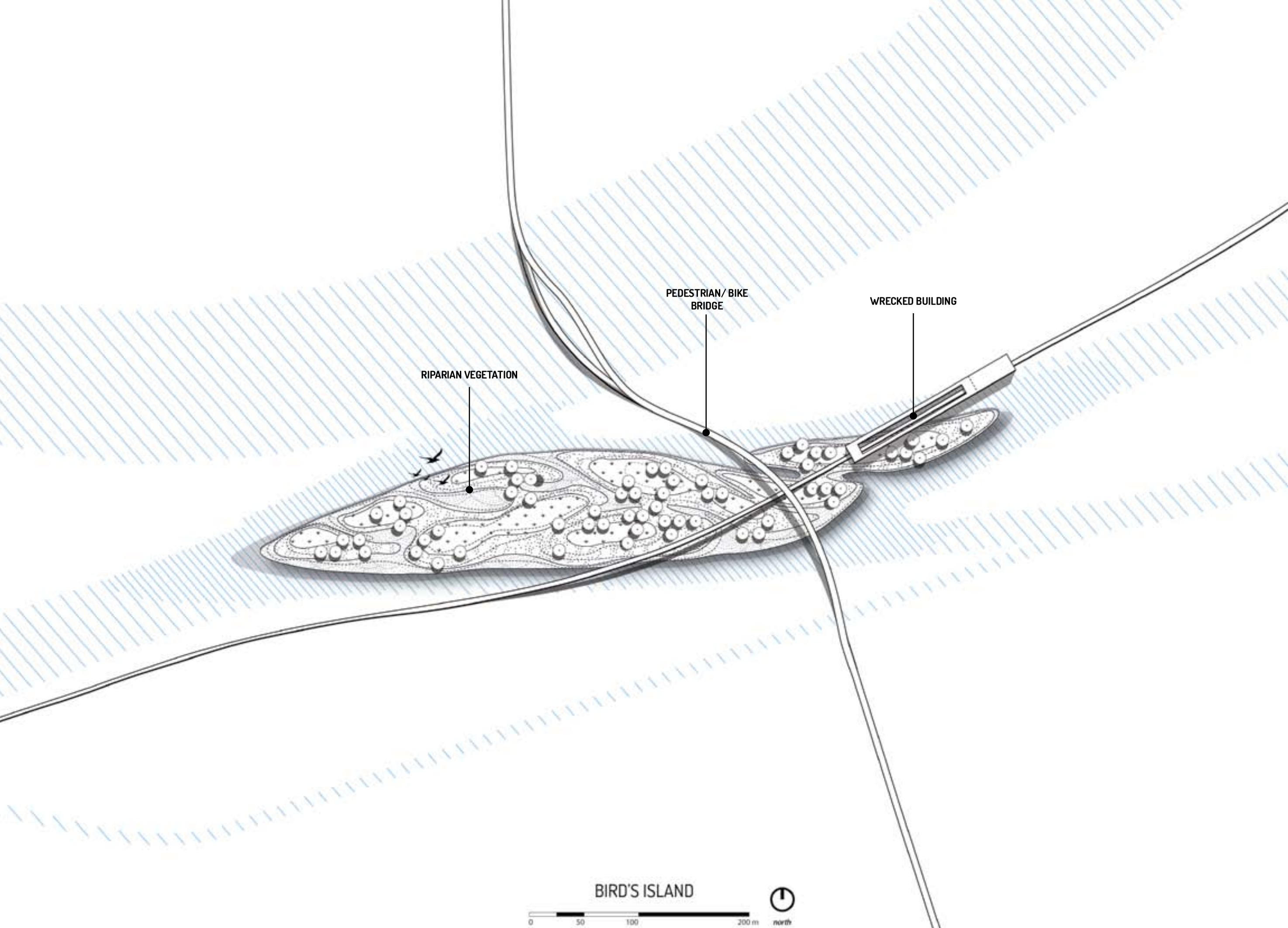
0 50 100 200 m

north

5.4.3. Birds' Island

Contrarily to the current trends of Prague's urbanization, the process of nature development is applied here. The void in the middle of the city is created. The Bird's Island represents a touch of wild nature in the inner urban structures, where two phenomena of nature and urbanity create strong juxtaposition. The wilderness found itself in between two urbanised city districts. This island is designed to be inaccessible for visitors but possible to appreciate from a distance. The bridge structures are gently flying above the island, never touching. Ecologically valuable space of wetlands and riparian vegetation is shaped by the river's hydraulic fluctuation, where the natural rhythms of seasonal floods are revealed. The island is periodically flooded (at least once a year) and thus it becomes an ideal nesting place for birds and other small animals.

Fig.82.: Design proposal forBirds' Island (Jančovičová, 2014)


PEDESTRIAN/ BIKE
BRIDGE
WRECKED BUILDING
RIPARIAN VEGETATION
BIRD'S ISLAND
0
50
100
200 m
north

5.4.4. Maniny Island

The design of this island is based on the apparent quality of bareness and extreme simplicity. The left over space of Maniny Island has been mutated through various natural and man induced disturbances. Due to water damage and the 'landscape tragedy' of lost attention, a moonlike landscape of trash and debris occurred. The intention of the design proposal for Maniny Island is to enhance the metaphor of urban void where intentional flaws are implied. They are proof of a living system, where resilience is made visible (Roncken blog, 2013). By minimal interventions the disturbance is not masked but embodied in the design. The emptiness and surface roughness became the main design qualities. Human perception and aesthetical appreciation are challenged by the senses provoking environment of harsh concrete slabs and mute green-less landscape. The sound barrier on the east edge of the island is proposed to enhance silence and feeling of isolation. The main design interventions are applied at the scale of the decaying buildings, which will enrich the island by unexpected life. The collage *Apparent Mirroring* (see 4.4.2) became an inspiration for following intervention. By removing the rooftops and conserving the facades, the abandoned buildings are transformed into the public inner gardens, where the natural seasonality is revealed. The ruins are unequally dispersed through the area, yet connected by the rhythms of the river. The inner gardens (see 5.6) trigger a new form of public life where visitors are directly exposed to the water dynamic of fluctuation, until extent to be inaccessible during the high water situations. By opening the buildings up for light, air and water, small-scale ecologies of mosses and lichens can be formed. Walls will become seemingly soft. Due to the island's location and its openness, various types of social events can take place here. The art hall in the northern part of the area can facilitate this. Optionally, the inner gardens can be used as outdoor display places. As the ruins of Maniny Island always afforded shelter for homeless people, it is possible that this social group will inhabit the proposed inner gardens again. The urban wilderness where the discomforting social situations can be encountered puts visitors into the survival mode, the mode of alertness, which is also part of our aesthetic life.

South-west, from the highly urbanized Rohanský Island, the bare land of Maniny is connected via prolonged wrecked house. It serves as a gate connecting different landscape types with contrasting characteristics. The wrecked house of Maniny Island is challenging unavoidable element, as it is positioned on one of the main bike connections of entire archipelago. The appearance of the portal landscape raises overwhelming feeling as we enter into the corridor-like space. The emptiness, silence, and the light at the end of the tunnel make us imagine to be transported into the new unexpected world. As unexpected function to the objects can appear, the homeless people can found here a temporal shelter as well.

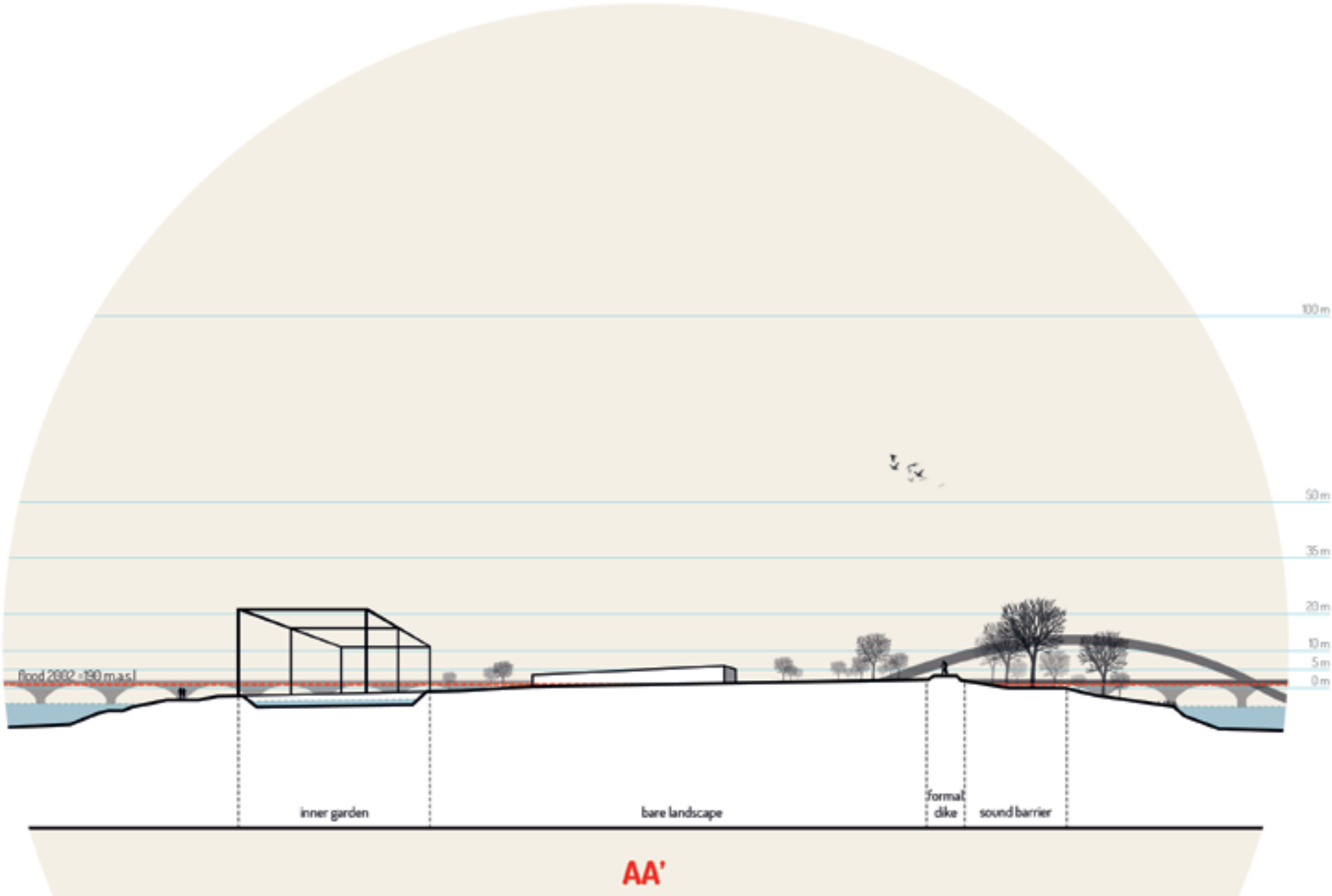
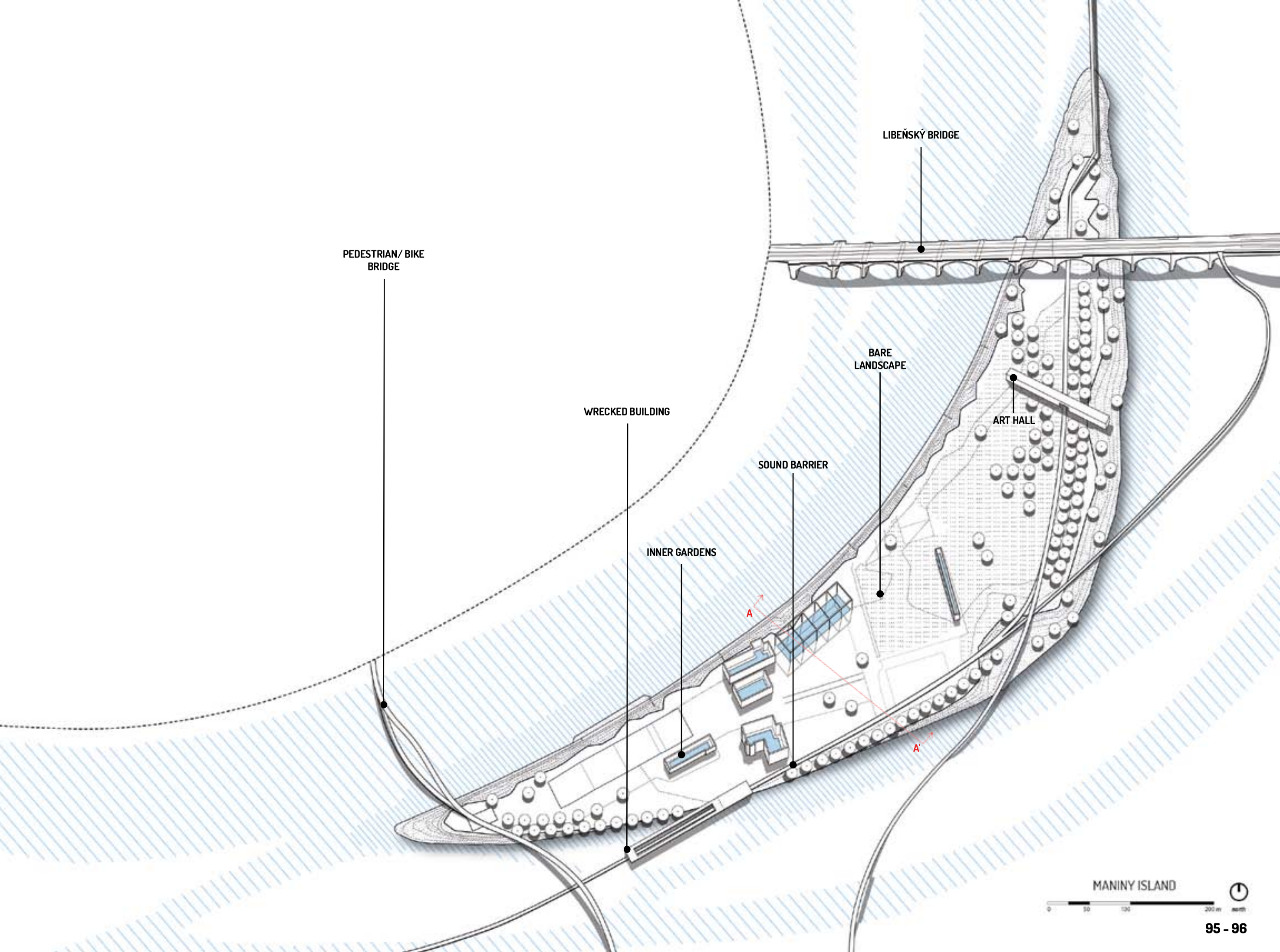


Fig.83. (left): Cross-section through Maniny Island (Jančovičová, 2014)

Fig.84. (right): Design proposal for Maniny Island (Jančovičová, 2014)


LIBEŇSKÝ BRIDGE
PEDESTRIAN/ BIKE BRIDGE
BARE LANDSCAPE
ART HALL
WRECKED BUILDING
SOUND BARRIER
INNER GARDENS
A
A'
MANINY ISLAND
0
50
100
200 m

5.4.5. Karlínsky Island & Karlín Waterfront

The formal design of Karlínsky Island represents the prolongation of the adjacent urban waterfront of Karlín district. The hard edges and high embankment walls are reference to the old Prague's islands in the historical city centre. Karlínsky Island is a place of urban park and passive leisure activities. Tall *Miscanthus sp*. grasses grooves and moves in the wind symbolically depicting the waves of the water (reference to *Echo of emptiness* collage (see 4.4.3)). On the other side of the reconnected water body, the river embankment of Karlín waterfront is purposefully discontinuous (reference to *Urban Hypnagogia* collage (see.4.4.6)). The mismatching walls, a front of the historical heritage building of Invalidovňa, are proposed to be seemingly dangerous as provocation reminding us of potential flood occurrence and its threat on the city. The idea behind this intervention was built up on the notion of the 2002 flood, as the building was heavily impacted that time. The imagination of possible water rise into the city guts creates pressure from the possible scenario. Although Invalidovňa is located a few hundred meters away from the actual waterfront, the visual continuity directed towards the bridge structure, (connecting Karlínsky and Maniny Islands) maintains the presence of the water. The bridge becomes a socially accepted symbol of the water body. Sokolovská Street is seen as part of the new urban realm rather than barrier between the neighbourhood and the river. The trees are planted in such a way to ensure continuity of the waterfront and logical guidance towards the Vltava River.

