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THE CASE OF MANGALIA COASTAL AREA ON THE BLACK SEA

CO-LAND. Inclusive Coastal Landscapes

Activating green and blue infrastructure for
sustainable development of the urban-land interface

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LAND

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This book is the result of the collective work of the tutors and students involved in the CO-LAND Intensive Study Programme (ISP), which took place in Mangalia, on the Black Sea Coast of Romania, from 16th to 25th of September 2018.

Credits: texts, plans, maps, photographs and other graphic elements were created by Mangalia ISP participants unless otherwise indicated in the material. The materials without a specified author are adapted based on the Mangalia ISP Manual, edited by Ellen Fetzer. The Manual functioned as an internal guideline for organizers and tutors before and during the Mangalia ISP.

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CO-LAND OVERVIEW

MANGALIA CASE STUDY

INTENSIVE STUDY PROGRAMME

RESULTS

VARIA

SPIN-OFF PROJECTS

CO-LAND OVERVIEW

Content based on the Mangalia ISP Manual

The relevance of the coastal landscape

Coastal landscapes across Europe are often characterised by overlapping and competing land uses. These areas are the focus for settlements and infrastructure, especially road and train networks, and many industries and commercial zones that benefit from close access to harbours. Conversely, the tourism industry is also a major driving force with its own development dynamics and specific spatial patterns. All these economic potentials have been attracting people

Napoli, Italy

to settle on the coast. This process is ongoing, leading to unsustainable development such as urban sprawl and irreversible consumption of soil and other natural resources. However, water-based recreation activities have various positive effects on human health, physical and mental well-being. On the one hand, people love to visit the seaside on vacation, while on the other hand, restricted access to waterscapes raises issues of social equity and spatial justice. The urban-land interface is also an important and often vulnerable habitat zone for flora and fauna, which brings additional demands on such areas and also places them at risk from damage and degradation. Being a pole of human settlement since early times, coastal landscapes are also often extremely rich in cultural heritage and form part of our collective memory and identity. Their sustainable and integrated planning, design and management is crucial for the mental, social, physical and economic well-being of many European citizens.

Helsinki, Finland

Tallinn, Estonia

The ERASMUS+ Strategic Partnership 'CO-LAND. Inclusive Coastal Landscapes' is developing

Cabo da Roca, Portugal

an innovative study module by combining online and site-based learning activities. Due to the sensitive nature of coastal landscapes and their social, economic and environmental relevance, it is vital that planners and designers learn how to manage these territories in a sustainable way. Course participants develop a profound understanding of the specific character of coastal landscapes. They learn which driving forces are influencing the landscape system and which impact types are most relevant for planning and design responses. This learning includes the global and European dimension since coastal landscapes are receiving increased attention worldwide. Participants learn various approaches to landscape assessment in order to specify the challenges and potentials of a coastal landscape. They have the opportunity to define and test assessment models and derive relevant knowledge for planning and design. Different approaches to strategy building, planning and design in the context

Lisbon, Portugal

of coastal landscapes are part of the last phase of the course. On this basis, the course participants are able to draft a strategy and a master plan for a coastal area based on economic, ecological and social dimensions as well as on the current development policies.

The first online course was held in spring 2018 and preceded the 10-day Intensive Study Programme (ISP) that is the subject of this report. During this ISP workshop we explored the multifaceted landscape of Mangalia,

Mangalia, Romania

a coastal settlement at the Romanian Black Sea, with more than 40,000 constant inhabitants and more than 300,000 visitors per year for the last 3 years (National Institute of Statistics, Romania). This workshop was the first ISP and Transnational Learning Event organised by the project consortium in cooperation with the Municipality of Mangalia. The CO-LAND Project itself started in September 2017 and will be completed by the end of August 2020.

For more information, please visit the project website under: http://www.CO-LAND.eu

CO-LAND Intensive Programme locations

The inclusion of the City of Mangalia, among other coastal cities, for this innovative and special project has been a real honour for us. The problems of territorial and landscape planning of European coastal areas and especially of our Romanian littoral area are of great complexity and represent a major concern for the public administration of our city. Such projects are most welcome, as they may be a starting point for many other interesting future projects. It is also certain that such projects will bring a significant contribution to discovering new perspectives for the development of coastal areas.

Radu Cristian, Mayor of Mangalia

Content based on the Mangalia ISP Manual

Conceptual framework and main objectives

CO-LAND conceptual framework: green and blue infrastructure in coastal landscapes

"Green infrastructure is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation. This network of green (land) and blue (water) spaces can improve environmental conditions and therefore citizens' health and quality of life. It also supports a green economy, creates job opportunities and enhances biodiversity. The Natura 2000 network constitutes the backbone of the EU green infrastructure." (European Commission, DG Environment).

Why Mangalia

Mangalia is a medium town of about 40,000 inhabitants situated on the Romanian Black Sea Shore close to the Bulgarian border. The town has seen very dynamic developments in the 1960's and 1970's during which huge public investments into coastal tourism were made by the central government. The town therefore consists today of a multifunctional urban centre plus the northern 'satellites' of Saturn, Venus, Jupiter, Neptun and Olymp. All of these satellites are spas dating from the 1970's, built during the socialist period as a public investment according to modernist design principles. The city is not solely based on tourism and is host to industry, commerce and a major shipyard. Being founded as a Greek port in 600 AD, the cultural heritage of Mangalia is multifaceted, but poorly visible in the urban landscape of today. The same applies to the rich and unique natural areas, not sufficiently integrated into the urban fabric. Mangalia is facing many challenges, of which the constant outmigration of the younger generation is probably the most threatening. In order to approach this situation in a holistic way, the city has published a local development strategy in 2016, envisioning Mangalia as a 'Green City' by 2023. The community is certainly very well aware of the need to redevelop a green and blue infrastructure for the benefit of its local economy and quality of life. Our study group will link to this goal and support the community by translating the strategy into concrete proposals.

The process will be structured around the following major activities:

- Identifying local potentials by applying a holistic landscape assessment framework;
- Use the green / blue infrastructure approach to improve connectivity and multifunctionality of fragmented and competing spatial layers and structures;
- Use people-centred and community-based evaluation, planning and design methods;
- Apply scenario techniques for envisioning alternative futures and discuss these ideas with the local community;
- Use innovative communication and visualisation tools to support the community in envisioning alternative futures;
- Document outcomes as a basis for further local discussions and processes.

Ensuring the connectivity, validation, protection and multifunctionality of Mangalia's green network bears enormous potential for the city and is also a major strategic goal already adopted by the Municipality as part of the development strategy. This topic should be combined with the conception of a hiking and cycling network for sustainable transport. The Green Infrastructure (GI) network could further support the connectivity and accessibility of Mangalia's heritage areas. Combining ecological, social and economic benefits by an overarching GI strategy can build a powerful framework for joining the forces of different actors and interest groups towards a common goal. Green and Blue Infrastructure serves as the guiding principle for the working groups.

Content based on the Mangalia ISP Manual

Partners and collaborators

Administration

Mangalia City Hall

Economic environment

Industry
Damen Shipyard Mangalia

Farming
Ograda Veseliei
Dumbrava minunată
Mangalia Stud Farm

Communal services
S.C. Polaris S.A.

Social and health services

Direcția de Asistență Socială Mangalia
Mangalia City Hospital
Mangalia Spa and Recovery Sanatorium

Cultural environment

Callatis Theoretical High School
Callatis History and Archaeology Museum
Casa de Cultură a Sindicatelor Mangalia (Mangalia Union Cultural House)
Mangalia City Library
Mangalia Muslim Community
Mangalia Lipovan Russians Community

Tourism environment

Monel – Tea & Coffee, Mangalia
S.C. Neptun Olimp S.A.
Nautical Club Mangalia

Civil society environment

Magdalena Deijs Foundation
ProActiv pentru Comunitate Association

Media environment

Mangalia News
Mangalia TV

MANGALIA CASE STUDY

Didier Vancutsem

Challenges of European coastal landscapes

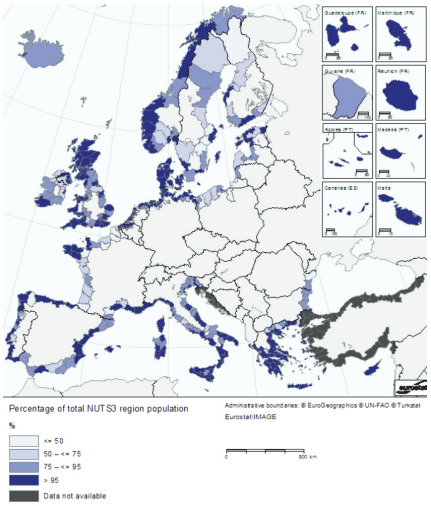
The European context

European coastal landscapes are at stake. Coastal ecosystems and seas experienced in the last centuries significant human exploitations, as the human-induced changes in marine ecosystems increased in the past 60 years. Seas became busy places, where technology, food and energy demand are getting more and more visible. Globalisation effects show the rest of the challenges with harbours and the fish industry competing on a global level, wind power parks dominating the market of renewable energies and plastic pollution invading the oceans.

Unprecedented human activities are transforming the coastal and marine ecosystems everywhere. Sea habitats are under high pressure, due to fishing overexploitation, land and sea interfaces face increased pollution, coastal urban development and tourism are becoming more dense. Sea floors are damaged by oil platform exploitations, energy transmission lines and mining activities are radically changing the sea underground and non-indigenous species are spreading globally, especially due to shipping activities. All of these impacts are becoming worse due to climate change.

According to Eurostat, more than 42% of the European population from the EU 27 Member States are living in coastal regions, which corresponds to 40% of the entire European territory.

The concentration of human activities along coastal regions increase the cumulative threats to European coastal areas including water pollution and eutrophication, the loss of biological diversity, intense urban development, landscape deterioration and coastal erosion.



Share of population in coastal regions living within 50 km from the coastline by NUTS 3 regions
Souce: Eurostat, based on NUTS 2010 and population grid 2006

Another interesting aspect of European coastal landscapes is the European Union coastline length of 68,000 km. Including Iceland, Norway and Turkey, the coastal length is more than 185,000km or three times longer than the United States coastline. Regarding the attractiveness of the European coast, seaside locations are the most popular destinations for holidays. The sector supports 3.2 million jobs, generating EUR 183 billion gross added value and represents 33% of the maritime economy. According to the European Commission, around 51% of bed capacity in hotels is concentrated in European coastal regions.

Environmental challenges of coastal landscapes

On the European level, degraded coastal ecosystems are already a matter of fact. In the Baltic, Black and Mediterranean Seas, as well as along the North-East Atlantic Ocean, environmental impacts on species and habitats are visible. It starts with the water quality, however fishing, agricultural and industrial chemical pollution, tourism developments, and other maritime activities are endangering coastlines. It is estimated that the EU public expenditure on coastline protection from erosion risk and flooding is expected to reach EUR 5.4 billion/year until 2020. As an example, the Dutch government invested in the past years considerable amounts to mitigate the effects of sea-level rise by creating new restorative sandbanks.

The vision of LOLA Landscape Architects from the Netherlands for the Dutch territory in 2100 is interesting in this regard, wherein most Dutch cities will be functioning as islands.

European coastal landscapes are facing several key challenges. Solving these challenges will decide on the future of coastal areas. A major problem for European coastal environments is the diffuse nutrient pollution from agriculture, which is provoking algal explosion and can lead to oxygen depletion of the maritime ecosystems.

Another challenge, according to recent research, is the concentration of some heavy metals and organic pollutants, as well as microplastics in fish and other seafood, all of which are exceeding safe limits and accumulating in the food chain. It is not clear today how human organisms react to micro and nano plastics in the bloodstream. Oil discharges from regular activities such as sea transport and refineries, e.g., ship cleaning on the sea, are still significant.

Deep-sea overexploitation with bottom trawling, sea bed mining, and offshore energy production is exercising pressure on the seafloor. In combination with overfishing (the Mediterranean and Black Seas), the introduction of invasive species through aquaculture and shipping, and species migration due to climate change will substantially change marine ecosystems. As an example, the economic loss due to aquatic invasive species is estimated to exceed EUR 81 billion/year globally.

Despite Natura 2000 specific protections of coastal and marine sites, the latest surveys on biodiversity loss and ecosystem degradation indicate a poor state of several species and habitats. Indeed, the loss of biodiversity reduces ecosystem resilience and increases vulnerability. Additionally, tourism activities are becoming a driver of development and an increasing source of pollution, especially along the Mediterranean coast and the Black Sea.

Furthermore, European coastal landscapes are experiencing climate change with immediate effect. Sea-level rise, sea surface temperature changes, floods and storms are becoming more regular. Consequently, marine and coastal species are migrating to colder regions and their seasonal and geographical distribution is shifting. The pH of seawater will continue to decrease due to CO2 increasing in the atmosphere. European coral reefs in the Mediterranean as well as overseas are suffering from acidification and increased temperatures.

European coastal policies

Solving European coastal challenges requires a holistic approach, which should include water, nature, pollution, fishery, climate change and spatial planning. More and more, institutions are moving away from silo thinking and becoming integrated.

The European Landscape Convention addresses water and marine areas generally, but is not implemented in all of Europe. The recently adopted Sustainable Development Goals (SDGs) from the UN, especially SDG14, "Conserve and sustainably use the oceans, seas and marine resources for sustainable development" focusses on the future of oceans and marine diversity.

At European level, the Marine Strategy Framework Directive (MSFD) adopted in 2008 considers the entire ecosystem and is a good example, as an environmental pillar of the EU's Integrated Maritime Policy, how the EU can promote ecosystem-based management. The MSFD is supported by other European policies including the Water Framework Directive (WFD), which regulates the ecological status of coastal and transitional waters, e.g., related to pollutants from agriculture; the Habitats and Birds Directives, which set conservation objectives for marine and coastal habitats; the EU Biodiversity Strategy, and finally the Paris Agreement on Climate Change.

Furthermore, the Integrated Maritime Policy focusses on specific topics such as Blue Growth and crosscutting policies, as well as the application of planning principles in line with Integrated Coastal Zone Management (ICZM) and Maritime Spatial Planning (MSP).

Unfortunately, it relies on the Member States to implement the Directives, and it is not always evident that Member States are implementing the recommendations in their regulations. European principles of coastal landscapes can indeed only be implemented on the local level, and here comes the work of landscape architects together with other disciplines.

Our coastal environment challenges are increasingly systemic, rooted in globalized systems of production and consumption. We need a paradigm shift to address these challenges, while reconsidering our societal relationship with nature and resources.

Europe can become a model on a global level of balanced and integrated coastal landscape development, by building on green economy, green-blue infrastructure, nature-based solutions and sea and land-use management.

Andrei Schvab

Geographical context

Geography plays a very important role in how Mangalia developed over time, its current state and what the future could hold for this seaside-port-shipyard and resort town in the remote southeastern corner of Romania. Mangalia has a strong connection to its position. Its identity and functionality as a seaside town are firmly linked (Păcurar, 2009; Gheorghilaş, 2005; Cocean, 2004). Its relationship with the sea provides people with jobs and creates the necessary conditions for the town to function. It is not an easy relationship, things don't always run smoothly, and the town seems to struggle to make the most of what this relationship with the sea could provide.

Mangalia and its regional context
© Google Maps

Mangalia is isolated considering its geographical location at a national level within Romania. The non-Schengen border with Bulgaria increases the feeling of isolation, and when seen from a regional perspective, Europe seems to end where the Black Sea begins, this being the eastern border of the European Union.

Across the Black Sea to the east are Georgia and Russia, Turkey is to the south, while Ukraine and the new Russian Crimea lie to the north. Except for Bulgaria, all the other neighbouring countries of the Black Sea have a more or less developed political stability. They seem to be far from the values of the European Union, and thus integration into the EU seems less probable in the near future.

As we will see later on in this report, the local economy of Mangalia is strongly influenced by geographic location factors, which facilitated the development of shipbuilding and tourist industries (Schvab, et al., 2015). We will see that Mangalia has a well consolidated position among the Romanian medium and small towns, and thus plays a vital role at the national level. Moreover, with one of the biggest European shipyards, Mangalia can play a very important role in the competition with the Asian shipyards. This importance attracted the attention of Damen, a leading Dutch shipbuilding company, that acquired the management operations of the Mangalia shipyard in the summer of 2018.

Damen shipyard in Mangalia

Present-day Mangalia has an ambiguous history, considering the many gaps of archaeological evidence. After the disappearance of Callatis urban life (the Greek name of the city until the VII century), according to many historians, the monetary discoveries indicate a renewal of dwelling in the area of the town somewhere between the first half of the IX century and the second half of the XI century. The town later was reborn as a commercial port, driven by the opening of the Black Sea to international trade. During the Middle Ages and towards more recent times, the town's name appears written in different forms: Pangallia, Pangalla, Pangalay, Pagala, Bagalia. Some historians who studied nautical maps identified Pangalla with the current city of Mangalia. Other historians consider that Pangalia lies somewhere nearby the present Romania-Bulgarian border.

Archeological museum in Mangalia

Geographically, Mangalia is a town on the western coast of the Black Sea, in the south-eastern corner of Romania. It is the southermost town on the Romanian seaside located on the south-east of Constanta County. It is the second-largest town in the county after Constanta and together with six seaside resorts: Saturn, Venus, Cap Aurora, Jupiter, Neptun and Olimp makes the Municipality of Mangalia (Pleșoianu and Eftei, 2016). The town

is situated on a loess and limestone plateau with an elevation around 10 meters above the sea level between Hergheliei Marsh on the north and Limanu estuary on the south.

To understand Mangalia, one must take into account the role played by tourism. Only towards the end of the 1970s, with the opening of one of the largest European shipyards, did the town's economy depend to a lesser extent on tourism. But, it only switched dependencies, from tourism to shipbuilding. At least a serious alternative appeared for when one of the industries were going to be hit by a recession. When the shipyard encountered hard times from Asian competitors, it was the tourism industry that provided jobs for the inhabitants, and the opposite when the tourism in Mangalia was looking for a new market, rebranding or large scale renovation (Teleki and Munteanu, 2004).

Loess and limestone plateau on the south of Mangalia

Tourism started developing after the Second World War, and more vigorously after the mid 1960s, when the Romanian government invested considerable resources in tourism (Tofan and Nită 2017; Iancu and Baron 1984). This happened first at Mamaia, where extensive site preparation between Lake Siutghiol and the Black Sea were taken in order to sustain the hotel and park complex coordinated by C. Lăzărescu (Turnock, 1976). After Mamaia, the focus was to develop the southern seaside, the town Eforie (Eforie North and Eforie South) and a string of new seaside resorts north of Mangalia (Jupiter, Neptune, Saturn and Venus). Infrastructure improvements included roads, water supply and the provision of goods. Altogether, on the 100 km strip of coastline between Capul Midia (Năvodari town) and Mangalia, hotel accommodation increased during the 1960s from 24,000 to 48,000 rooms and the numbers of visitors went up from 380,000 to 630,000.

Olimp, resort built in the north of Mangalia

Policymakers and urban planners that worked developing tourism on the southern Romanian seaside, at the time, considered that investments in hotels on the Black Sea would pay off in twelve years, a somewhat better performance compared to most industrialised countries in the 60s and 70s (Turnock, 1977).

Hotel accommodation on the Black Sea Coast increased from 32.6% in 1967 to 75.7% in 1975 and it was considered phenomenal growth for the standards of the late 1960s. This growth led to vigorous efforts to develop tour packages with Western operators (Turnock, 1977). Established resorts on the outskirts of Constanta (Eforie and Mamaia) were greatly enlarged and a series of entirely new complexes were built on the northern side of Mangalia. For more about the importance of tourism for Mangalia see the chapter on tourism and cultural heritage in this report.

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Natașa Tătui-Văidianu

Natural environment and landscapes

The specific characteristic of Mangalia is given by its location on the Black Sea shore, 10 metres above the sea level, and by the existence of natural formations, such as Mangalia Lake and Pond. The relief is represented by the Dobrogea Plain and the Black Sea. The coastal waters have a small depth over a considerable distance from the shore, with no significant tide.

The Southern sector of the Romanian coast, consists mainly of cliffs formed of thick loess arranged above a discontinuous Quaternary red clay and Sarmatian limestone. The limestone and loess cliff is abrupt, with an altitude up to 30 m. There are discontinuous outcrops in the limestone base of the cliff and extending in the submerged area, forming a continuous submarine layer. The superficial sediments on the continental shelf are distributed according to actual hydrodynamic regime while retaining sediments and numerous relict bodies. Sands are found mainly near the shore and at a depth of 30-35 m. The superficial sediments at greater depths consist predominantly of clays and silt, with relict sedimentary sand bodies (Report: 'Marine spatial plan for the cross-border area Mangalia Shabla', 2017).

South coastline from Mangalia, between 2 Mai and Vama Veche

The Mangalia Carst is well-known due to the thermal (26-27 degrees Celsius) and sulphuros waters (of great therapeutic value). The area is over 12 km long and 3 km wide on the territory of Romania, and extends to the south towards Bulgaria.

Landscape on the border with Bulgaria

The Mesothermal springs are used in spa sanatoriums along the coast. All deep waters have the same physical-chemical characteristics, being sulphurous and having a temperature between 24-26 degrees Celsius. Deepwater supplies several springs of sulfuric water around Mangalia (Local Development Strategy for Mangalia City 2016-2023).

The Mangalia Lake has been formed in a valley, with a variable salinity and influence from existing springs as well as the precipitation waters. It has a width which varies between 300 and 800 m and a maximum depth of 13 m. In its Western extremity, hydro-technical works were made for agricultural purposes. The Mangalia Pond was formed by the closure of a small marine bay and sand deposition. The pond is fed by 21 springs with meso-sulfuric sulphurous water. In the Northern part, we find the former Comorova swamp where Neptun 1 (15.6 ha), Neptun 2 (14.3 ha), Tismana (15.82 ha), Mangalia (199 ha) were formed. Herghelia marsh occupies an area of 110 ha and has a semi-circular shape (Local Development Strategy for Mangalia City 2016-2023).

View over the shipyard, Mangalia

Along the coast, the transition between the plateau and the marine platform has a slight slope, with easy access to water. In the central part, the beach is bordered by a high cliff used as a promenade by tourists. Erosion phenomenon is present along the cliff. The sandy beach is one of the longest in Romania, oriented East and South-East, with a sun exposure for over 10 hours per day and about 140 days per year.

Coastline in Mangalia

The climate is temperate, with some Mediterranean influences, relative air humidity, low rainfalls and light wind, mainly influenced by the sea. The Black Sea water has a low salinity (17 to 22 ‰) and a temperature between 20-25 Celsius degrees in the summer (Mangalia – Integrated Touristic Product Brochure).

Hagieni village and forest

The natural protected areas of Mangalia are: Movila Banului Fossil Point, Obanul Mare Natural Reserve and La Movile Cave. The following sites are not far from the city: Limanu Cave (on the shore of Mangalia Lake), Hagieni Forest Reserve (Albești), Comorova Forest and Marine Coastal Aquarium (Vama Veche - 2 Mai). The agricultural lands have a total surface of 3597 ha, of which arable - 2909 ha, orchards and fruit – 165 ha, vineyards and vineyard – 193 ha and pastures - 330 ha. Green spaces in urban area represent 23.13%.

