

**NUOVI PAESAGGI PER
NEW LANDSCAPES FOR**

OSTIA

LANDSCAPE LAYERS – LANDSCAPE PATTERN



**Concepts for sustainable development of
changing peri-urban landscapes in Italy**

PROJECT DOCUMENTATION





source: Carta Topografica d'Italia, foglio 386 Sez. I - Fiumicino, IGM, Istituto Geografico Militare, 2000, Edizione 1



INTRODUCTION

ENGLISH

Ingrid Schegk, Stefanie Gruber

The project

Nuovi Paesaggi per Ostia – New Landscapes for Ostia

Concepts for sustainable development of changing peri-urban landscapes, related to the cultural heritage site of Ostia Antica

was carried out as “Main Project II” in the study program of the International Master of Landscape Architecture (IMLA) during the 3rd semester in winter term 2013/14, between October 2013 and February 2014. Coordinating University was the Weihenstephan-Triesdorf University of Applied Sciences, Freising-Weihenstephan (Germany) – with participation of Sapienza University Rome (Italy), IMLA cooperation partner Nürtingen-Geislingen University (Germany) and University College Ghent / Hogeschool Ghent (Belgium).

The project area was located about 30 kilometres southwest of Rome – focussing on a part of the Italian capital’s urban periphery, the historical landscape of Ostia. This region represents pluralistic landscapes characterised by different spatiotemporal layers and spatial patterns – they include unique cultural heritage and outstanding archeological sites, partially spontaneous settlements, transport infrastructure, agriculture and natural features.

Ostia Antica, a large archaeological site and once the harbour of ancient Rome, was the core zone of the project area. Ostia’s location directly on the coastline of the Mediterranean Sea was an important strategic advantage for the Roman Empire. However, due to silting the site today lies 3 kilometres away from the sea and has lost its one-time importance.

Modern Ostia, also called Ostia Lido, Lido di Ostia or Lido di Roma, meaning “Beach of Ostia” or “Beach of Rome”, was founded in the 1920s.

It is situated about 3 kilometres southwest of the archaeological site of Ostia Antica, on today’s coastline.

The highway and the railway line from Rome to Leonardo da Vinci International Airport near the town of Fiumicino defined the northern border of the project area. Another important archaeological spot located closely to the airport was the water body of “Lago Traiano”, the ancient harbour of the Roman emperor Trajan.

In the middle of the project area, the river Tiber and the Isola Sacra, an area of urban sprawl with unplanned settlements and agricultural land, were significant structures to be considered within the framework of the project. Today, the river is neither visible nor accessible for residents and visitors, but has a very high development potential.

Last but not least, the pinewoods and well-preserved natural territories of Castel Fusano and the presidential estate Castel Porziano in the east were important elements of the project area.

All in all, these multi-faceted conditions allowed different ways of accessing and perceiving the landscape.

It was significant for the project that Ostia Antica was not seen as an isolated area but as an integral part of the wider landscape. The combination of different temporal layers and spatial patterns was one of the special challenges of the project. Therefore, the students had to choose appropriate methods to rediscover the landscape’s identity and develop its potentials.

At first, the students had to conceive a landscape concept for the entire project area that was to integrate the archaeological sites and valorise the whole region, including both natural and settlement structures. On the one hand, the concepts had to

be region-specific, on the other hand they also had to reveal methodical approaches which are transferable to other heritage areas and periurban contexts. Later on, they focussed on a special part of the area to develop a detailed design.

The project was divided into three phases:

1. Preparation Phase in Nürtingen (beginning of Oct. 2013): The IMLA students built up project teams consisting of 4 students per group. Introduction, basic analysis, methodical workshop.

2. Workshop in Rome and Ostia, Italy (10th - 20th of Oct. 2013): The IMLA groups had the opportunity to work intensively together with 10 Landscape Architecture students of La Sapienza University (1-2 of them joining each IMLA team). Different lectures from local experts and field trips in the project area. Methodical approach, vision and strategy, detailed site analysis, first draft of a group-specific concept.

3. Final Project Phase in Nürtingen (end of Oct. 2013 - mid of Febr. 2014): Working out final versions of vision, strategy, target system and analysis as well as concept, specific topic and detailed design.

The collaboration between Italian and IMLA students as well as the collaboration between the different universities (Weihenstephan, Sapienza, Nürtingen and Ghent) was a large benefit for the project and all participants. The final results depicted in this project documentation reflect the wide range of different concepts worked out by the teams.

Translation by Fabio Di Carlo

Il progetto

Nuovi Paesaggi a Ostia – Idee per lo sviluppo sostenibile dei paesaggi periurbani in trasformazione dell’area di patrimonio culturale di Ostia Antica

Nell’ambito del Master Internazionale di Architettura del Paesaggio (IMLA), le attività relative al corso “Progetto principale 2”, si sono svolte durante il 3° semestre invernale 2013/14, tra ottobre 2013 e febbraio 2014. Il Coordinamento è stato dell’Università di Scienze Applicate di Weihenstephan-Triesdorf di Freising-Weihenstephan (Germania) - con la partecipazione dell’Università di Roma “La Sapienza” (Italia), in cooperazione con l’Università di Nürtingen-Geislingen (Germania) e il College Universitario di Ghent / Hogeschool (Belgio).

L’area di studio è situata a circa 30 km a sud ovest di Roma, e si concentra su una parte della periferia urbana della capitale italiana: il paesaggio storico di Ostia. Questo territorio rappresenta diversi paesaggi, caratterizzati da diversi livelli spazio-temporali e modelli insediativi, che comprendono un patrimonio culturale unico, composto di siti archeologici eccezionali, di insediamenti parzialmente spontanei, di grandi infrastrutture di trasporto, l’agricoltura e le aree naturali di interesse europeo (SIC).

Ostia Antica, il grande sito archeologico che era stato il porto dell’antica Roma, è stata l’area centrale di progetto. La posizione originaria di Ostia era direttamente sulla costa del Mar Mediterraneo e rappresentava un importante ruolo strategico per l’impero romano. Tuttavia, a causa dell’insabbiamento, del naturale progredire della costa e dell’abbandono post-imperiale, il sito oggi si trova a 3 km dal mare e ha perso la sua importanza originaria. La moderna città di Ostia,

INTRODUCTION

ITALIAN

chiamata anche Ostia Lido, Lido di Ostia o Lido di Roma, rappresenta la spiaggia della città di Roma ed è stata fondata nel 1920. Si trova a circa 3 chilometri a sud ovest del sito archeologico di Ostia Antica, lungo l’attuale costa.