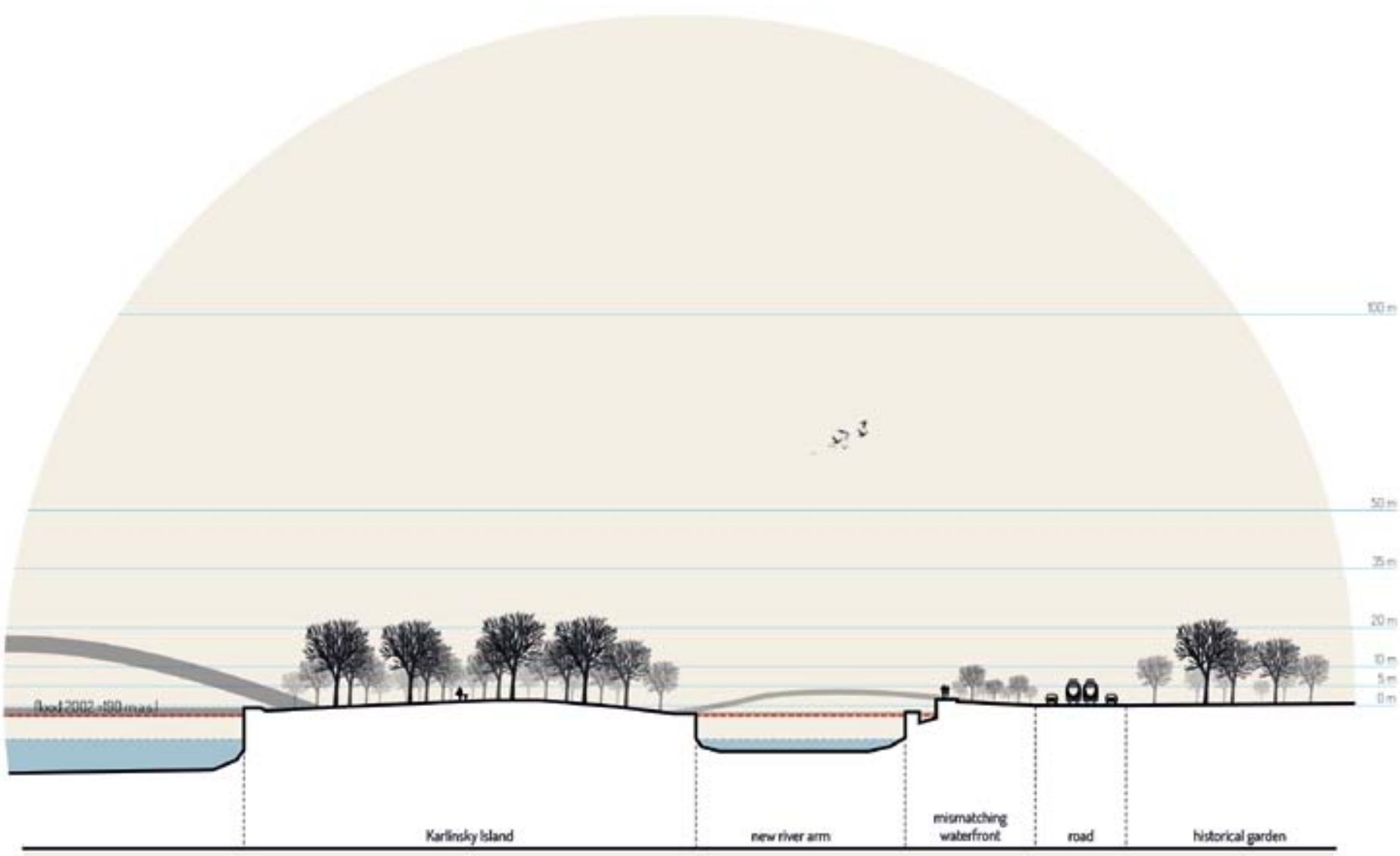


Fig.85. (left): Cross-section through Karlínsky Island (Jančovičová, 2014)

Fig.86. (right): Design proposal for Karlínsky Island & Karlín waterfront (Jančovičová, 2014)

MISCANTHUS GROOVES

MISMATCHING WATERFRONT WALL

URBAN PARK AREA

PUBLIC FACILITY

A

A'

INVALIDOVŇA - HISTORICAL HERITAGE BUILDING

KARLÍNSKY ISLAND & KARLÍN WATERFRONT

0 50 100 200 m

north

5.4.6. Libeň Urban Edge

Libeň urban edge is the northern continuation of the Karlín waterfront. In 2002, the Libeň neighbourhood was heavily flooded in this place, as the low lying sediments of former river bed are located here (Fig. 67). Due to the new river arms excavation, the surplus of soil creates an opportunity for the heightening up of the area along Sokolovská Street. On the higher locations, new urban development is proposed. As an additional means of flood defence, a strong wall on the altitude line of 191m.a.s.l is designed to hold the weight of heightened area. By placing the flood defence wall deeper in the neighbourhood, the urban lagoon is created. With the high tide, water is invited into the city causing gradual formation of riparian nature. Seen from the Libeňský Bridge, the wall upon which the power of the water can be imagined visually frames the city. This delicate edge divides the city and the landscape of natural processes. To enhance such an intimacy a nude beach is proposed to juxtapose naked vulnerable human body next to the strong and cold concrete. As such public space activity is not socially accepted in our culture; new type of sublime landscape is created. The ignored landscape (Roncken, forthcoming).

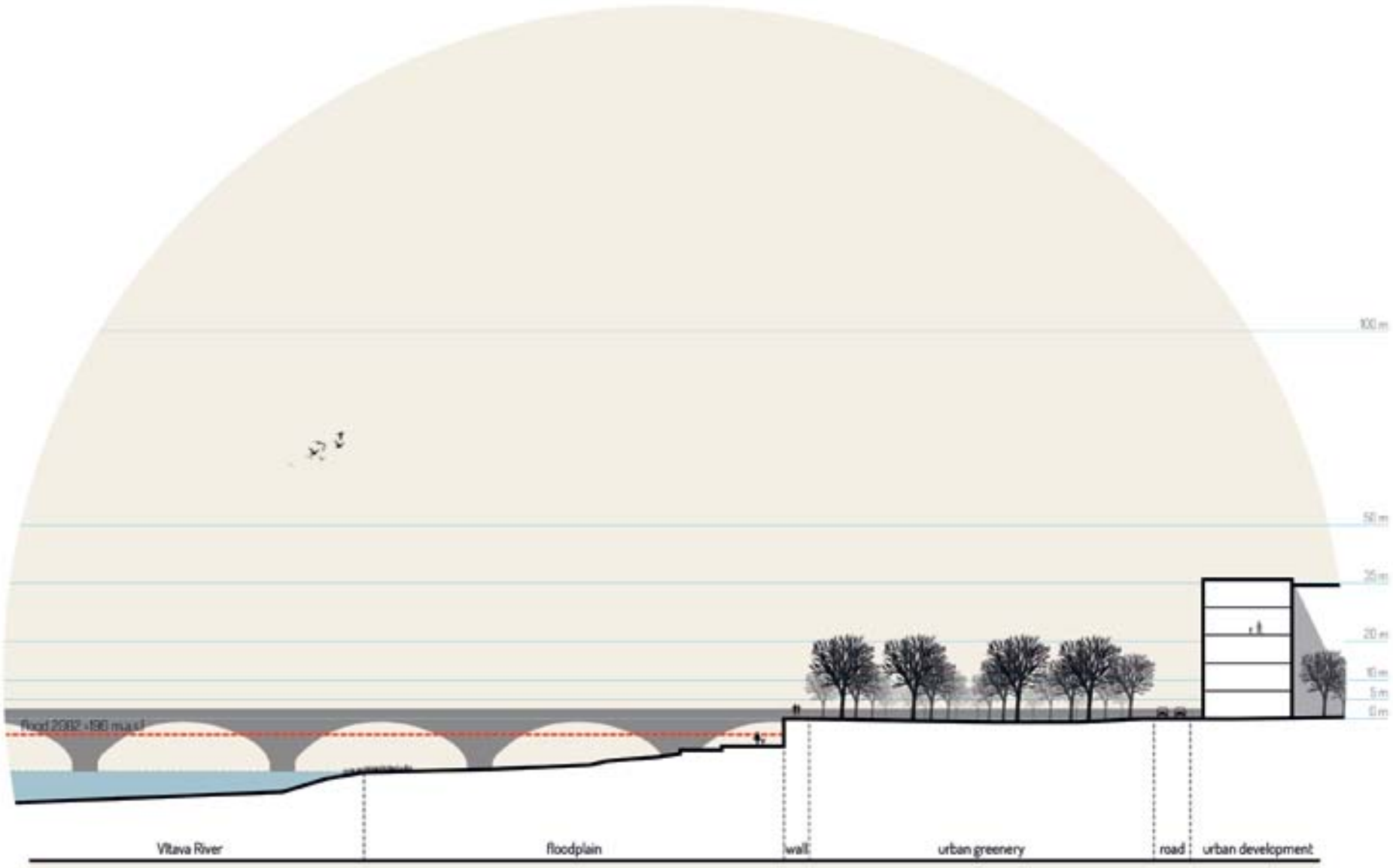
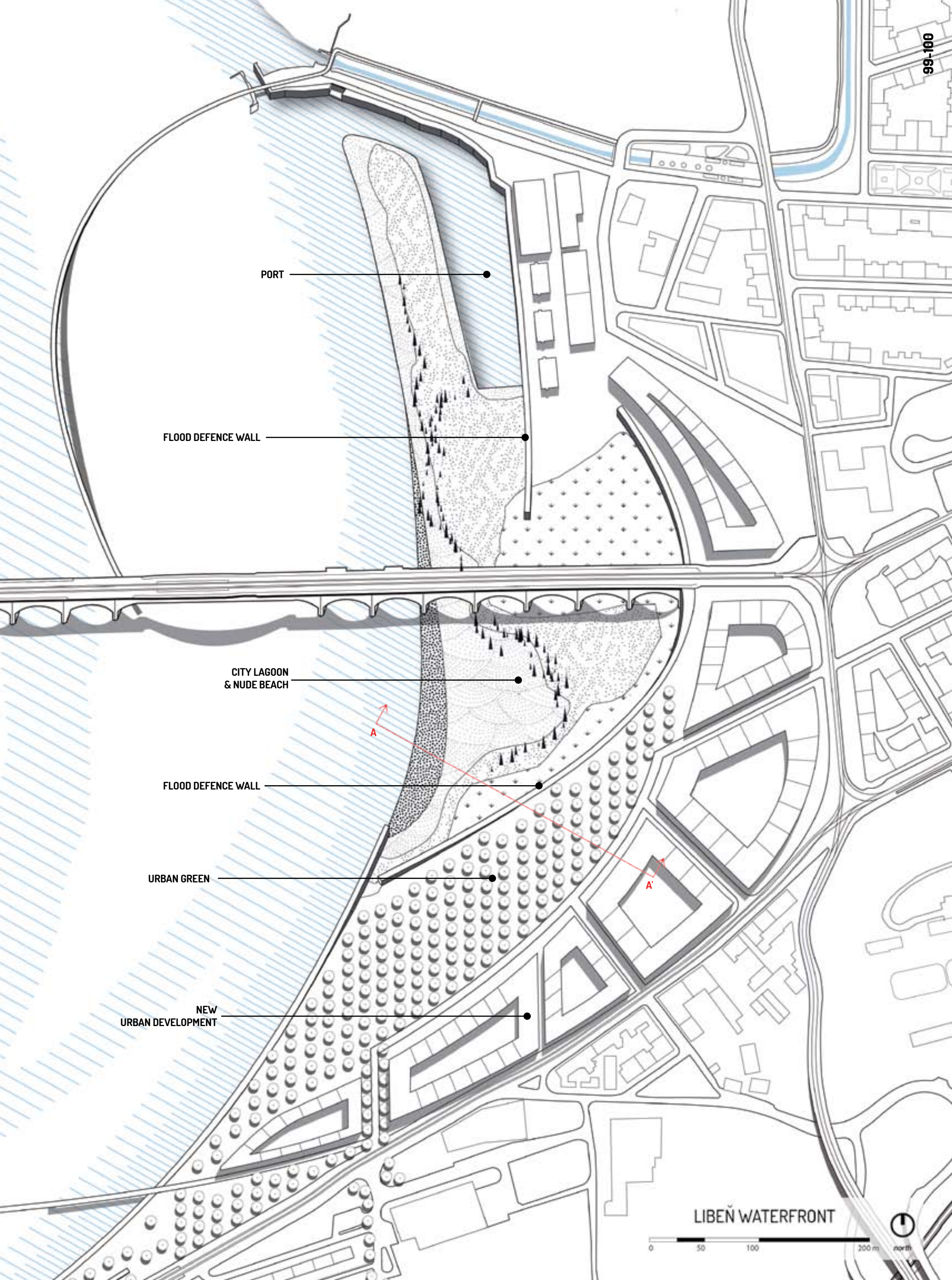


Fig.87. (left): Cross-section through Libeň urban edge (Jančovičová, 2014)

Fig.88. (right): Design proposal for Libeň urban edge (Jančovičová, 2014)


PORT
FLOOD DEFENCE WALL
CITY LAGOON
& NUDE BEACH
A
A'
FLOOD DEFENCE WALL
URBAN GREEN
NEW
URBAN DEVELOPMENT
LIBEŇ WATERFRONT
0
50
100
200 m
north

5.4.7. Libeňský Island

The Libeňský Island is the biggest island of the archipelago, lying on the confluence of Vltava River and the Rokytka brook. The island represents a kind of buffer zone where the phenomena of urbanity and nature fuse together into the form of productive rituals performed in allotment gardens and fishing ponds. Fishing ponds are designed as a system of two retention basins and the adjacent wetlands. They have ability to clean and partially hold discharge water from the flood peaks. By inserting built structure into a context of natural processes fishing ponds are able to utilize the periodic rise and fall of water and creates moments of pause within a great system of flows. They are constructed as excavated pools surrounded by the dike under which apertures allow water to infiltrate. The gently sloped green terraces, inside the ponds, are intended to clean inflow water through the process of remediation. Pools facilitate existing dynamic conditions of particular time and water levels. The surplus water is emptied by use of gravity through an artificial passage into the adjacent northern wetlands, when certain water levels are reached. Ponds are big in scale to ensure solitude for the fisherman and make them clearly visible from Libeňský Bridge, stretching above. Adjacent feeding channels and the wetland provide habitats for different riparian plant and animal species.
The allotment gardens in the northern part of the island represent a form of urban farming, where the patches of private and to some extent communal merge together. It is about juxtaposition of different individual lives and creation of a specific productive landscape typical for Prague. The allotment gardens are dispersed on the higher ground, safe from the high water situations. From the east side, the massive concrete dam construction connects the unchained riparian landscape with the neatly defined park of *Thomayerove sady*. The dam represents a second portal landscape, the gate connecting different landscapes (reference to *Here & There* collage (see 4.4.4)).

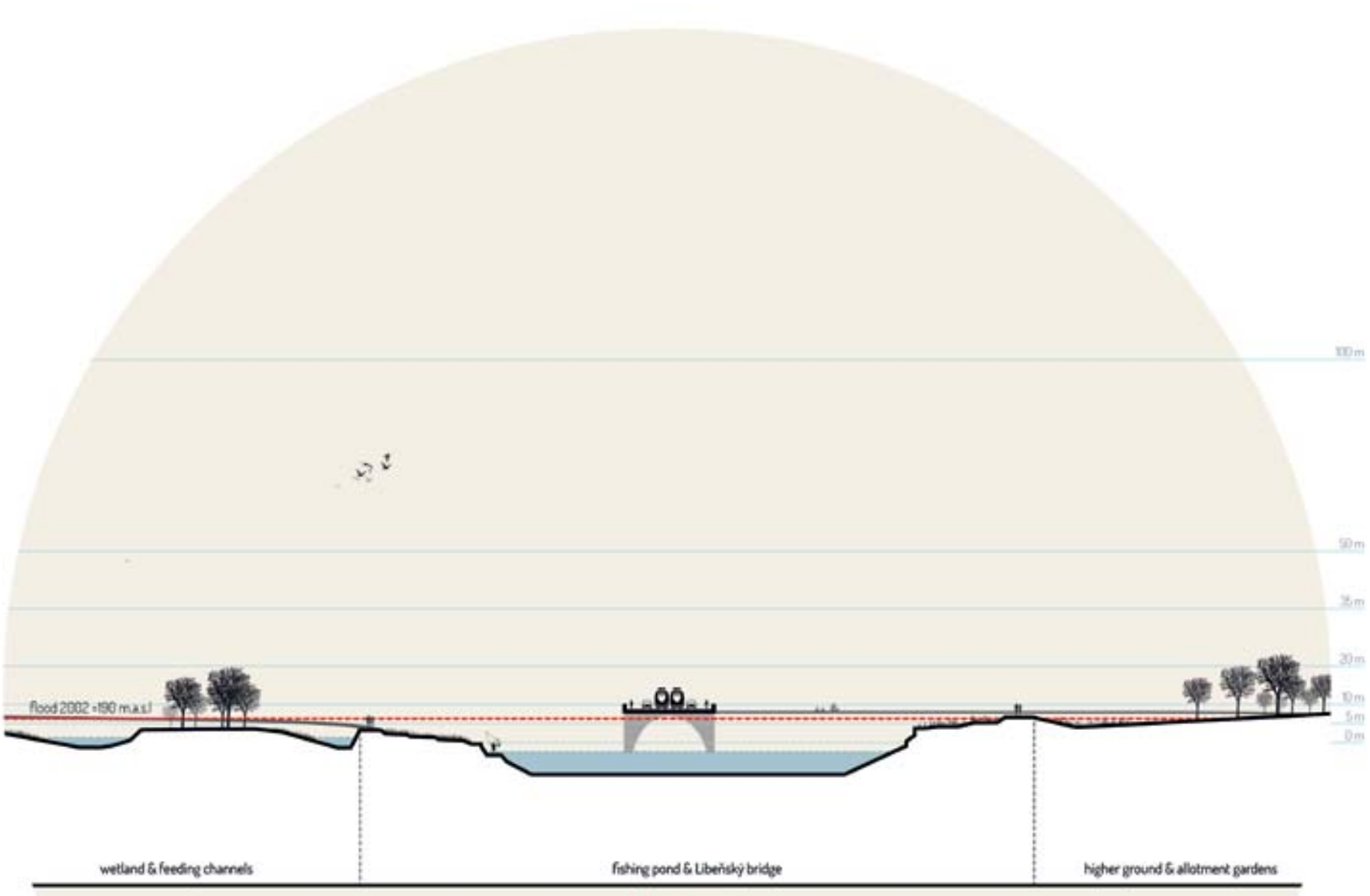
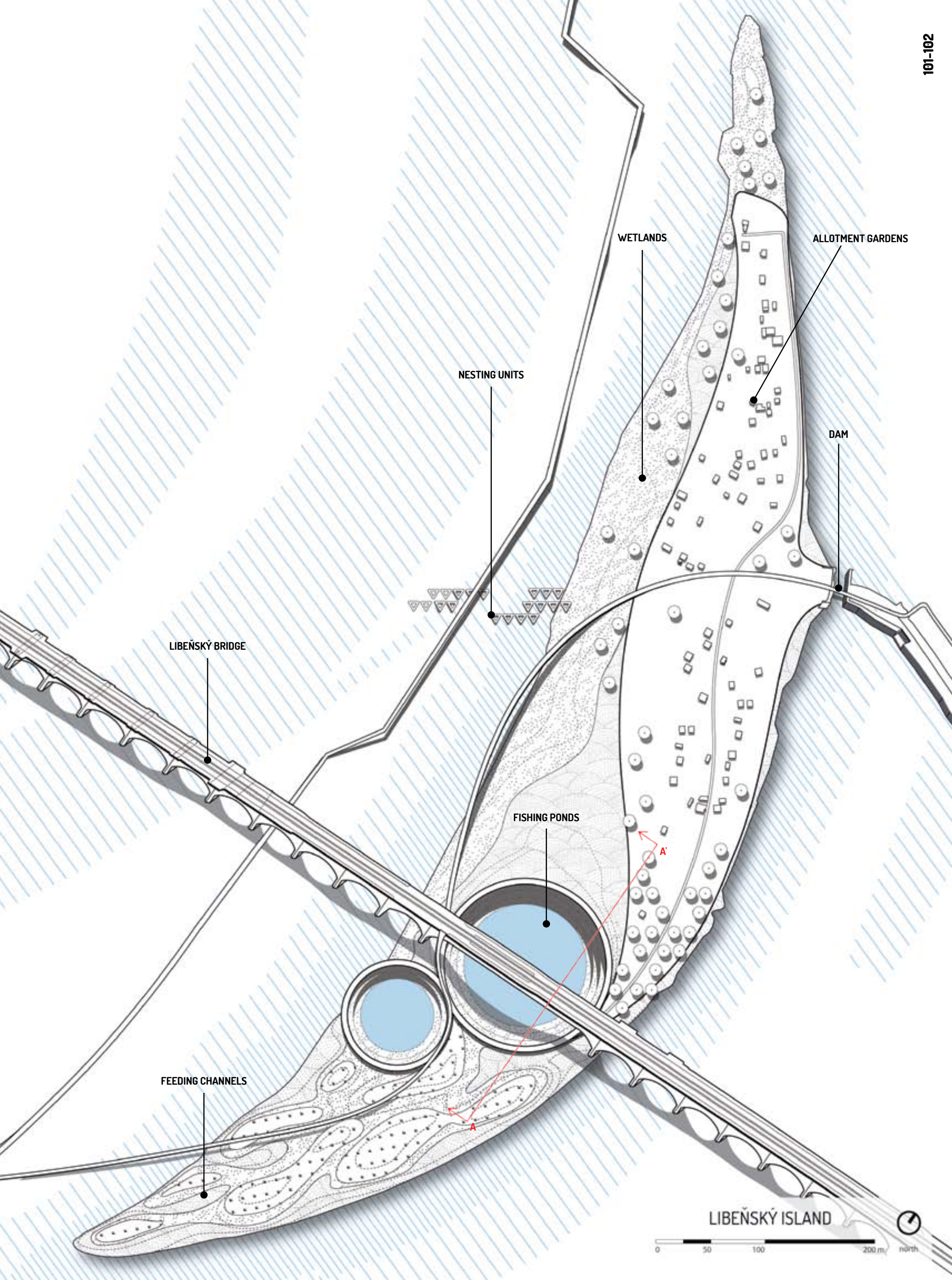