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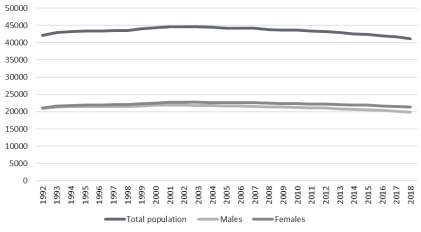
Loess and limestone plateau near Hagieni

Mirela Paraschiv

Social structure and demography

Mangalia is one of the small medium-sized cities of Romania and it represents the second largest city in Constanța County (after Constanța Municipality, a very large city at the national level), registering a population of 41,146 inhabitants in 2018.

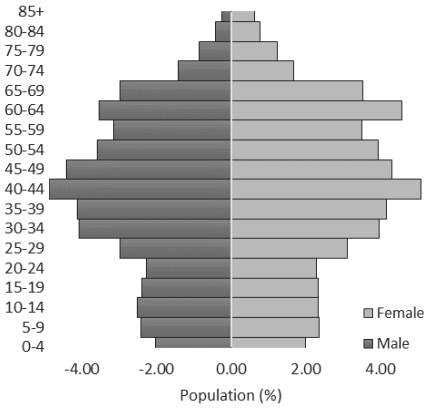
The population dynamics in Mangalia indicates a continuous slight decrease since 2002, following the constant light ascension of the urban population after 1990. The downward trend of the total population of Mangalia is less than the national average and it is mostly correlated with the current fluxes of internal migration which indicates more intense population movements from the urban to the rural adjacent areas. The developing urban sprawl characterised by the construction of new residential individual homes within the peri-urban area of the city contrasts with the concomitant social issues of the old part of the city related to the abandonment or degradation of heritage buildings.



Population dynamics in Mangalia, in 2018

The gender ratio of the population reveals a constant female dominance with the tendency of a slight increasing gap between female and male over time. (50.27% female in 1992 to 51.74% female in 2018). From this point of view, the demographic situation of Mangalia is more balanced than the national circumstances, given the good employment opportunities for males in the city, mostly related to the activity of the shipyard.

The evolution of the population structure in Mangalia after 1990 shows a lower process of demographic ageing for the city in comparison



Population structure in Mangalia, in 2018

to the national level. However, the general tendencies of decreasing birth rate and increasing outmigration rate generate lower and lower shares of the young group ages and stronger percentages of the elderly which deepens the economic and social pressure on the community. Despite this, the current demographic situation indicates the maintenance of a population equilibrium between the share of the young people (0-14 y.o., 13.62% of the total population) and the aged population (65 y.o. and over, 13.78%).

Although it is continuously decreasing after 1990, Mangalia registers a constant positive rate of its natural growth (0.74‰ in 2017) in comparison with the generally negative county rate (-2.5‰) or the fluctuant values of Constanța Municipality (-1.1‰).

The migration balance of Mangalia was fluctuant in the '90s, but it maintained at negative levels starting with 2000, registering continuous slight decreases since 2011, so that, in 2017 there were more than 450 people (1.14% of the total population) who left the city compared to the new population which settled within this urban area.

Mangalia gathers a multiethnic community formed of Romanians (82.40% in 2011), Turks (4.05%), Tatars (3.25%), Roma (0.45%), Hungarians (0.23%) and Russian Lipovans (0.32%). Generally, the mother-tongue describes the structure of the population, while the religious structure is composed mainly by Christian Orthodox (81.22%), Muslims (7.52%) and Roman Catholics (0.79%). The current sociocultural structure of Mangalia shows the decline of the formerly strong multiculturality of the city given the new demographic changes and the outmigration.

The post-socialist transformation processes, resulting in a strong socioeconomic decline, and the social influence of the capitalist international economic crisis also reflected on the dynamics of marriages at the local level. In this sense, comparable with the county level context, the number of marriages in the city fluctuates more than shown for the case of Constanța Municipality, which reflects better the periods of socioeconomic change. But, generally, in Mangalia, marriages face a continuous decrease in the first years after 1990 (until 1995), followed by a slight constant increase for the period 1995-2007, with a returning decrease for the 2008-2013 years and a slight increase after that, for the recent situation. There is also a slighty fluctuant divorce rate, varying around 100 divorces in the last 15 years. Still, their proportion compared to the number of marriages is maintained at high values of more than 30-35%, although the value started around 22% at the beginning of the 1990s.

The educational structure of the population (for 2011) in Mangalia follows the national structure and it includes larger shares of high-school (31.72%) and gymnasium graduates (21.69%). The people with higher education in Mangalia constitute only 16.37% of the total population, representing lower values (with around 6%) than the average for the urban national population, while the share of illiterate people (1.02%) in Mangalia is higher with 0.32% than the situation of cities at the national level.

Referring to the educational infrastructure as an indicator of social development, the number of school units decreased with 35% in Mangalia since the 1990s, following the tendency at the county level. In terms of current schools' facilities, there are only 5 school gyms in the city and 8 school sports grounds, a decrease from 13 in 2013. Only the number of PCs in schools is on a slightly constant increase for the period 2007-2017, from 419 to 562 units for all types of pre-university schools in the city.

Given the descending demographic trends, the number of pupils generally decreased 40% for the 1992-2017 period. Also, the teaching staff of the city is continuously decreasing, the number of involved teachers being 26% lower in 2017 than in 1992.

Access to books for the population in Mangalia depends on the existence of one single public library (similar to the Constanța Municipality situation) and on 12 school libraries, representing an improved situation when compared to only seven libraries available in 1995. Accordingly, the number of active readers increased almost 1500 people since 2011 (numbering around 7500 people in 2017), but it decreased the same proportion after a peak of nearly 9000 readers in 2014.

The cultural infrastructure of Mangalia includes only two museums, while the number of museum visitors decreased by half in 2017 compared to 2005, although it has been registering a slight increase since 2013.

The decreasing number of employees after 1990 characterises an unstable local labour market. The situation recorded a period of increase between 2002 and 2008, but has been decreasing since 2009, while maintaining slightly more than 12,000 employees at city level ever since. The recorded employment rate of the working-age group of 39.35% in 2017, represents a significantly worse situation in comparison with Constanța Municipality (53.60%), but is an improvement in contrast to the county share of employees (32.58%).

At the same time, the share of the registered unemployed in the total labour resources of the city almost halved, being lower with 1.9% in 2018 (2.7%) compared to 2010 (4.6%), but it is more fluctuant than the constant decrease recorded at county level. Although, at the county level the values are closer, registering a difference of only 0.7%, the unemployment level for women is significantly higher in Mangalia (4.5% registered unemployed) in comparison with men (0.8%). Men are more easily involved in the stable economic activities of the city, e.g., shipbuilding, fishing and agriculture.

A general perspective on Mangalia reveals a series of social issues related to the decreasing standard of living. These decreases are reflected in natural births and migration balances, the marginalisation of poor communities, and the ageing of the population that is growing poorer due to low state pensions and a constant increase in the costs of living in recent years.

Given the current quality of urban life and the insufficient permanent working opportunities of Mangalia, where job offers are strongly connected to seasonal coastal tourism activity, the local population of young people tends to leave the city for educational and professional purposes. At the same time, the social development of the city depends on community engagement and local initiative that is currently at a low level. This situation characterises, in general, Romanian society as a whole. Greater top-down and bottom-up collaboration to increase the attractivity of the city through the sustainable valorisation of both anthropic and natural resources is required.

Mangalia

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Igor Sirodoev

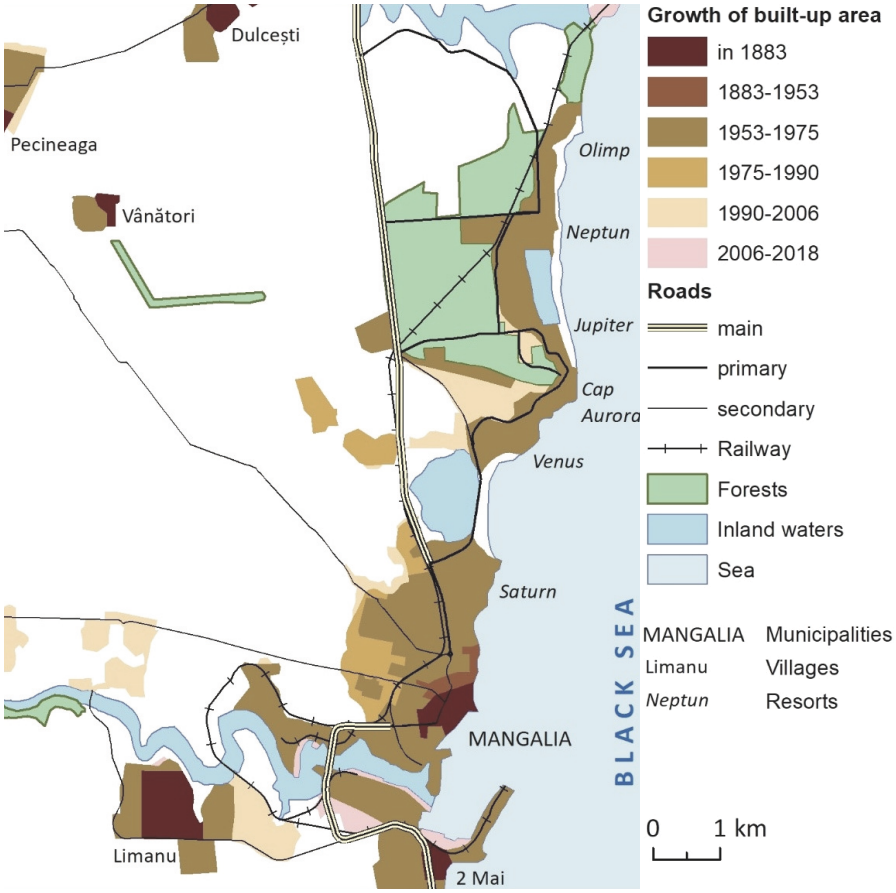
Economic development

Mangalia is a port city on the Romanian Black Sea coast. This geographic location factor strongly influenced its local economy, facilitating the development of shipbuilding and tourist industries. Mangalia has a well-consolidated position among medium and small Romanian cities. Thus, for the last 20 years, Mangalia was ranked among the top cities, between the 10th and 20th position in terms of the rate of company turnover. It ranks after Bucharest's suburbs and several industrial cities like Mioveni (automobile industry), Năvodari (petrochemical industry), Mediaș (gas extraction) and a few others.

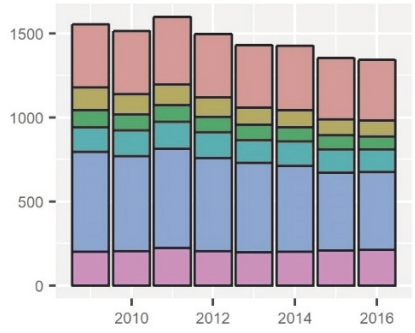
The manufacturing industry dominates the economic landscape of the city by far. It generates more than two thirds of Mangalia's company turnover and provides jobs for more than half of the city's employees. The shipyard represents the manufacturing industry in Mangalia, jointly owned by the national government and Damen Shipyards Group, a Dutch shipbuilding company (https://www.damen.com/en/companies/damen-shipyards-mangalia). The shipyard also generates forward and backward economic relations with other local industrial companies or service-providing firms.

Retail trade is the second largest economic activity in the city. Although it has been losing shares in the latest years compared to other industries, the highest number of companies (more than 1/3 in 2016) are specialised in the retail business. Typical activities for a coastal and port city such as hotels, restaurants, and transportation occupy third place among industries present in Mangalia, and their financial performance is growing profitability of transportation companies has increased seven times since the beginning of the economic crisis.

Construction activities are on a steadily declining path. Although, they are recovering from the crisis as well, the total turnover generated by the construction companies has diminished 2.7 times since the beginning of the crisis, while other financial indicators are much below the pre-crisis period.



Spatial evolution of Mangalia and neighboring villages

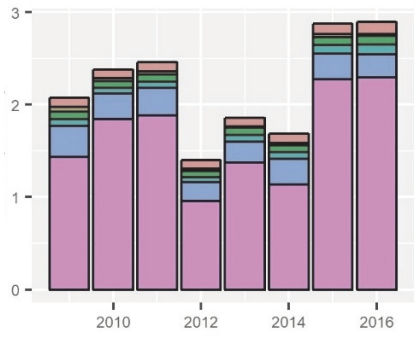


Economic activity of Mangalia's companies
Number of companies

Main industries of Mangalia

Despite its urban status, Mangalia has quite important agricultural activities, such as crop and livestock production (Local Development Strategy for Mangalia City 2016-2023). However, the economic profile focus of agricultural companies is on producing and processing agricultural products from the land, while activities related to seafood production are absent.

Located in Mangalia on the former military shipyard is Constanța County's only industrial park (http://mangalia.ro/index.php/2016/11/14/parc-industrial/). Since its creation in 2006, it has hosted 19 companies with 112 employees (https://www.zfcorporate.ro/profesii/parcul-industrial-mangalia-a-atras-19-companii-care-au-creat-peste-100-de-locuri-de-munca-16827582). The companies located

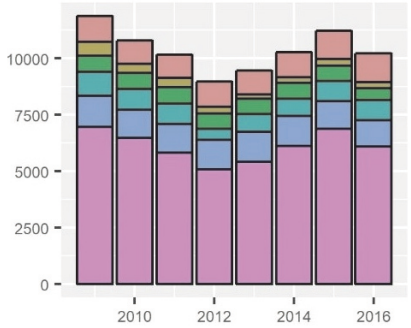


Economic activity of Mangalia's companies
Turnover

here come from various industries, such as shipbuilding, furniture production, automobile repairing, garbage sorting and reuse (https://www.cugetliber.ro/stiri-economie-constanta-are-cel-mai-mare-parc-logistic-din-regiunea-de-sud-est-a-romaniei-350394).

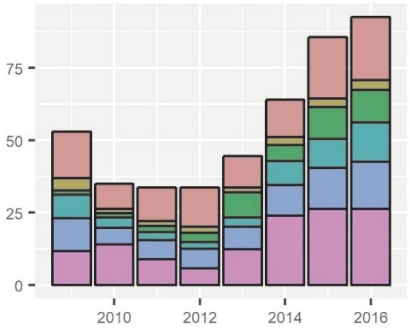
All the leading banks present in the national market have their branches located in Mangalia. Thus, among the 13 banks located here, Raiffeisen, Romanian Commercial Bank (BCR), Romanian Bank for Development (BRD) and CEC Bank have two offices each, while the other banks have only one. Supermarkets of five nation-wide retail networks are located in Mangalia as well, each of them having one store: Kaufland, Carrefour, MegaImage, Lidl and Profi, while Penny Market has two stores in town.

Despite the presence of the large tourist resorts to the north (Olimp, Neptun, Jupiter, Cap Aurora, Venus, and Saturn), Mangalia is much less dependent on tourist income when compared to other settlements and resorts on the coast, thanks to the leading role of the manufacturing industry. That is why Mangalia is less exposed to the high seasonality of economic activities and revenue generation specific to other towns and villages on the Romanian Black Sea coast.



Economic activity of Mangalia's companies
Number of employees

Mangalia heavily invested in the modernization of the tourist economy. Thus, since 2012 the city's administration has managed to attract more than 30 mil. EUR from European Funds for modernization of the tourist resorts to the north (from Olimp to Saturn) as well as for rehabilitation of the central tourist area of the city (https://presshub.ro/proiecte-editoriale/banieuropeni/2019/06/11/olimp-mangalia-sudul-litoralului-bani-europeni/).



Economic activity of Mangalia's companies
Profit

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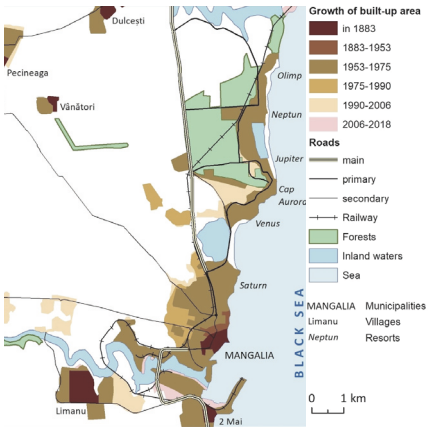
Spatial evolution

Information about the spatial evolution of Mangalia was extracted from various topographic maps prepared for the territory of Dobrogea Province. The dates the maps appeared serve as breaking points between the periods in the city's spatial evolution. These dates more or less coincide with the changing trends in the history of the country and the city. Nevertheless, perfect overlapping of the periods was not possible. The following maps were using for data extraction:

- For 1883: Topographic map realized by the Austrian Army at the scale 1:200.000 (http://geo-spatial.org/);
- For 1953 and 1975: Romanian topographic maps at the scales 1:20.000 and 1:25.000, accordingly (http://geo-spatial.org/);
- For 1990, 2006, and 2018: The CORINE Land Cover inventory realized by the European Environment Agency and provided to the end-users through the Copernicus Programme (https://land.copernicus.eu/pan-european/corine-land-cover).



Spatial evolution of Mangalia and neighbouring villages

Expansion of the built space in Mangalia is closely related to its economic activity. By the end of the 19th century, Mangalia was a small town on the Romanian Black Sea coast. Its economic profile was modest, being focused on crop growing and processing, and some local crafts (Lahovari et al., 1901). The port was only of local importance. That is why the total built-up area of the town was less than 40 ha.

Mosque, Mangalia

In the period between the two World Wars, Mangalia became a quite successful tourist resort, thanks to both its shoreline with sandy beaches and the sulfur baths. Tourist development was relatively small, while other activities remained at the previous level (Gusti et al., 1938). The population of the city tripled in size, but its area increased by only 58%.

The post-war socialist period began with the development of new manufacturing industry in the city. These new industries included ship repair activity (since 1956), accompanied by the introduction of the textile and garment industries. Between 1965-1971, several tourist resorts were built to the north of Mangalia city (Băncescu, 2015). Because of these new developments, the built-up area of the town increased in size more than ten times in just 22 years. The resorts made the most significant contribution to this extension.

Olimp, one of the tourist resorts built in the north of Mangalia

The spatial expansion of Mangalia during the second part of the socialist period was much less spectacular.

Dwellings from the socialist period, Mangalia

Although the population of the town increased by about 1.6 times, its economic profile remained the same (Cozmâncă et al., 1995). That is why the town's area covered by various buildings grew by only 18%, primarily thanks to the extension of the residential area to the west.

The post-socialist period was divided into two time periods, with the breaking point roughly marked by the accession of Romania into the European Union, and adjusted because of data availability for the year 2006. The first 'transition' period in the town's spatial dynamics, was marked by the decline in population and economic activity, privatization of economic assets and the recovery of tourist activity by the end of the period etc. The built area increased by 20% thanks to changes at the periphery of tourist and industrial zones.

Marina, Mangalia

The economic crisis significantly impacted the second period. That is why in the last 12 years the built area of Mangalia has extended by just 1% due to investment in the industrial zone of the town.

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Andrei Schvab

Tourism and cultural heritage

The administrative unit of Mangalia consists of the resorts Cap Aurora, Jupiter, Mangalia (residence), Neptun, Olimp, Saturn and Venus and is situated in the southern part of the Romanian seaside. Compared to the northern part, which is much more animated and sought after by tourists, the southern part of the Romanian seaside in mainly dedicated to families. Although neglected over the last 30 years, the southern area has been appealing to most types of tourists due to investments in both old accommodation units as well as new construction. As a consequence, hotel standards have been raised from one and two-stars to five-stars. At the same time, many public catering structures had been opened, such as restaurants, local fish restaurants, self-service, fast-foods and street foods. In terms of recreation facilities, the southern resorts have benefited from the construction of aquatic parks, fun and adventure parks, relaxation and resting SPAs.

Mangalia, promenade along the coast

Mangalia has a tourist infrastructure of about 10-12 two-stars to five-stars hotels, several fish restaurants, fast food restaurants and international restaurants.

In Mangalia, an important segment of the hospitality industry is spa tourism, represented by the Mangalia Spa Sanatorium and the treatment base of the Paradiso Hotel.

Besides classical forms of summer tourism, Mangalia is also an attraction for those passionate about history and archaeology. Today's Mangalia is situated on the ruins of the famous Callatis fortress. Founded in the 6th century BC by the Greek colonists on the site of a Getic settlement, Callatis Fortress was at that time one of the flourishing Greek colonies on the Black Sea coast. The fortress was named "Pangalia" beginning in the 11th century and became one of the most important ports on the Black Sea.

Saturn Resort is located immediately adjacent to Mangalia, with the border between the two being invisible. The resort is seasonal with most accommodations open from May until the end of September. The tourist infrastructure comprises about 13,000 accommodation beds in two-stars to five-stars hotels, villas, hostels and campsites. Restaurants, terraces and fast foods represent the catering infrastructure. Saturn Resort's beach is covered with coarse sand and has a maximum width of 150 m in the area heading towards Venus resort. Here, balneary tourism is represented by the two treatment areas within the Hora and Balada Hotels.

Venus Resort is distinguished by hotels that generally bear the names of girls: Raluca, Dana, Lidia, Carmen, Corina, etc. There are about 25 accommodation structures like hotels. These accommodations between one star and five stars, make the resort accessible to everyone. Restaurants, fish restaurants, fast foods and street food, terraces, pizzerias, and self-service represent public catering services. Although it is a spa resort, there is no balneary treatment at Venus Resort, excepting aerosol and heliotherapy. Another attraction is Herghelia Venus, the largest stud farm in Southeast Europe, a place of traditional horse breeding (Arabian pure-blood) established in 1926.

Jupiter and Cap Aurora Resorts are recognized as oases of tranquility and relaxation. Cape Aurora is the newest resort in the southern part of the Romanian seaside, developed in the late 1970s, and is distinguished by the names of precious stones like Opal, Diamant, Topaz, Safir and Onix. The two resorts include approximately 20 hotels between two-stars and four-stars. The beach stretches over a distance of about 1.5 km with a fine sand and a considerable width making this place a main attraction for tourists with families.

Neptun and Olimp Resorts are currently no longer that popular with tourists as they were in the 1980s, although they have a tremendous natural potential as the resorts are in close proximity to Comorova Forest and Neptun Lake. During the communist period, the resorts were the pearls of the Romanian seaside with symbolic hotels such as the Amphitheater–Panoramic–Belvedere Complex, currently being renovated after more than ten years of degradation. Even hotels with names of Romanian cities; Arad, Galati and Craiova, or hotels with names of historical regions; Banat, Moldova and Muntenia, are the last preference among tourists in today's current situation.The location is well recognized for the Doina spa treatment facilities. Also opened in the area located on the seashore or

lakeshore are a wine cellar with a rich vineyard and two fish restaurants. The two resorts have approximately 7,500 accommodation places in all types of accommodation facilities.

Mangalia, during the season

The seven resorts had a capacity of approximately 30,500 accommodation places in structures such as hotels, motels, villas, boarding houses and camping sites, out of a total of 85,000 in Constanta County, i.e., a weight of approximately 40%.

In 2017, some 340,000 tourists visited Mangalia out of a total of 1,235,000 tourists arriving on the Black Sea coast. This increase is sensible when compared to 2016, when there were 332,000 visitors out of a total of 1,116,300. But, the increase is significantly better than in 2015 when 225,000 tourists visited the area in question out of a total of 1,021,000 tourists. According to some experts, the trend is a positive one as the investment plans include the opening of new accommodation and public catering facilities, the refurbishment of the Mangalia–Saturn boardwalk, as well as the development of a nautical leisure area that will further determine the development of tourism in the southern area of the Black Sea Romanian seaside.