L’autostrada e la linea ferroviaria per l’aeroporto internazionale Roma-Leonardo da Vinci vicino alla città di Fiumicino rappresentano il confine settentrionale dell’area di progetto. Un altro importante luogo archeologico, situato vicino all’attuale aeroporto, è il bacino idrico del „Lago Traiano“, l’antico porto dell’imperatore romano Traiano.

Al centro dell’area di progetto, il Tevere e l’Isola Sacra, una zona di espansione urbana di insediamenti non pianificati e terreni agricoli, sono state strutture importanti da considerare nel quadro del progetto. Oggi, il fiume non è né visibile né accessibile per i residenti e visitatori, ma ha comunque un potenziale di sviluppo molto elevato.

Ultime, ma non meno importanti, le pinete e i territori naturali ben conservati di Castel Fusano e la tenuta presidenziale di Castel Porziano ad oriente, che rappresentano elementi importanti dell’area di progetto.

In realtà queste condizioni poliedriche hanno permesso di avere diverse modalità di accesso e di percezione del paesaggio. Per la redazione del progetto per Ostia Antica era rilevante non vedere il luogo come isolato, ma come parte integrante del paesaggio più ampio. La combinazione di diversi strati temporali e di pattern spaziali era una delle sfide più particolari del progetto. Pertanto, gli studenti hanno dovuto scegliere metodi appropriati per riscoprire l’identità del paesaggio e sviluppare le sue potenzialità.

In un primo momento gli studenti hanno dovuto sviluppare un concept di paesaggio

per l’intera area di progetto, che includesse idee per l’integrazione dei siti archeologici nella valorizzazione l’intero settore, considerando sia le strutture naturali che quelle insediative. Da un lato i concept dovevano essere specifici per il sito, d’altra parte potevano anche rivelare approcci metodologici trasferibili ad altre aree del patrimonio e ed altri contesti periurbani. Successivamente si sono concentrati invece su una parte specifica dell’insieme, per svilupparne un progetto più di dettaglio.

Il progetto è stato suddiviso in tre fasi:

1. Fase di preparazione a Nürtingen (inizio ottobre 2013): Gli studenti IMLA hanno costruito i team di progetto, con 4 studenti per gruppo. Introduzione, analisi di base, laboratorio metodologico.

2. Workshop a Roma e Ostia, Italia (10-20 ottobre 2013): I gruppi IMLA avuto l’opportunità di lavorare in forma intensiva insieme a 10 studenti di architettura del paesaggio de La Sapienza (1 o 2 di loro per ogni gruppo IMLA). Si sono tenute diverse lezioni da esperti locali e visite nell’area di progetto. Metodica di approccio, visione e strategia, analisi dettagliata del sito, prima bozza di un concept specifico per gruppo.

3. Fase Finale di progetto a Nürtingen (fine ottobre 2013 - metà di febr 2014): Lavorare versioni finali della visione, strategia, sistema di destinazione e di analisi così come concetto, argomento specifico e progettazione di dettaglio.

La collaborazione tra studenti italiani e IMLA, nonché la collaborazione tra le diverse università (Weihenstephan, Sapienza, Nürtingen e Gand) ha rappresentato un grande vantaggio per il progetto e per tutti i partecipanti. I risultati finali rappresentati in questa dossier di progetti, riflettono la vasta gamma di diversi concetti elaborati dai team.

CONTENT



PROJECT AREA
8

BACKGROUND
10

PROJECT TEAMS
18

INSTRUCTION
21

SUPERVISORS
20

PLANT
22

L4ND +2
32

GREEN GO
44

GREEN LINK
54

F.S.L. - STUDIO
64

A.R.K-LAB
76

IMPRINT
88

PROJECT AREA



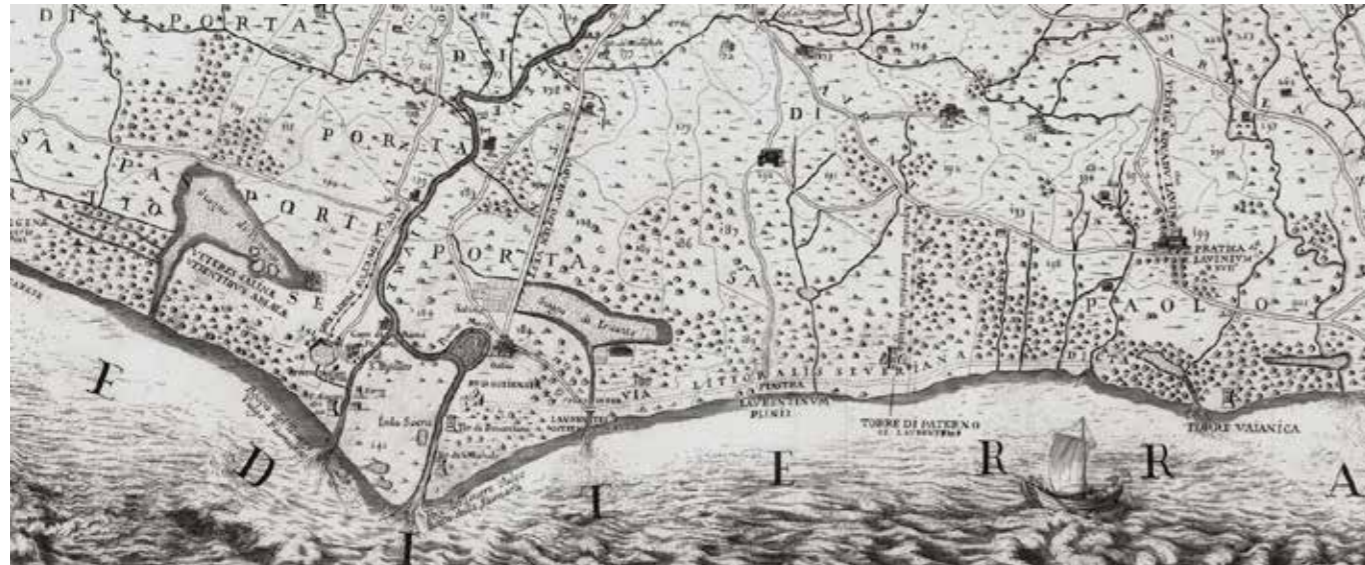
Location of the project area around Ostia, nearby Rome – overview (source: www.maps.google.de)



