MENDING VARNA

Authentic Landscape as a Fountainhead and Essential Element of Urban Continuity and Identity

by Tatiana Lyubimova
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MSc Thesis Report

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Abstract

Thesis project is developed within the framework of the Flowscapes studio. It follows the strategy of a research by design. It explores solutions to the problems of urban fragmentation, lack of coherence and identity of urban environment from the perspective of landscape architecture. Authentic landscape is chosen as a hypothetical initial fountainhead for the enhancement of the urban spaces. The analysis explores the site through layers and scales. The city of Varna in Bulgaria is a site for the application of an approach. The water streams, which flow around the city centre, and which are the source of both a great hazard and potential, are chosen for a utopian expression of an urban authenticity through the landscape. The design shows possibilities for their integration in the city. The streams are directed through the urban interstices as an illustration of enrichment of spatial, cultural, environmental, and economic qualities of the place. The resulting conclusion however is that initial flows of the stream can be treated as a dynamic feature for understanding possible relations between the city spaces, and reveals existing values of the city interstices. And, the authentic landscape is concluded to resonate with the human environment it approaches.
Contents

Abstract 4
Contents 5
Acknowledgments 6
Preface 7

Introduction to the research 9

Problem statement 10
  . Personal relation: Varna deja vu
  . Problem statement
Main research question 11
  . Related sub-questions
Academic framework: Flowscape 12
Social relevance of the research 13
Theoretical background of the research 14
  . Placeness
  . Man and Nature
Design assignment 16
Research method 17

Varna region 19
  . Varna region background 20
  . Origins of the landscape of the region 21
  . Water system of the region 22
  . Authentic feature of the site: “Var” as a “limestone” 23
  . Case study of a regional strategy: Boston inspiration 24
  . Regional essence and strategic proposal 25

Varna city 27
  . Notes from the hill: introduction to the city by the locals 28
  . Existing programme of public spaces 29
  . Varna fragments: past and present 30
  . The city edges 31
  . Ecological gradients in the city context 32
  . Existing dialogue between nature and the city 33

Streams and Voids 34
  . References for designing with the natural process of the water stream 35
  . Streams in the city: natural logic for the urban context 36
  . Conceptual visualization of the extraordinary proposal for the city 38

The Harbour 41
Spatial analysis of the location 43
Port of Varna East 46
Memory of Varna Lake 47
Points of attraction around the site 48
The suggested strategy of urban development in case of Varna 49
Design search 50
Design proposal for the New Place in the harbour 51
Phasing principles for the harbour transformation 52
Model as a method for understanding the essence of the design 54
Elaborated sequence of places related to the flow: the dialogues 55
Articulation of history through materials and shapes 64
Dialogue with the horizon 65
Opening the view at the future of Varna harbour 66
Panoramic view within the New Place 68
Model as a method for understanding the essence of the resulted design 71

Conclusions 73
Reflection on the main research question
Reflection on the concept of Flowscape
Reflection on the research strategy
Acknowledgements

This work is a result of two years of academic exploration of landscape architecture science after initial focus on architecture and interior design. Such shift expresses a wider comprehension of the disciplines in relation to a larger field of the built environment.

I would like to express special gratitude to my main mentor Inge Bobbink for an opportunity to explore the field of landscape architecture, and for the support during the study process, and the second mentor Luisa Calabrese for an inspiring and fruitful contribution.

Special acknowledgement needs to be expressed to my family and friends for their constant support.
Preface

Premise for the current research is to be sought in my personal experience. When I was a little child, I was experiencing the surrounding spaces with the thought that they can be much more than they are. I know that the arrangement of things within these spaces, and understanding of their value, can reveal their beauty. I believe that there is a great similarity between such ideas for a room, and their application to any other space, - despite its scale: a house, a courtyard, a neighbourhood, a district, a city, a region, a country. It always relates to the discovery of the most valuable qualities of a space, its purpose and meaning for its inhabitants. And, talking about people, the enhanced space brings a great joy and support in daily life, which later can benefit others.
Current research is developed within the framework of Flowscapes studio at the MSc track of Landscape Architecture at Delft University of Technology. The focus of the track covers a broad spectrum of environmental, social, and theoretical aspects of the science of landscape architecture. Hence, thesis reflects on the aforementioned aspects, providing a holistic scientific gaze on the issues in the field.
Problem statement

“Varna is the Sea Capital of Bulgaria. It is located on verdant terraces at the Black Sea coast, at the foot of a low mountains’ chain”

Personal relation: Varna: déjà vu

The most popular panoramic view of Varna, which illustrates its main street with valuable historic buildings, at its present state is more likely to be called “a road”. And such a scenery is not unique. Probably any large city with a long history shows such a drastic contrast nowadays. Here one can see how the transportation infrastructure is taking over the low-speed vernacular lifestyle, which has existed for centuries, and threatens the identity and coherence of the cityscape.

Coming from Moscow, which is facing similar problems, but on a greater scale, I found it a personal and professional challenge to explore possibilities for dealing with the issue of fragmentation and identical crisis of urban environment. I know that surroundings have a great influence on the life of people, and even on shaping their self-understanding, which, in a negative case, can have diverse hazardous consequences. I don’t claim that a “good” environment leads to a “paradise on the Earth”, but it definitely can take us closer to this state.

Varna is called “the Sea Capital of Bulgaria”.