Mangalia, along with its resorts, remains a landmark for Romanian seaside tourism. The evolution of the resorts is a metaphor for the transformations which the Romanian society and economy passed through from the 1960s to the present day. Mangalia is trying to develop tourism very firmly based on health treatment, but there are problems finding investors to raise service levels that can compete with Bulgarian resorts.

Olimp, off season

Moreover, tourism investors are not motivated to change the situation, given the specifics of Romanian seaside tourism such as a two month peak season that is quite full of Romanian tourists willing to pay high prices. It seems investors are satisfied with the revenue generated by four months of activity, of which two months (July and August) earns them the estimated turnover for an entire year.

In conclusion, the lack of adequate infrastructure makes the link with the main tourist generating markets ineffective. Tourists are quite dissatisfied when they travel 2 hours by train or car (about 230 km) from Bucharest to Constanta, but still have to go another 2 hours to reach Mangalia (which is only 44 km away from Constanta). So regarding tourism development, Mangalia faces significant challenges. Some measures may be taken by local authorities, but without cooperation with the County Council and national authorities (like various ministries), the development of tourism in Mangalia will be more of a chance than the result of a focused effort on behalf of the authorities.

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INTENSIVE STUDY PROGRAMME

Content based on the Mangalia ISP Manual

Theme, challenges and problems overview

The Intensive Study Programme in Mangalia looked at the specific coastal landscape from five complementary perspectives explained below. A dedicated working group composed of 5-6 international students with different backgrounds investigated each perspective. A team of tutors guided each group in its quest.

Green and blue infrastructure: ecosystem services and sustainable mobility

One of the working groups developed the general framework for a green infrastructure network to serve the other teams with this information. A future green infrastructure network should include valuable wetlands protected by Natura 2000 as well as several open space typologies whose strategic potentials are currently underestimated. These typologies include gardens, orchards, agricultural land and pastures, fallow land, the horse breeding area, cemeteries and parks.

The team also addressed two further challenges: sustainable mobility and connectivity. Situated at the very eastern end of Romania and Europe, Mangalia and the sea resorts have become quite a challenge to access, especially for international tourists. The issue of accessibility, therefore, needs to be addressed at the international, national and regional levels, if local tourism is to be diversified and enlarged. In addition, Mangalia suffers from being a transit city providing access to the Bulgarian resorts to the south. This transit function results in a significant negative impact on the city, especially during the summer season. Car parking also adds to the problem.

Yet, there are positive aspects, for example, the availability of small local busses that connect the rural hinterland and the resorts. The region urgently needs an alternative and flexible transport concept to mitigate the adverse effects of its image as a place of health and recreation. The group further addressed the challenge of limited connectivity by exploring possibilities for bridging the hiking and cycling barrier formed by the Mangalia shipyard.

Heritage and identities

Founded as a Greek port in 600 BC, the cultural heritage of Mangalia and its surrounding environment is rich and multifaceted, given the multiple development stages of the town. Still, this cultural heritage is only poorly visible in the urban landscape of today. This perspective is based primarily on the general issues that the city is facing in relation to its built heritage: dereliction and abandonment of old buildings, impoverishment of heritage owners, poor public management and investments, random tourist and urban developments, seasonal tourist activity and weak tourist promotion. Additional local socioeconomic characteristics of the urban environment that contribute to the current heritage decline include urban sprawl, outmigration, and demographic ageing. Mangalia, as a community, lives with a vivid intangible heritage. However, as an inner-urban image, this local multicultural identity is being continuously lowered and is almost nonexistent on the exterior.

Hence, building strong heritage connections and a complex urban heritage network will represent the major interests for the cultural development of Mangalia. This effort should raise both the local community and tourist's awareness of Mangalia's valuable tangible and intangible heritage layers covering the Greek and Roman periods, the medieval Ottoman period, the interwar-modernist and the socialist-realist periods. Heritage tourism, being linked to the overall blue-green infrastructure town strategy, represents the opportunity to extend the attractiveness of Mangalia beyond the core summer period. This will involve additional target audiences and raise the complexity of the tourist offerings while bringing new local and regional economic opportunities.

The heritage working group realized a multifocal assessment of heritage layers, including literature research, field observations and interviews with the locals, and it developed the main directions for sustainable and integrated heritage use and development, together with concrete urban planning proposals.

Living on the coast: housing, working, community life and identities

Mangalia has grown substantially from 1960-1970, which resulted in the appearance of a significant number of collective housing blocks that have since come to age. At the same time, living in a single family house on small plots of land is a typical pattern. Post 1989 developments triggered uncontrolled sprawl on the outskirts of the city resulting in settlement fragments of low urban quality. Each housing typology was analysed in greater depth to assess qualities and risks for both the city of Mangalia and the resorts. Another layer taken into consideration here was the relationship of multi-ethnicity versus majority cultures. Mangalia has only recently started to use its multicultural identity more proactively in promoting the city. This identity is an asset that should be further developed.

This topic also involved looking into the existing situation of retail and commerce in the city to better reflect what innovative commercial activities or services could support the rebranding of the city and stimulate a diversified local economy. Considering the apparent phenomenon of youth outmigration, that is a crucial factor with regard to the overall sustainability of the town, a focus was set on creating local opportunities for youth and young adults.

Productive landscapes, circular economy and landscape protection

Mangalia and the resorts are surrounded by rural communities that currently do not benefit sufficiently from the economic potential of the coastline. Could there be a new link between food production in the rural hinterland and sustainable food consumption for residents and tourists?

Local food production, processing and identity might better reflect the multi-cultural diversity in the residential area. How can these products be offered to tourists and other consumers in a way that strengthens the local identity? Can the transformation of the landscape help to make food more accessible for social and economic weaker communities?

Wind erosion, soil leaching and salinisation threaten agricultural land because of the removal of wind shelterbelts and soil exploitation that intensified farming started during the 1960s. Could new forms of multifunctional agriculture and market gardening, in combination with concepts of a circular economy for energy, help to develop more sustainable landscapes?

Historic landscape patterns are partly existing together with ancient and more recent socialist archaeological heritage sites located in the middle of agricultural plots. Can landscape transformation contribute to making these sites more visible through reuse or partial reconstruction to enhance the character of a new productive landscape?

There are funds in place at the EU level for implementing nature-protection measures directly on farmland. These funding instruments should be applied in an integrated way to protect the landscape around Mangalia from desertification, while also generating economic benefits for the farmers.

The productive landscapes group worked on extending the green infrastructure approach to the broader landscape of Mangalia and its rural hinterland with a focus on nature and soil protection, multifunctional and sustainable agriculture and the enhancement of the landscape's scenic beauty.

Nature-based rural tourism

The villages surrounding Mangalia such as Limanu, Albesti and Hagieni are currently not seen as tourist destinations, another missed opportunity for the rural residents. Ageing populations and reduced capacities are threatening this situation even more. This topic explored establishing models for nature-based tourism by validating the existing Natura 2000 areas, the multicultural landscape heritage and and innovative touristic activities that involve the villagers.

Content based on the Mangalia ISP Manual

Competences and learning outcomes

Competences and learning outcomes

The Intensive Study Programme [ISP] builds upon subject-specific knowledge presented in the online course that has preceded this workshop.

The topics introduced to the learners focussed on the following three areas:

- Understanding Coastal Landscapes;
- Evaluation and Assessment;
- Integrated Planning and Design.

The intensive programme challenged the participants to gain two sets of competences within a given list of learning outcomes.

Social and personal competences

The social and personal competences transferred during the ISP are:

- Identify a change potential based on a critical reflection of structures, conditions and dependencies with respect to their own societal and environmental context;
- Actively participate in an multidisciplinary planning and design process;
- Actively participate in an multidisciplinary team in a self-organised and process-oriented manner;
- Communicate and present in English;
- Self-reflect when confronted by other disciplines, cultures, and local contexts;
- Describe their value schemes and interpretation patterns;
- Describe their career perspectives and professional goals in the context of integrated planning and design.

Methodical competences

The ISP also offered the following methodical competences:

- Acquire relevant knowledge and information independently;
- Evaluate, analyse and process information for developing an integrative planning and design;
- Independently design a working process in a target-oriented way;
- Transfer planning and design knowledge and methods to a new and unknown context;
- Apply project management and team-building methods;
- Communicate results to different types of audiences (i.e., subject-specific and general public) using both analogue and ICT-based means of communication.

The content is adapted based on the Mangalia ISP Manual

Process and deliverables by phases

The ISP deliverables were structured initially in two categories: materials needed for presenting the analysis and the proposals in front of a live audience and materials required to create a written record of the ISP results. The presentations also required two separate deliverables considering the two successive stages of the working process, i.e., the analysis and the proposals. Thus, we arrived at the following three categories.

Phase 1: Analysis

A graphical representation/synthesis of analysis findings on 5-8 PPT slides were uploaded to the following address until Wednesday, September 19, 18:00:

https://ilias.hfwu.de/goto.php?target=fold_21778&client_id=hfwu

Phase 2: Visioning

A final presentation of maximum 10 PPT slides were uploaded to the following address until Monday, September 24, 17:30:

https://ilias.hfwu.de/goto.php?target=fold_21779&client_id=hfwu

Phase 3: Documentation

Additional materials were collected from each working group to record the results of the workshop in a report that we hope will be both inspiring and useful for the local community and anybody interested in the sustainable development of coastal landscape:

- 3 images that synthesise the analysis findings;
- 1 image with the vision and the goals;
- 3 images explaining the strategy (process, partnerships, spatial interventions);
- 2-3 images illustrating the visualisations of the interventions;
- a text file with captions for each image;
- a 500 words text file explaining the goals, vision, strategy and measures.

All documents were uploaded by September 24, 17:30 pm to the following link:

https://ilias.hfwu.de/goto.php?target=fold_21780&client_id=hfwu

Requirements for achieving full academic recognition

The Erasmus Intensive Programme is full time and credits are rewarded at each students' educational institution. All participating students who completed the Erasmus Intensive Programme received a certificate of participation.

Content based on the Mangalia ISP Manual

Organisational team and visiting staff

Coordinating Institution

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Dana Milea
IP organiser & tutor

Matei Cocheci
IP organiser & tutor

Monica Rădulescu
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Liviu Ianăși
Evaluator

Angelica Stan
Evaluator

IP Host Institutions

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Irina Florea Saghin
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Andrei Schvab
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Marian Tudor
Black Sea Ecology expert / lecturer

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Zoia Prefac
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Municipality of Mangalia

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Partner Institutions

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HSWT University

Ingrid Schegk
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EMU University

Friedrich Kuhlmann
IP lecturer & tutor

Jekaterina Balicka
IP lecturer & tutor

ULB University

Didier Vancutsem
IP evaluator

University of Naples

Antonio Acierno
IP tutor & evaluator

Paolo Camilletti
IP tutor

ISOCARP

Živilė Šimkutė
IP evaluator

LE:NOTRE Institute

Roxana Triboi
IP tutor

Jeroen de Vries
IP tutor & evaluator

The content is adapted based on the Mangalia ISP Manual

Participants

UAUIM University

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Urban planning & design

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Urban planning & design

Denisa-Sorina Lungu
Urban planning & design

Natalia Onesciuc
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Loredana Cârdei
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Architecture

Luca Scaffidi
Architecture

Silvia Striano
Architecture

Angela Vicidomini
Architecture

Content based on the Mangalia ISP Manual

Calendar and activities

Sunday, 16 September 2018, day 0: Arrival in Romania and Mangalia

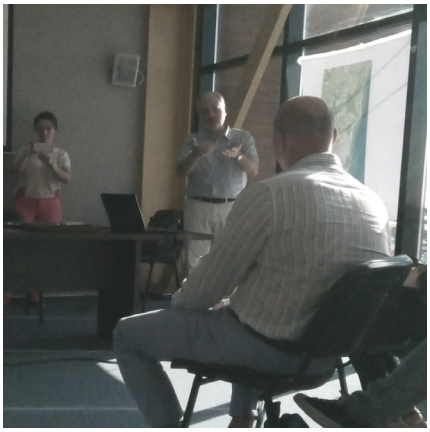
Outcomes of the day: Gathering together and getting to know each other.

Interval	Activity	Observations
All day	Participants arrive in Mangalia	
18:00 - 21:00	Gathering / team building games Joint evening walk through Mangalia, beach games and dinner	Location: Nautic Club Mangalia

Monday, 17 September 2018, day 1: Welcome, thematic introductions, exploring Mangalia's landscape

Outcomes of the day: Understanding of the local context based on lectures, field research and local discussions.

Interval	Activity	Responsible
08:30 – 09:00	Welcome by local representatives (Dan Georgescu, Mangalia City Manager) and project coordinators	Gabriel Pascariu Ellen Fetzer Irina Florea-Saghin
09:00 - 11:00	Thematic introductions Introduction to the regional and local landscape context The ISP work programme	Mirela Paraschiv George Cracu Andrei Schvab Ellen Fetzer
11:0 - 12:00	Team formation	Ellen Fetzer Friedrich Kuhlmann
12:00 - 13:30	Lunch break	Teams organise individually
13:30 - 18:00	4-5 parallel tours according to the topics; meetings and interviews with local stakeholders and citizens	Tutors
18:00 – 19:00	Groups get together and exchange experience, reflection and outlook on the next day	Jeroen de Vries Andrei Schvab
Evening	Free time	



Tuesday, 18 September 2018, day 2: Walk and talk

Outcomes of the day: Advanced understanding of the local context based on additional field research

Interval	Activity	Responsible
08:30 – 09:30	Energiser Thematic input: landscape field research	Ellen Fetzer Friedrich Kuhlmann
09:30 - 10:30	Groups get together with their tutors, planning of observation and mapping goals and activities	Tutors
10:30 - 13:00	Field research continues in parallel groups	Tutors
13:00 - 14:00	Lunch break	Teams organise individually
14:00 - 17:30	Field research continues	Tutors
18:00 – 19:00	Groups get together and exchange experience, reflection and outlook on the next day	Irina Florea-Saghin Roman Lenz
17:00 – 20:00	Group 1 hosts a 'community help desk'	Group 1
Evening	Free time	

Wednesday, 19 September 2018, day 3: From understanding to analysis

Outcomes of the day: Analytical synthesis of observations including feedback from local experts

Interval	Activity	Responsible
08:30 – 10:00	Energiser, thematic input: systematisation of observations, tutoring time, studio work	Jekaterina Balicka Irina Florea-Saghin
10:00 - 13:00	Shipyard visit	
13:00 - 14:00	Lunch break	Teams organise individually
14:00 - 16:30	Studio work: from analysis to DPSIR	
16:30 - 18:00	Groups give 5 minute presentations of their findings to the plenary	Mirela Paraschiv Paolo Camilletti
18:00 – 20:00	Group 2 hosts a 'community help desk'	Group 2
Evening	Joint activity – multicultural café	

Thursday, 20 September 2018, day 4: From analysis to (collective) goal setting

Outcomes of the day: Goal-setting and first ideas for a vision with input from the community

Interval	Activity	Responsible
08:30 – 09:30	Energiser Thematic input: landscape field research	Ellen Fetzer Nicoleta Griguță
09:30 - 10:30	Tutoring time	Tutors
10:30 - 13:00	Studio work: translating goals into a spatial concept	
13:00 - 14:00	Lunch break	Teams organise individually
14:00 - 17:00	Studio work: preparation of interactive session with citizens	
17:00 – 19:00	Groups exchange their ideas with locals. Refining and prioritising of the development goals	Ellen Fetzer Nicoleta Griguță
Evening	Free time	

Friday, 21 September 2018, day 5: Visioning

Outcomes of the day: Goals have been translated into a spatial concept and transect specified with local intervention areas

Interval	Activity	Responsible
08:30 – 09:30	Energiser Thematic input: visioning	Mirela Paraschiv Paolo Camilletti
09:30 - 10:30	Tutoring time	Tutors
10:30 - 13:00	Studio work: translating goals into a spatial concept	
13:00 - 14:00	Lunch break	Teams organise individually
14:00 - 15:00	5 minutes pitches and rapid feedback from the entire team on each project	
15:00 – 18:00	Studio work	
18:00 - 19:00	Groups get together and exchange experiences, reflections and outlook for the next day	Didier Vancutsem Jekaterina Balicka
18:00 – 20:00	Group 3 hosts a 'community help desk'	Group 3

Saturday, 22 September 2018, day 6: Strategy, process and partnerships

Outcomes of the day: Transformation concepts (from strategy to process models) and first ideas for the intervention areas

Interval	Activity	Responsible
08:30 – 09:00	Energiser Outlook for the day	Jeroen de Vries Roxana Triboi
09:00 - 11:00	Tutoring time	Tutors
11:00 - 13:00	Studio work: transformation concepts	
13:00 - 14:00	Lunch break	Teams organise individually
14:00 - 17:30	Studio work	
18:00 - 19:00	Groups get together and exchange experiences, reflections and outlook for the next day	Dana Milea Ingrid Schegk
18:00 – 20:00	Group 4 hosts a 'community help desk'	Group 4
Evening	Free time	

Sunday, 23 September 2018, day 7: Visualisation

Outcomes of the day: Visualisation of alternative futures

Interval	Activity	Responsible
08:30 – 09:00	Energiser Outlook for the day	Matei Cocheci Dana Milea
09:00 - 11:00	Tutoring time	Tutors
11:00 - 13:00	Studio work: transformation concepts	
13:00 - 14:00	Lunch break	Teams organise individually
14:00 - 15:00	5 minutes pitches and rapid feedback from the entire team on each project	
15:00 – 18:00	Studio work: visualising ideas	Matei Cocheci Irina Florea-Saghin
18:00 – 20:00	Group 5 hosts a 'community help desk'	Group 5
Evening	Free time	

Monday, 24 September 2018, day 8: Communicating a vision

Outcomes of the day: Developing and offering a presentation to the community

Interval	Activity	Responsible
08:30 – 09:00	Energiser Outlook for the day	Igor Sirodoev
09:00 – 13:00	Finalising presentations Submission at 13 pm	
13:00 – 14:00	Lunch break	Teams organise individually
14:00 –15:00	Feedback session about the ISP process	Tutors Evaluators
15:00 –16:30	First presentation round in English Feedback from the teams and peers	Tutors Evaluators
16:30 – 18:00	Preparations and adjustments for the final presentation	
18:00 – 19:30	Final presentation to the community, local experts and stakeholders in Romanian	Matei Cocheci
Evening	Farewell party	

Tuesday, 25 September 2018, day 9: Departure

Outcomes of the day: Everyone returns home

Interval	Activity	Responsible
All day	Return home	

RESULTS

Team 1: Green and blue infrastructure

Students
Simona Dolana [UAUIM]
Pasquale Iossa [Federico II]
Luca Scaffidi [Federico II]
Shima Yazdanmehr [EMU]
Anna Ilyuchshenko [HfWU]

Tutors
Antonio Acierno [Federico II]
Gabriel Pascariu [UAUIM]
Monica Rădulescu [UAUIM]
Angelica Stan [UAUIM]

Workflow presentation – objectives

The topic of Green and Blue Infrastructure (G&B) is of paramount importance for the area of Mangalia. The city must provide efficient solutions and management of its attractive cultural and economic assets, as well as for its vulnerable and valuable natural areas. The major challenge for the team was to develop creative and intelligent proposals that can respond to the needs of an improved and increased accessibility in the area, especially during the summer season. The other challenge is to set up an integrated and sustainable ecological network to enhance the role of the green areas and blue corridors.

The complexity of the topic was determined eventually by the antagonistic relationship between the grey infrastructure (roads, sidewalks and railways) and the natural network of forests, gardens, orchards, pastures, lakes and the coastal area.

New tourism development on the Limanu Lake (Life Harbour Limanu)

Process

To achieve the necessary analysis, formulate a diagnosis and develop scenarios, the team initiated a short period of research and site visits to form a direct impression and understanding of the issues. Some basic information about the area of Mangalia is available in various environmental studies or strategies (Environmental Report on Southern Dobrogea or a Local Development Strategy). This research on the general and local landscape context was completed during the first days of the workshop for the introductory presentations.

The site visits were planned in such a way as to cover as much as possible the entire study area. The group organised several trips to the western

Exclusive new developments in the Northern part of the city (Cape Aurora)

edge along the Lake of Limanu and the northern part including the Mangalia Lakes. The trips also included the resorts necklace along the administrative border with the neighbouring Commune 23 August nearby Tatlageac Lake. In order to visit even more of the area, the group split-up to visit Mangalia inner-city, focussing on the green network of parks and squares, and the Island of Mangalia nearby the Shipyard and a place for fishing activities. The coastal zone, along the beach was subject to further individual or small group visits.

Project presentation

For many decades Mangalia opens its doors to the public and provides visitors with typical summer activities. Due to the high popularity of its summer resorts, the town feels a great pressure every summer season. Keeping in mind that the population of the town is several times lower than the amount of people staying in Mangalia in summer months, the problem of overcrowding is clear.

The existing transport network does not help to lessen the impact of the tourist influx. The main road to Mangalia not only leads to the town, but also runs further south to Bulgaria. This transport artery suffers from constant traffic jams.

Urban sprawl is the next significant issue to address. Mangalia tends to move its western boundaries by seizing the surrounding agricultural fields.

Site visit – Neptun – Jupiter area and the Neptun Lake

The seascape and the green landscape play a most critical role in the city's development by defining the past and present identity of the area. Together with the cultural heritage of the place, the water bodies and fertile agricultural lands are the most valuable assets of Mangalia.

Implementing underlying landscape architecture and urban planning tools, the group attempted to address the identified issues and highlight the existing potentials of the town. 'RGB' (HeRitage, Green and Blue) is the theme of our concept for Mangalia, its resorts and surroundings based on the Green and Blue Infrastructure development. The initial analysis of the site raised the central question of the project: How to reduce the impact of Grey Infrastructure using the instruments of Green and Blue Infrastructure?