Project area with important spots (source: www.maps.google.de)



NEW LANDSCAPES FOR YOUNG TERRITORIES



Ostia Antica and Isola Sacra, which have been the focus of IMLA studio project, represent two of the most significant parts of a wide area that stretches between Rome and the sea, also known as „Tail of the Comet,“ according to an idea and a figure that G. Giovannoni and M. Piacentini - the two major planners of the fascist period - focused before 1940. The idea of extending Rome to the sea has never become part of any planning instruments, but it has become, with the complex structure, often confusing and contradictory, partly spontaneous, that we can see today.¹

From my viewpoint, in opposition to an exclusively conservative approach, which is often only interested with the high quality elements - an common approach in our country - it is my opinion that these areas, rich of important Heritage elements immersed in the “swamp” of sprawl, are a potential ground of many interesting proposals in terms of landscape project and urban regeneration, even in consideration that the elements of Heritage lies in a very recent environmental context.

Indeed, the image that is currently visible, tells the natural and human metamorphosis of a recent territory, both with respect to natural morphological structure and to the transformations of an artificial geomorphology, which is the basic layer of all forms of current uses. The gradual sedimentation of approximately two kilometers of territory in 2000 years, the formation of ponds, swamps and wooded areas that, until the end of the XIX century, built the texture of a macro picture of organic matrix, with few signs of artifice: the Roman roads, the ruins of the port system, the salt production, and only in the modern era, the forest plants that in the XVIII century began to be productive and therefore assumed a greater sign of artificiality.

A new landscape had been created since

1884 until the Fascist period, with a large remediation of the whole area - as well as in those of Maccarese and the city of Latina – with a new basic environmental organization, consisting of a grid of channels of great regularity and hierarchical organization and the technical elements to manage the flow of water, accompanied by a local road system and the net of the farmhouses aimed at agricultural production. Also with respect to vegetation landscape, the wide introduction of eucalyptus trees represented an element of novelty and landscape strangeness.

This was really a new landscape, built by workers from Veneto and Romagna, hatched by a land division that is reminiscent of the plains of the Po, almost “alien” compared to the soft and complex shapes of the Roman countryside.

It was a bucolic and rural landscape, which had a very short life, from 1935 until 1950\60 - as shown in the map - when the further process of modernization of settlements occurred: the airport and other major services, along with the large residential development, have distorted a structure and made the agricultural vocation weaker.

A Landscape alien and therefore unique, so to enhance and improve its peculiarity, and to update towards new forms of use.

Our main mission and goals today, in my opinion, can be articulated on two levels. The first is to re-think a new general functionalization of the area, compared to the difficulties of orientation, movement and in relation to hydrological risks. The second is to re-signification of the elements of value: the forests, the rivers, the countryside, the proximity of the sea and of course, last but not least, the great historical and archaeological heritage.

In this sense, the spirit and the instruments that we currently ascribe to the practices

of Landscape Design and Landscape Urbanism² can help us to define some lines of intervention, following three main tasks:

1. Enhancement of forest and naturalistic areas, i.e. the pine forests of Castel Fusano and the Presidential Estate, including the strip of dunes Castelporziano and Capocotta, because of their highly consolidated natural character. New light infrastructure could ensure the conservation and protection at the same time, along with an increase of opportunities for enjoyment;
2. Retrain the network of Bonifica, to be exploited as widespread anthropic landscape in terms of connection between different parts of the settlements, which also implies the return to a new value productive and economical: a modern fringe rural with an neighborhood urban agriculture that combines loisir, forms of sustainable tourism and basic food production;
3. The river, as a matter of excellence, conceived as the main element, attractor and potential engine of connections between the main macro systems – archaeological, historical, natural and anthropogenic - through a form of a wide regional linear park that combines different components and produces - almost as utopia - the idea of a large urban area entirely regulated by a landscape approach. It would represent a kind of new order and meaning, quality and functionality, all governed by the principles of co-existence between man and land.

¹ For more details, see: AA.VV., “Roma. Visioni dalla coda della Cometa”, monographic number of *Rassegna di Architettura e Urbanistica*, n. 141, 2013, Rome.

² Valdheim, 1997 and 2006; Corner, 2003; Mostafavi and Najle, 2003; Weller, 2006.

Images page 10:

top: Le saline di Ostia e lo Stagno di Ponente, in *Topografia Geometrica dell'Agro Romano*, Giovanni Battista Cingolani, 1692

bottom: *Carta d'Italia*, foglio 149, IGM, Istituto Geografico Militare, 1950

INTEGRATING HERITAGE AND LANDSCAPE FOR A NEW IDENTITY OF OSTIA

The territory of Ostia and Fiumicino includes historic settlements which date back to the Romans, the Middle-Ages and Renaissance, and 20th century urbanisation after the land reclamation process. The population growth and the shortage of housing fostered the spread of unplanned developments unsupported by adequate infrastructures. Agricultural land use has partially declined and it has been intersected by micro-industrial areas or tertiary activities linked to the harbours and Fiumicino airport. The area has benefitted from the preservation of its cultural and environmental heritage, but the lack of integrated urban policies has determined its fragmentation and relatively isolation. The loss of landscape identity caused by mass tourism is another debated theme¹, as shown by the homologation of coasts with beach facilities in Ostia Lido.

In this patchwork, the cultural heritage is usually represented by the archaeological park of Ostia Antica and Giulio 2nd Borgo with its castle. A deeper analysis, however, would reveal the coexistence of numerous land uses with various types of heritage. Firstly, the environmental heritage and its evolution must be highlighted. The interaction of water and soil shaped the coasts and brought marshes. Afterwards, the cycle was artificially reversed to drain the territory and enable its cultivation. Currently, the vegetation range from artificial pinewoods (Castel Fusano) and rows of trees along the drainage channels, to Mediterranean woods and scrub in natural parks (Castel Porziano), and finally the rare flora of coastal dunes (Capocotta)². Secondly, the agrarian landscape and its isolated farms delineate an agricultural heritage that shows both the inertial permanence of the post-drainage territorial layout and the formal effects of cultivation techniques.