Problem statement

However, a quick preliminary search couldn’t reveal any powerful imagery of the urban environment in its tangible relation to the “big” water. But, such title suggests that the larger natural context of the site might contain the primary inspiration for the urban design endeavour. This hypothesis has become the starting point for the current inquiry. The research begins at the perspective of a perceiver of urban environment, where the possibilities of joy and involvement into a vivid city life are significantly threatened by the development of infrastructures.

Fragmentation of modern urban environment of Varna, which is caused to a big extent by the rapid development of infrastructures, threatens the continuity and identity of the cityscape, and leads to the lack of attention to the subtle quality of its “placeness”. Most important, the urban environment shows lack of relation to the surrounding landscape.
Main research question

How can the authentic landscape of the area, – its processes and qualities, – be revealed within the cityscape, in order to arouse urban continuity and identity, to enhance the relation of the city to its context, and thus to strengthen the “placeness” of the urban environment?

Related sub-questions

- How to understand the natural and cultural context of the site (through the scales), so as to reveal the qualities and processes of the authentic landscape?
- How to comprehend the existing values, processes, and connections of the urban environment, and their relation to the landscape?
- What can be done in order to integrate the defined values of the authentic landscape into the dynamic city fabric?
- How can the discovered principles be applied at the specific location of Varna?
- What knowledge can be gained from the design for Varna, and how can it be translated to a generic inspiration?
Academic framework: Flowscapes

Concept of Flowscapes

Flowscapes is a conceptual vision of dynamic infrastructures not only as carriers of utilitarian function, but also as vivid spaces with a great cultural and environmental potential. Since the modern age tends to follow fast and large-scale lifestyle, public spaces have to be regarded from a new perspective. Such a change of view has been characterized as a shift from “spaces of places” to “spaces of flows” (Nijhuis, 2012).

But how do these tendencies refer to a low-speed and human scale lifestyle, especially within large cities? Paradoxically, the stronger the globalization, the more urgent becomes the demand for calmness and restoration. Here one can question whether the flowscapes can serve as a compilation of valuable “places”, which exist within the dynamic framework.

Flows of infrastructures also refer to blue and green networks. The three aforementioned systems can be characterized as a link between the layer of natural context of the site, and the cultural layer of urban life. Traces, qualities and elements of these networks, can mediate the introduction of a larger context of the authentic landscape of the site within the urban environment.
Social relevance of the research: the power of urban interstices

"<...> man is a territorial animal. Territories range from the immediate bubble of personal space, through the home ground and the home range, to the domains of the largest social groups”

- K. Lynch, “Managing the sense of a Region”

Within the current research the subject of “placeness” of urban environment is explored from a perspective of landscape architecture. Such a worldview widens the angle of study concerns: the urban space is regarded in its tangible and intangible relation to a greater context.

Precedent experience in architecture and interior architecture allows me to value very high the importance of interstitial city spaces. I believe that they have a great power in shaping the overall impression of a city. In fact, they have a “mending” purpose for the urban environment. Such spaces embrace “flows”, they facilitate dynamic urban processes, and give the impression of continuity of the cityscape, which is a valuable quality for the perception and use of the latter.

The appearance of interstitial spaces can reverse the “negative” imagery of the urban scenery. And, it can outweigh the possible weakness of uninspiring indoor environment of a person. In this case, they have an extremely high social value. Interstitial urban spaces provide a room for interaction, inspiration, collective processes. They define the degree of engagement and attachment of people to the outdoor space. The more related and involved people are in the life outside of the private environment, the stronger is their appreciation and personal relation to the “outdoors”. Such involvement, through time, allows “spaces” to obtain the sacred quality of “placeness”. Moreover, it leads to creation of a stronger “identity” of a place, which is an indispensable component of surroundings, that can inspire the identity of its inhabitants.
Theoretical background of the research

Placeness

Any place is unique. Each place has its context, qualities, and history. Ongoing processes determine its current condition, and explain its state, while relics from the past, which are present in the landscape, can tell a story and thus enrich the impression from the site.

Within “A Good City Form” Kevin Lynch defined several criteria which can facilitate the assessment of “goodness” of urban environment. Those are flexible and subtle qualities, which are aimed to be applicable to any location.

“Townscape” by Gordon Cullen serves a spectacular compilation of instances of spatial organisation, which have been meticulously collected with the guidance of his professionally trained senses. He selected sequences or solitary settings, which illustrated variations of compositions of urban space, in relation to their perception by a moving observer.

These classical studies explored spaces of cities relying on their spatial organization and physical qualities.

However, intangible qualities, often defined as Genius Loci, are subtle elements which shape the identity of a place. It is, however, a subjective phenomena, which refers to collective historical knowledge about the site, and unique memories of its perceivers. Hence, it is a flexible and constantly changing substance, which is hard to be objectively specified and “finalized” due to its intangible nature.

Valuable places may also be imperfect. Their success refers more to the combination of qualities, which create a supporting and inspiring framework for interaction and use.

As regards the aforementioned studies of a successful urban space, there the characteristics of interstitial spaces are listing such elements as, for instance, buildings’ volumes, fences, arcades and tunnels, etc., and, among others, “nature” (trees, grass, and so on). I suspect that all this “stuff of which the world is made of”, has a logic of global processes behind it, and all the described elements, and even their successful composition materialized in “spaces”, belong to a dynamic system. And, the success of a place is in the understanding of such processes, and enhancement of existing elements with relation to the latter.