Fig.89. (left): Cross-section through Libeňský Island (Jančovičová, 2014)

Fig.90. (right): Design proposal for Libeňský Island (Jančovičová, 2014)


WETLANDS
ALLOTMENT GARDENS
NESTING UNITS
DAM
LIBEŇSKÝ BRIDGE
FISHING PONDS
A'
A
FEEDING CHANNELS
LIBEŇSKÝ ISLAND
0
50
100
200 m
north

FLOATING UNITS

The number of plastic bottles accumulated in the river stream is an instant provocation. The plastic bottles and other trash from the river are collected, centralized and re-used. The floating structures are proposed to serve different purposes and to provide unique functions (reference to *Taking over* collage (see 4.4.7). Units can be used as water gardens, swimming pools or nesting places for birds and other animals. Due to their floating character, they respond to the changing water levels directly. They are small architectural elements of triangular shape to be distinct from the natural setting they are placed in. This intervention brings the attention of general public towards the discussion and reflection upon the forms in which the nature occurs in the cities.

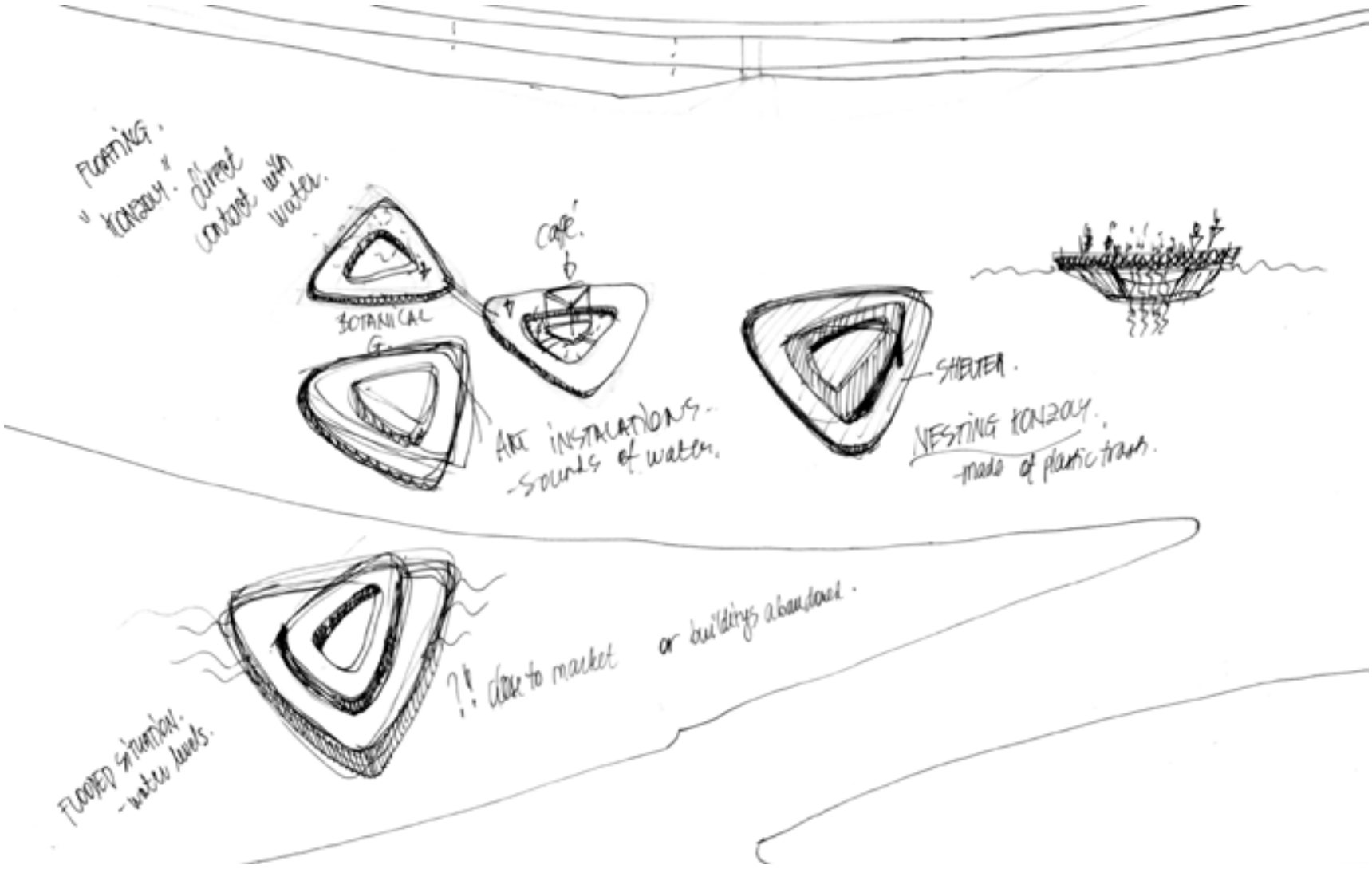


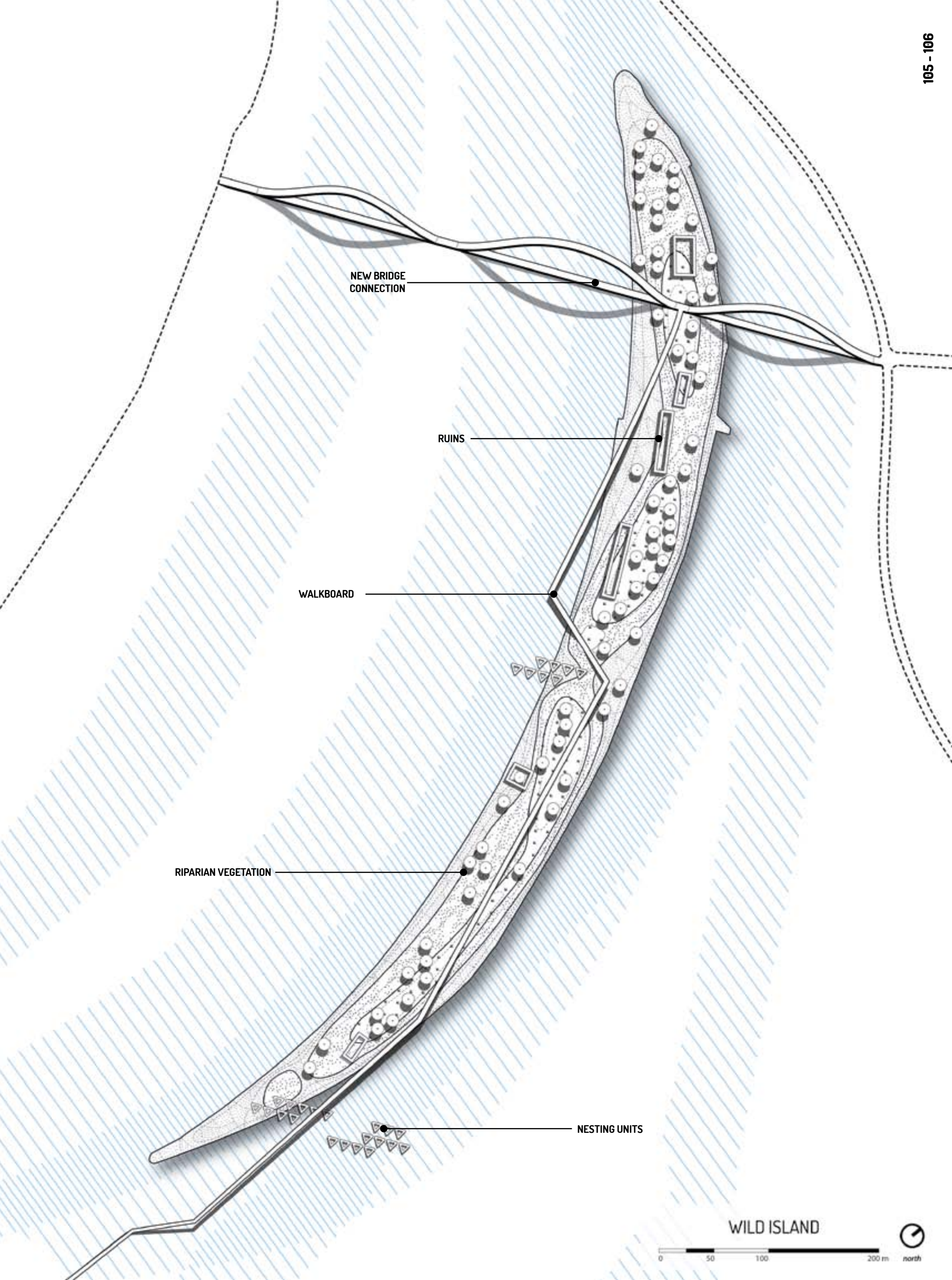
Fig.91.: The sketch design of floating units (Jančovičová, 2014)

Fig.92.: The swans in waters of Vlava River vs. swan in trash (Source: Internet & Natural History Museum, Rotterdam)

5.4.8. Wild Island

As name already indicates, the Wild Island is a place of the natural rhythms. Unlike the Bird's Island (see 5.4.3.), the wilderness of the island is partially accessible and thus possible to experience up close. Wild Island represents a stepping stone between the *Bíla Skála* (north) mountain and urbanized landscape of Prague (reference to *Apparent mirroring* (see 4.4.2)). It is natural void, where the buildings are empty and under decay. They are left to the mercy of the natural powers (reference to collage *Taking over* (see 4.4.7)).The concrete building foundations are filled by water with the higher water situations and during the precipitation events (reference to *Echo of emptiness* (see 4.4.3)). Similarly as in Maniny Island (see 5.4.4) roof tops are removed so that ruins can be inhabited by animals and thus bring wild nature closer to the city centre. The walk-board connecting the Wild with Maniny Island and new bridge in the north-west, affords an uneasiness of the bodily movement, when the irregularity in its shape is encountered. One must step down or to the side to overcome obstacle.

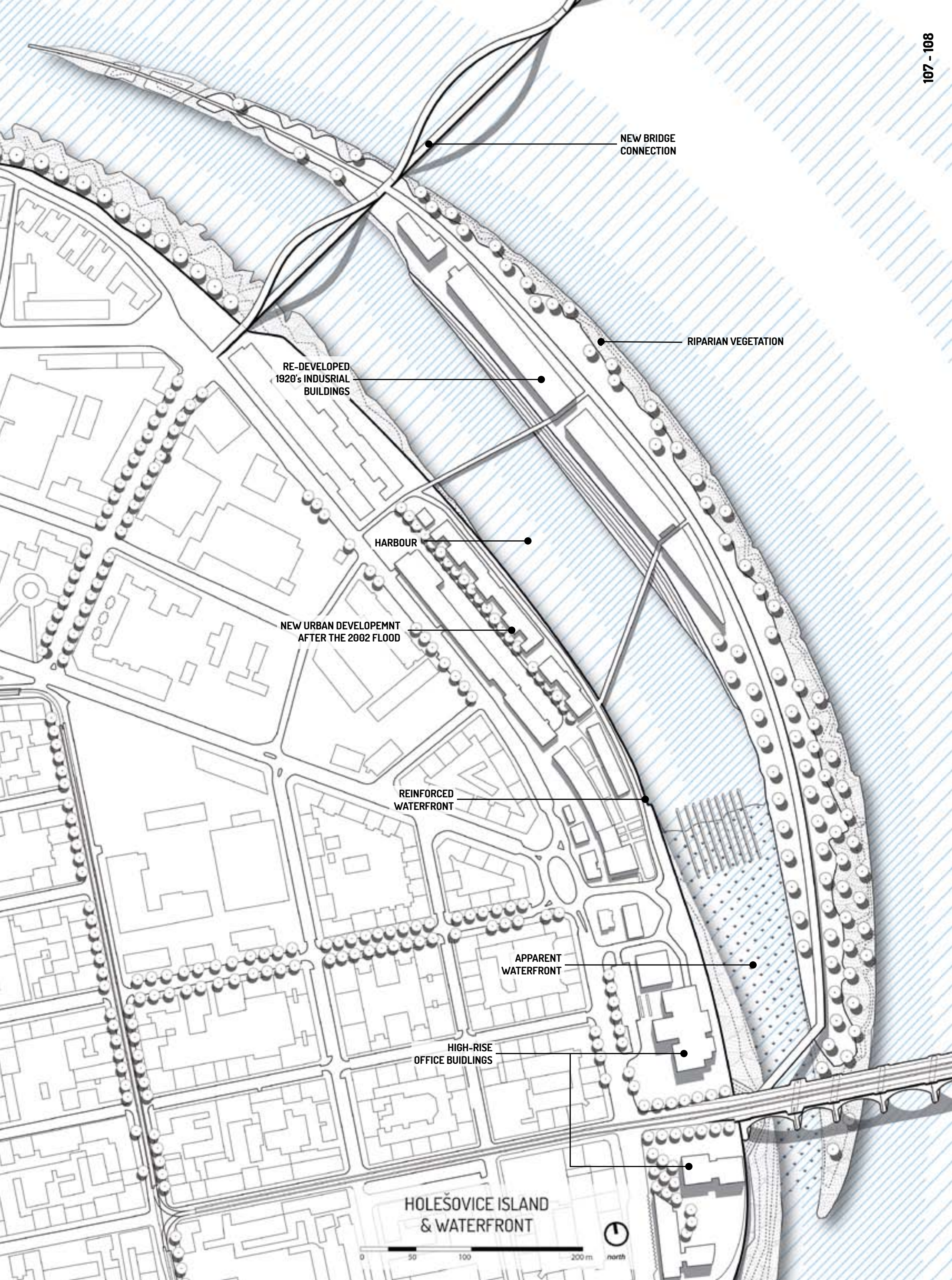
Fig.93.: Design proposal for Wild Island (Jančovičová, 2014)


NEW BRIDGE CONNECTION
RUINS
WALKBOARD
RIPARIAN VEGETATION
NESTING UNITS
WILD ISLAND
0
50
100
200 m
north

5.4.9. Holešovice Island & Waterfront

The juxtaposition of wildlife and the human habitat is made visible. The island represents an extension of Holešovice waterfront, where urban renewal started after 2002. The *natural illusion* is used to design (reference to *Shadow River* (see 4.4.5)). At least once a year, high water levels reveal hidden clues, and the Holešovice waterfront becomes a waterfront for some time, when the main river body re-connects with the harbour. Holešovice Island lies in between contrasting phenomena of wilderness and urbanity, where dwelling is a prevailing function. On the higher ground old industrial buildings from the 1920's, are re-develop into mixed use facilities, combining dwelling, creative industries and wildlife. The houses are constructed in such a way that they resist flooding when necessary. Next to the new bridge from *Bulovka* hospital, two other pedestrian bridges makes the island easily accessible and connected to the Holešovice quarter.

Fig.94.: Design proposal for Holešovice Island & waterfront (Jančovičová, 2014)


NEW BRIDGE CONNECTION
RIPARIAN VEGETATION
RE-DEVELOPED 1920's INDUSRIAL BUILDINGS
HARBOUR
NEW URBAN DEVELOPEMNT AFTER THE 2002 FLOOD
REINFORCED WATERFRONT
APPARENT WATERFRONT
HIGH-RISE OFFICE BUIDLINGS
HOLEŠOVICE ISLAND & WATERFRONT
0
50
100
200 m
north

5.5. ZOOMING OUT

Because the landscape interplay is the most vital aspect of design craft, in the following section, the connection of the design towards its bigger context is introduced.

5.5.1. Entrances & Infrastructure

The Maniny archipelago is a system of different but yet connected islands. Each place joins its context and displays internal unifying spatial logic. Islands are easily accessible especially from the northern side (Karlín and Libeň district) due to the location in the middle of the built up. There are 3 metro and 10 tram stops in walking distance from Maniny. As the design area is monumental through its scale, a new bike path system is proposed to connect islands and the waterfronts together. Bike paths are usually placed on the heightened mounds structure, which provides a safe place when the water level rises. Infrastructure can be considered as spine bone of the design as it requires a logical link to the surroundings and as well choreographs experiences. Bridges represent an important part of the design solution as they are a widely established symbol of water and its inseparability with the landscape of Prague. They can be seen as souvenirs that remind us of the water presence already from the distance. 12 bridges are located on the strategic places to ensure permeability of the seemingly isolated Maniny archipelago and to facilitate not only movement of the people but of wildlife as well. They can be seen as collection of the landmarks, which could be designed by different artists and architects.