A third aspect is the conservation of the

architectural heritage, both in urban and rural contexts. Ostia Lido reveals the 1930s housing typology, monuments, grids, open spaces as originally planned. In the reclaimed lands, it is still possible to realise Giuseppe Pagano's vision of rural architecture as a paradigm of functional simplicity³. Finally, harbours and related activities concur to define its territoriality. On one hand, the archaeological evidences of the Trajan harbour, Portus and the warehouses of ancient Ostia are relevant to the cultural tourism. On the other hand, the 20th century harbours and their planned expansions attract nautical tourism.

Anthropogeography, however, would not be sufficient to decode this territory and elaborate proposals. The comprehension of its multifaceted identity relies also on the perception of the cultural heritage in the landscape.

By relating nature to culture, it can be observed that the river loops, the geomorphology of the park and the fortified village somehow remind of the gently undulated landscapes of the Roman countryside, contrasting with the surrounding flat reclaimed fields. However, the perception of Ostia Antica park and the Borgo is influenced by its taller components and masses. The fortifications are still witnessing their strategic function and man adaptability after the decline of ancient Ostia among the inhospitable marshes. The fences along the roads protect the park but partially hide the archaeological excavations; by looking up, the observer is captured by the layered succession of plants and ruins or buildings.

The vegetation of the archaeological park⁴, mainly planted in the 1940s by Busiri Vici and De Vico Fallani, has become mature. A multidisciplinary reflection is needed upon its reintegration or not, because of the potential damages to the ruins. Archaeology is not any more the only

attraction of the park, whose identity and its recognisability result from the combination of elements and dynamic factors. The genius of place lies in the antiquity of path stones, bricks and travertine, and the seasonal display of foliage and flowers. Visual connections of tree alleys, the tall green canopy, masses of Mediterranean shrubs dotting the lawns and the ivy climbing on the ruins belong to the same landscape. Overcoming visual separations of the landscape elements might offer a chance to improve people's awareness of the environmental, archaeological and architectural heritage. In doing so, an effective contribute might come from planning a green infrastructure⁵ to link natural and artificial elements, enhancing their sustainable fruition even with existing historic routes – i.e. via Severiana.

In conclusion, there is still claim for authenticity. In pursuing such objective, the rediscovery of the peculiarities of landscapes and heritage would be essential. Strategies and plans to re-sew the landscapes as a continuum may offer an everyday cultural experience for anyone who is either living or working there, or only visiting the area.

Stakeholders should aim to manage the anthropic pressure of development and tourism, enhance the territorial identity⁶, and introduce sustainable connections.



¹ Vitta, M., *Il paesaggio. Una storia fra natura e architettura*, Einaudi, 2005, p. 300-302

² Bagnasco, C. (ed. by), *Il delta del Tevere. Un viaggio fra passato e futuro*, Palombi Editori, 1998; Biasi, C. (ed. by), *Carta delle Serie di Vegetazione*, 2009

³ Tosco, C., *Il paesaggio come storia, Il Mulino*, 2007, pp. 72-73

⁴ Pavolini, C., *Ostia*, Edizioni Laterza, 2006

⁵ Mell, I.C., *Green Infrastructure planning: A contemporary approach for innovative interventions in urban landscape management*, in *Journal of Biourbanism*, 1-2012

⁶ Clementi, A., *La rigenerazione dei paesaggi italiani*, in *Il Paesaggio Italiano*, Touring Editore, 2000, pp.219-220

LANDSCAPES OF OSTIA

NATURALISTIC VOCATION AND HISTORICAL DEVELOPMENT OF THE ROMAN AGRO BETWEEN CITY AND SEA



The roman *Agro* is the geographic name given to the vast rural area, between the plane and hills, stretching around the city of Rome.

In relation to the selected project area, such portion of territory extends beyond the G.R.A. along the Tiber river to the Tyrrhenian sea, and it includes both the archaeological site of *Ostia Antica* and the beach of the modern *Ostia*.

The first reclamation for productive purposes of this wetland dates back to the Etruscan period, afterwards Roman and finally Mediaeval, when the largest number of fiefs were part of the castle of the Orsini family.

While the literature and painting of the *Grand Tour* depicted an Arcadian-pastoral context, the landscape conditions of the site were still the same of four centuries earlier.

There was a nearly impenetrable jungle which included vegetation series faithful to their water place: the *matrix* was the native lowland forest of the coastal range in prevalence of *Quercus ilex*, the *edafoxerofila* series in prevalence of *Quercus suber* and *Quercus frainetto* in drier areas, and the forests of the alluvial valley of the *edafoigrofile* series in prevalence of *Quercus robur*, *Fraxinus ornus*, *Salix* and *Populus sp.*, in depressed moist areas¹.

Large ponds, a few crops, vineyards and pastures for the buffaloes were the *patches* which interrupted this continuity. While the forests provided an ideal habitat for wild animals, migratory birds used the wetlands as wintering grounds.

In the early 18th century the Tuscan family Sacchetti that already owned about 2000 acres of land, planted a production pinewood, with some 7000 *Pinus pinea* and several *Quercus ilex* near the sea, to enrich the evergreen Mediterranean maquis.

The year 1870 marked a milestone in the definition of the identifying characteristics

of this landscape, when the Italian State needed to radically reclaim the river lands around the new Capital.

In 1884 began the reclamation of the large pools of Ostia and Maccarese: approximately 90 km of canals and a pumping station were made to drain about 150 acres of marsh.

The recalibration of the riverbed created by 1930, through the construction of longitudinal embankments and the regularization of the riverbed, had the purpose of protecting the land gradually dried up. The reclamation ended in 1936.

The crops in irrigated areas, for the production of cereals, fodder and vegetables, and the alternated crops in non-irrigated areas for the cultivation of vine, replaced the ecosystem of the floodplain forest. In the permanent meadows are bred cows, horses and mules².

The evergreen foliage of the eucalyptus trees from Australia, planted for their massive capacity to absorb water from the soil, highlighted the underground track of the channels.