After comprehension of the overall dynamic system, we will return to the design concerns of place-making, which have been brilliantly explored in precedent aforementioned studies.
Human and Nature

A greater context
When the interstitial spaces of the city are regarded from the perspective of a greater context, such a view refers firstly to the natural processes and qualities of the area. One might underestimate the extent of the presence of Nature in the city, while at a glance from a larger distance, it is undeniable that those are the natural processes that initially define the urban environment.

Position of landscape architecture
The science of landscape architecture exists on the edge between human and nature systems. The relationships of the two have led to the creation of the built environment. Unlike the majority of living organisms, the humans are the species which have the ability to shape, change and adapt the environment to their needs, yet bearing its influence. Patrick Geddes has described the dependence of human activities in their relation to the landscape they occupy. The settlements evolve with accordance to the natural conditions of the area they build upon (see fig. 1.6). On the contrary, at the present day the level of control of a human upon the natural systems has reached its peak. The concept of a mutual integration between the city and natural processes of its landscape setting are the greatest hope of urban development. Such ideas grew in parallel with the increasing urbanization and have led to a practical implementation through various integrative strategies.

Already in the 19th century Frederick Law Olmsted has been working with the urban problems from the perspective of landscape processes on the site. Hazards and ecological problems caused by urban processes have been mitigated through a mutually beneficial integration of an urban drainage system in the city, as a culturally valuable and dynamic element (see fig. 1.7). Ian McHarg has tackled the issue of natural processes as the basic premise for urban planning (McHarg, 1969). Regarding the city as an organism with its “naturally” urban processes (Sijmons et. Al., 2014), is a modern concept, which creates a positive glance at the future of the cities. The logic of cities’ functioning and integration in the larger natural context is seen as a strategy for re-discovery of existing sites, and for new developments.

Benefits from “nature in the city”
Despite the environmental concerns and influences, the relationship between natural and human systems has a great social, psychological, and health impact on the city inhabitants. Social sciences regard Nature as an essential aspect of urban environment in its supporting function of “a health”, to which Kaplan&Kaplan refer as “not merely the lack of major illness”, but also “feeling effective, being clear-headed and resilient”, can be seen as a one side of the meaning of a “nearby nature” (Kaplan&Kaplan, p. 272). Natural features have a truly wonderful restorative effect on human beings. This statement has a universal value, and was supported by multiple landscape architects, when saying about “the enjoyment of that peaceful beauty of nature” within the cities (Eliot sr., p. 385).

But one of the precious gifts that a citizen can obtain from nature is the possibility to touch the existential side of its seemingly eternal grandeur. Such experience is waiting for an attentive observer, bringing mental and physical condition that a city environment often lacks. The greatest sources for such impressions are present in the elements of nature.

Hence, the two poles of the presence of nature in the city are regarded as a potential for the discovery of the city identity, dynamic relation between its fragments, and a source of enrichment of its qualities.

The reference to such a “different” experience can be found at Michel Foucault’s “Of Other Spaces”. Certain spaces have the ability to be a transition to another world. They create conditions for a mental shift to a different experience within the same environment (Foucault, 1967). Such glance leads to the idea of a dialogue between the two systems, which releases its tension in the urban landscape. The way in which humans deal with the natural phenomena illustrates their capability of such conversation. Hence, the research has to begin with comprehension of such dialogue, in order to involve nor only understanding of the natural context itself, but also its resulting state in relation to the urban environment.
Design assignment

Design assignment is to illustrate through the design how the creative power of processes and qualities of the authentic landscape in Varna area, if being explicitly integrated in the dynamic city context, can mend the fragments of the urban environment in a continuous and valuable cityscape: arousing and enriching the “placeness” of the latter by being present within the daily life of its inhabitants.
Current research follows the strategy of the research by design, when the mutual stimulation of the two allows a shift form a generic question to its specific exploration, followed by reconciliation of the initial intentions and hypotheses.

The research requires the definition of basic design thinking principles which could facilitate the process of inquiry. The most suitable methods are selected in order to grasp and process the diverse data, and to express the generic conclusions.

Layer approach is chosen as the essential basis for the research, since it allows to capture essential interrelations of flowscapes and related processes, and it remains valid through the scales. Here the layers involved are defined as natural layer, networks layer, urban layer, and the fourth intangible mental layer, which refers to memories, meanings and experiences of places (see Fig. 1.8). The supposition is that the diversity of placeness is rooted in the presence of multiple layers within the site (see fig. 1.9).

It can be also concluded that landscape design operates among three basic variables (see the term in Jong, 2002, p.5), which are also valid through the scale frame (see Figure 1.10):
1. Place (a site, compiled of several layers, - natural, networks, cultural, and mental);
2. Streams (dynamic processes at all layers);
3. Actors (in the current research it refers to the people who experience and act in the landscape).

Each of these variables pertains to specific approaches and techniques of investigation, which are also linked to the layer approach, and reflect the duality of “natural – urban” tension. The defined variables allow to answer the basic questions of “where”, “what”, and “how” of the design related research.

The case of Varna site thus becomes the area for the application of the defined approach.
Varna region background

Varna region is located in the eastern part of Bulgaria, at the coast of the Black Sea, in the valley between Avren and Franga plateaus. The area shows a great diversity of mountainous landscape and the descending valley of Varna lake. Highest points of northern and southern ridge raise till 350 meters high, revealing a spectacular scenery. However, the lower area of the valley is captured by the industrial activities.