Green and Blue Infrastructure north to Mangalia (at „Popasul Pescarilor")

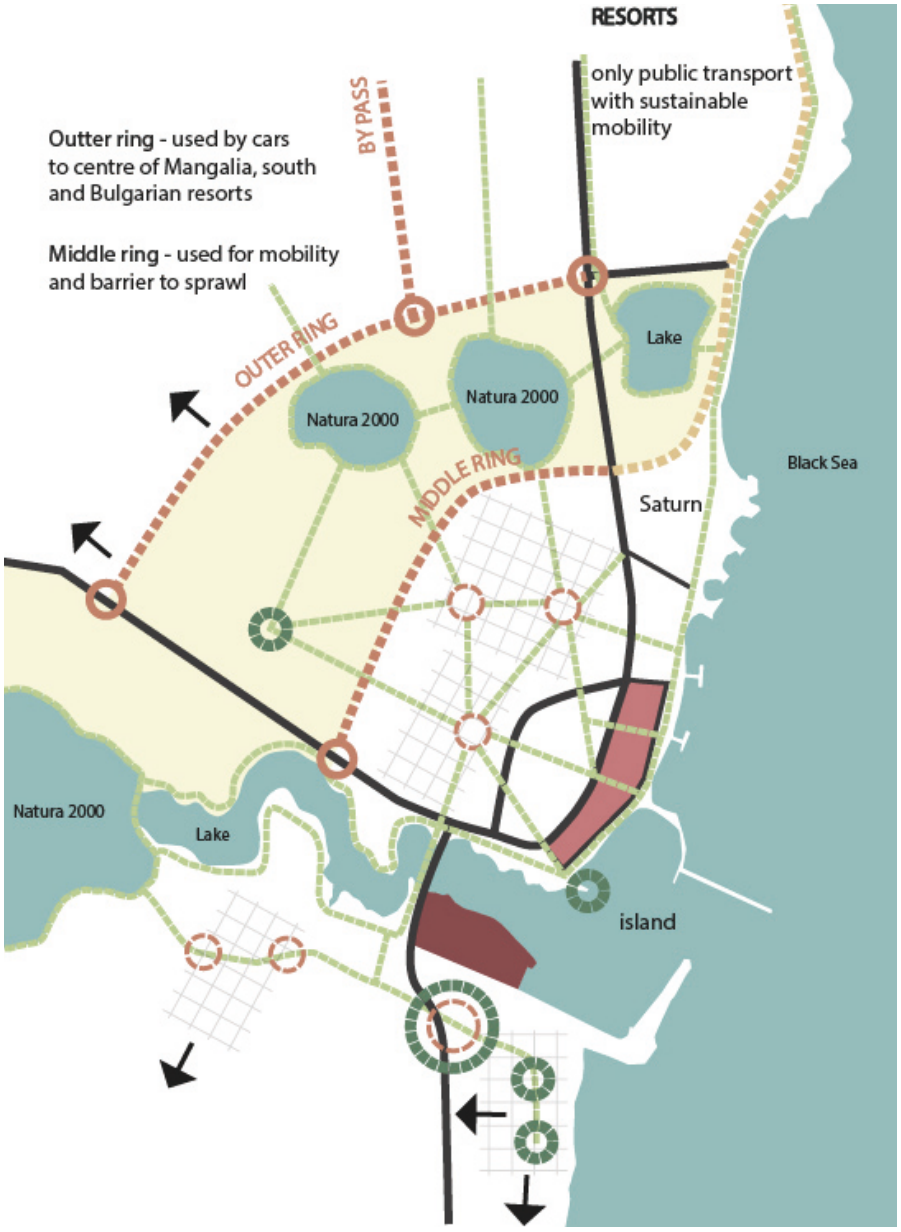
As a vision, Mangalia will achieve a balance between Green, Blue and Grey Infrastructure and became the model city on the Romanian coastline for a sustainable environment. All neighbourhoods within the proposed green belt are multifunctional and full of green. The main goal of the project is to reduce the impact of the Grey Infrastructure on the area. To accomplish this task, the group formed several strategic measures. The first measures are pedestrian and bicycle paths, rain gardens to prevent flooding during heavy raining, a square for people to gather, small interventions such as organizing maintenance for green areas through investors and volunteers, and providing a more significant number of playgrounds.

The next step is to split the by-pass road traffic by creating two ring roads that encircle the city, stop the chaotic sprawl and form a green belt, including the inland lakes within their boundaries. This intervention will help to improve the Green Infrastructure and the quality of the natural areas within the city. Other measures include implementing green alleys along the main roads, renovating the waterfront, providing sustainable mobility and improved public transport. These steps will strengthen the pedestrian zones inside the city centre. A recycling centre is proposed to support a more sustainable environment.

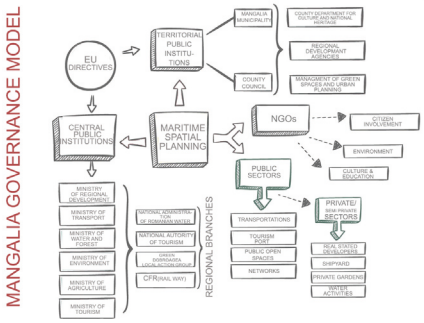
All the proposed measures will increase the quality of green and public open spaces, balance the Grey and Green Infrastructure, help to highlight the cultural heritage and accordingly, improve the quality of life for inhabitants.

The 'RGB' Project aims to spark interest in Mangalia not only for tourists but also for future residents.

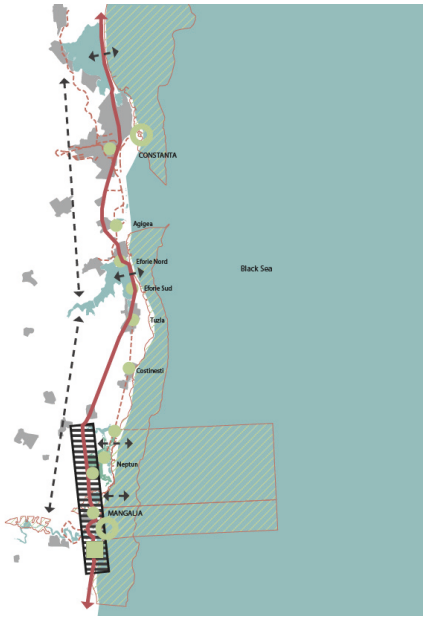
Mangalia Lake or Swamp (Balta Mangalia)



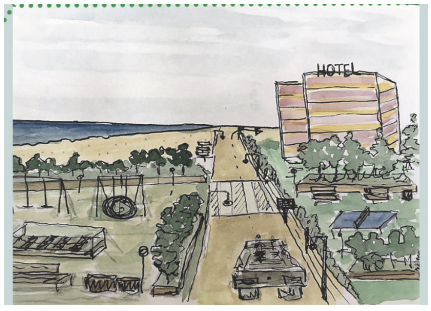
Mangalia: green network proposal



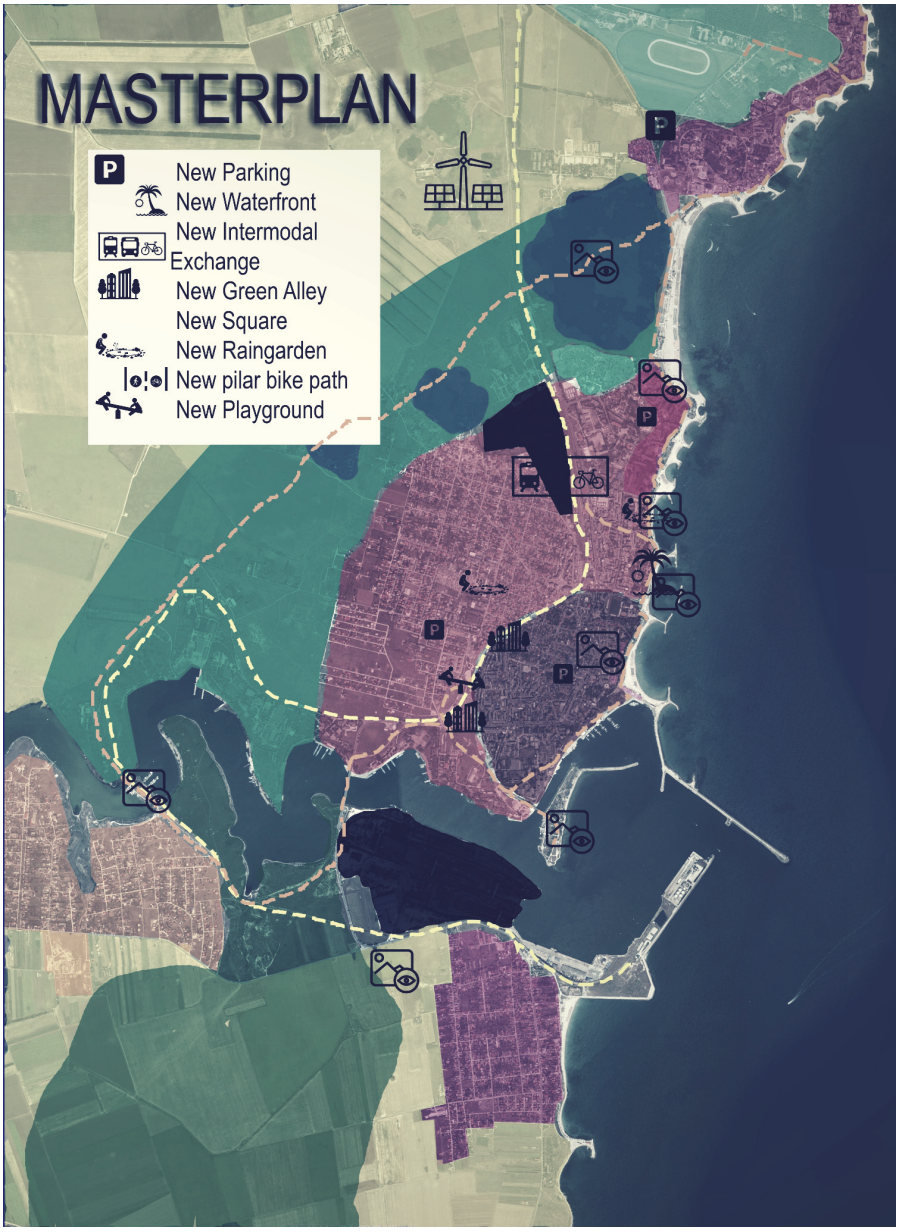
Mangalia: governance model



Mangalia and the resorts network



Local interventions proposal



Mangalia: Masterplan proposal

Team 2: Heritage

Students
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Eelar Metsaru [EMU]
Natalia Onesciuc [UAUIM]
Ivan Pistone [Federico II]
Fardokht Hadji-Salimi [HfWU]
Angela Vicidomini [Federico II]

Tutors
Jekaterina Balicka [EMU]
Paolo Camilletti [Federico II]
Dana Milea [UAUIM]
Mirela Paraschiv [Ovidius]

Workflow presentation

The key issues, as defined by the Heritage Team, are the fragmentation of both tangible and intangible heritage, and the alienation of the inhabitants of Mangalia to their heritage.

The team began their work in two directions simultaneously. They divided into two sub-groups to explore the urban space of Mangalia and the satellite resort towns, walking through the areas, interviewing local citizens and producing maps and sketches to discover what could be considered heritage.

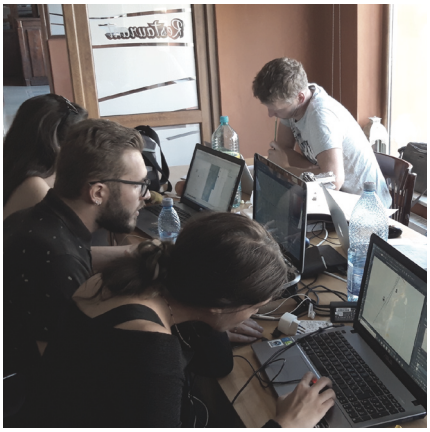
The students of the Heritage Team were provided with cartography information and documents related to the 20th century evolution of Mangalia and surrounding resorts.

Working on the analisys

Subsequently, they were assisted by the tutors in site visits and the early phases of analysis which focused on spatial relationships, connections, urban and peri-urban fabric, inclusive and integrated ideas of heritage.

Each student formulated a personal definition of heritage in the context of the urban landscape of Mangalia. Later, students agreed on a common group definition of the heritage. Based on this, students were able to define the potentials of Mangalia's sense of heritage.

The group concluded that Mangalia has not only material, tangible heritage but also immaterial, intangible heritage such as people's identity and values connected with Mangalia. The students then mapped the issues of Mangalia in terms of heritage use and perception, the causes of the issues and the consequences of taking no action. The key issues, as defined by the team, are the fragmentation of both tangible and intangible heritage, and the alienation of the inhabitants of Mangalia to their heritage.



Getting the analysis presentation ready

The main tasks of the design by the group were to highlight and empower the visibility of heritage while joining physically and mentally the diverse heritage places. The resulting proposal developed a range of spatial interventions aimed at highlighting the essential heritage and identity places, and connecting them physically and psychologically.

The primary objectives of the design were the promotion of heritage and Mangalia's identity, increasing the multifunctionality of neighbourhoods, and the integration of open space and green areas to connect and revitalize the strategic points and networks.

Project presentation

The group focused on Mangalia and Olimp, and the resorts in-between as the project area for the heritage study. As heritage includes material and immaterial aspects, the group chose to diagnose both the physical and tangible context (the natural and built environments), as well as the immaterial one (the cultural, historical, social, economical and traditional environments). A summary describing the planned vision, the primary goals, several strategic elements and the nature of the interventions is provided below.

Checking some last moment details

Goals and vision

The vision of the heritage project is a journey through an open-air museum connecting the cities of Mangalia and Olimp and the resorts in-between. This vision is defined based on the findings, identified issues, their causes and the potential solution elements.

The goals are formulated according to three main categories of expected results:

- Connecting Mangalia, Olimp, the resorts, the sea, the cities and the heritage elements;
- Highlighting the landmarks and exciting heritage elements;
- Strengthening the identity of Mangalia and Olimp.

Strategy

A cause-effect analysis, involving defining the problems and their importance was performed to create relevant strategies for the local context. A space-specific approach on cases such as Mangalia provided a more coherent and appropriate result.

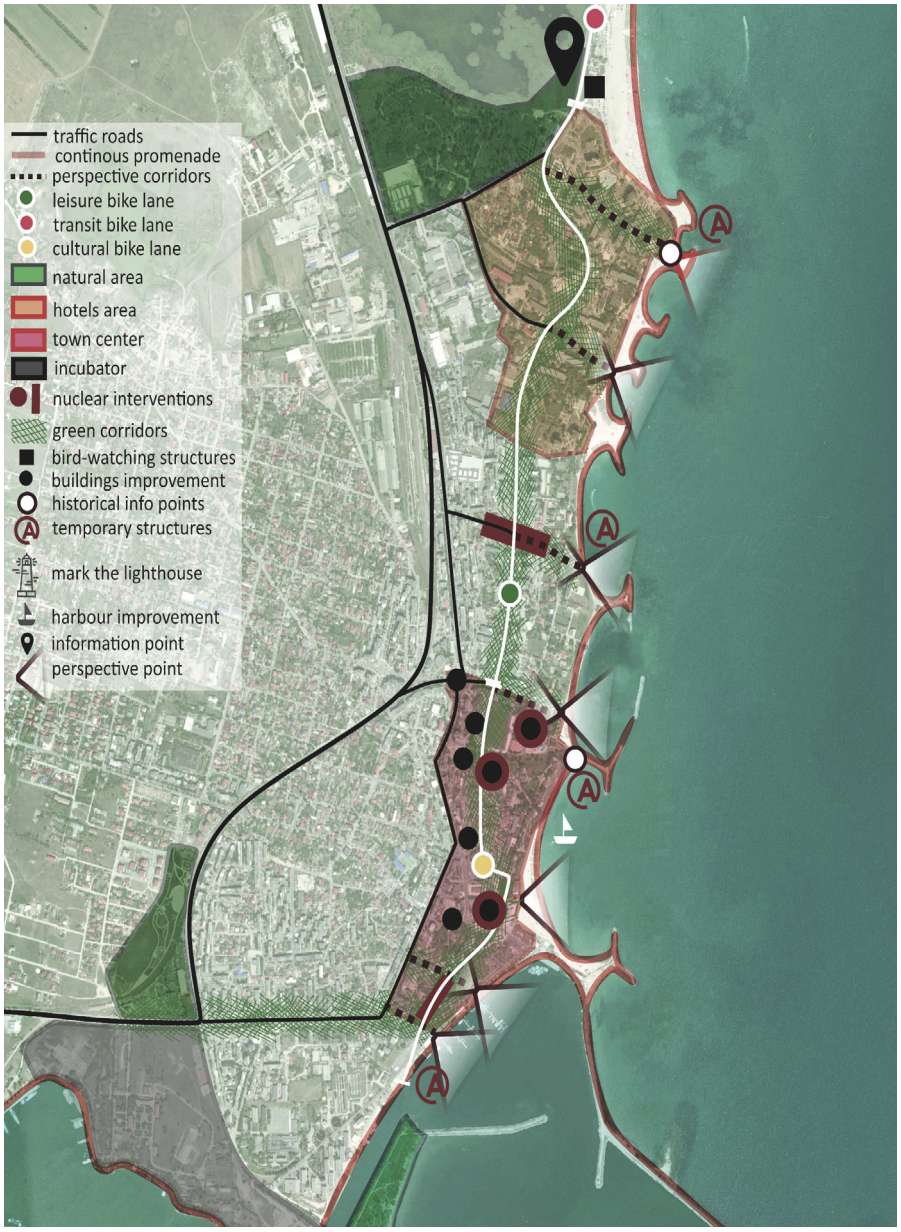
Envisioning the future of the study area

Primarily targeting imminent problems, but also including issues of local importance, the group performed the analysis to be as comprehensive as possible, given the available resources.

Negotiating a common vision

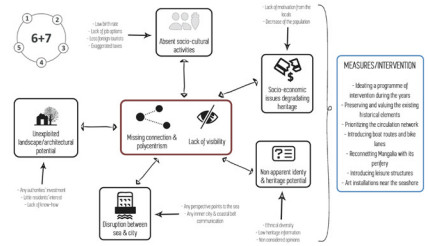
The analysis of the problems, values, and potentials was undertaken simultaneously giving the answers needed for the implementation of the projects in a real-life scenario.

The interventions proposed have a different level of sophistication based on the significance of the problems, but the team generally decided on light, cost-efficient interventions. The resources required for their implementation do not exceed the resources and field of expertise available at the local level.

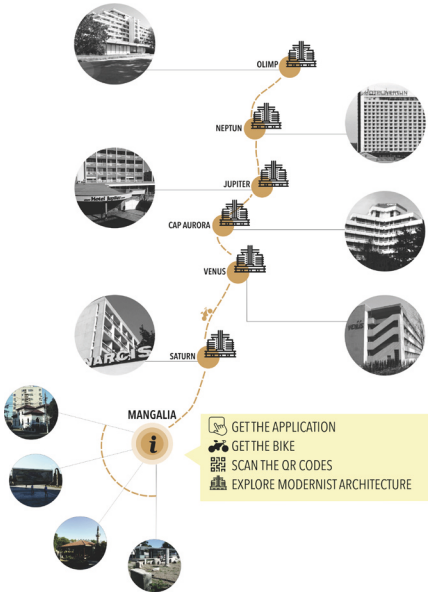


Mangalia: Heritage Masterplan proposal

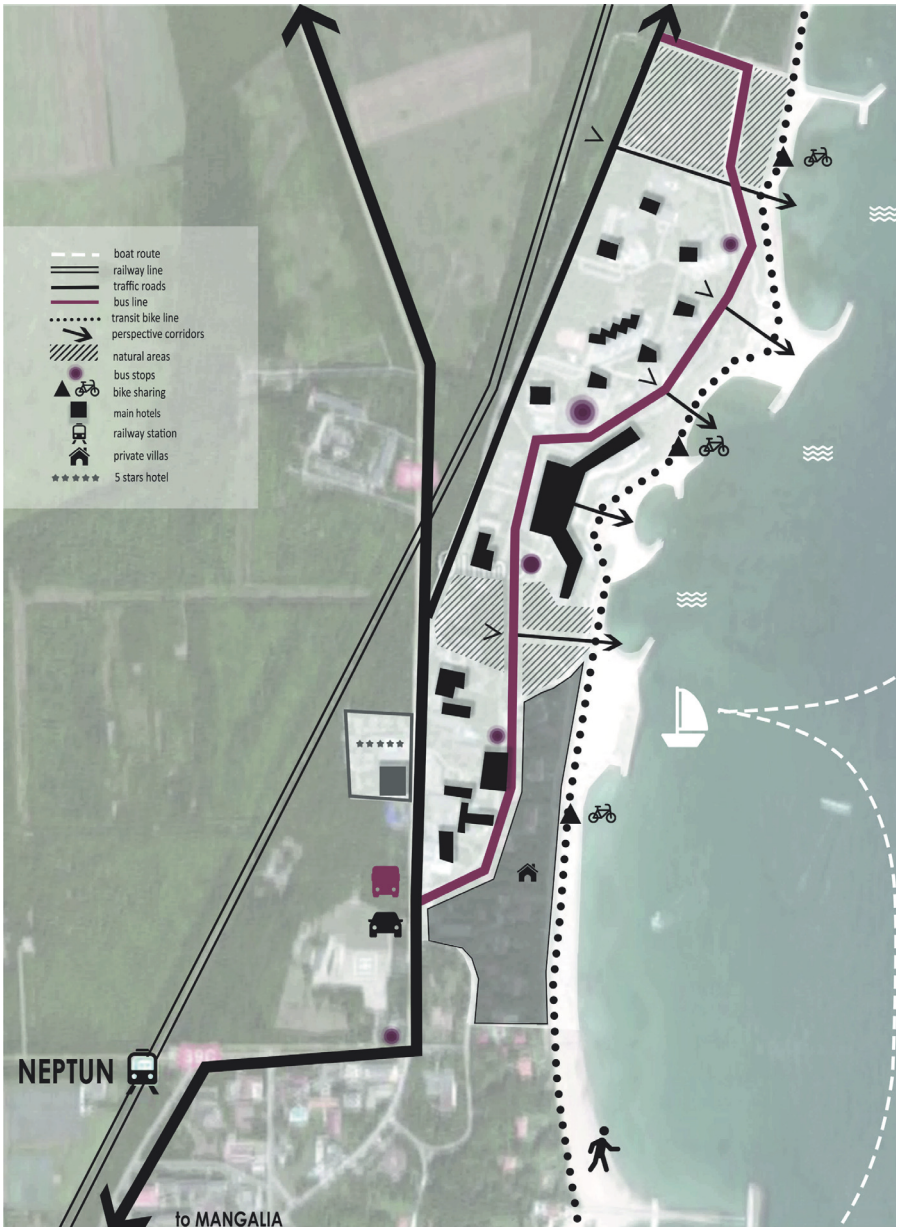
Mangalia and the resorts Masterplan



Mangalia: from problems to solutions



Linking Mangalia and the resorts



Olimp: Heritage Masterplan proposal

Team 3: Living on the coast

Students
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Denisa Lungu [UAUIM]
Izzel Ismail
Mohammad Al Najdawi [HfWU]
Marie Petrakova [EMU]

Tutors
Ellen Fetzer [HfWU]
Friedrich Kuhlmann [EMU]

Workflow presentation

Following the idea of the European Landscape Convention that 'landscape is an area as perceived by people' (Council of Europe, 2000) the workflow of this group was very much guided by planned and spontaneous exchange and interaction with the local people. The process allowed for training very important transformative competences, as already described in the previous chapter on landscape democracy. The group conducted all work phases involving analysis, evaluation and design in such a way that allowed for including local knowledge.

Go-along walks with local youth to better understand their living environment

Go-along walks with local youth were a very relevant part of the site analysis and helped to uncover the hidden qualities of Mangalia's urban fabric. A workshop in a local high school helped in evaluating the perceived qualities and problems of the urban landscape.

The school students mapped places they love and places they dislike on a map. This mapping eventually provided an important basis for the design concept. The team also realized that it was essential to give something back to the community while we are there. This idea enabled a spontaneous co-design process for a community event. The activation of the abandoned 'Grădina de vară', the 'Summer Garden' Cinema for one evening was well received by the locals, especially among the youth involved, usually known for having very little confidence in imagining their future in Mangalia. People were clearly surprised to see such interest in the needs of the permanent residents, since public attention is usually very much focused on the tourists. The design concept, therefore, paid special attention to the everyday landscapes of Mangalia's permanent residents.

Go-along walks with local youth to better understand their living environment

Project presentation

The team included six students from Romania, Mexico, Czech Republic and Jordan and the topic for our study in Mangalia was "Living on the coast". The task was to observe and study the everyday life of local people and local communities. How do local

people think about their town and act in different seasons? We interviewed many people of different ages and backgrounds. But our main focus was young people, what makes them go away and what makes them stay.