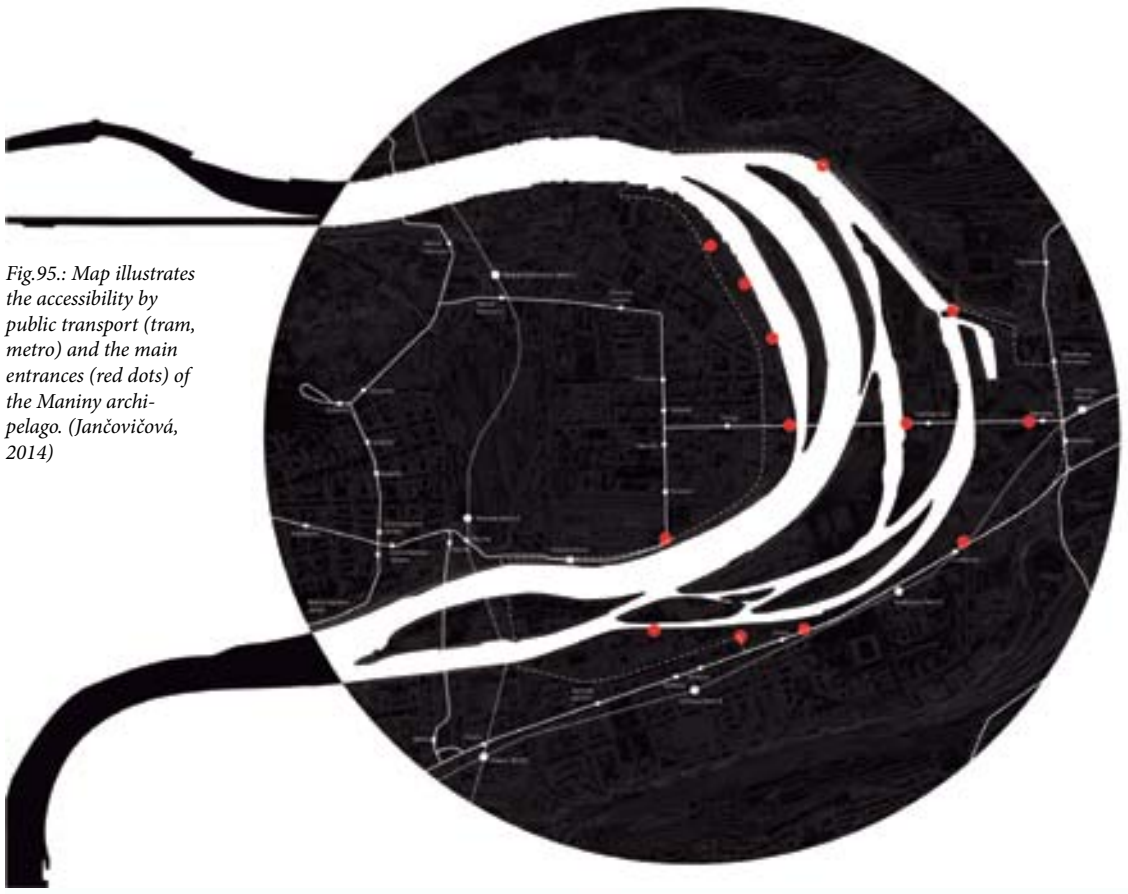


Fig.95.: Map illustrates the accessibility by public transport (tram, metro) and the main entrances (red dots) of the Maniny archipelago. (Jančovičová, 2014)

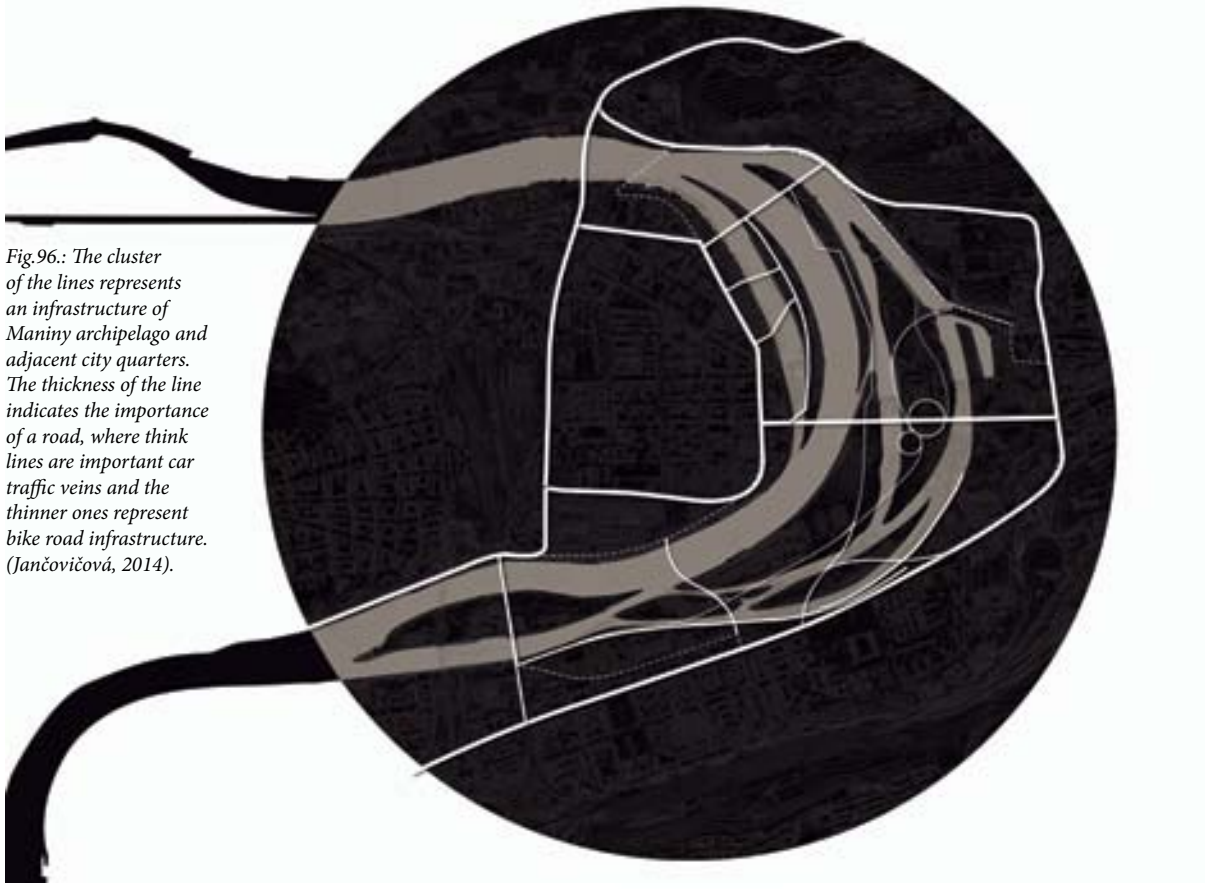


Fig.96.: The cluster of the lines represents an infrastructure of Maniny archipelago and adjacent city quarters. The thickness of the line indicates the importance of a road, where think lines are important car traffic veins and the thinner ones represent bike road infrastructure. (Jančovičová, 2014).

5.5.2. High water situation

Since water is not static but a dynamic natural element, the fluctuation and its seasonal rhythms were taken into the consideration in this design. The water's seasonality reveals a different structure of design, as some parts are flooded with high water situation. Example to that is the Holešovice waterfront (see 5.4.9) which is not placed on the water edge directly unless flood events connect the main river body with the Holešovice harbour. In this light, water is able to reveal even the smallest changes in the landscape's altimetry. The delicate balance between the water's amorphousness and land's heights informed design of archipelago's topography (Fig. 74). It intended to ensure not only the flood resiliency of the vulnerable areas, but also to create a moment of surprise when one realises the natural might and its seasonal expressiveness. Water dynamics became the medium in shifting reality where direct experience of natural might amplifies a sense of nature in the city.

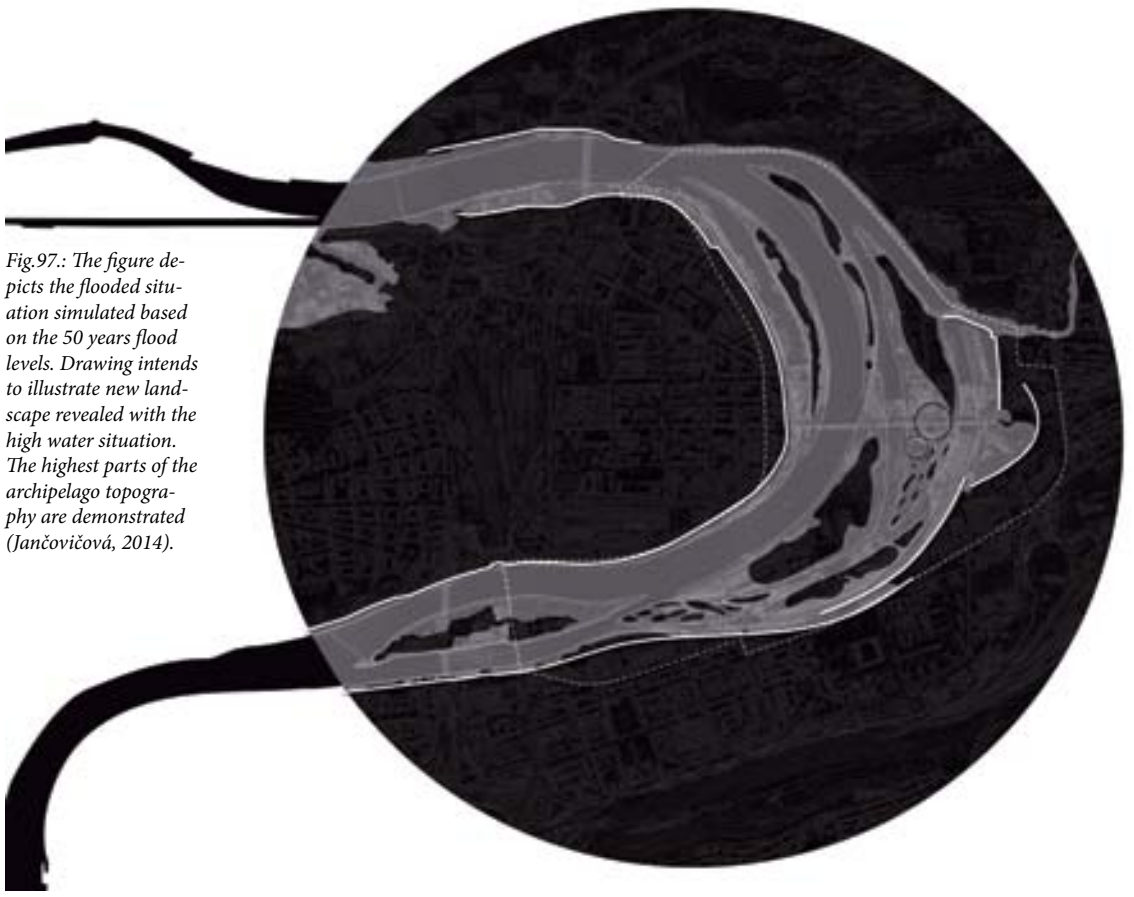


Fig.97.: The figure depicts the flooded situation simulated based on the 50 years flood levels. Drawing intends to illustrate new landscape revealed with the high water situation. The highest parts of the archipelago topography are demonstrated (Jančovičová, 2014).

5.5.2. Green-Blue Infrastructure

As some parts of the archipelago are directly linked to the river's seasonality and its periodical floods rich biotopes of riparian vegetation can establish on the islands. The newly created archipelago will help to restore the declining ecological balance of the river and to secure the city against floods. Wetlands of Maniny archipelago act like a sponge for absorbing, holding and slowing down the excess water. They are lungs of the river, oxygenating the water and providing habitats for marsh birds. The archipelago plays an important role in reconnecting existing and the future green areas, where the river is a key axis of the newly proposed

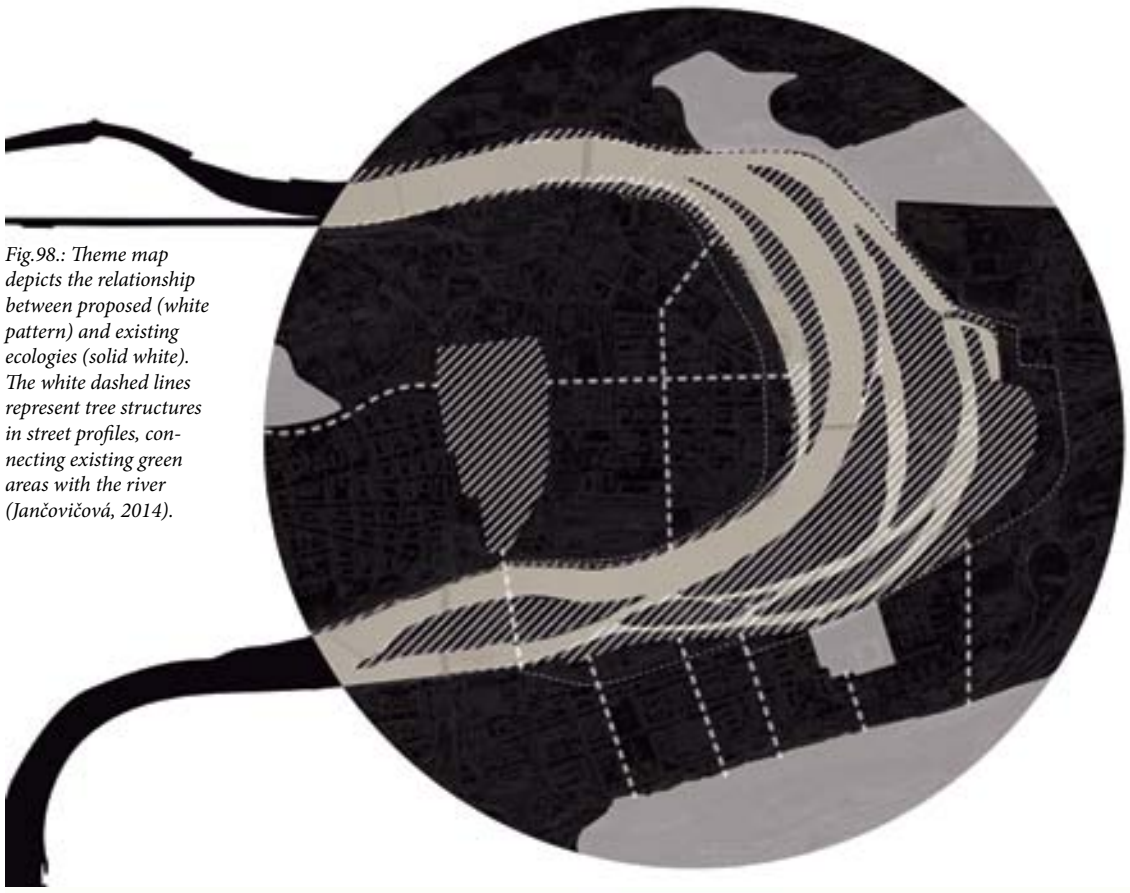


Fig.98.: Theme map depicts the relationship between proposed (white pattern) and existing ecologies (solid white). The white dashed lines represent tree structures in street profiles, connecting existing green areas with the river (Jančovičová, 2014).

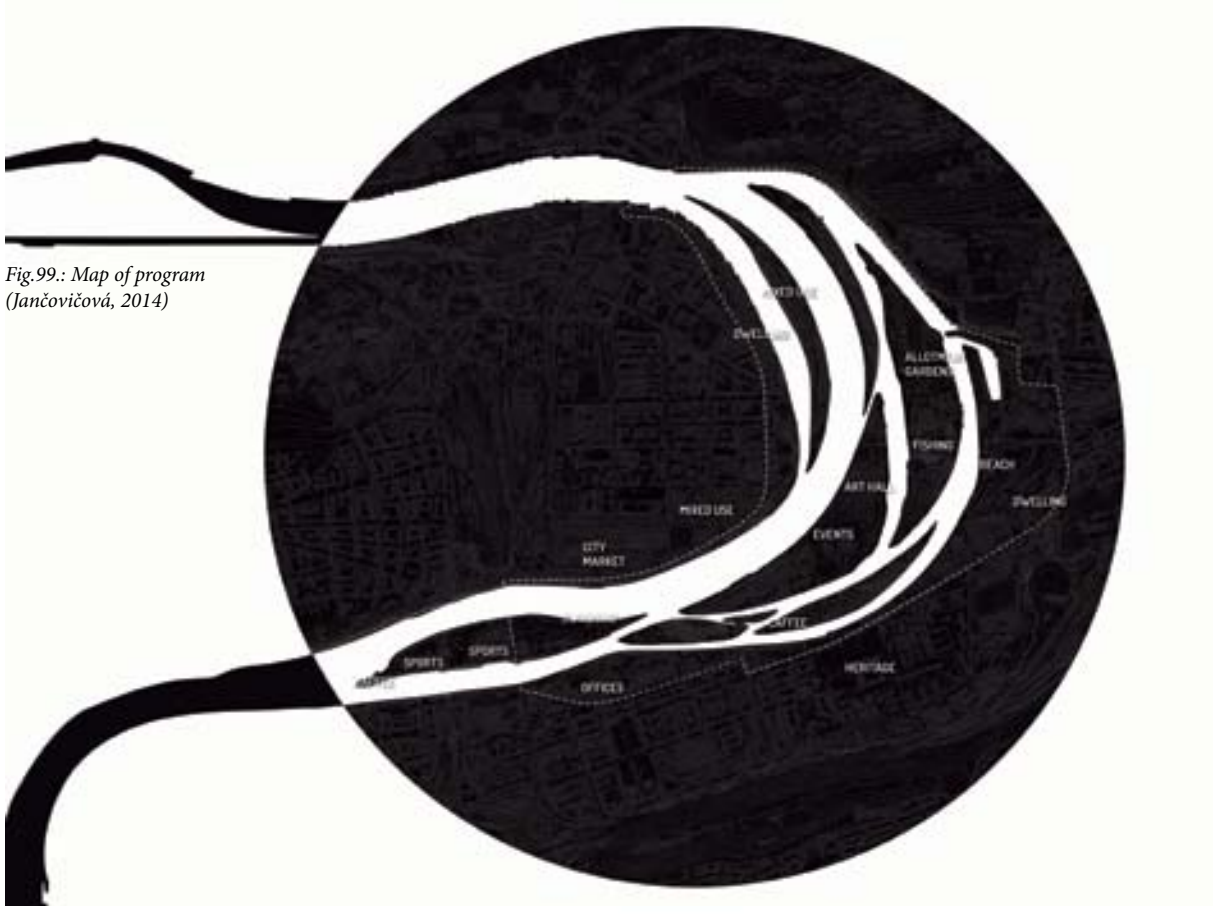


Fig.99.: Map of program (Jančovičová, 2014)