The pinewood, already reduced to about 900 acres, were used only as a hunting ground by the king Umberto I.

In the 1950s some complex peri-urban settlements were developed in these lands: new residential centers provided by the urban planning of the city of Rome were located in Ostia and Casal Palocco.

The growth of this positivist approach to the construction of the modern city, whilst continuing to privilege a basic problem-solving approach to the population needs, has concealed the signs of environmental layers, confusing the recent urban fringe with the historical permanence, the hydraulic infrastructure with the ecological potential, the agricultural textures with their detractors.

In the late 1970s, several associations proposed the idea of the „Park of the Roman Coast“ to safeguard and promote the remaining landscape of cultural and

natural value, including the Urban Park of Pinewood in Castel Fusano. This aim was eventually pursued in 1996 with the establishment of the State Natural Reserve „Roman Coast,“ according to the law 394/1991.

In this context, the landscaping approach to the territorial project can be one of the tools most appropriate to combine the physical-ecological system with socio-economic dynamics.

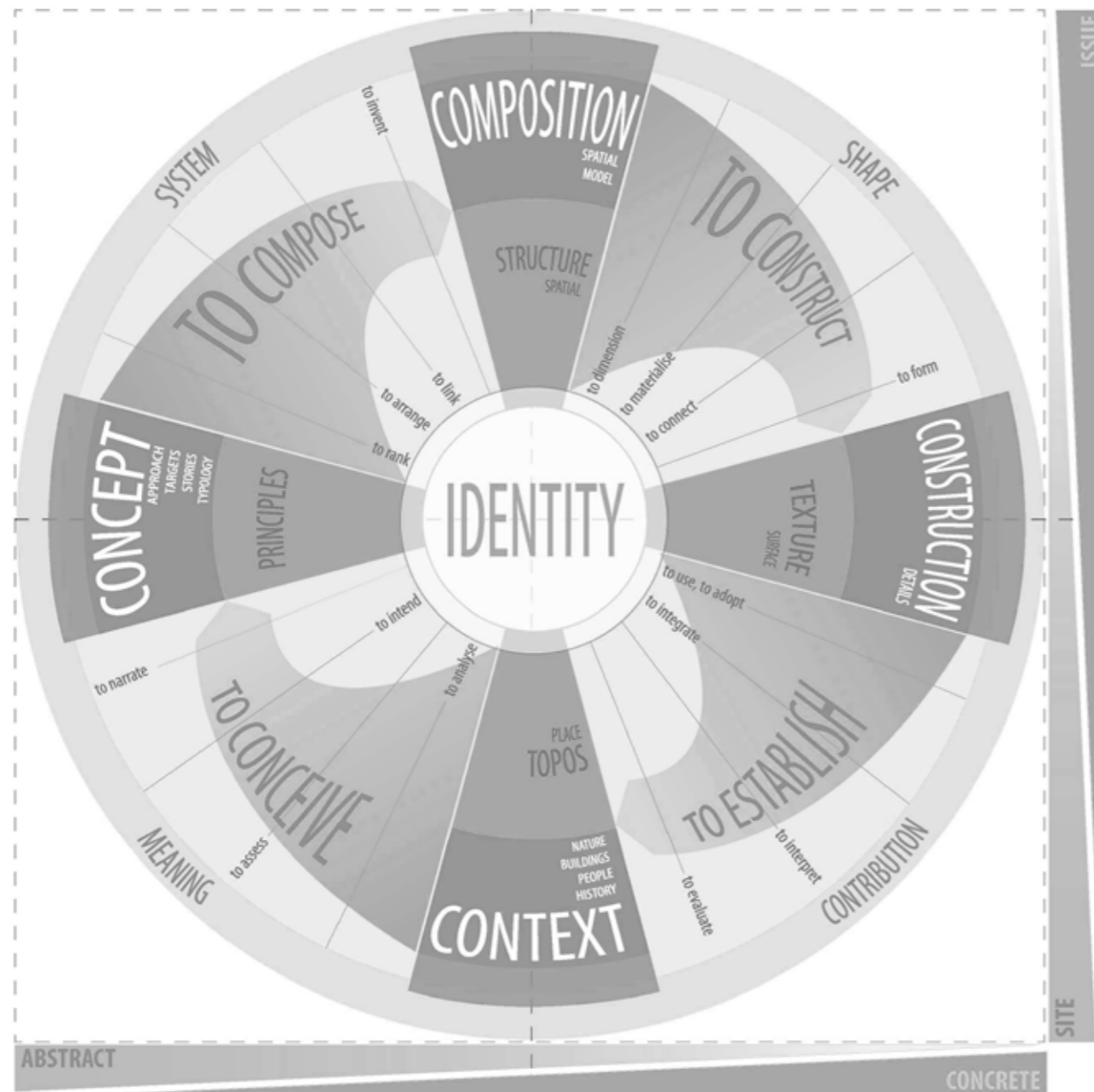
The landscape project should be an *ecotone*³ of boundary and contamination, between the water and the urban sprawl, among the native rainforest matrix and the subsequent agricultural identity, in response to the problems such as the lack of public facilities and services, the improper use of existing green areas and the inaccessibility and security of the peripheral zones.

¹ Carlo Blasi, *Fitoclimatologia of Lazio*, excerpt from „Plant Sociology“, 27, 1994 with „Appendix“ unpublished

² *Soil use map of the Lazio* (2009)

³ In ecology, an *ecotone* is an habitat of transition between two ecosystems, and, more generally, between two homogeneous habitats. The *ecotone* contains species of its neighboring communities and exclusive species of itself, and, therefore, have a high richness and biodiversity. Eugene P. Odum, *Basics of Ecology*, second edition, Piccin-Nuova Libreria, Padova 1988; Thomas M. Smith, Robert Leo Smith, *Elements of Ecology*, sixth edition, Pearson Benjamin Cummings, 2009

DESIGNING IDENTITY – METHODICAL APPROACH



The study project “New Landscapes for Ostia. Landscape Layers – Landscape Pattern” followed a certain procedural method which was presented to the students during the first project introduction. It represents a process-oriented approach to teach and research landscape design as a result of exploring, practicing and reflecting different design methods and theories in academic study projects as well as in professional practice of landscape architecture.