Since 2007 the country is a member of the EU, and the city is planned to become the “2017 young EU capital”. Total population of the city of Varna is 373480 inhabitants.

The region is located in the zone of humid subtropical climate with maritime and continental influences.

In general, the valley shows involvement in industrial activities, while the sea coast relates to tourism and leisure (see fig. 2.7).
Origins of the landscape of the region

The panoramic view (Fig. 2.13) shows the XIX century Varna: a dramatic moment during the Crimean War (1854-1856). Human actions from a birds’ eye perspective seem to represent the evolving “urban ecosystem”, accompanied by military actions. However, the structure of the city here is closely related to the natural context. The edge of the verdant valley with an access to the sea is an advantageous site for an urban development.

The process of land formation, which took millions of years to shape the landscape to its current appearance. From the initial land below the sea (Fig. 2.8), gradual movements of plateau’s shaped the valley of Varna Lake. Sediments from the river created fertile soils in the valley. The constant erosion caused by the sea waves shaped the cove in which the ancient pre-thracian settlement has emerged around 1000 years B.C.

Understanding of the context of the site serves as a key to the comprehension of the logic of the further urban development.
One of the two possible origins of Varna name is “Odessos”, the initial name of the city which means “a city by the water”. The water system of the region shows a great diversity (see fig. 2.15).

The dynamic sea waves erode the coast line, and shape the outline of Varna bay. The salt water approaches the inland, creating the constant balance of brackish water in the lake. This process is a result of a human impact. During the Soviet Union reign a global change has been made to the water system between Varna Lake and the sea. The new channel created an inflow of salt water in the lake (see fig. 2.16), which has caused an ecological disaster to a fresh water ecosystem. The drastic change can be seen in the comparison with a map from 19th century (fig. 2.17). The former river has been canalized and added a new channel for the port infrastructure development.

The analysis shows the drastic impact of a human on the natural water system at the location. Moreover, one can see that the city centre remains “blanc” from the traces of the water. The two channels flowing around the city centre, are directed toward the lake and the sea.
The two plateaus which embrace the valley of the region contain the limestone which is a feature of the landscape that exists in its pristine state, and is operated and in the quarries and used modern construction, while the landscape keeps the mysterious stories of ancient stone gardens with unclear origins and meanings.

The material of the limestone is a link between the layer of natural processes and the human landscape. Initially, the city can be seen as being carved from the limestone, which relates to the second version of its name origin: “var” as “a limestone” in pre-thracian language.
Case study of a regional strategy: Boston inspiration

The classic example of a regional strategy from the perspective of landscape architecture can be seen in the Metropolitan Park System proposed by Charles Eliot for Boston Metropolitan Park System. The principle of selection of areas for reservation suggested to protect several strategic elements of the landscape, such as hills with a view, river banks, and the sea coast line, from the construction, and to keep them as a green-blue framework for the existing and further urbanization (see fig. 2.26). There the scenic value was merged with ecological and utilitarian concerns.

In case of Varna, the site along the valley shows mostly ecological concerns, while along the sea coast it is added a cultural concern due to a more active use of the area for urbanization (see fig. 2.27).
The conclusion map of the region (fig. 2.28) shows that the valley of Varna Lake faces crisis of ecological connection between habitats: the cyclic connection within the habitats’ sequence is disturbed by urban processes. The key suggestion therefore is to “protect” the water routes, since they are the carrier of ecological life of the area, which flow through different zones and allow a circular natural process. And, the idea of the stream flowing through the spaces is thus applicable to the larger scale of the region in an ecological sense. Below the main “routes” are highlighted (fig. 2.29). The process of restoration of the contaminated lands has already started, however, the principle of a link to the water flows gives an overall idea of the value of the landscape as an initial prerequisite for the urban development.

Analysis of the site at the regional scale has allowed to comprehend the existing relations between human and natural systems, and to discover principal approach for the development of a sustainable strategy from the landscape perspective.
Diverse information regarding the city was provided by interviewing local people. Their hopes refer to the improvement of public spaces from pedestrian perspective, and development of new green areas. The observation site from which one can see the panorama below, and the main park, are the two places they enjoy the most (at least, George and his sister).
Local people of different age groups have given an introduction to their city. The interview given by the students has shown that people of Varna love their city, they are proud of its history, and the surrounding landscape. However, they would like to see more green public spaces in the centre, and they say that the area of the most beneficial location, - at the port, - is the site with multiple, but yet uncertain plans for the future.

The map of main attractions in the city centre shows that the most active recreational life is related excluded from the very historic part of the old city. Thus, currently only the sea coast is directly related to the public life of the city, whereas the lake area remains weakly attached to the recreational activities of the city.