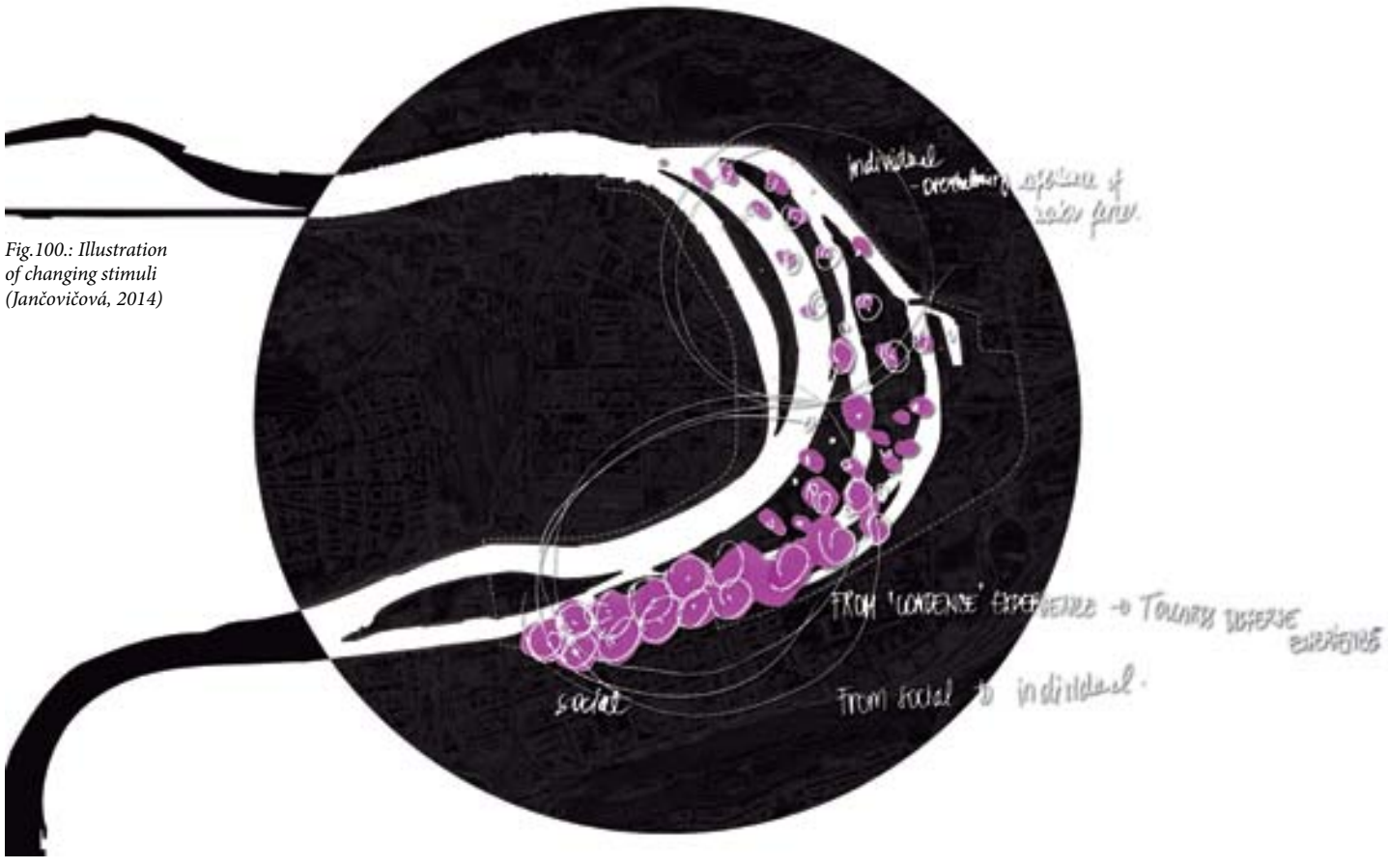


Fig.100.: Illustration of changing stimuli (Jančovičová, 2014)

green-blue infrastructure (Fig.31). The archipelago is a stepping stone in connecting ecologies of adjacent hills of Bíla Skála and Vítkov with the river.

5.5.4. Program

Next to natural processes, Maniny archipelago maintains new cultural dynamics. The floating baths, sport facilities, beach, fishing ponds, allotment gardens, inner gardens, art hall and cafe bars intersect the social interests into the wilderness of the archipelago (Fig.99). Most of the proposed program reflects the relationship between city and water where specific role of the site's ecology influences the spatiality and agenda of functions. Along the water stream (from south-west towards north), the flux and intensity of the landscape stimuli change as well. It is dynamically changing from the concentrated, urban related, sensations towards more dispersed, natural ones. From social experiences to individual ones (Fig.100).

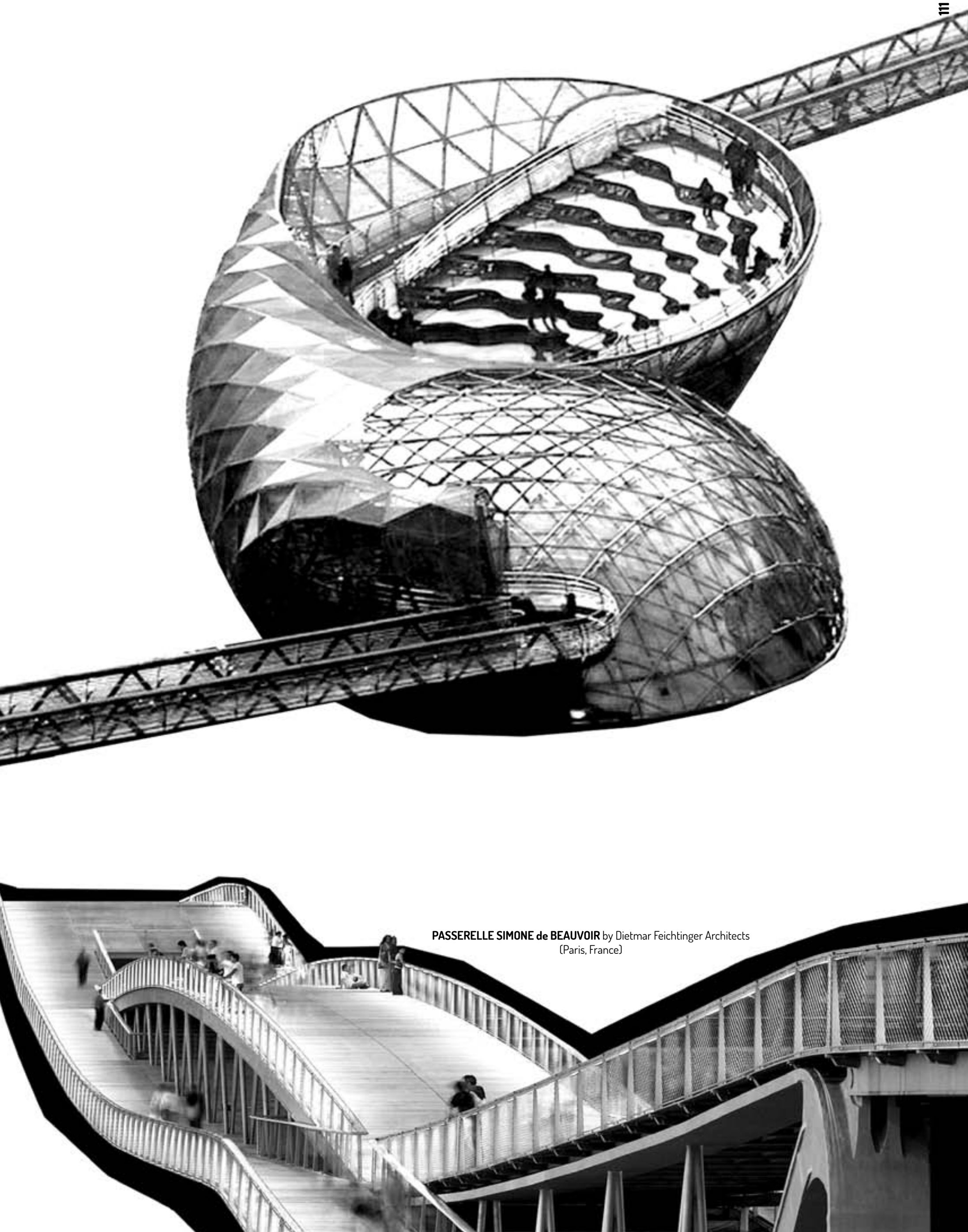
SLOW-TRAFFIC BRIDGES

This brief collection of reference images suggests the appearance of the future slow-traffic bridges.

RIBEIRA de CARPINTEIRA by JLCG Arquitectos (Covilhã, Portigal)

MUR ISLAND BRIDGE by Vito Acconci (Graz, Austria)

Fig.101.: Reference pictures (Source: Internet, various)



PASSERELLE SIMONE de BEAUVOIR by Dietmar Feichtinger Architects
(Paris, France)

5.6. EXPECTED SUBLIMES

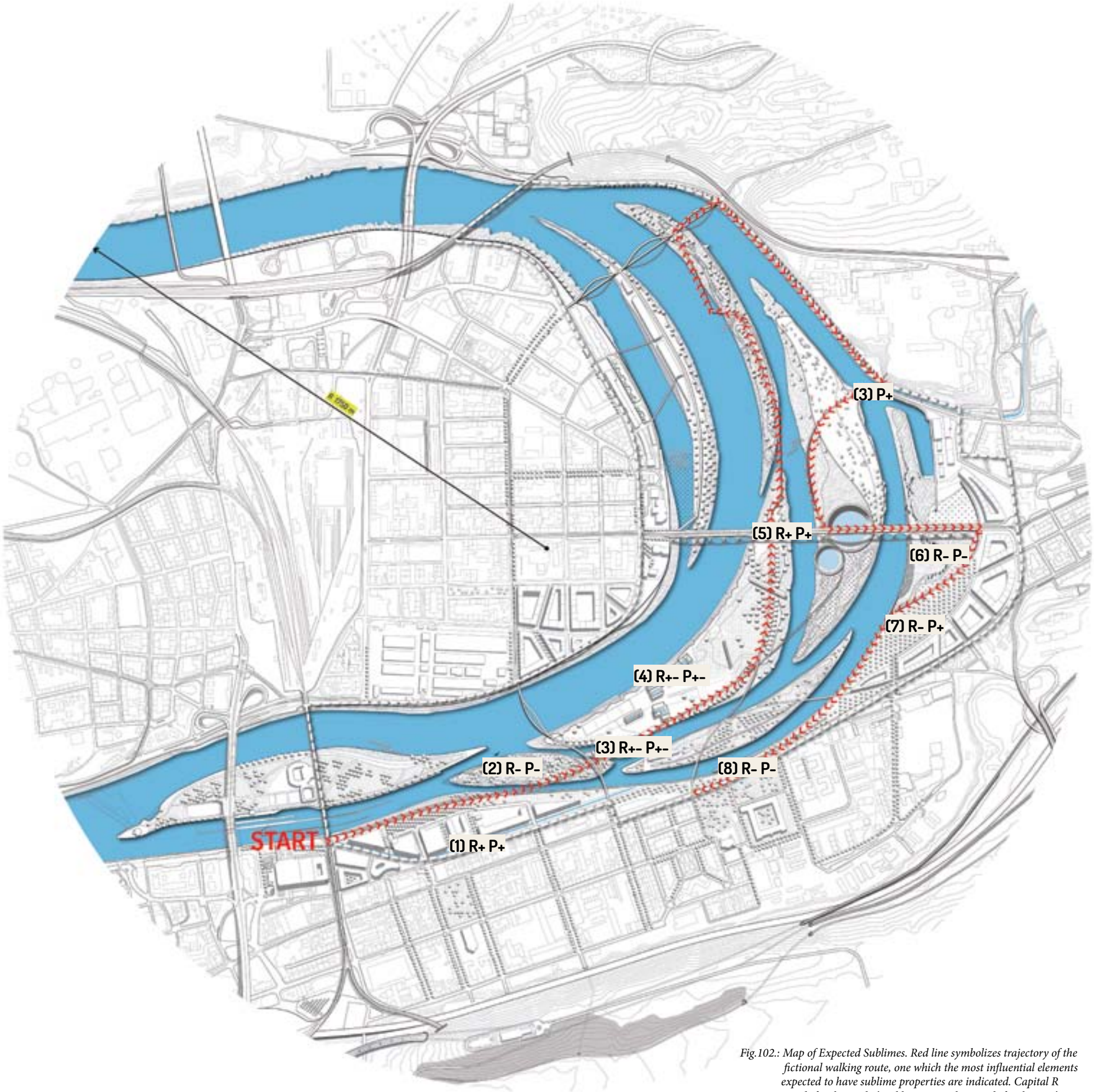


Fig.102.: Map of Expected Sublimes. Red line symbolizes trajectory of the fictional walking route, one which the most influential elements expected to have sublime properties are indicated. Capital R stands for the reader's sublime, capital P stands for the poet's sublime and +/- symbols represent positive or negative felt quality (Jančovičová, 2014)

The *Expected Sublimes* summarize and visually specify the most influential landscape interventions expected to have sublime triggering capacities. They zoom out to the entire picture of the Maniny archipelago and position proposed intervention into their broader context. The following section might be seen as a reflection and analysis upon design solutions. By placing design elements back and thus distancing ourselves from its details, we enable ourselves to see them again in the conceptual way from which they originate. The proposed interventions are discussed from the two viewpoints. From the viewpoint of (1) *the design concept 'Leap into the void'*, and its general idea of absence, and from (2) *the theoretical viewpoint* on contemporary sublime, which distinguish between two basic psychosomatic digestions of the unpresentable (Poet and Reader).

Walking in the landscape is as much part of the aesthetic experience as looking and daydreaming (Roncken, blog). A fictional walking route was created to lead us through individual landscape elements separately, but yet as if being inside the landscape of the Maniny archipelago. The walking route is directed as a loop with the starting point on Rohanský Island, towards Maniny Island, Wild Island and then turning back towards the Libeňský Island along the southern urban edge of Libeň and Karlín districts. As felt quality, or in other words the emotional expression of the sublime sensation can be positive (pleasant in the broad sense) or negative (unpleasant in the broad sense), than two sublime types can be distinguished into 2 more subcategories of each. This means that the landscape elements can be described as positive poet/reader or negative poet/reader. Regarding the literature (Roncken, forthcoming), *positive reade*r is associated with the legible landscapes, *negative reader* with ignored landscapes, *positive poet* with portal landscapes and *negative poet* with horrific landscape types. Based on this distinction, a map of expected sublimes (Fig.102) was compiled as well.

(1) LIGHT INSTALATION

The light installation is an absence of direct perception of water, but as well absence of the formal river arm. It is a negative/distant representation of the water force nearby Vltava River, where one can read the intensity of the current by changing the degree of light. This relates to the notion of the positive reader's sublime. Installation's form links with the positive poet's sublime as well, as its irregularity of its formal appearance respond to the hidden topography of the phantom river arm.

Fig.103.: Light installation in the street scale of Rohanské nábřeží (Jančovičová, 2014)

(2) INACCESSIBLE WILDERNESS

The distant wilderness of Bird's Island reveals absence of access, but at the same time absence of culture. As bridge structures are flying above the island and do not allow access to humans, the sublime manifests itself with negative connotations. The *ignored* or in this case distant landscape of Bird's Island represents the negative reader's sublime. At the same time, the negative poet's sublime can be sensed where the distance symbolizes dualism between culture and nature. It might be interpreted as well as the human inability to reach beyond natural might.

Fig.104.: Wilderness of Birds' Island (Jančovičová, 2014)

(3) ENTRANCES/ GATES

While walking from the highly urbanized landscape of Rohanský Island, the element of the wrecked house is encountered. It serves as a gate or a bridge between two islands. Due to its key position on main bike path (connecting west to north-east) and the context it is placed in (elevated entrance surrounded by water), the wrecked house becomes an unavoidable component. Exactly this notion makes this case the investigation into the absence of choice. Generally speaking, due to the houses appearance (dark corridor like space) and its context, it can be considered as the negative poet's sublime or in other words *horrific landscape* where one can leap into the dark ineluctability. The design of the Maniny archipelago provides also a different, less demanding location for entering Maniny Island, however in this stage of our fictional walk; it would require additional movement and motivation. This might cause an internal conflict of interest, when one must decide what to do. Either enters darkness or walk/ bike back. Negative poet's sublime can cause acceleration of the bodily movement as well as triggering the human instinct to dangerous and discomforting situation (reference to *fight or flight* response). On the other hand, the wrecked house can represent positive poet's sublime (*portal landscape*) as it appears as a gateway between two realities. One

Fig.105.: Wrecked house of Maniny Island and its extension (Jančovičová, 2014)

Fig.106.: The reference picture of wrecked train designed by artist Gordon Matta Clark, depicts the idea of portal landscape of Maniny (Source: Internet)

can daydream about entering a new universe, from highly urbanized to one of silence and a raw moon-like landscape. From the reader's perspective this landscape element can be read as bridge (positive reader), but at the same time one might wonder about the logical link between house as symbol of dwelling and its bridging (negative reader). When we look at the entire characteristics of the wracked house, we realise that it involves all four possible sublime types. Literature defines such a situation as '*liminal*' (Roncken, forthcoming), providing a full range of emotions and associations. When we look at the entire map of the Maniny archipelago, we notice that there is another strong gateway-like element placed of the eastern side. The dam structure as the poet's sublime relates to the water's power and represents a second portal landscape of Maniny archipelago.