The central idea of the consideration is the cultivation of identity as a main value of landscape and places. To cultivate identity means to understand it, to create, re-create or rediscover it and to develop it.

Landscape layers can be experienced physically by some parts of this pattern like natural, cultural, archeological or historical traces, structures and monuments as well as intangibly or virtually by knowledge, stories and memories about the place, by its meaning and image (Carmona, 2010, page 122). Considering the Ostia project both physical pattern and intangible layers contribute to the identity of landscape.

THE DESIGN CYCLE

Against the background of this model with interacting pattern and layers the design process in landscape architecture can be structured in four components: the context, the concept, the composition and the construction – each fulfilling different degrees between abstract and concrete, between site-orientation and issue-orientation (see image page 16: Design Cycle).

The context is always site-oriented and contains nature, buildings, people, history and meaning. Together they make the “sense of the place” (Carmona, 2010, page 122). Between these physical, concrete elements and these intangible, abstract elements the context is the origin of every planning and design process.

On the base of targets, typologies and stories about the context the concept creates design principles. Relating meanings and functions, the concept combines planning and design strategies. In the middle between site- and issue-orientation it is the most abstract part of the process.

The composition, predicated on these principles, represents the model of the spatial structure, the meeting of system and shape (Engel, 2002, page 65ff.), of form and function. “The composition

must integrate and activate programmatic, physical, technical or constructional qualities into a structure that permits reading and interpretation” (Steenbergen, 2008, page 17). To this effect the composition is concrete and abstract in equal measure and the most issue-oriented part of the design process.

Finally the construction brings the composition to reality, offers a texture with a tangible surface to the environment adopting it as a new part of the place. The construction represents the most concrete part of the design process and must balance between issue-orientation (functions) and site-orientation (materials).

Summing up, the planning and design process, here seen simplified as a cycle, covers four steps, starting from the context: to conceive the meaning, to compose the system, to construct the shape and to establish the contribution into the context again. Every step correlates with different levels of abstraction, different scales and creates different kinds of outputs. The results shown in the following documentation are representing this approach quite obviously.

THE LAYER-PATTERN-MODEL

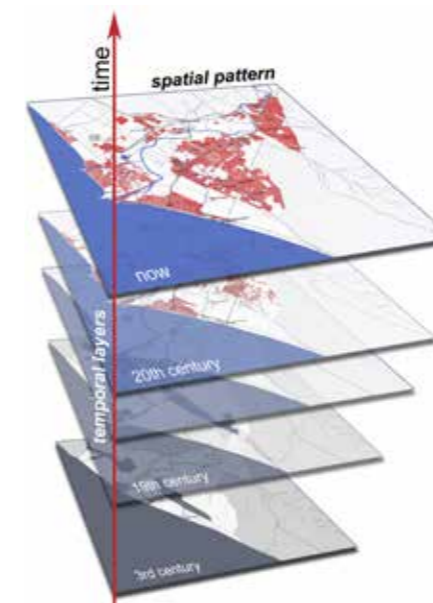


Image: Layer-Pattern-Model (graphic according to Filippetti, 2013, and Keay, Paroli, 2011)

The approach is based on a landscape model with spatial ‘pattern’ and temporal ‘layers’ as main elements of landscape identity. The landscape pattern shows the recent use and condition of the landscape like – in the case of Ostia – settlements, infrastructure elements, agricultural areas, woodlands, water bodies etc.

List of references:

Deming, M. Elen; Swaffield, Simon (2011): *Landscape Architectural Research: Inquiry, Strategy, Design*.
 Carmona, Matthew et al. (2010): *Public places – urban spaces. The dimensions of urban design*.
 Engel, Heino (2002): *Methodik der Architektur-Planung*.
 Filippetti, Roberto (2013): *Archaeology of Modernity. Land Drainage and urban development on Roman coast. Project Introduction, Rome, October 11th*.
 Keay, Simon; Paroli, Lidia (2011): *Portus and its Hinterland. Archaeological Monographs of The British School at Rome*.
 Loidl, Hans; Bernard, Stefan (2003, reprint 2014). *Opening spaces. Design as Landscape Architecture*.
 Steenbergen, Clemens (2008): *Composing landscapes. Analysis, Typology and Experiments for Design*.

PROJECT TEAMS

PLANT



I. to r.:
 Le Trang Nguyen
 Agnieszka Palmowska
 Yanjing Zhang
 Melissa Abas
 Elisa Lumaca
 Lorenzo Felicioni

I. to r.:
 Matilde Forte
 Christopher Boone
 Miguel Jorge Magalhães
 Simona Russo
 Stephanie Janke
 Matthias Klauser

GREEN LINK



L4ND +2



I. to r.:
 Mario Javier Metamoros
 Tina Vetter
 Anika Binder
 Stefano Volpe
 Moira Zouridis
 Negar Mehryar

I. to r.:
 Evelina Knyszelyte
 Neha Shrestha
 Daniele Stefàno
 Azadeh Soltan Ahmadi
 Vivien Ildikó Harmati

F.S.L. - STUDIO



GREEN GO



I. to r.:
 Francesca Perrone
 Gagan Ishwar Singh Keith
 Julia Ramler
 Masoumeh Rajabi
 Anna Szilagyi-Nagy
 Venere Rosa Russo

I. to r.:
 Lorenzo Decembrini
 Kinga Janossy
 Rasha Aboodi
 Andreia Oshiro
 Janice Thien

A.R.K. - LAB



SUPERVISORS



Additionally a special thank goes to:

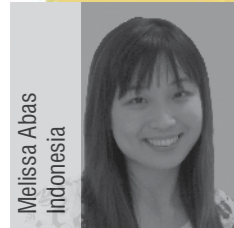
Architect **Roberto Filippetti** for his comprehensive introductory lecture: „Archaeology of Modernity. Land Drainage and urban development on Roman coast.“ and

Archaeologist **Prof. Carlo Pavolini** (Università degli Studi della Tuscia, Viterbo) for his impressive introduction and guided tour at Portus / Lago Traiano.

INSTRUCTION

Each project starts with two title pages that introduce the project team and give a short overview about the conceptual idea. On the following pages the original posters are presented on the left side. On the right side some excerpts from the original posters are shown. To guide you through the brochure each project has its own guiding colour that is shown at the bottom of each page .