- “Influence of the USSR was not good for a small country”
- Boyan, civil engineer

- “We like the park the most, because the city is crazy with all the cars, but one park is not enough. A place for a picnic and exercising is needed”
- George, prospective architect

Existing programme of public spaces

- “Influence of the USSR was not good for a small country”
- Boyan, civil engineer

- “We like the park the most, because the city is crazy with all the cars, but one park is not enough. A place for a picnic and exercising is needed”
- George, prospective architect

Fig. 3.2. Relation of main attractions of the city centre to the city as a whole

Fig. 3.3. Relation of main attractions of the city centre to the city as a whole

Fig. 3.4. Sea gazing in Primorsky (Seaside) Park

Fig. 3.5. Salsa workshop in the city centre

Fig. 3.6. Folk festival in Varna, Tzar Osvoboditel street

http://tinyurl.com/z5ou2hd

http://tinyurl.com/jmwsqb3

http://tinyurl.com/xxxxxx

http://tinyurl.com/xxxxxx

http://tinyurl.com/xxxxxx

http://tinyurl.com/xxxxxx
Varna fragments: past and present

City has emerged as a settlement of pre-Thracian tribes, who are described as strong and bellicose. Archaeological findings of ancient tombs and various cultural items are considered as the earliest ever found in Europe. The earliest items are dated 6000 years B.C. Further the city has flourished during Greek and Roman epoch, however later during Byzantine and Ottoman reign it has come to a decline. The influence of Soviet Union has evoked global expansion and drastic changes to the landscape. Currently the city is at the transition stage with expectations on the urban development after joining the EU. However, the plans for the city have to be reconciled with the identity of the country, so that the vernacular trait remains present within the future plans.

The map shows a generalized essence of landscape fragments in Varna area. Here one can clearly see the sharp division between urban built-up areas, and green patches. The project aims to integrate urban fragments within their natural context (with its qualities and processes), by means of mending fragments with natural processes at the location.
The visual analysis illustrates several existing relations between the landscape and the city.

Fig. 3.8. Contrasts between the natural sceneries hidden from the view: positive and negative examples
The site shows a great diversity of ecological habitats, - a meadow, a forest, a rock landscape of the sea coast, a verdant valley, and a marshland. However, the last two are lacking presence in the urban environment.

The idea is to be sought how to achieve an integration of the authentic landscape in the urban environment.
Existing dialogue between nature and the city

Specific location in the landscape and active exploitation of the latter have led to a series of consequences, which allow to define an attitude of people toward the land they occupy.

Natural processes cause hazards to the urban entity (here - mainly erosion, landslides, and flooding), whereas the action taken by humans against these, express their attitude toward nature.

The main conclusion is that the dialogue between the city and the landscape has a cautious character, and that the natural hazards are not sought to reveal potentials, while the local scale designs show that the city inhabitants seek for the presence of the landscape features in their surroundings.
Streams and Voids

The maps illustrate two phenomena present in the city. There are the streams which are directed in an inglorious way from the city centre directly to the sea and the lake, with a remaining hazard of a flooding in the rain season (see fig. 3.16). Meanwhile a diverse pattern of interstitial spaces within the city discovers several types of open spaces with a possibility for the new vision from landscape architecture perspective (see fig. 3.17).
The concept illustrated above shows a subtle design, where the natural flow is affected through the intervention, so that the natural processes are triggered in a new direction.

The opposing example shows the treatment of a stream within the city in a utilitarian and yet aesthetically designed way. Despite the costs of such a system, it illustrates the possible role of a running water in the urban environment: it links spaces and enriches the experience and social involvement in relation to the urban landscape.
Streams in the city: natural logic for the urban context

Fig. 3.20 A city utopia
Degrees of implementation

The utopian proposal is yet given a set of possible scenarios of implementation.

I Existing situation

II Upstream solution: retention of the exceeding volumes upstream in the basins, creation of retention system with an overflow within the existing channels

III Application as "spots" of interventions, as an independent systems on a smaller scale

IV A network. Such approach can allow achievement of the introduction of the authentic landscape in the city, and vice versa. The set of dams could create condition for the restoration of the ecology of fresh water ponds, which could create multiple benefits for the sustainability of the city in a long term.

The aforementioned concepts can be developed gradually and follow the logic of and evolution, so that with the start at the local scale the system can be developed.

However, the proposal remains a utopia, although is chosen for the elaboration, in order to explore the ways such concept can be materialized within the city spaces.

- "Your proposal is a good surprise for me – fresh ideas, fresh new public town spaces, fresh water reservoirs in the estuaries near the Island of Varna as a green-water park. Beauty and logic".  
- "I’ll encourage you to continue the project as you want”

- Rositsa Peeva, architect, Varna
Conceptual visualization of the extraordinary proposal for the city

The pulse of seasonal fluctuations of the streams adds variations to their presence within the city. Terraced spaces allow different behaviour of water, as well as make the natural processes evident.

Elements of natural processes, when made a part of the cityscape, restore the connection between “urban” and “natural”. The integration of natural processes in the city is achieved, and it provides a framework for a more sustainable and resilient future for the city.
Fig. 3.24. An Edge between the city and the coast.

Fig. 3.25. Urban Delta

Streams, when reaching the edge between the city and the harbour, revitalize the urban environment, and create conditions for ecological development.

Elements of natural processes, when made a part of the cityscape, restore the connection between “urban” and “natural”. The integration of natural processes in the city is achieved, and it provides a framework for a more sustainable and resilient future for the city.

For the further elaboration the delta area was chosen, in order to achieve spatial expression of the conceptual proposal.
A sandy heart. Source: maps.google.com
Spatial analysis of the location

The area of the harbour is located on the edge in various senses. It is a border between the city and the great water, at the transition between the steep coast of the sea and the gentle relief of the valley of Varna lake, and, between the historic city and the modern part of the city on the south bank of the lake.

Despite such a beneficial setting, the visual studies of the scenery show that the potential views which are meant to reveal the essence of the context of the city, show low resonance with the neighbouring sublimes of the sea horizon, and the sunset side of the lake panorama.