(4) INNER GARDENS

The ruins can be characterized as absence of maintenance, a lost function. The design of the inner gardens takes the concept of absence to a different level. By contrasting the very essence of buildings as shelter for humans and thus a symbol of culture, reality is shifted by bringing nature and its powers into the enclosed space of cultural structures. The concept of the inner gardens is similar to the current art work of Olafur Eliasson (Riverbed, 2014), where he brings nature into the inner space of gallery buildings. However, unlike in the case of the inner gardens, the "Riverbed" artwork does not reveal nature as a dynamic phenomenon of seasonal rhythms, but rather treats nature as a static object. Depending on a certain context like time or season, the inner gardens can induce a positive and at the same time negative emotional expression of the reader's, and also the poet's sublime. The positive reader's sublime can be experienced when for example an art exhibition takes place or when one is able to read the changing water levels on the statue placed inside. The negative reader's sublime can be experienced when, in night hours, the place is dark and potentially dangerous. The positive poet's sublime can be sensed when one enters the gardens and encounters an unusually silent space in the middle of the city. It is like an entering a small world on its own, separated from the rest of the city. On the other hand, negative poet's sublime can be felt, when realizing that in this isolated world the escape from a flood might be impossible.

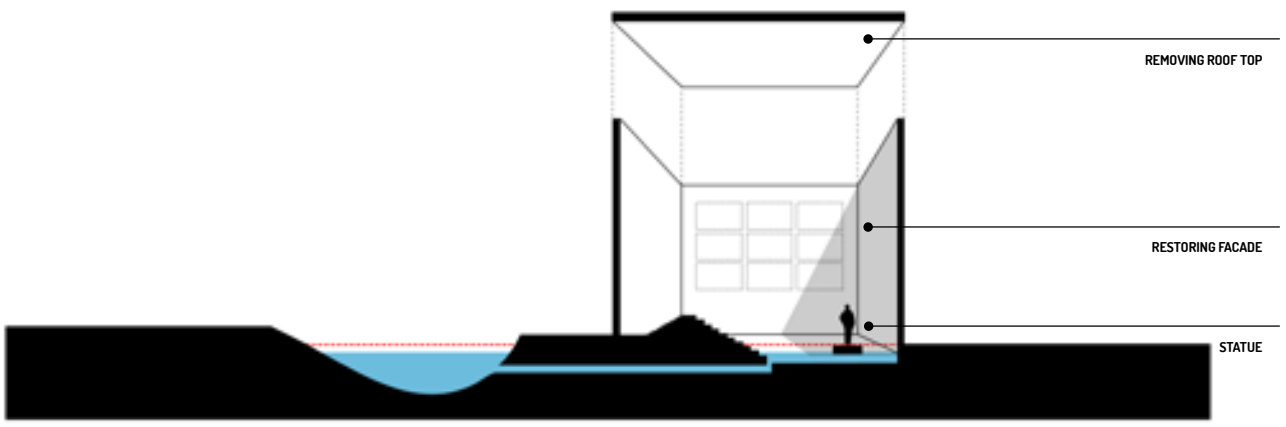
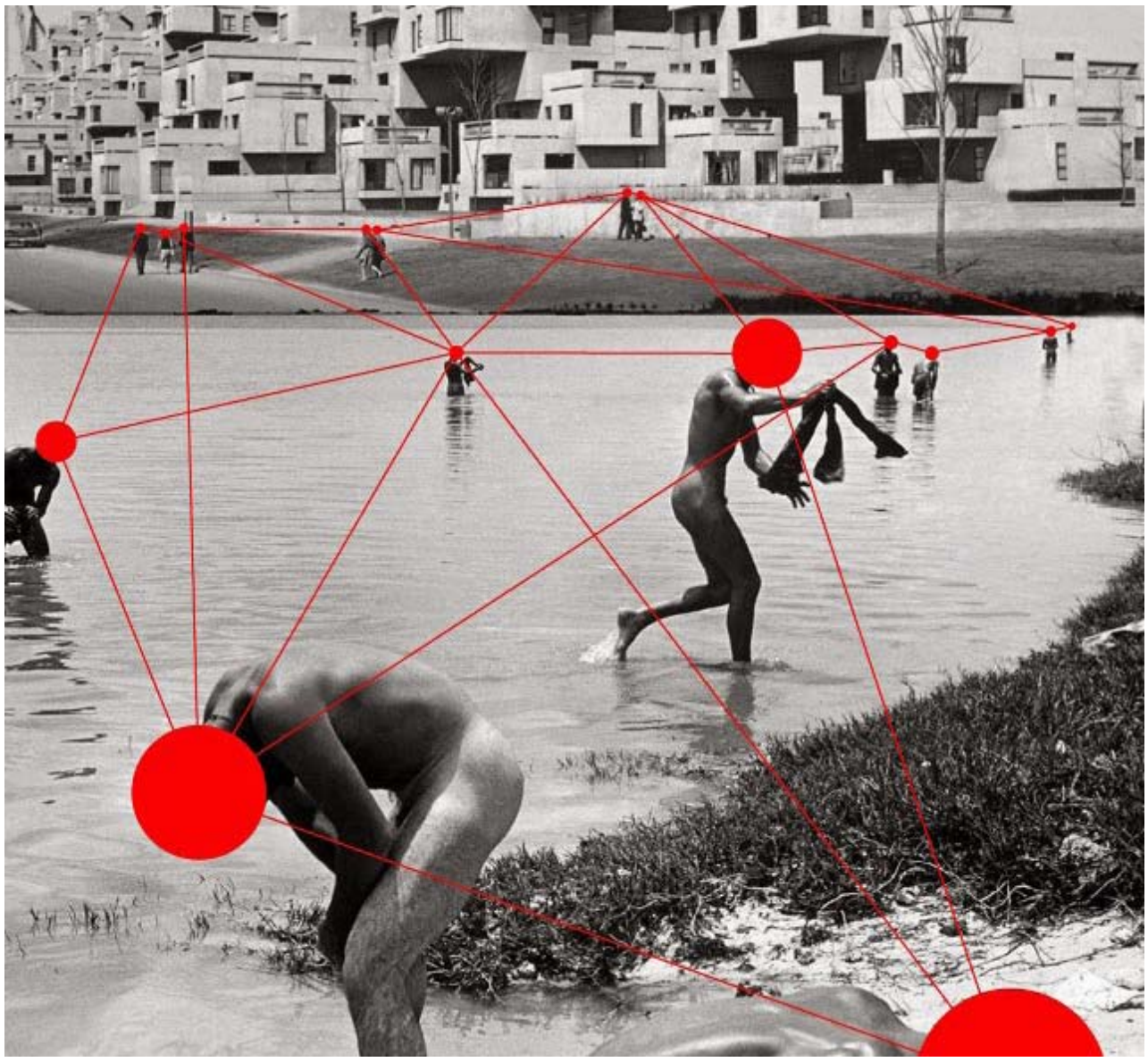


Fig.107.: Schematic drawing of inner garden (Jančovičová, 2014)

Fig.108.: Impression image of the inner garden. Statue in the water refers to the historical watermark of bearded man, according which different flood intensities were indicated in past (Fig.18). The inner gardens can take different form (e.g.: moss garden, reflection garden, sound garden etc.) (Jančovičová, 2014)

Fig.109.: Panoramatic impression of sense-provoking bareness of Maniny Island (Jančovičová, 2014)



(5) BRIDGES

The notion of bridges is usually connected with positive connotations. They might be seen as a support or carrying structure when seemingly absent compatibilities are encountered. The bridge (Fig.101), as a cultural symbol of water, represents positive reader's sublime. At the same time it can be seen as well as positive poet's sublime, as a metaphor or association of transition or change.

(6) NUDE BEACH

The nude beach represents an investigation into the absence of social conventions and into acceptance. This intervention explores the connection of the human body to water in its very simplicity. It might be seen as a controversial idea because the negative reader's and the positive poet's sublimes meet. Negative reader's sublime arises since the idea of the naked human body in public space is considered as inappropriate, rude and socially unexpected. On the other hand, the naked and vulnerable human body invites the human to his part in nature with his/her animal-like instincts. To some, the naked human body can hint for associations to the biblical Eden garden.

Fig. 110.: Reference image of nude beach. Surreal collage by duVarret (Source: moodlki, 2013)

(7) URBAN FOREST

The urban forest as a manageable woodland is ambiguous for natural versus cultural pattern differences. The investigation into absence was made by revealing its opposite where the perceptual overload of sameness creates potential for reader's and poet's sublime. Negative reader's sublime can be sensed by the endless repetition of tree trunks where one feels lost in the uniformity of objects. On the other hand, imagination-provoking repetition can transport one beyond actual space and time to far reaching or non-existing forests and natural wilds (positive poet's sublime).

Fig. 111.: Photo collage impression of Urban Forest (Jančovičová, 2014)

Fig. 112.: Mismatching waterfront impression (Jančovičová, 2014)

(8) MISMATCHING WATERFRONT

The design intervention of the mismatching waterfront represents an investigation into the absence of continuity. The negative reader's sublime might be felt because it is not clear why the waterfront is not solid, as it is usually supposed to be, but rather discontinuous. There might be no understanding about why the waterfront wall is seemingly sinking into the water. Due to the unpleasant memory of 2002, the mismatching waterfront represents the negative poet's sublime because of the still quite recent memory link to the flood and the threat on the entire Karlín district. The intervention gains power due to the position of the mismatch in front of the protected historical heritage building, which suffered severely from the 2002 flood.

5.7. DESIGN CONCLUSION

Proposed design solution of the Maniny archipelago is simple but monumental through its scale. Next to the opening of Vltava's bottle neck, new blue network has been proposed as a mean of flood mitigation. Seven new islands were created and new ecological and social occupations catalysed. Similarly as water caves its path into the Prague's landscape, the park caves its path into the individual personalities. *Leap into the void*, as general design narrative, prompted investigation into the concept of absence, which revealed a range of site specific spatial and temporal scales. The precedent into the absence brought tangible qualities to the conceptual terms of flux, dynamics and transition. Proposed design solutions make use of the water dynamics and intentional flaws, by intersecting social routine in the immediate work, live and recreational atmospheres. Maniny archipelago is a place of emotions, where not only positive experiences can be encountered. There are landscapes pleasing (legible), however there are also landscapes ignored, horrific and portal. Section *Expected Sublimes* (see 5.6) revealed new landscape aesthetic properties. With the reference to performance of appearance, the landscape interventions which are the most successful in altering human consciousness are those which provide variety of individual interpretations. Or in other words, the 'best' landscapes are those which include all possible types of sublime (*Liminal landscape*). In the design of the Maniny archipelago, such elements are: inner gardens and entrance/ gateway in form of wrecked house. They provide full variety of positive and negative symbols and associations, often linked to the memory (usually resembling previous form or function) and time (relates to natural and social dynamics, decay and weathering). Liminal landscapes of Maniny archipelago envelop one's body entirely and thus impacts consciousness strongly. With change in social situation/ function/ season or time, the effect of liminal places upon individual changes as well. To create for liminal landscapes is to design for the flexibility in appearance, meaning and contextual absence. Presented design proposal of the Maniny archipelago introduced landscape open for interpretations where the source of sublime is contextually given and often culturally conditioned.

We as human beings we have a tendency to resist transformation by conservation tradition. However, to design for sustainable perception and connection with landscapes we need to reveal the inherent character of the living form as undergoing constant change and adaptation. With transformation through the process and perception, natural dynamics of Vltava River have been revealed in design of the Maniny archipelago. Compared to '*What if*' situation (see 3.3.5), where the dense urbanisation is proposed as a future development on the flood-prone area, proposed design provides different perspective on dealing with derelict places and potential flood danger. Design solution supports needs of urban but as well natural dynamics. Rather than generic design, customized proposal for Prague's context was made, to ensure and support Maniny's identity and safety.

OUTRO: EVALUATION & CONCLUSIONS

The following chapter addresses the evaluation and the reflection upon the knowledge gained through the design process introduced on the previous pages. The results of this study are placed back to its bigger context of the research and theoretical framework, to ensure a fundamental discussion on the achievements and identification of essential limitations of this study and the used methods. The general concerns of the research and its validity, considering application in other setting, the asset of the research to the field of landscape architecture and the study of aesthetics are discussed.

6.1. REFLECTION UPON RESEACH PROCESS AND METHODS

During the five parts of this master thesis the practical application of the 21st century re-definition of the sublime has been investigated, in order to respond to the discourse about the value of the aesthetic experience in the landscape designed sustainability. Qualitative design research was not linear in its character but instead a complex and dynamic process, often difficult to precisely plan. Research methods and investigations were in constant change and frequently shifted according to the given needs and importance within the processes. Different parts as theory, design materials, concepts and methods, were carried out more or less simultaneously until they bridged theory and design. The literature on human landscape perception, theory of the aesthetics, environmental psychology and water related issues were studied in order to fully understand the complexity of the brownfield re-development in the urban setting. Due to the diversity in the current interpretations of the sublime aesthetics, a clear definition for purposes of this thesis was necessary. Theoretical framework gave a brief introduction into the realm of the aesthetic experience, the history and the current re-definition of the sublime aesthetics. That provided a solid academic foundation for further methodological and design reasoning. Authors such as Elisabeth Meyer, Emily Brady or Paul A. Roncken became the biggest influencers of philosophical standpoint and theoretical lenses.

As adopted interpretation of the 21st century sublime (Roncken, forthcoming) declares that the negative representation is the key pre-condition of such aesthetic sensation, study into the Prague's unpresentable aspect was realized. The proposed concepts of Prague's green-blue infrastructure and the thematic cross-sections have been used to determine future research area and thus applying the principle of design through various scales. Based on the desk study, landscape analysis and interviews with the city expects, the flood danger as the source of a potential sublime sensation was identified. The Maniny brownfield became the test area of this research experiment, as the location was hit by the destructive 2002 flood and its current condition is a result of natural and cultural tragedy. However, to be able to design with the negative representation of the potential flood danger, as a source of the sublime sensation, various explorative methods were used. The arousal mapping and the picture reduction provided insights into the landscape aesthetic qualities. Regarding to the arousal mapping, the method provided general, relative and thus purely informative results. It was limited to the one's personal experience in the mode of walking. This method has shown restrictions in the (1) *information gathering*, due to the incomplete accessibility of the area, and (2) *limitations related to the high subjectivity* of mapped arousal levels, as the researcher with her cultural and personal pre-conditions was the only reference. In other words, the method of arousal mapping did not depict a sensuous encounter as such, but rather a digested response in the form of arousal expression. During the site visit video material and number of pictures were taken, which served as a base for further understanding of site's materiality (see Appendix 1). The analytical tool of picture reduction tried made up for the subjectivity of the previously mentioned method. By investigation into structural landscape qualities and formal properties of the area, the landscape aesthetics have been materialised. It was inventory of landscape elements based on artistic abstraction. The full psychosomatic engagement of the hand-mind coordination ensured deep understanding of the area. The craft of drawing was limited to the skills of the researcher. Collages bridged between the theory and design, and between the unpresentable and palpable. Due to the time and work load constrains, six collages were made on basis of picture reduction. They were open-ended articulation of the area influenced by the personal intuition and the aesthetic digestion of the place. The knowledge generated was interpretative, where the subjectivity was inherent part of this research. However, it is legitimate since the landscape architecture is a creative discipline, where we can build the methodological body of knowledge from arts within the constructivist knowledge claim (Lenzholzer et.al, 2013). Used methods were context related, thus data generated are transferable only generically. As an example, the general description of ruins based on its perceptual qualities can be possibly applicable also in other circumstances. Nevertheless, the methods of visual diminishment and collages are suitable for different contexts, where the rigorous research in to the landscape aesthetic is desired.

6.2. CONCLUSION AND DISCUSSION

As Catherine Dee states (2012: 10), *there is more to design than supporting people's encounter with reality, other kinds of utility are necessary and are the gauge and the source of design aesthetic too*. Similarly Roncken (forthcoming) argues that *aesthetics of landscape serves as a reminder of the once simple and more sensitive state of being, where both experiences and expectations count, because landscapes can be places that truly exist as well as places that only appear to the imagination*. The presented proposal of Maniny brownfield re-development tries to bring the complex theoretical discourse of sublime aesthetics into the practical realm of landscape design. Proposed solutions address the natural processes and utility where the psychosomatic concerns of the individual are undertaken and realised in the form-based craft of landscape design. Unlike the utopic projects of great architects such Superstudio (e.g. Continuous Monument) or Rem Koolhaas (Exodus-The Voluntary Prisoners of Architecture (1972)), the design of Maniny archipelago materializes sublime aesthetics in the reasonable landscape-based project, feasible to construct. This was possible thanks to its 21st century re-definition, which does not see the sublime only in terror or monumental scale, but rather in the temporal state of incapacity, where the imagination becomes instrument for understanding.

Presented research bridged the theoretical study on aesthetics to the practical design perspective. It has intended to give an answer to the main research question and to its related knowledge gap, and therefore, bring knowledge to the field of landscape architecture. Since the sublime is a complex subject,it provides complex results. To fundamentally discuss the influence of the sublime in design, we need to distinguish between the sublime in two different contexts. First the discussion on (1) *Design with sublime* will be introduced and later on (2) *Design for sublime* is addressed. The design with sublime relates to the methodological framework, which paved the road towards design interventions. To design with the unpresentable does not mean to unchain the wildest fantasy completely, but rather design through the scales. Because the sublime is context related, the investigations into the given landscape conditions are necessary to identify, what could become a source of the sublime aesthetics. First, we need to become familiar with the unpresentable and with how it manifests itself and just later on we can drift to places beyond the existing where expansion of the imagination and the one's mental repertoire is necessary. To design with the sublime is to allow the right and left brain hemispheres to communicate and supplement each other. It is about the designers' ability to digest landscapes through the scale of context and meaning. The design for sublime instead relates to the performance of appearance. It is about considering the relationship and influence of the physical characteristics and sensory qualities of landscape upon one's consciousness. The sublime landscape qualities are the ones that provide freedom. Similarly as ruins or the natural wilderness of the Maniny archipelago, sublime landscape elements are so full or so empty in their sensory expression that they set the appreciator free to establish an own understanding. It is nothing more and nothing less than a dive into the depths of our own consciousness. To design for sublime does not mean to create the sublime experience, as the designer's aspiration for designing experiences is unachievable, but rather to provide a multiplicity of sensations and experiences, some pleasing, some disgusting, some contemplative, some unreflective.

Even though the sublime theory relates to making of meaning on individual level and it is even more subject to subjective differences than the beautiful (Roncken, forthcoming), the landscape can be considered as sublime when it affords a range of sensations, but at the same time provides freedom for appreciator to establish own meaning and interpretations. The question if the proposed landscape design of Maniny brownfield is sublime remains open as the project exists just on paper and so technically speaking there is no direct experience at the moment. However, in the light of the sublime definition, whole practice of landscape design, architecture or planning can be considered as the sublime process, because we often struggle with the unpresentability, the negative representation of future plans which represent rather wishful thinking than physical existence of landscapes. Although different drawing and other representational means are used to describe intending future, the process of active imagination is inherent.