Methods

The research mostly occured in the streets while mapping, observing and interviewing people. We also had a chance to work with one classroom of local students. We interviewed the students about their town – where they

School students evaluate the urban landscape of Mangalia

live, how they commute to school, where they spend free time and places they like or dislike. During these interviews, we filmed how they marked the locations on a map, how they gesticulated over the map, searched in it and described the areas. The group used a similar method in the streets, where we interviewed and filmed the way the young adults walk around the town.

Goals

Thanks to the many interviews and observations we found there is a need for a safe, quality public space which triggers awareness and motivation, a space that people would feel connected to and enjoy. We identified four spots that are important for life in Mangalia but don't fully explore their own potential. These locations through slight modifications (planting trees, installations, public events etc.) could make the city more alive, especially outside of the tourist season. In other words, the goal is to let people take back the city.

Vision

Our vision is Mangalia with highlighted public spaces, fully exploring the natural and urban potential of many already existing small public open spaces. The vision includes a city with a positive reaction between people and public space that develops forward, a community aware of its public spaces. This vision includes an activated society and social sustainability.

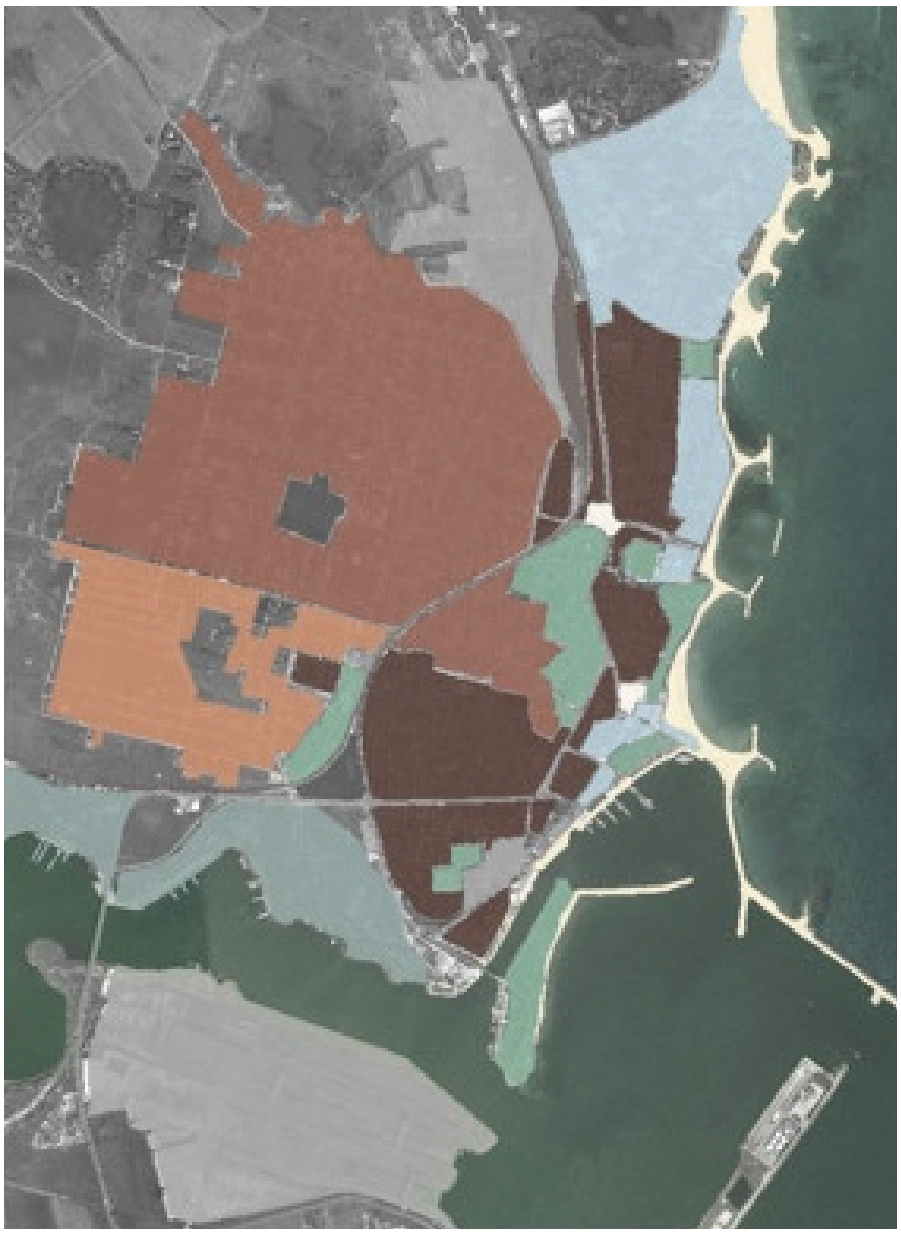
Preparation for another walking tour with local school students

Intervention sites

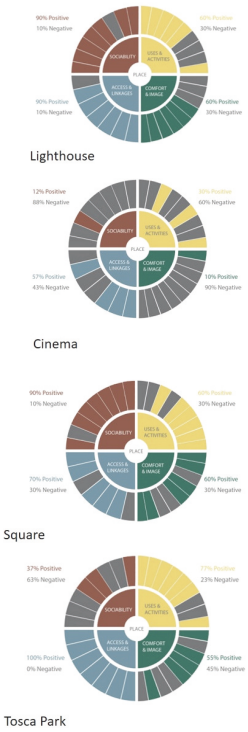
The four sites chosen for the project are: The Culture Square, The Roundabout, "Tosca" Park and Evergreen Park. For all the areas our proposed interventions involve creating shade, either by planting trees or inserting small architecture objects. In the case of The Roundabout we suggest more events and happenings.

Co-design and intervention: opening the summer theatre for one evening with the help of local youth

The Summer Cinema, French Library and Youth Center have great potential for such things. Also, we suggest better definition of parking space and pedestrian roads. The Cultural Square should be more shaded and the connection to the sea visually and physically emphasized. This takes into consideration the already existing architectural plan for this area. "Tosca Park" has enough shade and is very popular, especially amongst school children, but unfortunately, a fence blocks access to the sea. A right solution would be to extend the park all the way to the seaside and further connect with adjacent sports playgrounds. Evergreen Park seems to be very controversial, needing better planting and most of all, entrances and connections to its surroundings. It is located in a dense residential areas where the need for a quality public space is high.



Mangalia: neighborhood activity analysis



Mangalia: landmarks perception

Mangalia: local interventions

Mangalia: local interventions details

Mangalia: interventions map

Team 4: Productive landscapes

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Antonia Panaitescu [UAUIM]
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Giacomo Santoro [Federico II]
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Tutors
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Workflow presentation

Following a briefing on the regional landscape context of Mangalia, the Productive Landscapes Team organized a field trip to several hot spots including the horse breeding farm, the Natura 2000 reserves (Mlaștina Hergheliei – Obanul Mare and Peștera Movilei with Balta Inului / Saturn) and the area around the Colonisti neighbourhood. The students interviewed the manager of the horse farm and some residents of the Colonisti neighbourhood. To get a better insight in the aspects of the local food system, students and tutors met representatives of consumers and producers.

Walking tour on the sea shore

These included interviews at the local supermarkets, with sellers at the farmers market (primarily vegetables and herbs), organic market gardeners, fishermen on the island next to the recreational port, and at a bakery. The team met various inhabitants, ethnic groups and consumers including, for example, Tatar and Roma residents as well as teenagers. There were interviews with the representatives of local NGO's, such as the Association of the Tatar and an interaction during an open-air cinema event, where students with the support of the Tatar NGO presented local food to inhabitants of Mangalia.

The group created an overview of the main distribution points showing the location of local markets, shops and supermarkets. A SWOT analysis revealed the organisation of the food system addressing producers, processors, consumers, landscape

Gathering information about productive landscapes from local actors

context, economic context and and other aspects. The stakeholder analysis clarified the position of all involved, and from this analysis, the group developed a concept vision. Based on a vision for a sustainable food landscape, the group defined a set of aims, a strategy and a planning process. The outcome also included a spatial plan for a food hub in the Coloniști neighbourhood.

Project presentation

The group focused on two main questions. First, can there be a new liaison between food production in the rural hinterland and sustainable food consumption for residents and tourists? Second, can new forms of multifunctional agriculture and market gardening, in combination with concepts of a circular economy for

energy, help to develop sustainable and attractive urban and rural landscapes? A sustainable foodscape is more than providing food and beautifying the urban and rural landscape. Local food can work as a catalyst for improving quality of life, enriching the tourism experience and strengthening culinary identity. Moreover, it delivers health benefits and improves biodiversity. Most of all, it can bring people together because food is a common interest to all.

Analysis

The analysis showed that globalisation greatly influences the current food system, which is managed by large farms concentrated on monocultural production. Primary goods are collected mainly in the Constanta area where they are processed and distributed.

Goals and vision

By developing green infrastructure, the landscape around Mangalia can transform into a multifunctional landscape combining leisure activities, a great variety of food production types and ecosystem services. Tourists are interested in traditional local food. By developing a network of local producers and consumers Mangalia can become less dependent on global production. One of the critical issues to overcome is the local governments' and residents' lack of awareness of the merits of a sustainable foodscape.

Gathering information about productive landscapes from local actors

Concept

The pillars of recycling, processing, local production, and changing consumption habits are the basis for the concept of Future Food Consumption. Food waste can be reduced and reused in local production. The development of local food processing facilities such as mills, bakeries, vegetable preserves and beer breweries can provide jobs and shorten the food chain.

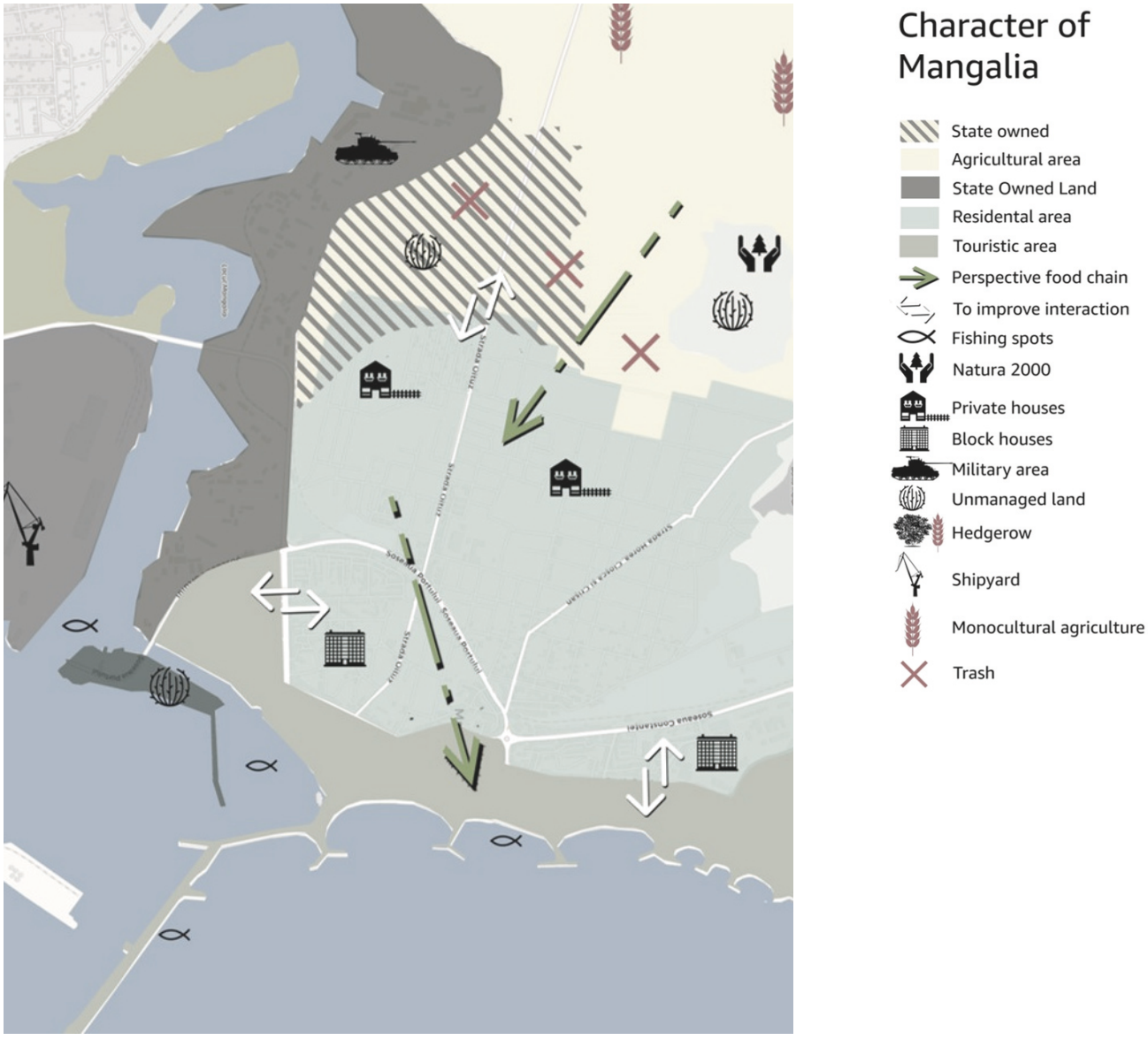
Co-design and intervention: setting the local food corner for the community activation event

Local production can bring consumers and producers together and offer a cultural exchange for tourists and residents alike.

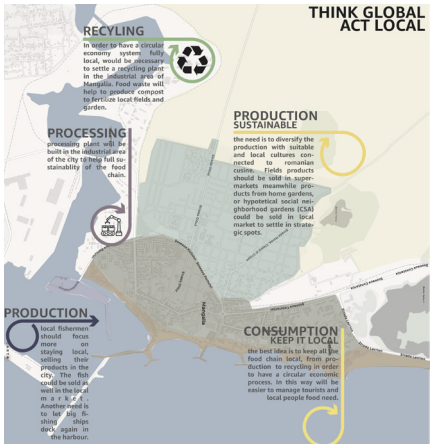
Timeline and interventions

The projected interventions are to be implemented in three phases. First, develop agricultural educational programmes in schools through small projects and increase community cohesion and the popularity of local products by events and small spatial interventions. Second, the agricultural land west of Mangalia serves the needs of local consumers and enhances the resilience and biodiversity of the landscape. In residential areas, develop different forms of urban agriculture such as urban gardens, community gardens, school gardens etc. Improve the fishermen's island with facilities for the fishery (boats, quays) and small restaurants or barbecue kiosks. Third, create a food hub in the old military base. This hub can include many services like a small food processing area, an educational centre, a meeting place for the community, and a space for hands-on work with gardens. To support governance, install a formal food board, with representatives of different stakeholders (cultural groups, restaurant owners, farmers, fishermen, supermarkets, local authorities etc.).

Co-design and intervention: opening the local food corner in the summer theatre during the community activation event



Mangalia: character analysis



Mangalia: intervention principles

Mangalia: food hub proposal

Temporary Urban Gardening until residential development

Permanent Urban Agricultural Intervention

Reactivating Fishermen's Island

Food Hub: Training and educational center for food research

Additional Public Space for outdoor food markets

Mangalia: interventions map

Team 5: Nature-based tourism

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Irina Florea-Saghin [Ovidius]
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Workflow presentation

The Nature Based Tourism Team dealt with the surroundings of the Mangalia Municipality, more precisely with villages such as Limanu, Albesti and Hagieni. These villages are currently very little-known destinations for tourists, and they represent a missed opportunity for the rural residents. The team also had to analyse the phenomenon of ageing populations and reduced capacities which are threatening this situation even more.

For the main task, the team explored alternative models for nature-based tourism by validating the existing Natura 2000 areas, the multicultural heritage of this landscape and innovative tourist activities that involve villagers.

Local road to Hagieni

During the first days of the workshop, the team explored the area surrounding the Mangalia Municipality. Field trips included visits to the Hagieni village and the Hagieni Forest included in the Natura 2000 list. Their analysis included meeting local residents, operators that offer informal eco-tours to the forest, and also entrepreneurs that left "safe" city-life behind to invest in developing local agri-tourist activities in the area. These discussions proved to be very useful for the team, together with discovering the biodiversity, heritage and multiculturalism potential of the area.

Exploring the local fauna

Following serious analysis, the team decided that what is needed are stronger connections of the periphery to the municipal centre to make the area more attractive. At the same time, involve the local residents in decision-making, make sure not to overuse natural resources and not let economic interests override sustainability interests.

Project presentation

Hagieni is a small village between the villages of Limanu and Albesti. Hagieni is not well connected,and it takes time to access as the roads aren't proper for vehicles. Right next to this village there is the Hagieni Forest, which has many qualities: extraordinarily rich biodiversity, a breathtaking landscape and an old, rich, cultural and historical heritage.

Goals

Developing nature-based tourism in Mangalia should extend the period when tourists visit the area. Opening the inland areas for tourism would help to reduce the density of tourist along the coastline. The beautiful landscape surrounding Mangalia should be opened for tourists to reveal the mixed forests, large fields, ancient river valleys exposing limestone, steppe-like grasslands and cultural heritage objects. The hospitable people living there would love to introduce their culture to other people. To attain that potential we need to improve access to and connectivity between villages. All places of interest should be attractive and advertised in the way that makes people want to go looking for them.

Concept

Accessibility, connectivity and attractiveness are the essential factors missing for functional and sustainable nature-based tourism. We propose sharing a small part of each land plot along existing trails, to create more generous green pathways. Many short, medium and long term activities and attractive offerings for tourists should help develop a symbiotic relationship with the local residents.

Exploring the local fauna

The value of the landscape is unique and if managed correctly should provide economic growth for the local community in a sustainable manner.

Stakeholders

National Forestry Enterprise (Romsilva), National Environment Protection Agency, National Company for Road Infrastructure Administration (CNAIR), City Hall of Limanu and Albesti, the Custodian of Hagieni forest, the local community, hunters, farmers and tourists.

Exploring the local fauna

If Romsilva, cooperates with CNAIR and the local administation, this partnership will lead to a sustainable nature-based tourism. The local community should establish another partnership with farmers for selling local products. The custodian can approve or deny projects other institutions or people propose. In case of such an agreement, a tax is required. A compromise deal with hunters could allow, in exchange for a certain amount of money sourced from the tourist activities, that hunting can stop for two days per week.

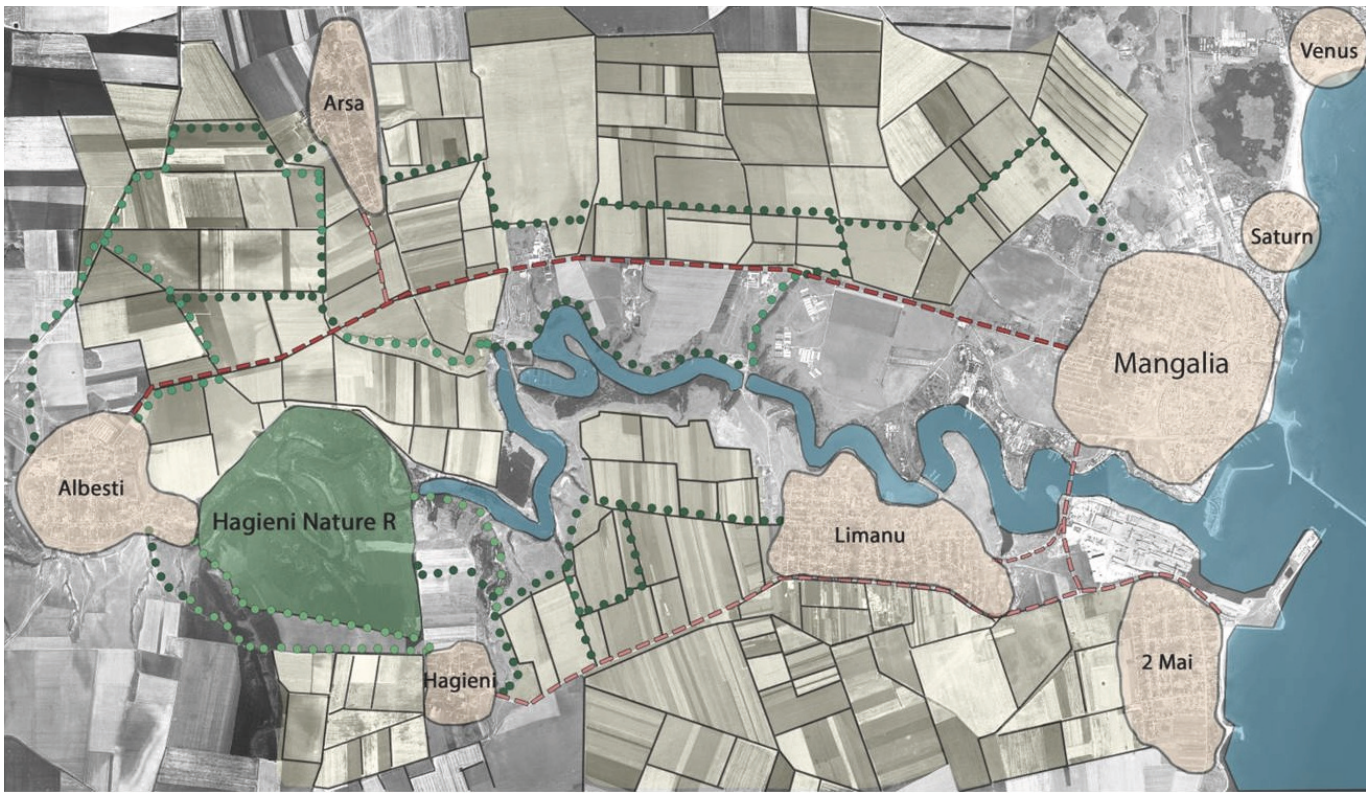
Interventions

Key interventions should involve the local community with tourists through horse-drawn carriage rides, horseback riding, walking tours through the forests, visits to the man-made cave, renting bicycles and selling local products.

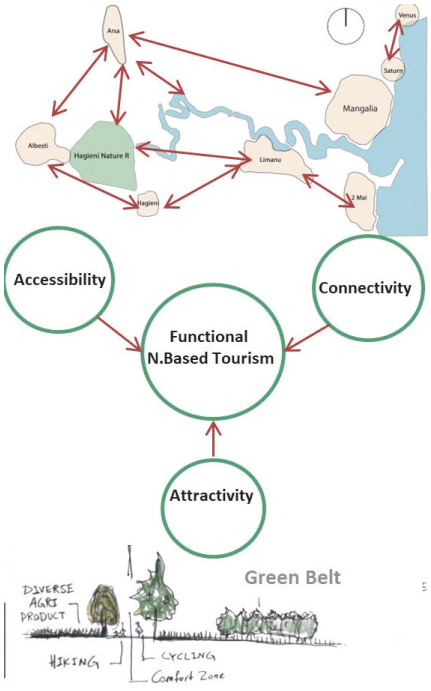
The custodian of Hagieni Forest should promote new projects including a hut, pathways, viewpoints, platforms, stairways, etc.

APIA (The Agency for Payments and Intervention in Agriculture) should create land-use partnerships for the green paths along the farmland edges. The National Environmental Guard, the authority that controls and monitors protected areas and biodiversity, should be involved in the process from the beginning.