Further visual studies of the main adjacent street flows allow understanding of the existing relationships between the city spaces, and their relation to the lake and the sea.
Fig. 4.2. Serial vision of the Sea Boulevard

Visual analysis of the site’s interstices: Sea Boulevard
Visual analysis of the site’s interstices: Breakwater

Fig. 4.3. Serial version of the breakwater
Port Varna East is one of the two major ports located at the Varna Lake. Its strategic location at the edge of the sea and inland has been first adapted to "a port" in XIX century during Ottoman times in Bulgaria. The initial wooden structure has been later transformed into a hard surface quay wall, which was later extended to its current area.

Nowadays, the part of the port adjacent to the coast line is planned to be moved further inland, due to the intention of develop cultural and ecological qualities of the site.

The location of container terminal strategically has the greatest potential for cultural development. However, despite the existing strategy for land-use development from the Municipality of Varna, the demand exists for various ideas for the area. The interstitial island is intended to obtain a new meaning for citizens. The intention is to develop a park, a residential zone and cultural activities. However, the vast size and complexity of the area leaves large projects unrealized.

Current project intends to regard the site from the perspective of landscape architecture, and with special attention to the cultural potential of the site.
With the fluctuations of the sea level, pre-thracian settlements have been sunken under the water.

During modern construction work, precious relics are found, such as the famous Varna Necropolis. The unique memory, spatial structure and materialization of the monument have become an inspiration for the design at the coast line.

Golden treasures which were found at Necropolis, show sophisticated mastery, and are a resonating connector between past and present. The texture of gold, its reflecting qualities, and meaning of “preciousness”, inspire to give it an application of a special intriguing element in the design.
Points of attraction around the site

Fig. 4.15. Current condition of the site
The suggested strategy for urban development in case of Varna

Principle of small attractions in a valuable context

Urban development evolutionary strategy of Bulgaria can be characterized as a disperse system of small towns, scattered in the mostly mountainous landscape. Such feature can be regarded as an inspirational principle for development of new areas in the harbour zone.

It also finds a support in the way how small-scale market spots are an important feature of almost any street in the city. The scale and uniqueness of such elements is a characteristic trait and specific value of a place.

As for the design proposal, instead of global changes and large-scale architectural designs, a small-scale points of intervention can create a more vivid and attractive space. And, the landscape in which these are integrated has a special facilitating role for such elements. In a long term, such approach is more culturally sustainable, and allows further evolution of public space.

The discovered principle reflects habits of the inhabitants, and affects the approach to the phasing strategies for the new place in the harbour area.
Design search: sketching the flows and looking for translations and meanings of the place

“What do I want to see when I approach the harbour? I don’t want to see structures (like at the image). I want a simplicity after a busy city”

City as a villa with a view

Fig. 4.18. The series of sketches illustrates search for understanding the site and exploring its possible connections to the street flows of the city
The elaborated design for the harbour area illustrates the sequence of spaces, embraced by the elements of the landscape, and guided by the flow. The proposal keeps the tension between the active experience of the site, and gives a reference to a greater landscape through the presence of the stream.
Phasing principles for the harbour transformation

The development of the new public space in the harbour follows several basic principal strategies:

a. Attention to the development of the green areas, which require time to reach maturity of the vegetation

b. Each design step is accompanied by creation of new points of attraction, which can introduce and relate the site to the city, and bring economic benefits

c. Developed area allows introduction of the space to the city. As a reciprocal reaction, the surroundings are expected to obtain a higher economic, cultural, and environmental value, and stronger mutual spatial relations

d. Water works remain a flexible concept, which can be seen in different scenarios. However, the goal is to achieve the creation of the network. The principle of existence of water can be treated as an idea for creation of separate water bodies.

However, due to the utopian idea behind the concept, the actual prediction of the phasing for new space can vary.
Social introduction of the new place: breakwater enrichment

The initial step which refers to the enrichment of the breakwater with spaces for cafes, markets, and various leisure activities, is seen as a starting point for the introduction of the harbour. Such step can be made before actual redevelopment of the site, because it strongly relates to the existing use of public spaces.
The initial strategy of the method where the places are regarded as connected by multiple flows, and are open to the experience by the actors, is found through the conceptual model. Here the essence of the design is distilled: the designed new public space in the harbour embraces the flow of the water stream, which highlights a new vision of the coherent sequence of public spaces. The three spaces obtain new connections and meanings with the water stream as a guideline. Here the existing topography and spatial relations are re-thought from the perspective of a flow.

Three stages thus can be defined, which illustrate the dialogue of water with the place and its perceivers: dialogue with the past, dialogue with the society, dialogue with the horizon.

Fig. 4.24. Conceptual model of the local scale design essence
Elaborated sequence of places related to the flow: *the dialogues*
The Small (South) Ancient Roman Thermae are the ruins of the later and smaller public baths that functioned in the Ancient Roman city of Odessus. They were built in the V - VI century AD as the city of Odessus experienced a decline, after the Large Thermae were abandoned and partly destroyed in the III - IV century AD. The Small Roman Thermae were erected on top of an Ancient Thracian temple or sanctuary that honored Ancient Greek god Apollo as well as a female deity that the Varna archaeologists at first believed was Ancient Thracian goddess Bendis but have recently changed their interpretation to believe that it was in fact Ancient Greek goddess Aphrodite that the Thracian had worshipped.