In general, we can conclude that further research into sublime aesthetics and its relation to sustainable landscape design would be beneficial for the body of knowledge in landscape architecture. Historically it was assumed that the sublime belongs to nature exclusively, and indeed, up to date there is little regard paid to the sublimity of urban environments. However, due to the expected urban growth and the complexity within these systems, investigation into different everyday landscapes (dwelling, working, agriculture etc.) is welcomed. Since the source of the sublime sensation seems to be culturally conditioned, the study into sublime experiences and definitions for different cultural backgrounds are necessary. Regarding the methods used to research and design with and for the sublime

it would be beneficial to study this subject not only through a visual medium, as this master thesis proposes, but also through whole bodily engagement which makes use of all human senses.

6.3. EPILOGUE

Over the centuries, human beings tended to look up to forces and concepts which were beyond their understanding and control. There is something inside us which longs for this and extraordinary experiences enable us to move towards a higher psychosomatic encounter. The sublime in the 21st century is absence in perception, the temporal state of incapacity where the full access to instinct through fantasy and imagination is needed to enable us to deal with the growing complexity of our landscapes. *We simply cannot predict nor guarantee what form or shape is needed to perform or benefit a service we intend to design* (Roncken, Stremke, & Paulissen, 2011, 2011: 71). *Fantasies become reality when they are scientifically tested or empirically valid. However to landscape experience the fantasies do not need to be validated* (Roncken, forthcoming). Contemporary sublime is an aesthetic sensation which allows us to gain knowledge and deeper understanding through fantastic and imaginative features. The acknowledgement of the sublime experience means acknowledgement of self-recognition. The role of landscape architecture should not only be to provide ecologically functioning environments, but also to connect people to their everyday landscapes through means of landscape aesthetics. Field of landscape architecture should not be considered as a superior form-giver of the outer space, but rather as a modest servant of and for human fantasies.

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Fig. 5.: http://en.wikipedia.org/wiki/The_Sea_of_Ice#mediaviewer/File:Caspar_David_Friedrich_006.jpg

Fig. 6.: http://www.caspardavidfriedrich.org/The-Wanderer-above-the-Mists-1817-18.html

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Fig. 9.: http://natgeofound.tumblr.com/post/54346753682/a-raft-rests-peacefully-on-switzerlands-lake

Fig. 10.: http://artblart.files.wordpress.com/2012/02/3354-003-web.jpg

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Fig.27.: http://happyinmotion.com/jez/czech/prague.html

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Fig. 33.: Google maps

Fig. 37.: Google maps

Fig. 43.: https://www.facebook.com/photo.php?fbid=561931937200849&set=a.561931663867543.1073741844.156160007778046&type=3&theater

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Fig. 101.: http://www.pinterest.com/pin/552887291725355359/, http://archrecord.construction.com/features/interviews/0718acconci/0718acconci-3.asp, http://www.archello.com/en/project/passerelle-simone-de-beauvoir

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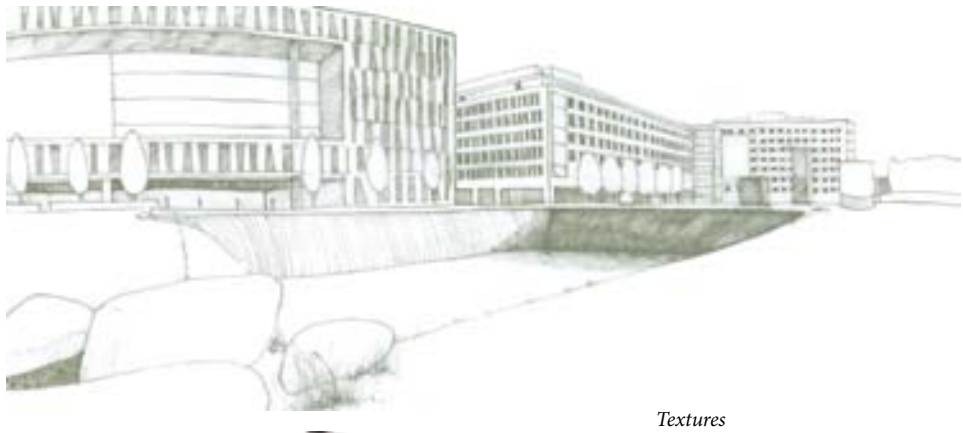
APPENDIX

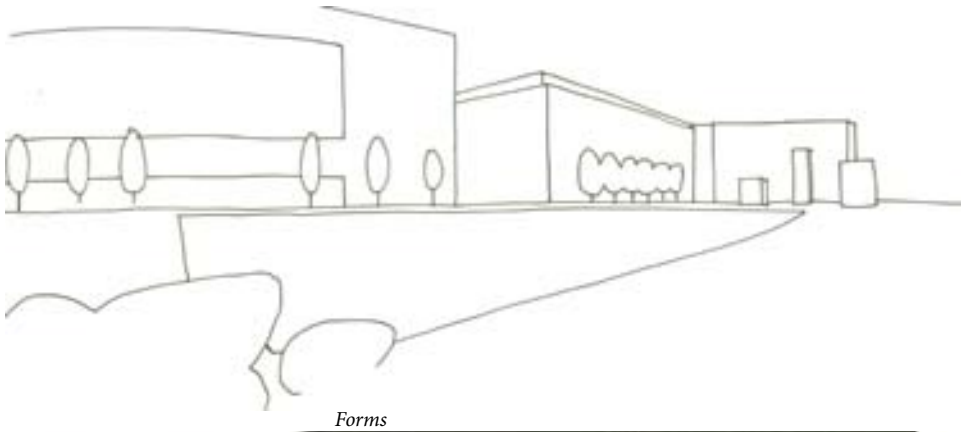
APPENDIX 1 - PICTURE REDUCTION

This is a complete collection of the re-drawn images used during the exploration into landscape aesthetic qualities of Maniny brownfield.

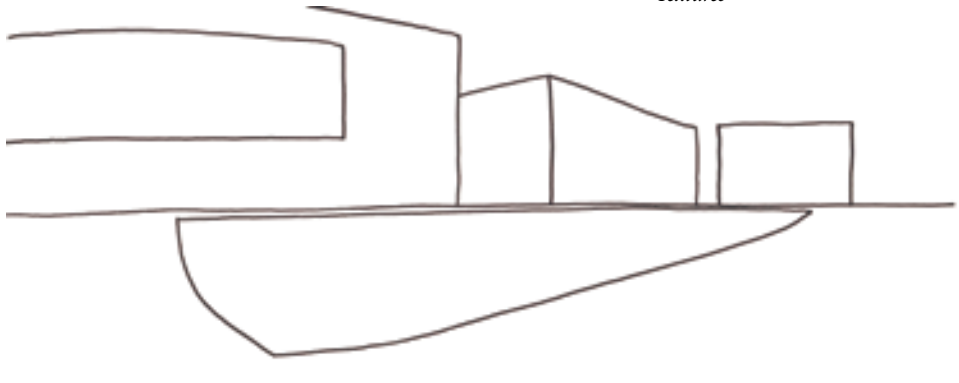
number 1



Textures



Forms



Volumes

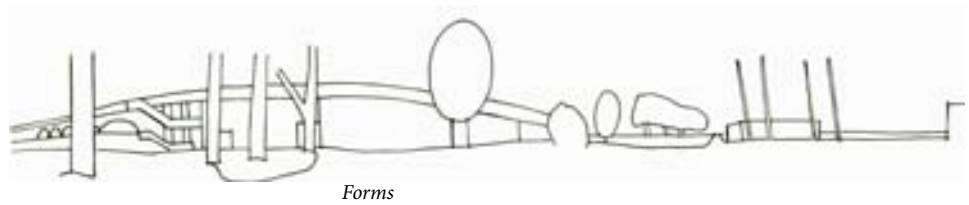
Inverted volumes

number 2

number 3

number 4

Textures

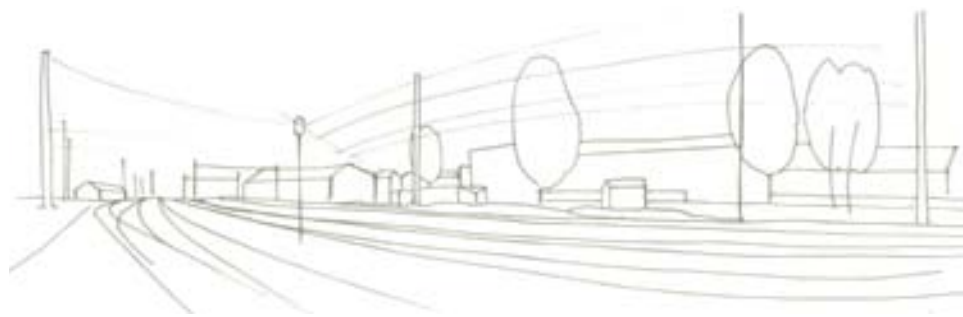


Forms

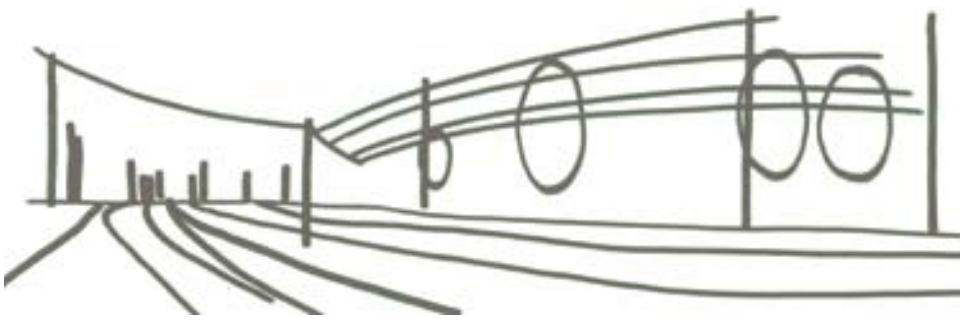
Volumes

Inverted volumes

Textures



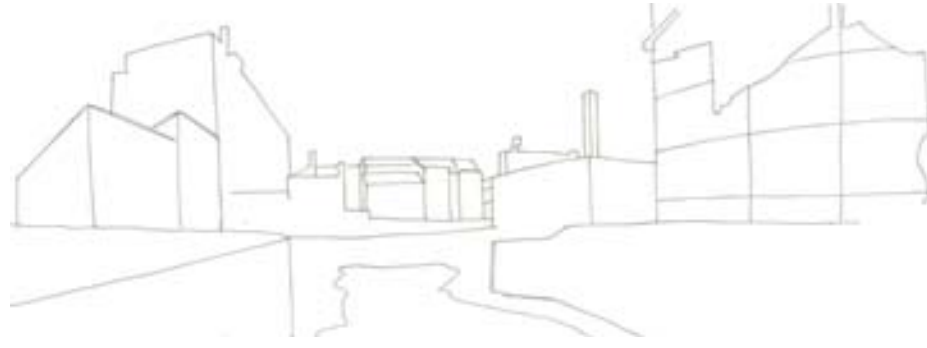
Forms



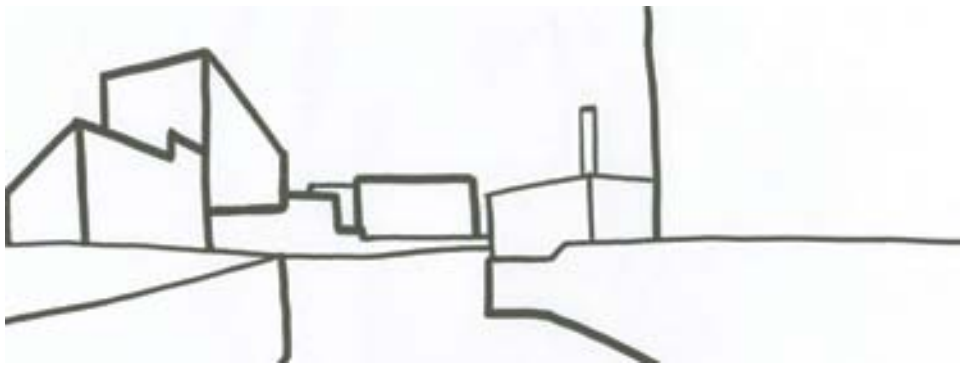
Volumes

Inverted volumes

Textures



Forms



Volumes

Inverted volumes

number 5

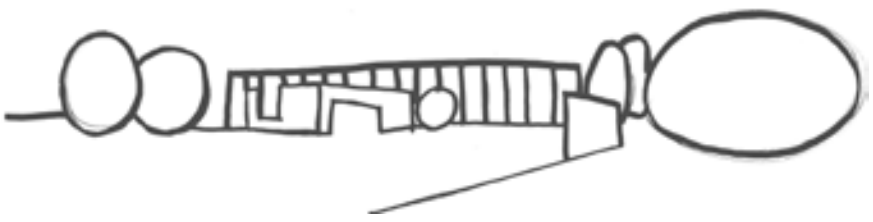
number 6

number 7

number 8

Textures

Forms



Volumes

Inverted volumes

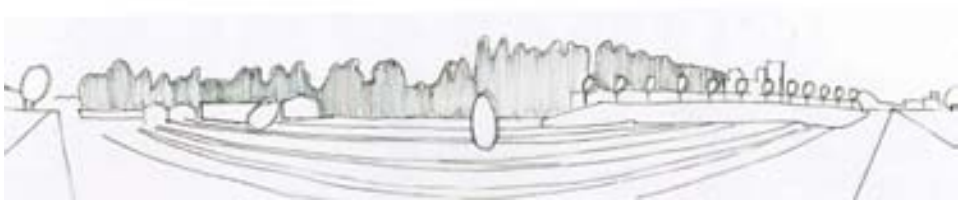
Textures

Forms

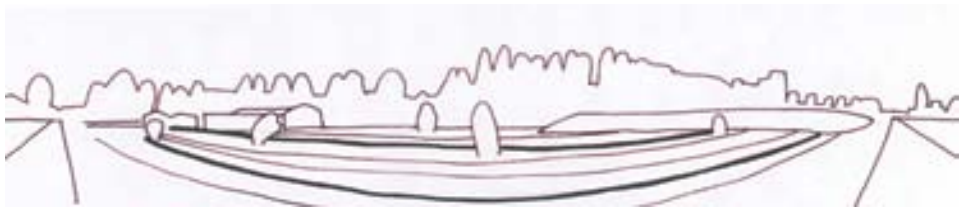
Volumes

Inverted volumes

Textures



Forms

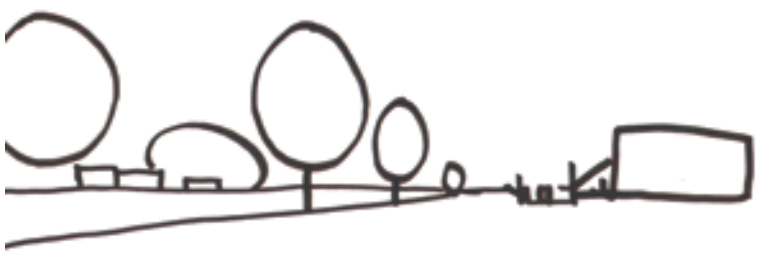


Volumes

Inverted volumes

Textures

Forms



Volumes

Inverted volumes

number 9

number 10

number 11

Textures

Forms

Volumes

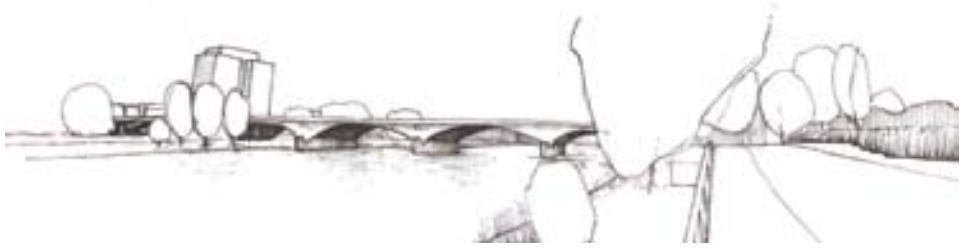
Inverted volumes

Textures

Forms

Volumes

Inverted volumes



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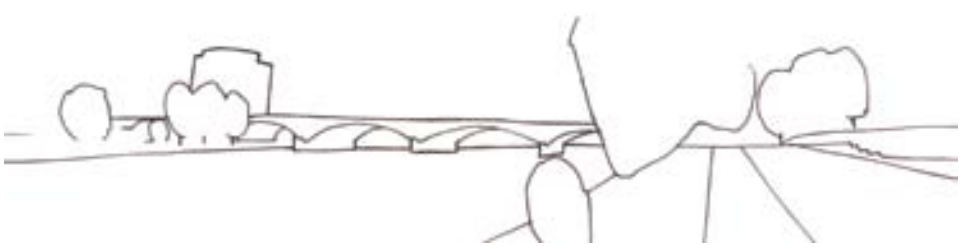

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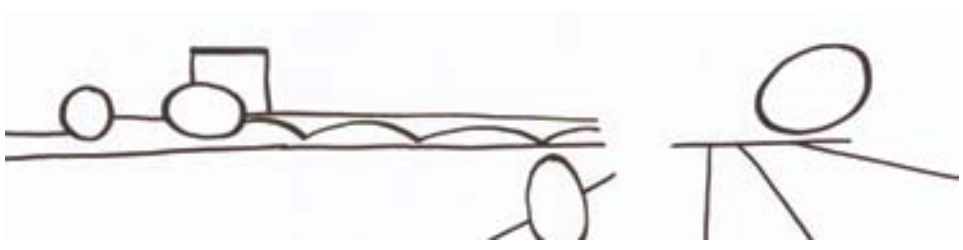