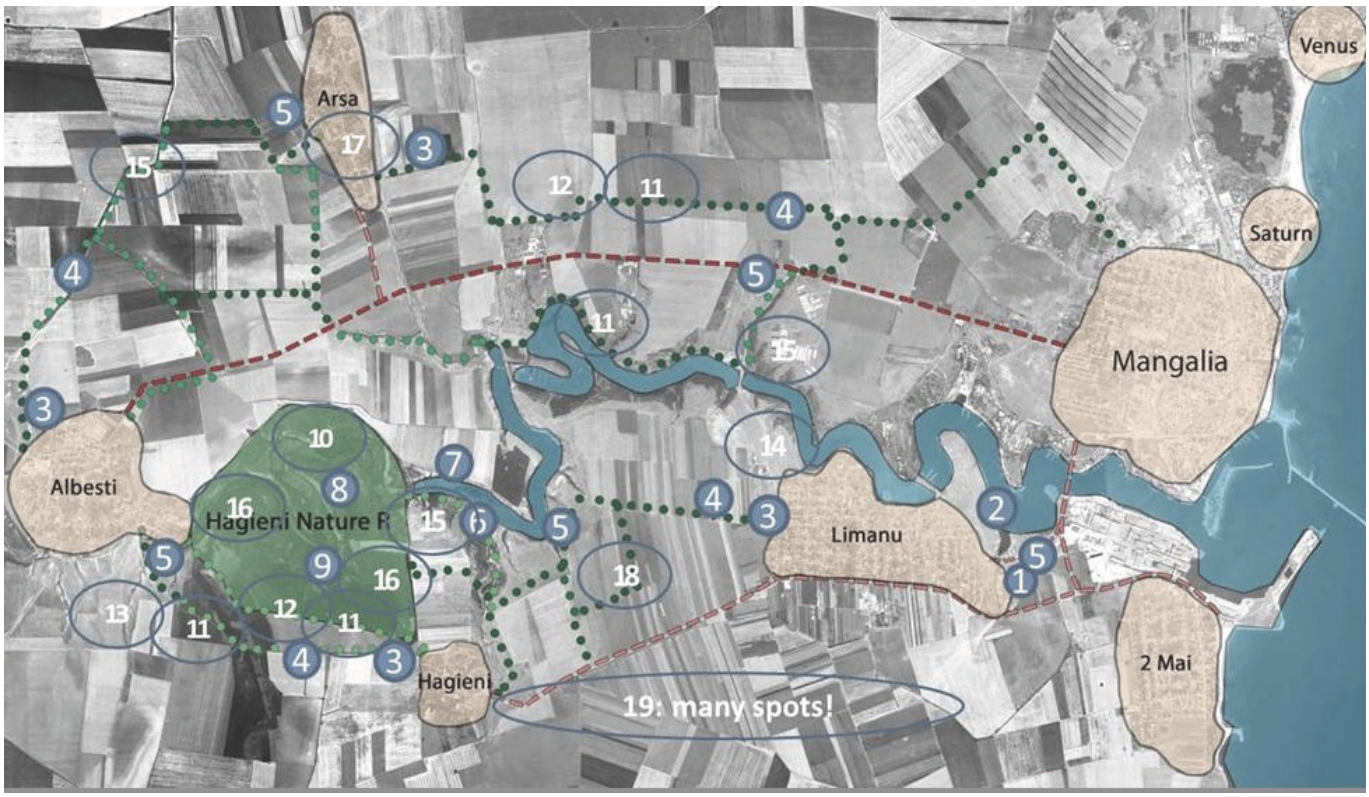
Exploring the local fauna



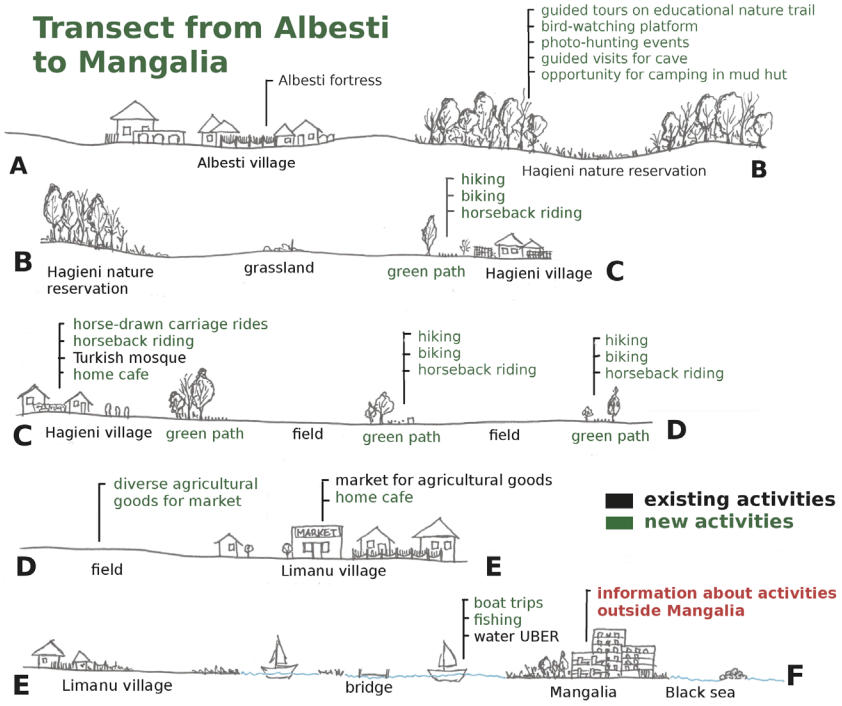
Mangalia area: concept map



Concept diagrams



Mangalia area: interventions



Transect from Albești to Mangalia

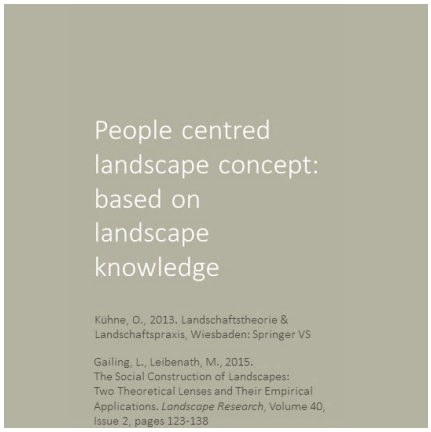
VARIA

Deni Ruggeri, Ellen Fetzer

From the European Landscape Convention towards Landscape Democracy

Introduction

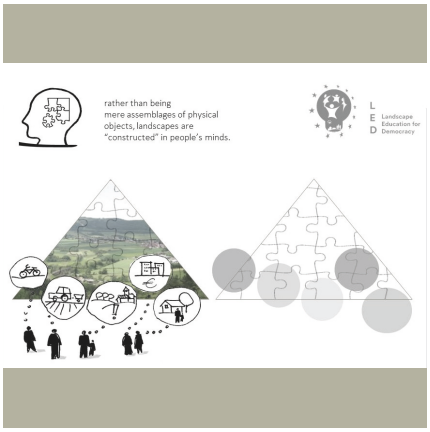
The adoption of the European Landscape Convention (ELC) in 2000 has further solidified the notion that landscapes are critical infrastructures in support of the lives of residents and communities. It has defined landscape as the result of the actions and interactions of people and community, and has entrusted them with their collective future management. The ELC has also reminded us that expertise in matters of the landscape should be grounded in the knowledge and perceptions of all those who inhabit it (Déjeant-Pons, 2004).



Landscape is a people-centered concept.

The epistemological shift required by the ELC's landscape definition requires re-thinking the way landscape planning and design laws, regulations and processes have been performed in the past. Top-down decision-making processes need to make room for bottom-up participatory efforts involving all residents in deciding goals and strategies that may ensure their long-term livelihood.

The compounding of the effects of the policies and processes set into motion over the past few decades call for the redefinition of urban and landscape planners and architects' professional competences. Democratic landscape transformation requires design and planning practitioners to partner with communities to activate and build upon local knowledge and wisdom, recognize landscape injustices, engage diverse stakeholders, collaborate with related disciplines, and contribute to landscapes that will become resilient signs of a community's deep sense of ownership and stewardship. Although more than 18 years have passed since the ELC's



Theory overview presented by Prof. Dr. Diedrich Bruns as part of the LED online seminar.

implementation, little has changed in academic programs, where designers continue to be trained according to beaux-arts inspired curricula and pedagogies. Discussions of democracy, social justice, and participation rarely make their way into landscape architecture and planning education.

In the following, we introduce seven learning goals for landscape democracy. These goals have guided the international learning activities of the ERASMUS+ strategic partnership 'LED - Landscape Education for Democracy' (2015-2018). We want to transfer them to the CO-LAND project to give orientation for teachers, learners and other stakeholders on how to make the European Landscape Conventions' mission alive in our educational practice.

Seven Learning Goals for Landscape Democracy

Goal 1: Democracy as a practiced skill

Learners can explore the concept of democracy not only from a theoretical perspective, but also from a dialectical perspective as a result of their work within their transdisciplinary, cross-cultural working group work and though their interactions in the online seminar and on-site. Learners should understand how public participation and democracy are related, and become aware of the contemporary challenges to landscape democracy and to the 'right to landscape' in the context of urban and landscape change processes.

Goal 2: Learning how to deal with diversity

Through their work in the context of a cross-cultural learning environment, we hope that students experience and learn from their

direct engagement with different interpretations and values resulting from an increasingly pluralistic society. Students would need to become sensitive to the different attitudes towards the landscape across ethnic, socioeconomic and expertise divides.

Goal 3: Critical landscape thinking

Engaging with relevant theories should enable learners to conduct an informed and dialectical discourse on the relationship of landscape and democracy. Students would then start to critically evaluate and identify concrete situations in which democratic processes are missing from landscape decision-making processes, and propose possible solutions.

Goal 4: Rethinking the role of planning

Students should learn about the evolution and common understanding of public participation, linked to major directions of contemporary planning theory. Through discussions and group reflections, students develop a critical perspective and become aware of the potentials and limits of various models of participation.

Goal 5: Rethinking the role of the community

Students learn about the evolution and the contemporary understanding of the concepts of community and identity. They are encouraged to relate these concepts to planning practice. Shifting mindsets towards empathy and the appreciation of local knowledge includes a critical reflection on the role of the designer/ planner as 'expert', which often leads to a discovery that knowledge about the landscape must be first and foremost grounded in people's perceptions, as called for in the ELC.

Goal 6: Landscape democracy into action

Future urban and landscape planners and designers should be able to select the most appropriate methods and tools to be applied in specific challenges requiring participatory processes. Students should be enabled to design a participatory process that is specific, adaptive, flexible and sensitive to the local context. This ability requires knowledge of common communication tools that support participatory processes as well as different examples of cooperative methods, and how to apply these tools and methods in practice.

Goal 7: Cultivating a landscape democracy discourse

Learners should become knowledgeable and able to discuss the interrelation of landscape and democracy using an agreed-upon vocabulary employed by practitioners and researchers in landscape, democracy and public participation.

Landscape Education for Democracy (LED) is an ongoing process and complementary to the activities of the CO-LAND project. LED theory and methodology is currently also trained annually from April- June in the LED online seminar (http://www.led-project.org) and during the Landscape Forum of the LE:NOTRE Institute (http://forum.ln-institute.org) organized annually in April.

Designing alternative futures based on local knowledge: Involvement of locals in landscape analysis and evaluation during the intensive programme in Mangalia

Antonio Acierno, Paolo Camilletti

Lessons learned and follow up

Description of the Mangalia ISP

The Intensive Study Programme (ISP) in Mangalia was held over eight working days during which the students were asked to focus, according to the content of the online preparatory course, on these topics: Understanding, Evaluation and Planning/Design the Mangalia Coastal Landscapes.

The workshop was composed of three phases. The first phase (two to three days) consisted of lectures and site visits for understanding the main landscape features. A second phase (three days), during which the teams and staff members held discussions of the landscape assessment results and also met with local stakeholders. The third phase (final two days) involved the planning/design of different scenarios and concrete measures, in consultation with staff members, concluding in presentations of the work to the tutors and municipality representatives.

The students were organised into five teams according to the thematic issues: Green Infrastructure and Ecosystem Services, Heritage and Identities, Living on the Coast, Productive Landscapes and Nature-based Rural Tourism. The teams analysed the vast territory of Mangalia without being given specific study locations and self-selected focus areas during their work.

Critical discussion

At the end of the ISP, the teachers involved discussed the results in terms of organisation, content, quality of the student's work and the schedule. Highlighting issues based on the recognized critical points led to proposing potential adjustments for the next ISPs. The discussion among the teachers continued during the trans-national project meeting in Tartu, Estonia (November 2018) and led to some agreed changes.

Critical issues that arose from the discussion:

- Teams were not familiar with the study area and spent many days visiting and understanding the landscape;
- Teams did not have any statistical, demographic and planning data to work with;
- The analysis was primarily visual, perceptual and individual;
- Student's everyday discussions about their findings (in the evening with staff members and in the morning with tutors) took away too much time from useful planning and design work for the scenarios and concrete landscape measures;
- Each team had too many tutors (sometimes with turnover), and were often too focused on theoretical issues.

Proposed changes resulting from the discussion:

- To create a stronger linkage between the online course and the ISP in order to provide more information and documents to students in such a way that they will be able to know better the study area in advance;
- To reduce the number of formal evening meetings with staff members for state-of-art presentations (maybe only two formal presentations and every day only one student needs to report the continuing activities to the tutor);
- For each group it is preferable to have only one tutor monitoring the activities and leaving the students to find directions themselves;
- To focus on smaller study areas, especially if the workshops aim to produce specific draft projects (smaller areas might help students go more in-depth).

Proposals for the draft program of the Naples ISP

The Naples ISP draft programme is based on reflections from the Mangalia ISP experience and the changes arranged for the second online course. The 2019 online course has two main innovations compared to the previous year. One; assigning multinational student teams, and two; working on two case study areas strictly related to the following two ISPs.

These important innovations are intended better to develop the students' activities during the intensive programme. The proposed draft Naples ISP programme with elements confirmed from the previous ISP and introduced innovations are listed below:

- **Reduce the analysis phase.** Students should already know the areas and have collected the relevant documents and data (demographic, social, economic, spatial, planning, etc.). Through this preparation, they should be more aware of the challenges and potentials of the areas. This change should produce a better definition of the tasks (perhaps in the ISP Naples Participant Manual we can define the proposed tasks and ask students to work on specific issues);

- **Visits and lectures at the beginning of the workshop to support the analysis phase.** Introducing the area through lectures and visits are very useful and can complete the analysis developed in the online course;

- **One tutor assigned to each team.** The tutor will follow the process and monitor the students' activities;

- **Addressing student questions.** Students can ask suggestions to all staff members in the afternoon according to their specific competencies. Teachers involved in the project have different scientific backgrounds (architecture, urban planning, landscape architecture, geography, etc.) and these are of added value to the project;

- **Require only three formal presentations from students**. Two presentations to the teachers (landscape analysis and assessment on fourth day, draft project proposal on seventh day) and only one final presentation to the municipality (on the ninth day).

These recommendations have been partially integrated into the next Tallinn ISP (according to the draft programme), and the discussion about its results should give additional ideas for the Naples ISP.

The innovations discussed primarily regard the structure and schedule of the ISP, and represent the main organisational challenges for the university hosting the workshop. Of course the contents and aims of the teaching activity will be discussed and agreed upon during the online course and before each ISP.

Addendum

The CO-LAND Project ISPs are scheduled as follows:

- Mangalia ISP in September 2018;
- Tallin ISP in May 2018;
- Naples ISP in September 2019;
- De Panne ISP in March-April 2020.

SPIN-OFF PROJECTS

Ivan Pistone & Luca Scaffidi

European coastal landscapes. From the method to the case study of Mangalia

Abstract

The dissolution of the traditional compact city is leading to a new dispersed and fragmented city-territory, comprehending many open spaces, some of which are abandoned and degraded.

The recent environmental awareness, together with a new culture of sustainability, has led to new urban planning concepts and practices putting green areas and natural spaces at the centre of planning interest. Green infrastructure represents a tool able to regenerate fragmented open spaces present in contemporary city-territory. This research proposes a methodology integrating the regional vision of green infrastructure and targeted regeneration of sensitive areas of the city, using an efficient urban acupuncture approach. The proposed methodology is applied here to a medium-sized Romanian coastal city, Mangalia, on the Black Sea. Transformations by the socialist dictatorship have altered this notable historic city. Nowadays the city is threatened by a poor-quality residential expansion. The design solution provided an initial verification of the feasibility of the proposed method.

An integrated approach for multiscale urban planning

During the last century, accelerated urbanisation led the contemporary city to the spreading of brownfields, abandoned productive areas that compose Alan Berger's "Drosscape". It is necessary to elaborate a methodological way to face recent urban decay.

In order to analyse and design the city system, urban planners should be able to jump continuously to different scales with the purpose of identifying the masterplan, while maintaining the ability to focus on the crucial urban point. The alternative approach is part of the concept of multi-scalarity as a progressive virtuous path towards the design of an ecological city. Multi-scalarity aims to merge the benefits of the top-down approach with the potential of the bottom-up approach.

The top-down approach derives from a technical and governmental process and identifies urban goals at a wide territorial scale, giving priority to a multidisciplinary perspective. The aim is to elaborate a strategy that involves the city as a whole.

The bottom-up approach starts from a social base, channelling the interest of the citizens. The participation of the stakeholders becomes an important informative and operational tool. This tool is used to make urban planning more efficient and targeted to recognize the urban fabric's sensitive areas approached by the interventions.

Green infrastructure is compliant with the top-down approach criteria, embedding the different urban network to connect anthropic and natural elements. This framework involves large parts of the territory with different composition and characteristics even at a micro-urban scale including, for instance, rain gardens and pocket gardens. The development of a green infrastructure appears to be complex and articulated, also because of essential implementation costs. For this reason, it is crucial to move forward progressively, identifying strategic intervention priorities. Moreover, the multidisciplinarity inherent in the process can ease the achievement of numerous project objectives improving the environmental quality, guaranteeing the fulfilment of social needs and improving the economic value of urban spaces. In any case, the co-presence of many different experts could slow down the process. A strong spirit of cooperation is required to reach the project goals.

The participatory nature of urban acupuncture allows the achievement of targeted interventions and is well suited for methodological integration with green infrastructure networks. There is an evident analogy between this very recent approach and the homonymous eastern medical practice. Like in acupuncture, where needles are inserted at specific spots of the human skin, pinpoint actions aimed at the city fabric should restore the urban energy flow, especially in conjunction with green infrastructure, furthering the wellness of the civic body.

First of all, this approach aims to solve local-scale problems. The benefits will then spread to a wider area of the city. It adopts the citizens' point of view in order to fully understand their needs. Second, it analyses the public space potential with the purpose of regenerating the most degraded zones.

Urban acupuncture is correlated with the micro-planeación, as affirmed by Kapstein and Ramírez, a kind of small-scale urban planning composed by localised micro-interventions that can incentivise the local management administrative capacity to structure efficient design work through a responsible and valid decision-making process.

According to De Solà-Morales, the intervention starts with the determination of sensitive points where the positive urban energy flow finds an architectural, social or economic obstruction, and it works on these spots. Lerner states that quick

action is crucial because acupuncture requires speed and precision to be effective. It would be impossible to slowly and painfully push needles into a patient's skin; thus this urban planning approach should rapidly react to the real needs of a place, preserving qualities of flexibility and reversibility.

It is also essential to define the right design scale based on the proposed urban transformation and the actual financial inputs. The more localised the intervention will be on the urban fabric, the more widespread the resulting impact.

The final task is to create high-quality public spaces from places that were valueless, in order to give them a proper identity.

The territorial vision of green infrastructure and urban acupuncture theory can also be integrated with a third verification tool, the urban-to-rural transect. The urban-to-rural transect can be considered as an operational and evaluative approach supporting urban regeneration thanks to the concepts of Succession and Subsidiarity. The former compares the present condition of the city with hypothetical future scenarios; the latter considers the impact and implication affecting decision-making for the urban development. These concepts will lead to the creation of urban boundary lines that linearly address the development of the city.

According to Geddes, the urban-to-rural transect longitudinally cuts the territory so that the section embodies the most important elements of the sites in consideration. It is also possible for this methodology to exclude other relevant parts of the study area. For this reason, the section should follow a broken line, providing flexibility and cohesion to the territorial analysis more widely than the use of multiple but separated transects can do.

In conclusion, the permeation of these approaches produces a different way to look at the territorial themes. The goal is to express the potentiality of both the consolidated methodologies and the recent urban planning techniques. Green infrastructure represents the macroscopic framework within the urban fabric in which urban acupuncture regenerates the sensitive points, while the urban-to-rural transect will have the role of verifying the overall design coherence.

From the method to the case study of Mangalia

The above mentioned methodological approach was applied on the case study of Mangalia, a coastal city of south-eastern Romania on the Black Sea, in the Dobrogea region. This area is important for the Romanian economic and logistic system.

The tourist industry is fundamental for the local economy in Mangalia. During the summer, the city hosts roughly 300,000 tourists per year, involving a tenfold multiplication of its population, rapidly saturating all available urban space. This demand has resulted in a progressive transformation of the urban structure and the development of massive resorts and tourist zones.

Mangalia was built during the 6th century B.C. as a thriving Greek colony named Callatis. Its logistics potential attracted interest from different foreign rulers during the centuries, making it a multicultural society.

During the 1960s and the following two decades, the Communist party led by Nicolae Ceaușescu imposed a dictatorship in Romania: therefore almost all Mangalia's original urban fabric was replaced by new residential districts and Modernist resorts.

With the collapse of the Berlin Wall in 1989, after nearly half a century of dictatorship, Romania broke free from Ceaușescu. The long-time communist marks had definitively altered the urban plan of Mangalia and the democratic government that followed have had to deal with the evident damage of the previous regime.

The first stage of the analytic process has followed the principles of the bottom-up approach. The creation of a social reference database through quantitative interviews with the population, community desks and brainstorming with the main stakeholders, together with a historiographic study of the structure of Mangalia, have allowed the identification of the sensitive territorial points and to classify different types of heritage potential. The first type refers to forgotten historical pre-existence, composed of the archaeological Greco-Roman remains and the very few traditional 1920s buildings. The majority of the local population is not aware of their presence, so these elements have fallen into a serious state of decay, often suffocated by recent buildings of incompatible value. The second type is comprised of examples of socialist-tolerated architecture. In this case, we talk about the extensive tourist accommodation buildings, built during the 1960s under the dictatorship of Ceaușescu. This massive kind of architecture, even if it doesn't have particular aesthetic features, has proved to be economically viable, in addition to being part of unconventional study tours because of its particular Brutalist characteristics.

In the end, Socialist renegade architecture represents the greatest number of Modernist buildings in the historical centre. This typology brings together buildings with an evident architectural relevance even

if the population does not recognise it. This lack of recognition is due to the persistence of a reluctant attitude toward the past dictatorship. It is not possible yet to de-contextualise these elements from the recent period of Romanian repression in contrast to the resorts that, thanks to their economic profitability, make their Socialist origin more tolerable.

The bottom-up analysis accompanies a territorial study that has deepened the top-down criteria.

The environmental system is composed of rural agriculture areas in the peri-urban zones adjacent to broad areas that remain uncultivated. In this system there are also the local lakes that are part of the protection network Natura 2000 and the vast expanse of Mangalia's coast. These elements converge into a potential green and blue infrastructure that need their primary features integrated into a complete system.