In 2013, Varna Municipality allocated BGN 130,000 (app. EUR 65,000) for the rehabilitation of the Small Roman Thermae.
The existing topography of the site is merged with the logic of the flow, highlighting the border between the dry ruins of former baths, and with the new system, which relates strongly to the logic of relief.

The existing topography suggest the place adjacent to the thermae to be included in the system. Here the careful attitude toward the heritage is expressed through the concrete but fine structure which prevents the stones from the water. The pool is added low helophytes vegetation in order to purify the water (e.g. *Alisma plantago-aquatica, Butomus umbellatus*). The aspect of water fluctuation in the stream here is not elaborated. The design shows spatial and metaphorical possibilities of such intervention. However, a certain overflow is directed toward the pond through a hidden pipe.
Transition to the New Place

Fig. 4.34. Cross-section of the tunnel

Fig. 4.35. Reference: Mal-Tepe tomb, IV century B.C. 
Source: Epenic, p.43

Fig. 4.36. Detailed section of the tunnel

Fig. 4.37. Detail of the outflow

Fig. 4.38. Vision 4 of the tunnel toward the new harbour environment. The texture of white limestone translates authenticity of the place through materialization. The structure of tiles highlights the dynamics of the transition.
The sublime moment of a clearing where one can experience the vastness of the landscape. Reflecting pond resonates with the ever-changing atmosphere, serving a mirror to the other space (Foucault, 1967)
The reflecting pond celebrates the opening of the landscape of the harbour to the city. The surrounding vegetation and shape of the pond refer to ancient planning, and resonate with the spatial qualities of the surroundings.

Creation of a shadow is one of the main aspects of a comfortable microclimate, particularly crucial for the subtropical climate of Varna. After a search for a shape of a shade, vegetation has been chosen as the most sustainable, subtle, and dynamic option. The starting point in the design of a shadow is seen in the comprehension of “stay-places”, such as multiple terraces and stairs. The terraced slope between Sea Boulevard and the lower level of the new square is the zone with the best microclimate, due to a rich amount
Dialogue with the New Place

The mirroring pond becomes a transition to the new place in the city. It resonates with the change of time, weather, seasons. It creates a cooling effect along the terrace, and through the water stream it obtains the silent dynamics of waves. Here the sublime meets the urban life, when people of the city can gather at the new place and contemplate the landscape.
a. Basalt pavement (currently covered by the asphalt), white limestone with "golden" mosaics, concrete slabs at the railway tracks

b. Poa, Festuca

Maintenance: mowing once a year (shown mowed)

c. Lolium, Festuca

d. Lysimachia nummularia, Ranunculus flammula, Veronica chamaedrys, etc.

e. gradual change from zone d to: marshland: Carex stricta, Scirpus radicans / fresh water inflow: Nymphaea alba, Trapa natans

Fig. 4.44. Details of the gradient line

Fig. 4.45. Plan of the gradient line

Fig. 4.46. Cross-section of the wadi, which reveals gradual transition from a robust tamed embracement to the free character, where the wilderness takes over the tamed urban landscape
The pulsating line

Fig. 4.47. Vision 7
Articulation of history through materials and shape

Fig. 4. 48. Reference detail: Brion Cemetery is in San Vito d'Alvise near Treviso, Italy by Carlo Scarpa. www.google.com

The detail shows the expressive power of architectonic elements and simple materials of concrete, water, metal, light and shade, which articulate meanings through shape and contrasts.

Fig. 4. 49. A sunken pier. Model photo: concrete, resin, “gold”

Fig. 4. 50. A variation of the shape of a pier. Diagram shows the translation of the history of sunken cities and hidden treasures to the language of the landscape.

Fig. 4. 51. Contrast in vegetation refers to the inflow of a fresh water from the stream.
Dialogue with the horizon: a sunken pier

Fig. 4.52. Vision 8.
Opening of the view at the future of Varna harbour

The utopian image shows how the choice for landscape development and strengthening public activities in the new site can lead to a greater coherence, connectivity, and a dialogue between people, and between a human and the landscape.
Economic support for such interventions is seen in a gradual transformation of the existing built structures to the public use. The surrounding industrial relics then serve the enrichment of Genius Loci
Panoramic view allows observation of a not precise, but yet an overall scenery created through the principle of the streams connecting places. Here one can see a dual quality of the place: it is an active site for recreation and leisure, but also it brings a trait of the great element of the authentic landscape, such as a great water, the horizon, the skies. Within the proximity of the very historic city centre, and with prospective connections further to the suburbs, the site shows a great enrichment of the urban environment.
The model was constructed with the purpose of showing the topography of the site, and to express with the clay the character and spirit of the old city. However, later the second fragment was made for the purpose of a more conscious spatial design of vegetation around the new pond. The character of a meadow and marshland also relates to “hard” material compared to the water.

The resulting model illustrates three urban fragments, which were enhanced through introduction of a water stream, - an element of the authentic landscape of the site. A model allows comprehension the design essence. In case of urban fragments of Varna, it distills the relief of the site, simplifying different object into a homogeneous mass, which clarifies the spatial qualities, and reveals interrelations.

Such materialization without showing the actual water, leads to the key discovery of the research: the actual flow of water can serve as a metaphorical guideline for understanding the urban spaces and their interrelations. One could think about the reference to a Japanese term “ma”, which means “a gap”, “a void”, - a negative space, “nothing”. Such phenomena finds a certain reflection in the meaning of the urban interstices.