Volumes

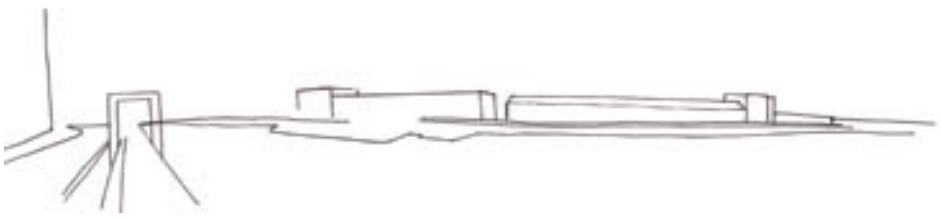
Inverted volumes

number 12

number 13

number 14

Textures

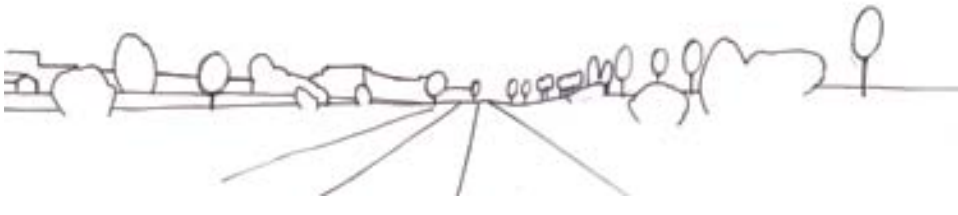


Forms

Volumes

Inverted volumes

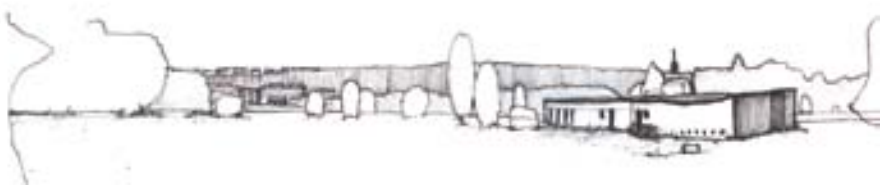
Textures



Forms

Volumes

Inverted volumes



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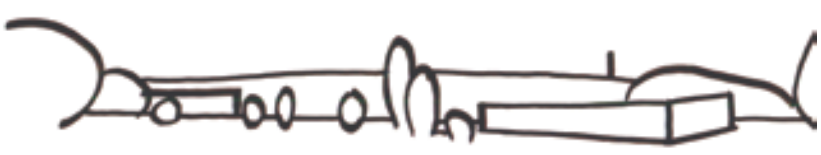
Forms



Volumes

Inverted volumes

number 15

number 16

number 17

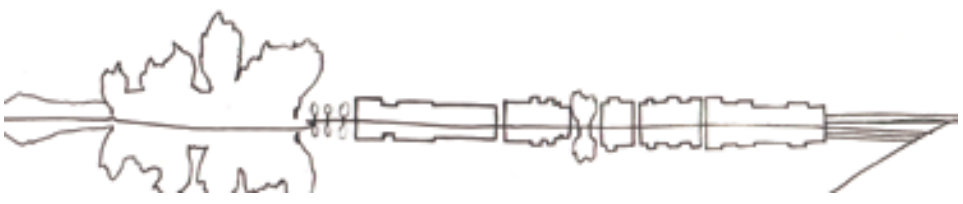
number 18

Textures

Forms

Volumes

Textures



Forms

Volumes

Inverted volumes

Textures

Forms

Volumes

Inverted volumes

Textures

Forms

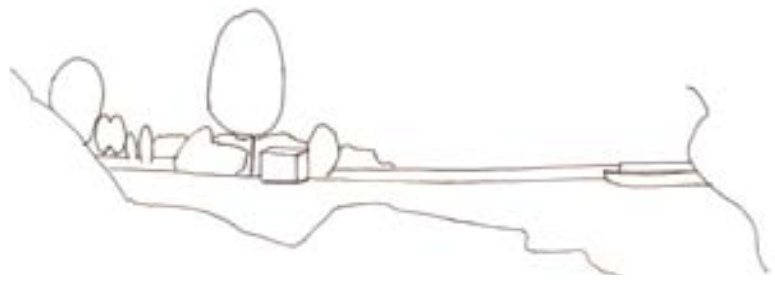
number 19

number 20

number 21

number 22

Textures



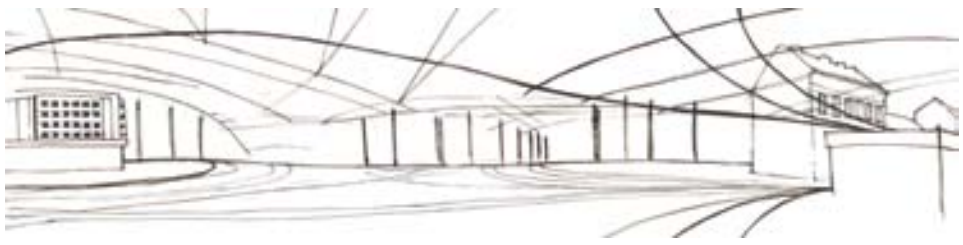
Forms

Textures

Forms

Textures

Forms



Textures

APPENDIX 2 - FORM EXPLORATION

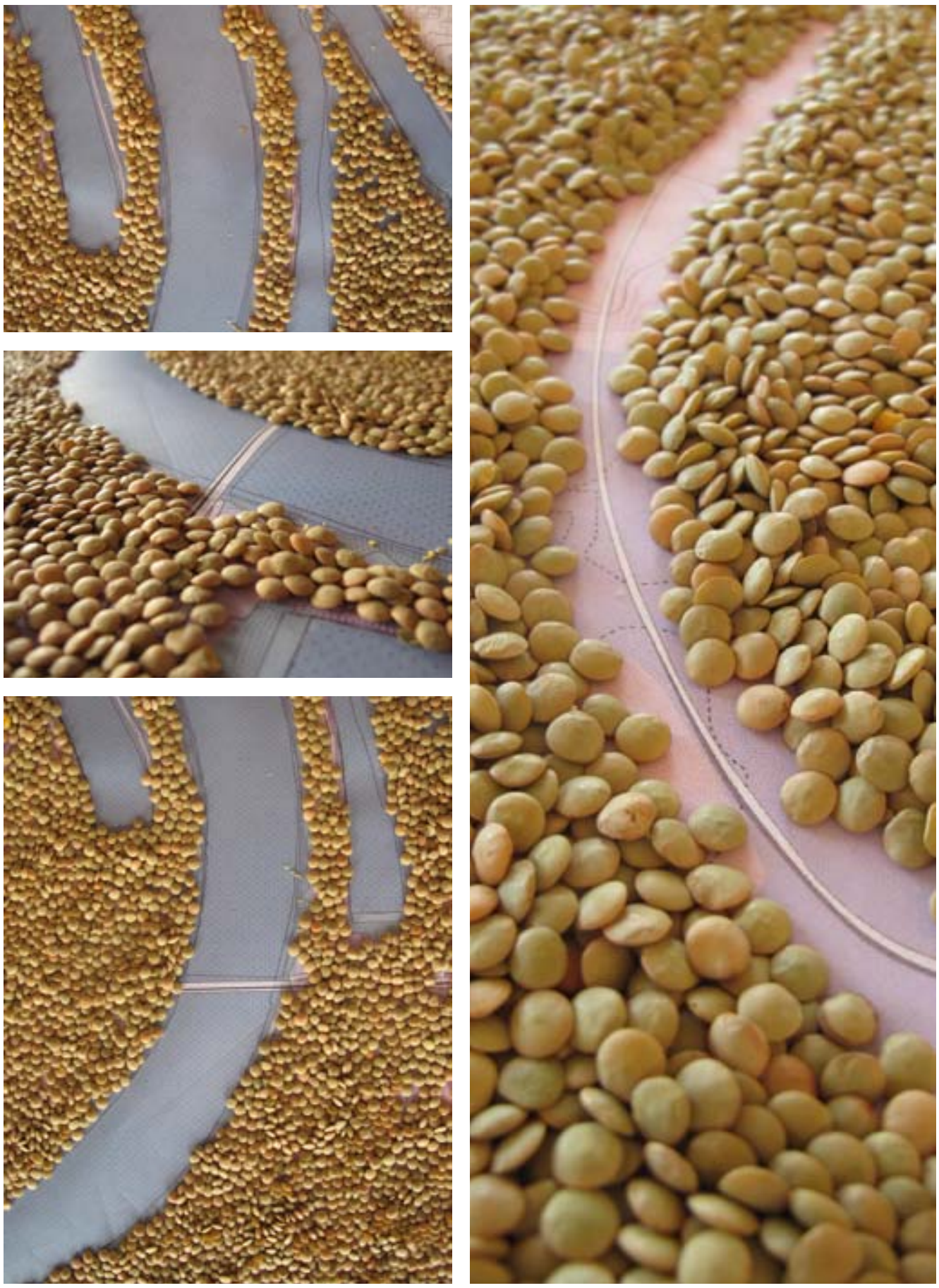
Appendix 2: Detail of used lentils which round and flat shapes mimic the properties of water.

On the following pages, the process of the form exploration is illustrated by series of images taken during the process. The exploration was conducted on a base map with scale of 1:3000, so each lentil represents around 15m. Lentils, with their uniform shapes properties can be easily manipulated into various flowing shapes helping to visualize and define the form of the Maniny archipelago. The course of the water flow, from south to north, the different flooding situations as well as the topographical properties were interactively modeled and experimentally manipulated to create the sensation of connectedness to the research area.

Appendix 2: Different colors of the base map indicate the water levels of differently frequent flood situations and so reveal even the smallest fluctuations in the topography of the area.

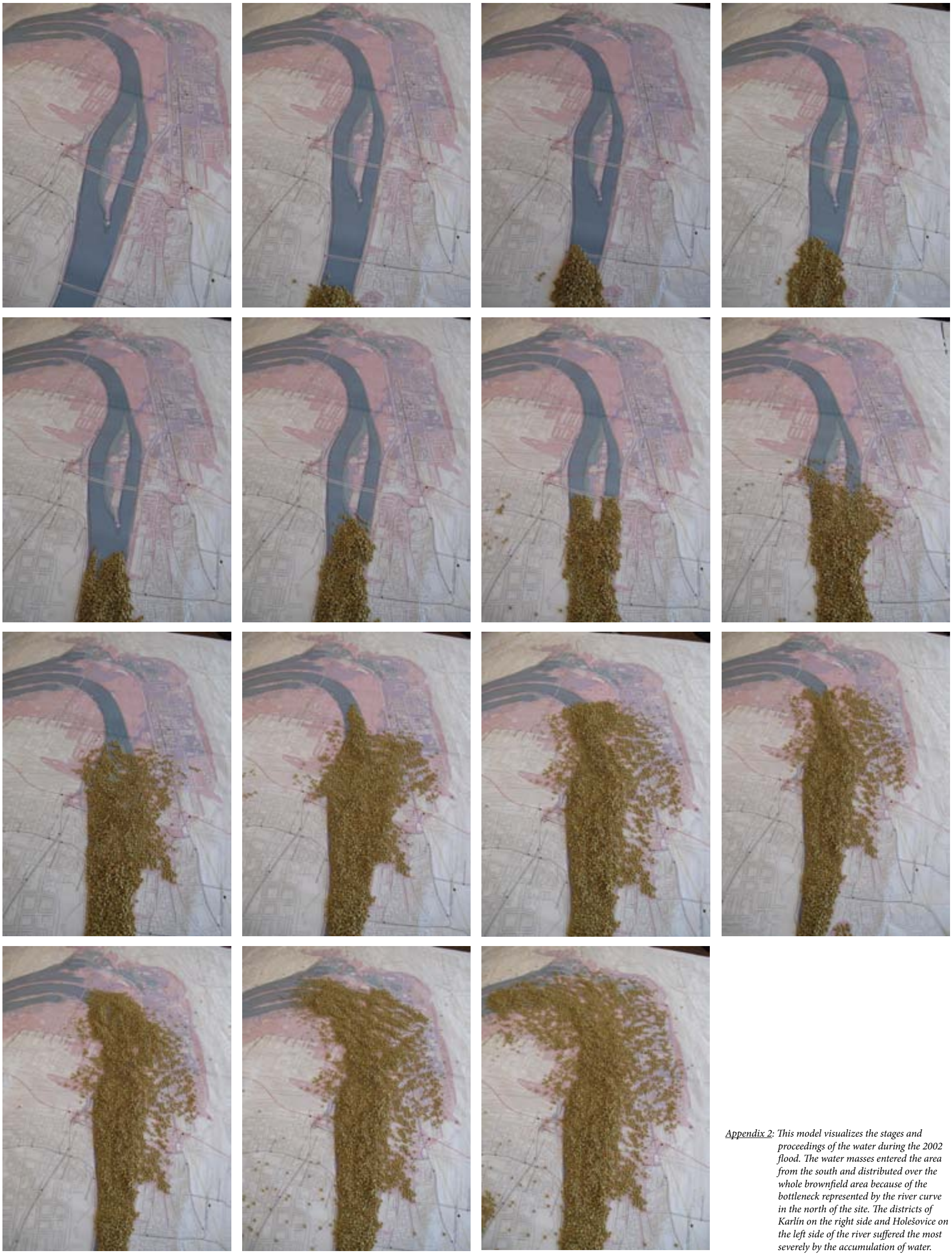
Appendix 2: The kitchen lentils were distributed by hand on the map to visualize the area covered by water in different situations.

Appendix 2: By placing lentils on top of each other a third dimension was given to the simulation. The height of the lentils visualizes relative amount of water present in different areas. Even at the highest flood levels, topographically high lying areas are only covered with a shallow body of water, where else the main course contains an even greater volume than usual. In this example, lentils were distributed over the areas with the highest frequencies of flood events.



Appendix 2: This simulation represents the water levels of the 2002 floods. It is striking that almost the entire area is covered with water--representing lentils except for heightened areas, such as dikes or bridges.

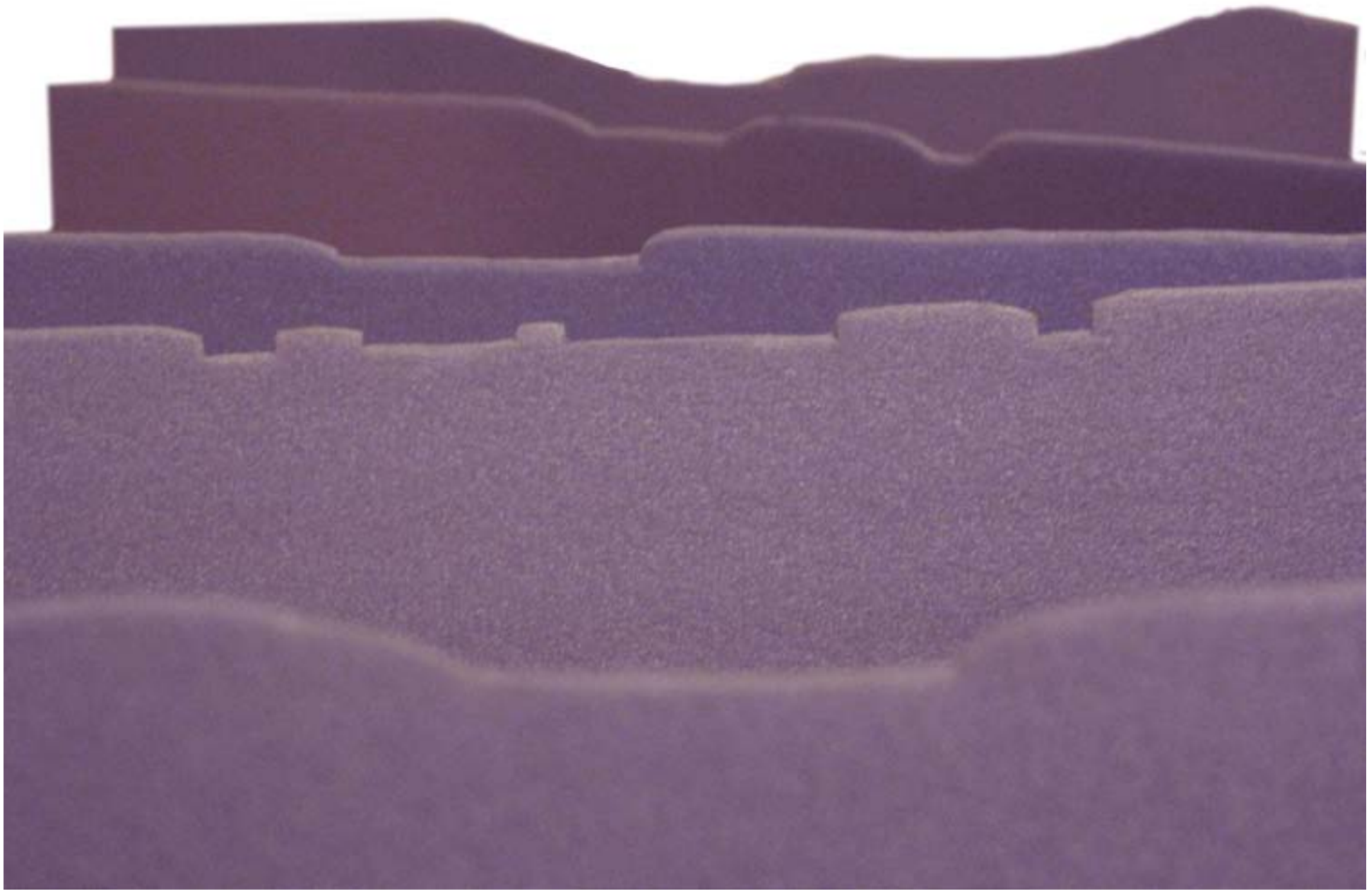
Appendix 2: After studying the different situations of the area's recent history, the creative process of reshaping the archipelago to represent future possibilities started. Multiple cycles of shaping, reflecting based on historic maps and evaluating led to a deep understanding of the possible water dynamics in the area. Those processes led to the development of the design concepts of this thesis.



Appendix 2: This model visualizes the stages and proceedings of the water during the 2002 flood. The water masses entered the area from the south and distributed over the whole brownfield area because of the bottleneck represented by the river curve in the north of the site. The districts of Karlín on the right side and Holešovice on the left side of the river suffered the most severely by the accumulation of water.

APPENDIX 3 – VLTAVA RIVERBED PROFILES

These cross section models of the Vltava river's topography through course of Prague, relate to the cross-sections made in the chapter 3.2.2. It supported the construction of the mental image of the terrain surrounding the Vltava River in Prague, and served in choosing the location of the design. This model reveals the ragged terrain of the Vltava basin, the steep hills and sharp embankment walls, the riverbed in the front and the higher islands further back.



THE HARDEST THING TO DO IS SOMETHING THAT IS CLOSE TO NOTHING

Marina Abramovič

December 2014