Road transport and the municipal road network is the basis for the system of connection with other Romanian cities. The port hub positively characterises the coastal zone while the railway junction seems to be weak.

The settlement system needs better architectural and service quality for the small historical centre and along the coastline. Its integrity is threatened by the social housing and by property speculation that involves the built areas' expansion, legitimised by the General Urban Plan. There are also manufacturing plants such as the shipyard and food processing plants, while the resorts' zone is still expanding. The analysis highlighted the presence of two other opposing infrastructures. The red infrastructure comprehends the territorial network of historical and cultural heritage. The red infrastructure is often degraded by the grey infrastructure produced by massive low-quality urbanisation that includes urban sprawl, the drosscape and non-ecological mobility.

The project proposal tries to limit any further development of the grey infrastructure. It aims to create an integrated green infrastructure, re-establishing a cohesion between its green, blue and red components, through an RGB chromatic approach. Giving attention to safe planning, the red infrastructure will control the historical and cultural elements, the green infrastructure will control the rural and natural aspect, together with a sustainable mobility network, while the blue infrastructure will control the coastal and lake zones.

According to the top-down approach, a general masterplan for Mangalia has been elaborated by differentiating the actions concerning the different RGB networks.

The green infrastructure provides for an integrated management of the existing protected areas while expanding the protection regime to other essential zones. It also allows an enhancement of the public facilities and a sustainable conversion of the grey infrastructure. In order to limit the negative impact of the intensively cultivated fields on the natural heritage, their reduction is expected, together with a qualitative improvement of the urban green areas in order to intertwine the green infrastructure with the urban fabric.

In the peripheral areas, a parkway system will connect Mangalia with the main adjacent towns. In the innercity, there will be a combination of slow roads, green corridors and shared roads. Bike and pedestrian pathways and the conversion of the existing railway line to an electric tram will grant a widespread and ecological mobility, integrating the current transport systems.

The blue infrastructure is primarily based on the recovery of polluted water around industrial areas. It is also based on building-up the local artificial beach using appropriate filling materials and on the prolongation of the artificial reefs to preserve the coastal zones that are particularly threatened by the risk of erosion. Moreover, these actions will integrate with intensive bathing limits near protected areas and with the creation of new protection zones, especially in relation to lakes of outstanding natural value.

The interventions designed for the creation of a red infrastructure change depending on the specific urban area of interest. In the historic centre, there will be localised operations of urban renewal for the Modernist heritage, together with urban and architectural requalification of the few traditional Romanian buildings. The recovery of the historical dock and the realisation of a recreational and museum hub will anchor the area of the local archaeological museum. A planned functional diversification, extending the resorts' period of activity also into the winter, is used to realise the resort zone's full-potential. Ultimately,

a culture and heritage promenade will connect the focal points of network, passing through the coastal area and inland, and converging along the bike and pedestrian paths.

The interventions of urban acupuncture, following the bottom-up approach, should gradually compose the general masterplan, operating on the sensitive points identified during the analysis. The various acupunctures must follow a logical practical implementation. For this purpose, the analytic stage is synthesised into an urban thermography scheme that expresses the degree of criticality. In order to prevent the spread of urban decay, sustainable planning needs to diversify its actions. Different sections have been designed according to various kinds of urban-to-rural transects. The urban centre is the most critical zone of the city, so the priority is given to the acupunctures along the transects that cross this area.

Two interventions, linked to the architectural and functional renovation of Mangalia's historic centre, have been considered crucial.

The first acupuncture is located at the archaeological museum area. The critical issues of the zone are related to the lack of coherence and proportions between the existing elements. The museum, very small and oppressed by the neighbouring buildings, is almost unused during the year, while the urban decay deeply compromises the archaeological excavations. There is an entirely abandoned open-air cinema, while the massive Hotel Paradiso and the municipal stadium conflict with the context and the pre-existing history. The seafront presents a low-quality landscape and functionally inefficient pedestrian paths.

The intervention aims to recover the forgotten Greco-Roman identity and to enhance the existing functions, creating a new recreational and museum hub. This is achieved through a compositional redistribution of space and architecture, rebuilding pavilions that are in synergy with each other and redeveloping the current buildings. The potential connection between the green and blue infrastructures are realised as a green lung in which the renewed archaeological park is inserted, while the seafront becomes a real urban waterfront.

The second urban acupuncture focusses on one of the social housing neighbourhoods close to the museum. The low architectural quality obstructs the continuity between the city and the nearby resort area. Moreover, there is a lack of services in the area. There exists an abandoned construction site for a future commercial use. The area presents a severely degraded seafront, while the adjacent public park has become a hotbed of crime. The target intervention is to valorise the neighbourhood, improve the aesthetic and service standards and to create a buffer zone between the different functional areas. The residential zone will tie in well with parks and the new services, requalifying the existing buildings.

The completion of the commercial hub will rejoin the recovery of the public park with recreational equipment and the connection with the green infrastructure. The seafront's retrofit will contribute to the creation of a better waterfront.

Conclusion

The case study of Mangalia has allowed the application of the design methodology explained above. In essence, it seeks to requalify the fragmented tissue of a medium-sized city that has partially lost its identity over the years. The verification of the relationship between sensitive areas, where the urban acupunctures intervene, and the green infrastructure networks is accomplished through the use of functional transect controls. This proposal is a valid support for the planning process and has been applied to other fields of testing. A comparison between case studies and reflection on their identified critical issues will progressively improve the proposed methodology.

N.B. This article is an excerpt from the Master thesis submitted by Ivan Pistone and Luca Scaffidi, in partial fulfillment of the requirements for the degree of Master in Architecture (University of Naples 'Federico II', 2018-2019).

Mangalia: elements of potential

POTENTIALS

Mangalia is characterized by **different kinds of productive activities**. Some of them are **deeply connected** with the **shipyard**.

The city presents **archeological sites** dating back to its **Greco-Roman foundation** and its **subsequent development**: all these elements need to be protected.

The economic strucrue of Mangalia does not depend only on the shipyard. There are different **traditional productive activities** like **cattle farming**.

The **agricultural production** makes use of the vast lands around the urban core: this kind of economic development could be a **viable alternative to the the tourist industry's exclusive income**, in order to extend the urban life and production all year long.

The urban area is surrounded by **wide green zones** that can de considered an **incredible potential** for Mangalia.

Mangalia has different **protected natural areas**, even if they are threatened by anthropic activites.

In the urban area the are numerous **lakes and small rivers** that increase the variety of the local biodiversity.

The **existing road system** ensures connection with **Costanza** and with **Bulgaria**. Moreover, the **railway line** links different points of the urban area, even if the city does not take full advantage of it.

Mangalia: critical aspects

CRITICAL ISSUES

The city has a **limited number of entrances**, generating a **heavy pressure** in particular urban points.

Mangalia presents a **rugged urban structure**. The **services** for the citizens are located in a **single core zone** while the rest of the city is actually isolated.

There is not a real communication between the various urban areas. The **lack of efficient infrastructures** makes impossible to keep a mutual link between them.

During the **summer period**, the **overcrowding** caused by the **turist activities** overload the road system resulting in **traffic jam** and **long queues**.

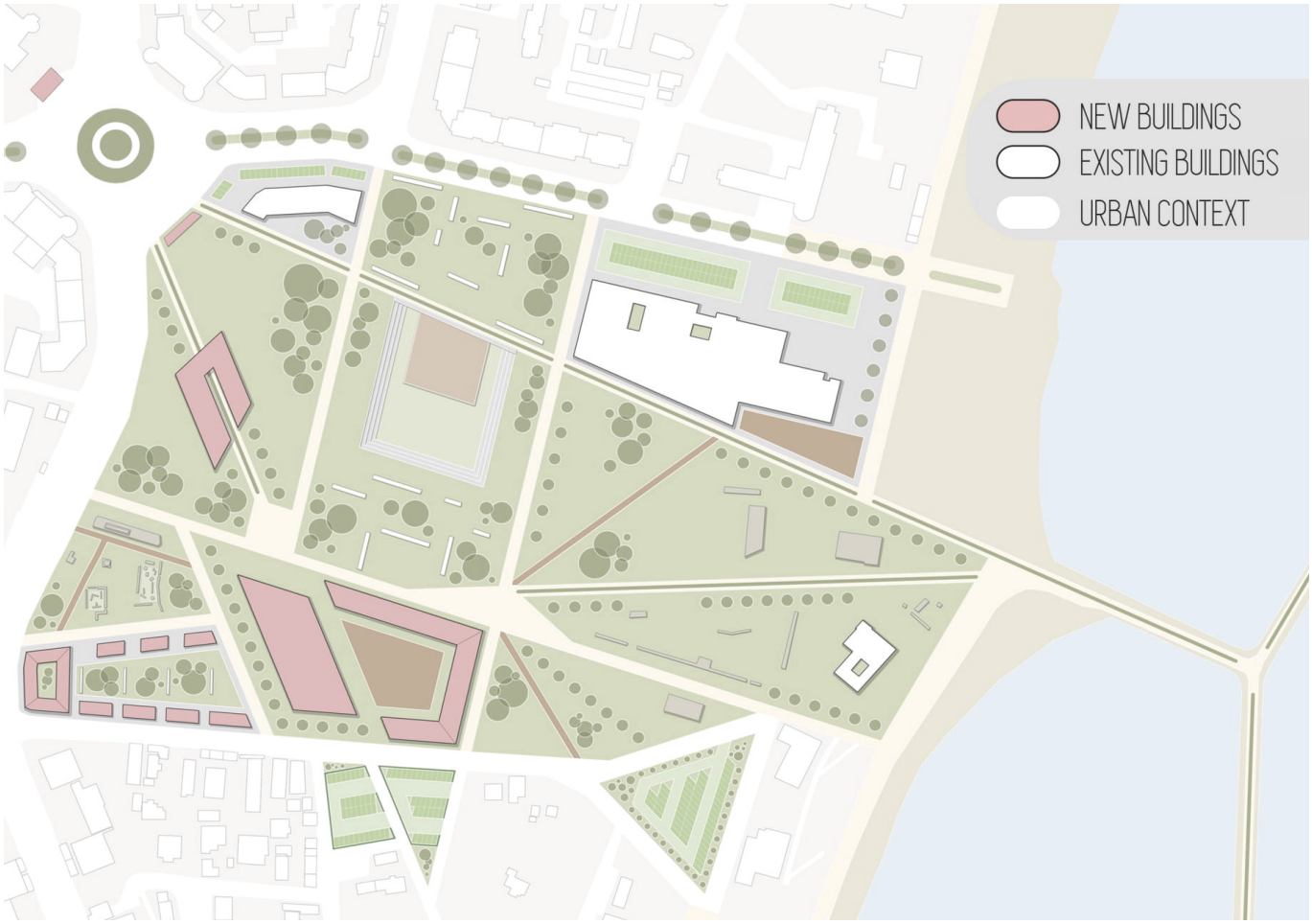
The **continuous expansion of the city** threatens to destroy the **naturalistic areas** and to cause an excessive **land use**.

The **intensive tourist activities** is a real **danger** for the **local natural heritage** because of its heavy pressure on the green and blue areas.

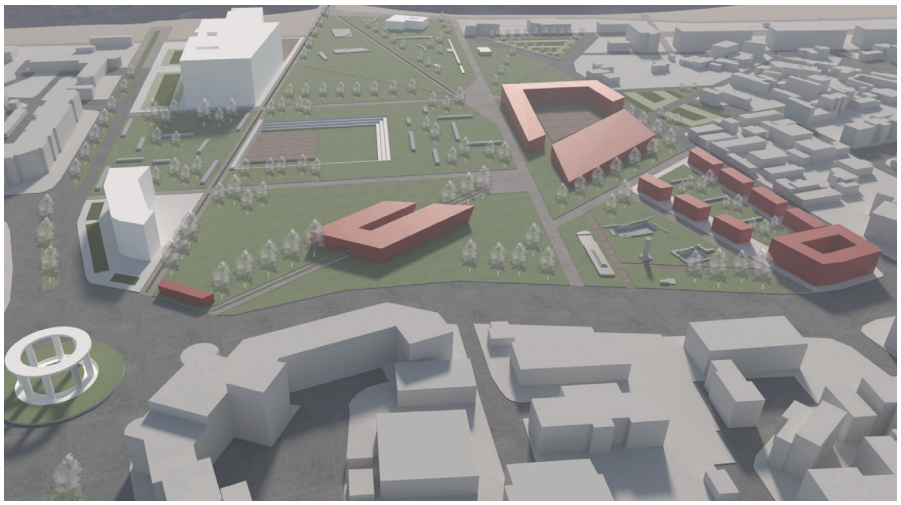
The consequences of **pollution** are the **sea level rise** and the **coastal erosion**.

Also the **industrial poles** exert a **negative influence** on the **bordering natural sites** risking to alter the state of the present elements.

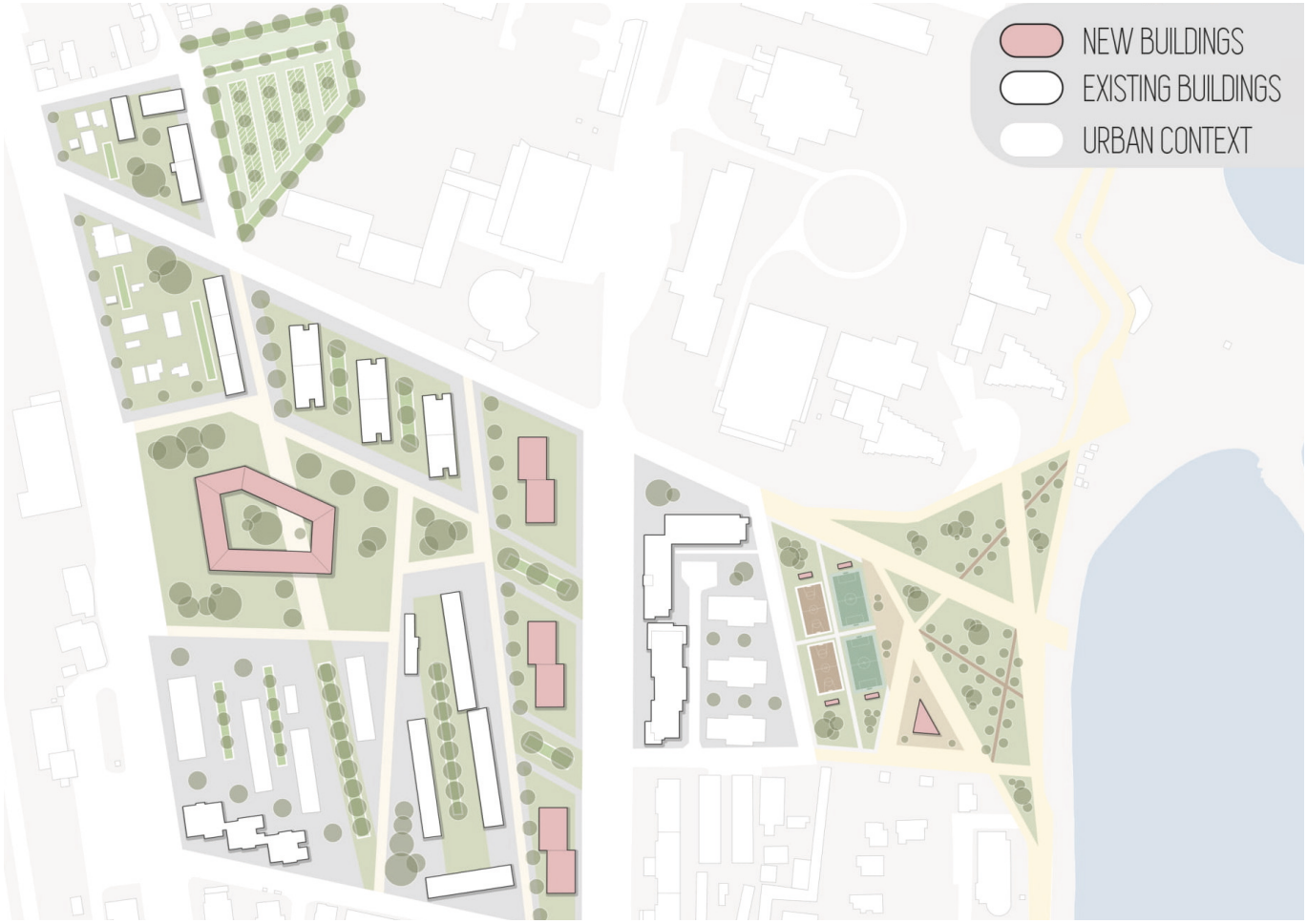
The anthropic and productive activities seriously damage the **Mangalian natural system**, compromising the **local biodiversity**.



Interventions: urban composition



Interventions: image study

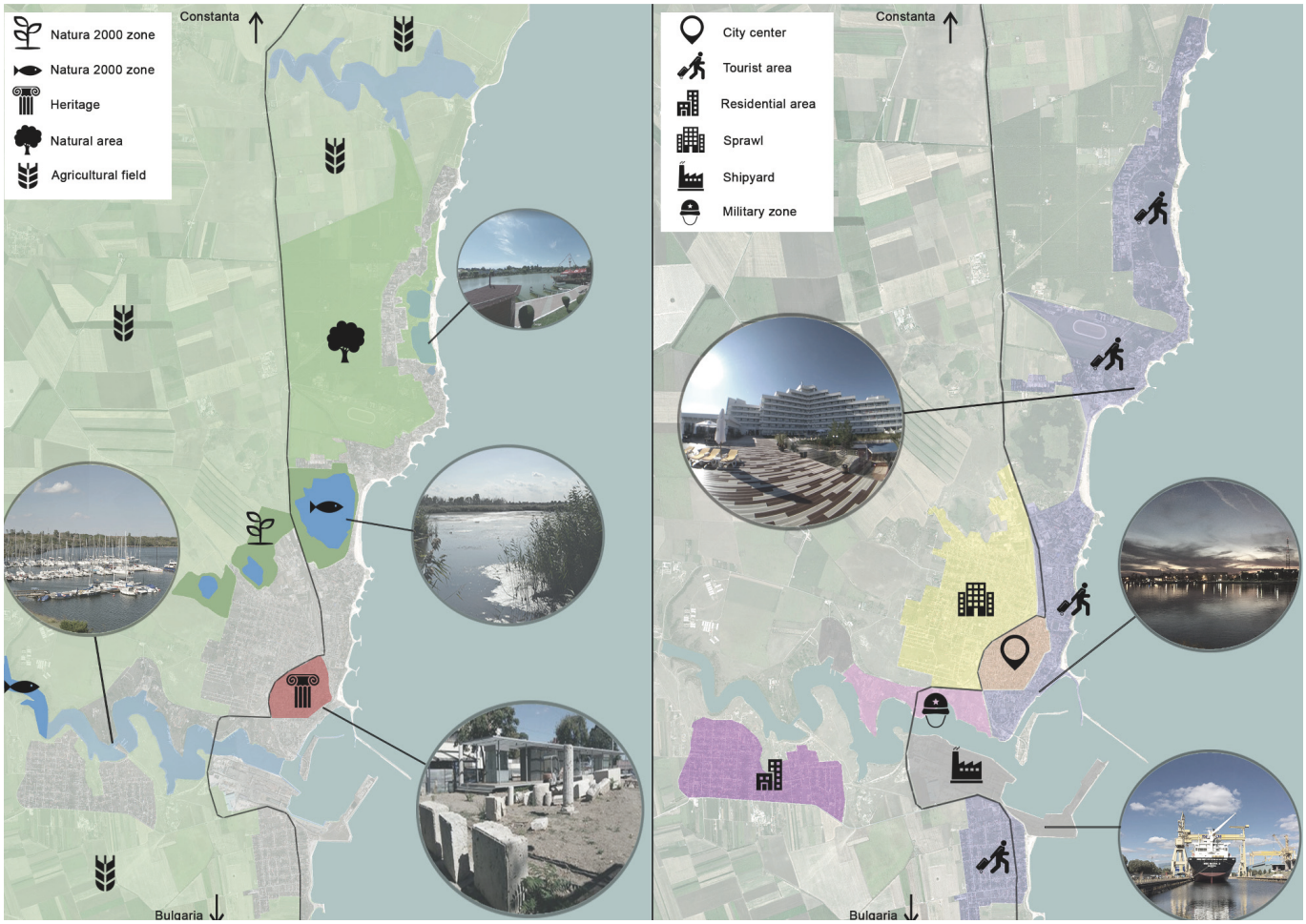


Interventions: urban composition

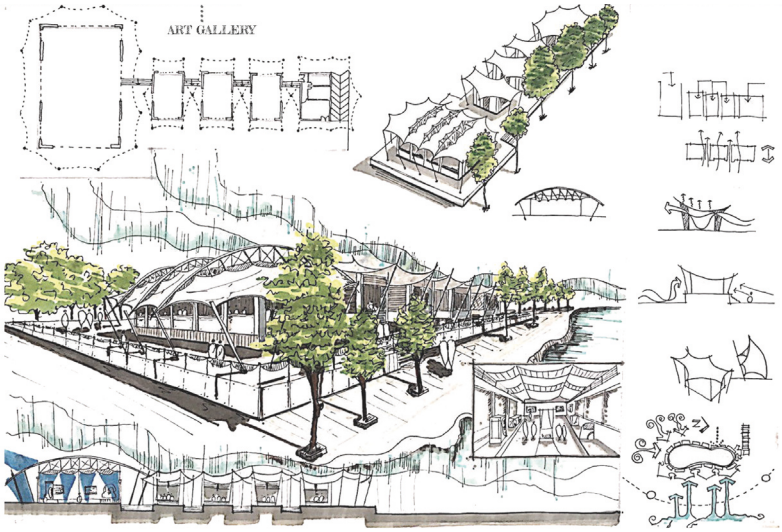
Interventions: image study

Shima Yazdanmehr

Design project



Mangalia: site analysis

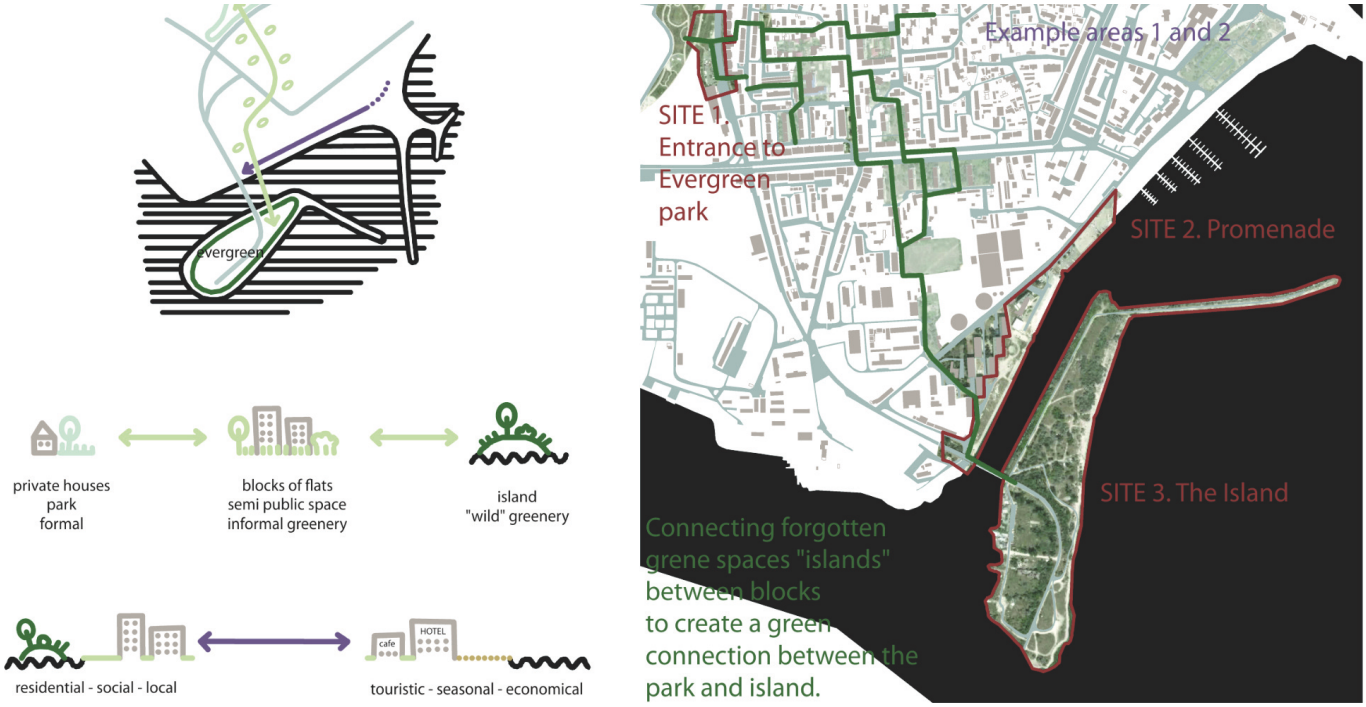


Mangalia: local interventions details

N.B. This article is an excerpt from the project submitted by Shima Yazdanmehr, in partial fulfillment of the requirements for the Design Project Course (Estonian University of Life Sciences, 2018-2019).