In case of the site in Varna, the stream allowed re-discovery of spaces within a chosen sequence: - the historic city - landscape of ancient ruins - the new harbour site - a recreated landscape of a marshland.

The flow of a stream, accompanied by the flows of existing street and port infrastructure, allowed shaping of the relations between the old city and the new public space in the harbour.
Conclusions
Reflection on the main research question

Authentic landscape: actual and conceptual guideline within the urban environment

The research has shown that the natural layer of the authentic landscape has a great potential as a starting point for comprehension and adjustments of the urban interstices. This idea has been already explored and elaborated before. However, the great discovery is that the natural processes can become a guideline for a deeper understanding of relations between the city fragments, and for shaping new sequences between them. The logic of the water stream which was chosen as the strategy for the whole city, has led to a creation of a connection between multiple flows within the city spaces.

Later it has been discovered that the ideas of a new vision of places developed according to the logic of the water flow, can be realized with different degree of implementation, even excluding the actual stream. Thus, the research has shown that the chosen natural process can have not only an actual, but also a metaphorical and conceptual translation within the urban context. Its logic provides a new perspective on the urban interstices. The question remains whether it could be any other feature or process of the landscape.

Relation to the concept of Flowscapes

Hidden richness of utilitarian elements / Revealed treasures

Literally speaking, the design explored possibilities for application of an infrastructure of an open drainage system within the urban environment. Its utilitarian function is to carry safely the water stream until the discharge point, and preferably facilitating in advance its purification. The key elements of such system, technically, include a water stream itself, and carrying structures, such as channels and retention basins. But phenomena, elements, and dynamics which it operates, have revealed an enormously diverse potential and meanings, - in archetypical, ecological, spatial, metaphorical, aesthetic, social, psychological sense. Such system has the ability to become a vein for a city, - not only as a utilitarian feature, but also as a fountainhead of the city narrative, as a formative element of attraction and identity of a place, as a link between spaces.

Reflection on the research strategy

Layers of the authentic landscape

Although initially the authentic landscape of the site has been sought mostly at the layer of natural processes, it proved to be inevitably intertwined with other layers. The built environment is a diverse live system of entities, interrelations, and narratives. The richness of each element of the urban landscape thus equally relates to the authentic landscape of a place. Within the urban environment the authentic landscape resonates with its surroundings, and takes its shape according to the qualities of the latter.

Focus at different scales

Analysis of the site at different scales has revealed several qualities of their specificity.

Regional scale shows the character and relation of the urban entities to the natural layer of the site. It allows understanding of an overall dialogue between human and natural systems at the location, and development of certain strategies for the mitigation of such relationships. Here ecological benefits can be achieved in a more sustainable way of a network, rather than as local interventions. A distant glance at the city specifically from the regional scale thus becomes a guideline for general conceptual strategies for interrelations between human and natural systems.

The city scale facilitates the search for a certain utopia of a place. It reveals understanding of what the city could mean in a larger context, and inspires the search for variations in adjustment of its integration in the greater context. And, consideration of such relations has the potential to be mutually beneficial for the city and its natural surroundings. Identity of the place thus can be explored and enhanced at the scale of the whole city. The connection is created here in both directions: the city approaches its surroundings, while the greater landscape potentially becomes an integral element and process within the urban spaces. Although such strategies can remain utopian, their existence can bring attention to such possibilities.

The glance at the urban environment at the local scale relates stronger to the spatial and experiential aspects. And, it allows actual tectonic translation of the history of the site, which has proved to be an essential part of the authenticity of a place, within the landscape. The small details of the flows’ carriers can express the meaning of global processes of a larger natural context, and create a tectonic translation of the hidden narrative of the place, which is an inevitable element of the landscape.

Despite the conclusion of the specific values of the strategies at different scales, their simultaneous application allows the discovery of the clearest idea for the possible meaning of urban entities in the natural context. And, vice versa, such approach has the potential to enrich the values of the urban environment,
Application of the strategy at other locations

In the case of Varna, analysis of the natural context of the site has shown a great diversity in ecological, spatial, and cultural sense. The potential of the surrounding landscape has proved to be quite rich, although it required its introduction within the city. As for an application of a strategy in other locations, the key aspect for such strategies can be based on the existing balance between the city and its context, and the dialogue between these systems. The basic tension and degree of mutual integration of the city in the landscape are the initial guideline for application of the strategy at other locations.

Places, Streams, Actors

The approach to the comprehension of places within the flowscapes has been re-discovered through the design proposal. The flow with the authentic meaning of the city context has become a guideline for building connections and relations between urban spaces. It has enriched their placeness by means of introduction of a natural layer of the site. The materialization of the flow carrier has created a link to the authentic urban past of the site through its tectonic translation. A sequence of water expressions has symbolized the dialogue of the city spaces with their past, present, and possible future landscape, and has created a reference to its “eternal” meanings present in the introduced edge between the city and wilderness at the coast line “delta”. Such enhancements contribute to the urban identity through the landscape. The authentic water stream has led the flow to re-discover the harbour area, mending this strategically valuable fragment for the future urban life with the old city. Thus, the stream has inspired the discovery of a greater meaning of each urban fragment, and their interrelation. Actors, or the people who experience the place, have obtained a greater opportunity of attachment to their environment. And, vice versa, the analysis of the possible use of the place shapes its tectonic qualities, and the appearance of the guiding stream with its meanings and utilitarian function. However, the role of the actors who make decisions at the scale of application of regional strategies is not tackled within the framework of the current research.
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