EXPIERIENCE OSTIA – A NEW LANDSCAPE PATTERN IN OSTIA



Imagine that you are in a place where history is intertwined with everyday life, where the heritage is surrounded by greenery and is full of life. Think of the sound of the water, relaxing on the grass, the smell of fresh vegetables and herbs and additionally close location to the commercial center. That's how we imagine the new landscape for Ostia!

Our VISION is to bring heritage into daily life. We want to combine heritage, people and nature and create a perfect balance between them. People should be able to be in green surroundings as well as to enjoy the heritage without visual barriers. In addition, we want our proposal to be attractive for both tourists and residents of Ostia.

Therefore, our solutions also include for example new developments and a community garden. Currently, three amazing heritage sites of Ostia are completely divided and also partly forgotten.

Our STRATEGY involves combining these sites by creating a green corridor that will have a huge potential to become the new pride of Ostia. To deeply evaluate the current situation in the project area we visited the site, made a photo documentation, collected data and used some strategic project management tools like e.g. SWOT analysis.

After using such a METHODOLOGICAL APPROACH we were ready to make changes in the landscape of Ostia.

Our main project TARGETS are divided into three main parts:

First one is creation of a greenway connection which will provide additional green space, sustainable development but also will be a protection for new habitats. Second one includes the revitalization of heritage which will bring back the historical value of Ostia and thus increase the number of tourists. Last but not least: redevelopment of the area which will improve the living quality in this region.

Before proceeding with the planning we conducted in-depth ANALYSIS of the current situation with maintaining the division of heritage, people and nature. After receiving the results of the analysis we have created our CONCEPT for new Ostia.

It covers a wide range of greenery, combining three heritage sites, and taking into account the new development plan, community garden, commercial center, several smaller parks and a forest-barrier against noises of everyday life. Additionally, we renewed the old canal.

How you can experience Ostia? We answered this question by showing detailed plans of our project including the DETAILED DESIGN and visualization.

We hope that you will also experience Ostia. It is really worth it!

PLANT



EXPERIENCE Ostia A new landscape pattern in Ostia

FLAT ATTACH

	GENERAL	ESSE	SELECTO
AREAS	Urban landscape by identifying areas of high quality and low quality and identifying the main characteristics	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area
ANALYSIS	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area
RESEARCH	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area
RESULTS	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area	Identify the main characteristics of the urban landscape and the main characteristics of the landscape in the area

MONITORING

LOCATION MAP

AERIAL MAP

VISION

VISION IN REAL LIFE

TARGETS

FORUS AELA

SWOT METHODOLOGY

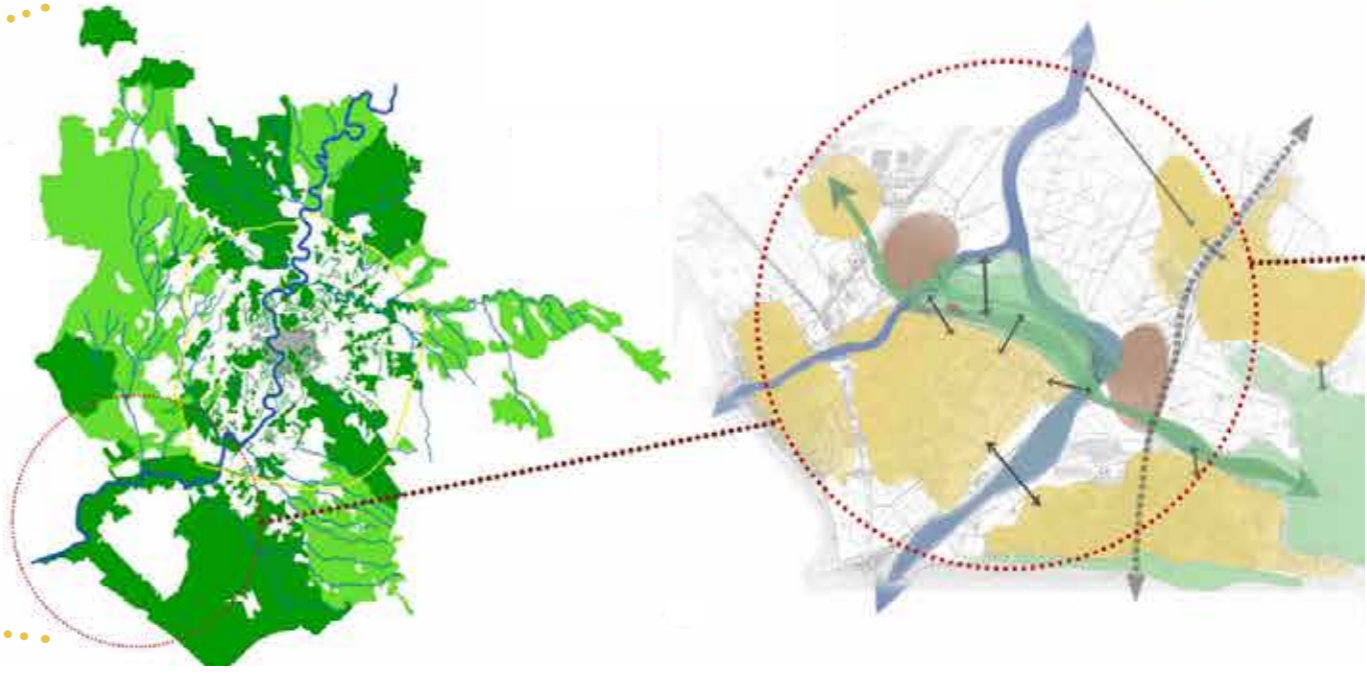
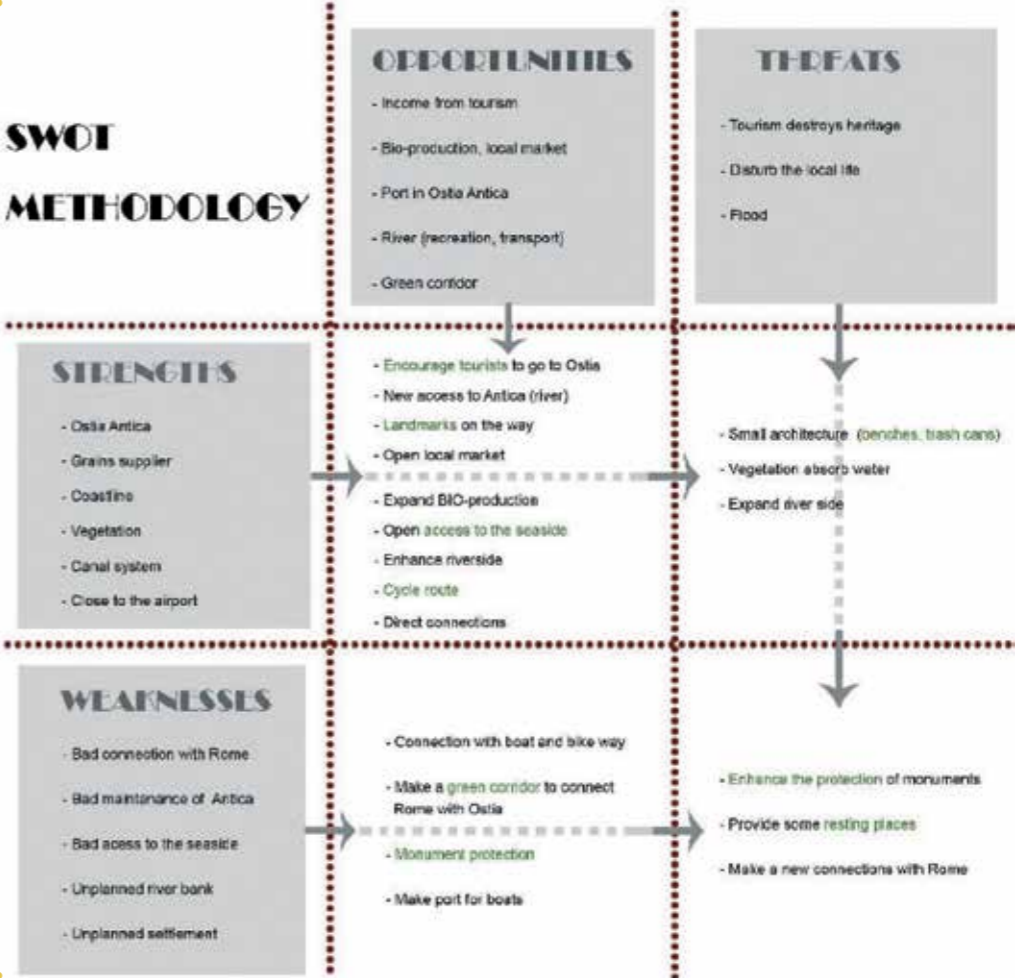
STRENGTHS