Marie Petráková

Design project



Mangalia: site analysis

Mangalia: local interventions details

N.B. This article is an excerpt from the project submitted by Marie Petráková, in partial fulfillment of the requirements for the Design Project Course (Estonian University of Life Sciences, 2018-2019).

Loredana Cîrdei

Mangalia coastal city consolidation

Manifesto

Mangalia City, as with many other Romanian cities, has high potential and is of economic importance nationally as well as internationally. Unfortunately, the real value of this potential is underexploited, due to different political, economic or cultural situations and struggles which impede the city's development process.

Through analysis of the city and site, the most important issues identified in Mangalia are the seasonality, the lack of community affiliation, the lack of maintained public spaces and buildings, and a strong separation between tourists and citizens. Furthermore, the many gaps between neighbourhoods and public areas, people leaving the city to live in bigger cities or at the outskirts of their city, leave the cosy centre of Mangalia empty and the poor communities marginalised.

The situation is similar to many cities of the same size all over the country. After the communist regime, many places followed the same patterns, becoming empty, unattractive and misused. Mangalia though is a coastal city, and this makes it as a case study more intriguing.

Following these facts, the proposal aims to focus on the four most essential elements: facing seasonality, enhancing community, regenerating the city's gaps and connecting public areas and the city to the sea.

The concept is based on three distinctive typologies and scales of the city. One, community spaces between the blocks; two, a more open city to the sea and tourists; and three, recreate a balanced public space for the city and promote new approaches of tourism and movement through the city.

Creating a step by step plan to follow and implement, like a manual, can be a strong influence on city and community development.

At the same time, this project not only aims to address the issues described but also to raise, provoke and examine models of coexistence, regeneration and communal movement. These models should facilitate communities to meet and come together with tourists, urban regeneration and create better connectivity and existence. People need a good starting point, a definite plan, in which they believe and trust to make Mangalia a place where they have a sense of belonging and pride for their coastal tourist city.

Research question and objectives

The need of finding a balance between the protection of physical and cultural character and the research of actual actions for bringing life to the city is the basis of this master thesis work.

This paper started with the research question: How can a shrinking coastal city be reactivated by focusing on seasonality, the identity of the community and connectivity, by taking into account the character and history of the place, its identity and memory?

The first objective of this master thesis is to raise and prove the serious issues which Mangalia is facing, creating a starting point for the long term development of the city.

The old area of Mangalia

The street becomes a community shared space with no sidewalks, and restricted car access with speed limits. The street regains its original status where people live together and it works as a communication corridor.

The street becomes a filter between the modern city and traditional, quiet, green houses. Fencing is opaque (wood), but of low height. There is a visual contact dialogue between the yard and the street, yet there is a degree of intimacy. Here the neighbours are friends and they share their confidence, their children play together on the street, and people are sitting near the fence on the benches, discussing politics or sports. There is a gradual, organic growth of intimacy, from modern urban space, the new city, to the traditional house. In relation to noise and speed management, the same phenomenon occurs, the old neighbourhood is quieter. In the yard, one can relax and this balanced pulse of life, plus the urban anthropology of the area, renders the original identity of this culture. The plan of intervention is based on public programs that increase people's awareness. For example:

- University-level summer school programmes for studies and implementation of sustainable urban planning solutions such as street profile proposals, public sharing finishes, studying fencing, buildings with the active participation of the authorities (the project our group has already made);

- Attracting sustainable tourism into the homes of people willing to participate in the programme and in 'Airbnb' tourism. The local cuisine (fish, vegetables) can help turning the neighbourhood into an area that creates an alternative to mass tourism in large hotels. Small shops and craftmanship workshops are created to revitalize the old cinema located in the area.

Blocks areas

The between blocks project reintroduces the community constant lost in the post-communist period. A big problem in this area is how to build a strong community, that for 30 years has ceased to exist. Thus, in the main city market, it is possible to propose functions such as an NGO hub to carry out projects on different themes with the inhabitants of the collective housing districts as the target audience. In contrast to the older residential areas, in the collective housing districts, people are not conscious that the common space belongs to them. Thus, the common areas are under assault and often vandalised.

Another situation to be considered is the general psychological profile of the inhabitants. Collective housing areas have been created and populated with people from rural areas to serve the major shipyard industries. The project proposal is focused precisely on creating a social space that can functionally migrate towards the character of the old town, a character that the inhabitants of the housing blocks lost when moving to the city. Sustainable education programmes, such as Sunday school and after-school activities, activate this social space.

Green fingers

Green fingers along with the blue corridor Mangalia-Limanu-Hagieni realise a sustainable connection for the city with the neighbouring villages. The villages of Limanu, Hagieni, 2 Mai and Arsa become an ecological tourist attraction when linked through natural habitats of the city. The link functions as an alternative method of mobility between the populated areas of the mainland and a way for practising sports and good health.

Another consequence is preventing the desertification of the study area. This reported phenomenon is a threat to Mangalia and neighbouring settlements.

Green fingers developed along the roads connecting the localities will help to alleviate the area's pollution.

New housing area

Urban planning regulation needs to be completed in the area. Corruption should be prevented in the local administration by working with the competent institutions so that urban planning regulation can be implemented equally for all inhabitants. Programmes can be provided to encourage the rehabilitation and renovation of buildings within the city centre. Improved connectivity of the new residential neighbourhoods with the rest of the city is achieved by extending the public transport network and proposing bike lanes along with the green fingers.

The development of mass tourism areas

The problem with mass tourism is the scale and, consequently, the investment value. The original projects were sponsored 100% by the state. It is unrealistic to transfer a property that, by its sheer size and operating costs, can not be managed by City Hall. This situation suggests changing the administrative status of the area and creating public policies and support programmes for large tourist complexes to be bought and rehabilitated by potential investors.

The tourist harbour is one exception. It should remain a municipality property and develop in direct connection to the old area of the city and with other public spaces.

Mobility

The existing public transportation network should be revitalized and further developed. In 2018, the Mangalia City Hall advanced a discussion to create a public transportation company and purchase electric buses through European funding programmes. The project is also in line with the proposed launch of a bikelane network allowing green transportation in Mangalia to become a viable alternative to personal cars.

Seasonality as a phenomenon of imbalance in city life

Seasonability, as a phenomenon in Mangalia, is dedicated to tourism. In the absence of alternatives, the only prosperous areas are the shipyard and the mass tourism area. As the shipyard dock is a constant, so the city's life fluctuates according to the influx of tourists.

However, Mangalia also existed before the mass tourism phenomenon. Life had been the same throughout the year, Mangalia being, first of all, an administrative and educational centre, with significant healthcare facilities. These facilities could newly be brought to a higher qualitative status so that the city can once again become a very attractive and social hub for the surrounding localities.

N.B. This article is an excerpt from the Master thesis submitted by Loredana Cîrdei, in partial fulfillment of the requirements for the degree of International Master in Landscape Architecture (Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen & Hochschule Weihenstephan-Triesdorf, 2018-2019).

Fig. 114 Interventions overlapped plan (Own graphic and design)

Interventions: plan

Fig. 105 Square ambiance visualization (Own graphic and design)

Interventions: image study

Sections

Fig. 101 Intervention masterplan (Own graphic and design)

Interventions: Masterplan

Interventions: image study

Anna Ilyuchshenko

Enhancing the landscape potentials of Mangalia using green infrastructure as a tool

Abstract

Mangalia is a unique coastal city with a rich historical background and diverse landscape that meets a large number of various pressures due to its uncommon development characteristics. The city is inextricably linked to seaside tourism, which has given the impetus to city development. The rapid urbanisation had certain consequences that, nowadays, affect Mangalia and its natural areas on a par with climate change. The purpose of this research is to address existing challenges and enhance the potentials of the area, and to attempt achieving sustainable development within the Municipality of Mangalia.

To accomplish the aims, several theoretical concepts and modern practices are chosen and described for further implementation in design. The Landscape Character Assessment is another technique carried out in the methodological part of work. Finally, the case studies review is a valuable source regarding the Greenbelt concept functioning in real examples. The scenario approach, a well-known and highly used method, detects a list of driving forces influencing Mangalia, which allow developing resilience in a long-term design strategy. The design strategy is based on the findings from previous sections. It aims to address critical issues while enhancing the potentials of Mangalia. The design strategy is developed further into the final design proposal. The masterplan represents the collection of outcomes from every part of the research in the form of the Greenbelt and the Green Infrastructure Network.

This research by design confirms the value of green infrastructure, emphasises the necessity of protecting natural areas and discusses such a complex concept as sustainable development.

Design summary

The design proposal illustrates solutions that correspond to the idea of sustainable development achievement. Three objectives of sustainable development: a healthy natural environment, economic growth and human well-being find support in the developed project through a wide range of measures.

To improve the condition of the natural areas, to ensure the economic development and to provide a better quality of life for the residents, the Green Infrastructure (GI) concept is implemented. Together with the main elements of GI, the multifunctional Greenbelt is proposed to enhance Mangalia's landscape to its full potential and to establish a sustainable future for the municipality, while protecting the natural environment.

Through the implementation of green infrastructure techniques and the Greenbelt's creation, environmental integrity is accomplished. The major environmental issues such as habitats fragmentation, ecosystems degradation and loss of biodiversity are tackled. By restoring the wetlands and the woodlands areas, the value of the landscape increased, as well as a quality and quantity of Ecosystem Services (ES) and other benefits crucial for human well-being.

The project slightly changes the purpose of land use to better serve the community by adding new functions. It is notable on the agricultural land, which according to the design proposal is considered as a multifunctional area. Newly created agro-biodiversity provides residents and visitors of Mangalia with a vast variety of local products and raises the economic value of food production in the municipality. Shelterbelts and orchards supply the area with regulating ES, for instance, by solving the problem of soil erosion and better managing water storage and filtration.

Vegetation restoration to enhance the local landscape should be conducted under specialists supervision and with native species. These are tolerant of local weather conditions and provide a sense of space and return to the original landscape. Restoration of the vegetation cover allows the creation of a richer natural environment while ensuring the standards of sustainable development and nature conservation.

The green infrastructure network plays a crucial role in connecting the urban areas with the rural environment. As links between the city, agricultural land and natural areas, green corridors equipped with cycling and walking paths engage people and encourage them to explore Mangalia. A well-developed pedestrian and cycling network meets the criteria for sustainable tourism and allows the city dwellers and visitors to decrease usage of private vehicles and lower air and noise pollution. The summer season is an especially critical period for the shift from motorized transport to environmentally friendly types of zero-emission vehicles such as bicycles due to the increased numbers of people during the summer months.

Being a tourist destination, Mangalia already has a fully developed tourism infrastructure. The measures proposed in the design can transform the current tourism industry into a thriving and profitable economic sector, functioning all year round by offering ecotourism and agritourism activities and promoting the existent cultural heritage of Mangalia. Moreover, environmentally sustainable tourism lessens pressures on coastal zones and the marine environment and supports nature conservation. Additionally, the GI network connects the seaside with the western part of the municipality - the Greenbelt of Mangalia, and widens the areas of interest in a sense of tourism attractiveness.

A critical feature of the project is the set of measures for preventing urban sprawl. According to the General Urban Plan of the Municipality of Mangalia, the zone of new development occupies the south-western part of the city and consists of single-family housing. To achieve sustainability within the urban area, the design proposal for the new residential area respects criteria of sustainable development with GI elements. The sustainable neighbourhood can act as a transition zone between the urban tissue and rural areas by adopting the concepts of urban permaculture and urban forest. These measures weave the community together and connect people with nature while providing spaces for recreation and sports activities.

Based on qualities of the natural landforms, the design concept highlights the landscape potentials and benefits gained from them in the form of environmental sustainability, economic profit and human welfare.

The periurban park illustrated within the design proposal is an essential element of creating the Greenbelt and connecting different natural areas. Currently, the residential area surrounding Balta Blebea is considered by the city inhabitants as an unsafe zone mostly populated by Romani people. In addition, several industrial and commercial units occupy the area along the E87 road and the railway. As a result, the attractiveness of this area is very low. Thus, the establishment of a large park can play the linkage role between two areas of the Natura 2000 network. Its proper management can be a solution for closing the gap between community groups and restoring social cohesion.

Importantly, the design accommodates the economic development and financial profitability objectives of the proposed interventions. All the measures have earning potential or compensation in the long-term. They provide new economic activities and revitalise traditional ones, create new job positions in sectors, which were non-existent in Mangalia before, stimulate the younger generation to stay and contribute to the municipality's development. This new vision of Mangalia can attract investors offering a range of opportunities for income generation.

The Greenbelt of Mangalia is a response to numerous environmental, economic and socio-cultural challenges. By establishing this protected green network, the municipality can reach several goals of becoming a sustainable Green City.

Recommendations

The design proposal illustrates solutions that correspond to the idea of sustainable development achievement. However, despite the opportunities of the proposed measures, the Greenbelt's establishment does not solve all the problems that occur in the Municipality of Mangalia.

Concerning sustainability, it is important to acknowledge the concept of sustainable development is related not only to the natural environment, but also to the urban areas. Human well-being within the city is a crucial factor for the successful pursuit of several sustainable development goals. In order to accomplish sustainable development and become the Green City, Mangalia should meet a number of concerns, which could not be solved solely with peri-urban and rural areas revitalization. Changes must happen in the city as well. The possible interventions could be as follows:

- Transformation of the city centre into a car-free zone and establishment of a non-vehicular circulation network;
- Construction of sidewalks and cycling lanes along the roads;
- Installation of a bicycle-sharing system;
- Organization of eco-friendly public transportation;
- Establishment of rainwater management through GI;
- Creation of parks, pocket gardens, allotment gardens;
- Community gardens, playgrounds and sportsgrounds;

- Revitalization of public open spaces;
- Trees and vegetation plantation;
- Green roofs and green walls introduction;
- Switch to renewable wind and solar energy;
- Introduction of a waste separation and recycling programme.

Regarding the tourism industry as the largest economic factor of Mangalia, significant improvement can be realised by adopting the following measures:

- Development of spa tourism;
- Promotion of curative mud therapy;
- Renovation of strategic resorts facilities;
- Promotion of the cultural heritage of Mangalia;
- Demolition or transformation of unprofitable, outdated hotels and tourist facilities;
- Development of cruising and yachting tourism and other water activities;
- Organization of themed events, festivals and fairs.

Recommendations related to agriculture and natural areas are:

- Expansion of Natura 2000 network and establishment of new protected areas;
- Development or improvement of policies in regard to nature protection;
- Construction of multistorey car park for visitors outside of the city;
- Shift into ecoagriculture;
- Development of aquaculture;
- Shift into renewable energy;
- Provision of diverse and high value products;
- Organization of local products distribution.

Due to favourable climate conditions and good quality of soil, the Romanian Black Sea coast is a perfect location for growing vineyards. Viticulture in Dobrogea has a long tradition and is well-known thanks to a high quality wine, however, wine tourism is not well developed. Mangalia could occupy this niche on a par with Murfatlar, a famous wine region in Constanta County, by developing a grape growing and wine producing industry (Black Sea Tourism Network, 2019).

Being considerably close to the Danube Delta, the natural reserve that attracts thousands of visitors, the Municipality of Mangalia can use this factor as an advantage and promote itself as a second destination worth visiting for nature enthusiasts. Combined tourist trips could provide an additional desirable influx of ecotourists. Furthermore, the second beneficial factor concerning the location of Mangalia is the two neighboring communes Limanu and 23 August. The existing natural and cultural heritage of these communes can be a part of other tourist destinations. If the Municipality of Mangalia and the communes join forces and provide mutual tourism development ideas, the result could be more beneficial for all parties.

Concerning the community activation, the local authorities have a range of options to increase public participation, which is crucial for democratic governance. Communities are the main users of public open spaces. Thus their involvement is an essential criterion of planning decision-making. The process of public activation can consist of raising awareness actions, engaging various groups of local society, assessing the level of interest through surveys and community meetings, involving volunteers, forming public committees, engaging the media and social media. Community participation is key to gaining public trust and a critical component that supports sustainable development achievement.

Conclusion

This research by design aimed to answer the following questions:

- How to ensure the sustainable development of the Mangalia municipality, while enhancing the existing landscape potentials?
- Is it possible to interweave tourism, sustainable agriculture and environmental restoration in the Mangalia development context?
- How can the blue-green infrastructure network stimulate positive ecological, economic and social changes for Mangalia?

The Landscape Character Assessment, conducted within this study, identified the major landscape features. Their potentials and possible risks formed the design strategy, which supported the idea of sustainable development and provided necessary transformations for Mangalia. The landscape character analysis clarified exact elements of the landscape to highlight and transform through the design development. In addition, the scenario building method defined the most critical, actual and potential driving forces that could affect further development of the Mangalia municipality. It revealed that the most threatening risk factors are related to the ecological state of the area, in particular, the condition of soils.

After identifying actual pressures and future risks on the area of Mangalia, the restoration and expansion of Mangalia's green natural system was considered as a necessary measure to protect the natural marine, coastal and terrestrial environments of the region. Other significant factors that have to be taken into consideration are economic development prerequisites and quality of life improvements for the city dwellers. The outcomes of the research demonstrated the need to create a green network within the city as well as the municipality, which will provide fundamental benefits for future sustainable development.

Based on the findings from the methodology section, the design proposal attempted to enhance opportunities provided by the landscape and mitigate negative pressures occurring in the Municipality of Mangalia through implementation of a green infrastructure approach.

The concept of green infrastructure supports the aim of the research and, along with the Greenbelt's formation proposal, can transform Mangalia into a sustainable and attractive municipality using existing potentials of the area while addressing environmental, economic and sociocultural issues of the region.

Through establishing the green infrastructure network and forming the Greenbelt, the Municipality of Mangalia can accomplish several sustainable development goals. The research project served as a model for environmentally sustainable development and distinguished a range of environmental, economic and social benefits. The project also highlighted the necessity of increasing the quality and number of ecosystem services that could be provided by healthy ecosystems.

Environmental benefits:

- Maintenance of healthy and diverse natural marine and terrestrial habitats;
- Improvement of habitats' connectivity and biodiversity;
- Climate change effects mitigation in the form of soil erosion prevention;
- Climate change adaptation through tree plantations and wetlands restoration.

Economic benefits:

- Creation of new environmentally sustainable economic sectors such as ecotourism and agritourism;
- Flourishing agriculture industry;
- Local food production of high value;
- New job opportunities.

Social benefits:

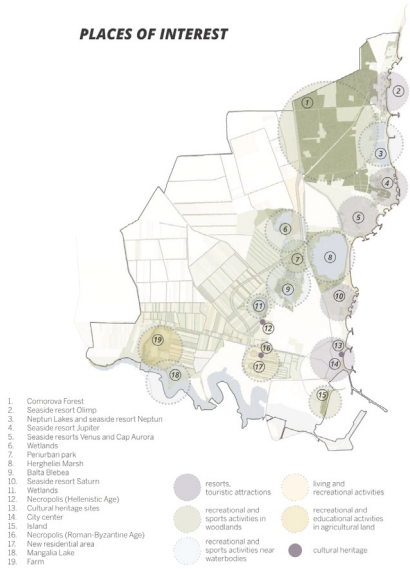
- Population well-being;
- Improvement in mental and physical health;
- Additional education opportunities;
- Community cohesion;
- Sustainable neighbourhoods.

The establishment of the Greenbelt of Mangalia reinforces the importance of agriculture in the area, ensures population well-being and supports the shift from mass seaside tourism to more diverse and environmentally sustainable tourism.

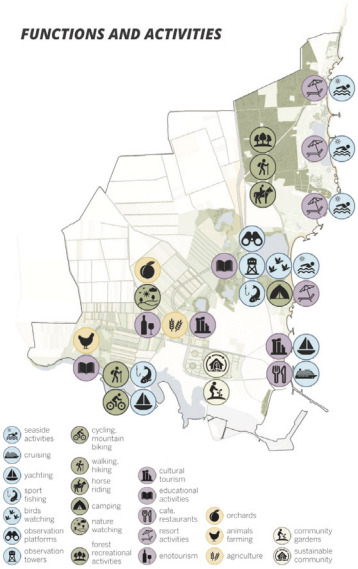
Tourism became a fundamental part of Mangalia's economy and the local society's lifestyle. The project proposes to transform this significant economic sector in order to accomplish one of the major objectives of the work: to interweave tourism, sustainable agriculture and environmental restoration in Mangalia. Using environmentally sustainable tourism as a driving force, Mangalia can attract both tourists and prospective inhabitants and encourage them to explore and enjoy the rediscovered gems of the region.

N.B. This article is an excerpt from the Master thesis submitted by Anna Ilyuchshenko, in partial fulfillment of the requirements for the degree of International Master in Landscape Architecture (Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen & Hochschule Weihenstephan-Triesdorf, 2018-2019).

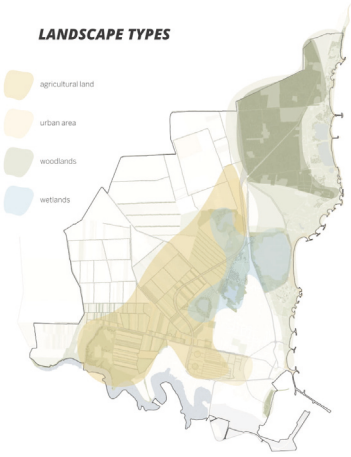
Mangalia: greenbelt proposal



Mangalia: places of interest analysis



Mangalia: activities analysis



Mangalia: landscape types analysis

Mangalia: interventions

Mangalia: intervention types and locations

Erasmus+

CO-LAND: INCLUSIVE COASTAL LANDSCAPES

Mangalia Intensive Programme. 16 – 25 September 2018

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