WEAKNESSES

OPPORTUNITIES

THREATS

SWOT METHODOLOGY



EXPERIENCE Ostia A new landscape pattern in Ostia

HERITAGE

OLD MAIN ROAD AND COASTLINE

LEGEND:
Old main road
Coastline

This map shows the location of the old coast (indicated by a dotted line) and the old main road (indicated by a solid line) together by the sea and it was located about 2 km from the sea.

CANAL SYSTEM

LEGEND:
Canal

Map shows the existing system of canals in the study area. Only some of them are visible on the surface, most of them are located in the underground.

HERITAGE SITES AND RESTRICTED AREAS

LEGEND:
Heritage sites
Restricted areas

Map shows the heritage and restricted areas. We can see that these places occupy large areas of research. It is noted that we have to respect them when we will make some changes in this area.

COMBINED HERITAGE MAP

LEGEND:
Heritage sites
Restricted areas

After combining the previous maps we have created a map that clearly shows the heritage from the current map. We can see on the available information from the past to the city of Ostia today and their connections, to read it by itself.

HUMAN

SECRET FACILITIES

LEGEND:
Secret areas

Analysis of aerial satellite shows that there are a lot of them in our study area, but they are very scattered, and some of them are considered to be private use.

ROAD SYSTEM

LEGEND:
Road system

This map shows roads, the road system in the study area. The color and the size of the lines show the speed in the center of Ostia, and around the road. The color is indicated by the road is the size of the road leading to the road in the area.

SETTLEMENT

LEGEND:
Existing settlement

This map shows the current settlement in Ostia. We can observe that some areas are built very chaotically, without visible lines and order. In the section between heritage sites there are many unplanned houses, which are not included in official plans.

ACTIVITIES MAP

LEGEND:
Road accessibility
Water accessibility
Airport
Heritage sites
Special protection sites

After combining the previous maps we have created a comprehensive map of current activities in the area. We can observe the main activities along the river (boat industry) and along the main road leading to the airport. Going with main road you can also get to the heritage sites.

NATURE

GREEN SPACE

LEGEND:
Green spaces

This map shows the existing green spaces in the area of Ostia. We can observe that there is a lack of green spaces. The green spaces are located in the area of Ostia and around the sea. The green spaces are located in the area of Ostia and around the sea. The green spaces are located in the area of Ostia and around the sea.

WATER SYSTEM

LEGEND:
Water bodies

This map shows the existing water bodies in the area. The blue lines and the size of the lines show the speed in the center of Ostia, and around the road. The color is indicated by the road is the size of the road leading to the road in the area.

AGRICULTURE

LEGEND:
Agriculture fields

As can be seen from the map, in the area of Ostia there are a lot of fields used for agriculture. It is very important for the region because during winter there is a lot of the production of fish and together to fish. Considering the high demand for space for building and the lack of water in the area.

COMBINED NATURE VALUES

LEGEND:
Water values
Potential green corridor
Special green spaces

After combining the previous maps we obtained a clear picture of the current situation. We can observe a clear lack of suitable amount of green areas and the lack of connections between heritage sites.

HERITAGE SITES AND RESTRICTED AREAS

LEGEND:
Heritage sites
Restricted areas

Map shows the heritage and restricted areas. We can see that these places occupy large area of research. This means that we have to respect them when we will make some changes in this area.

SETTLEMENT

LEGEND:
Existing settlement

This map shows the current settlement in Ostia. We can observe that some areas are built very chaotically, without visible lines and order. In the section between heritage sites there are many unplanned houses, which are not included in official plans.

ACTIVITIES MAP

LEGEND:
Road accessibility
Water accessibility
Airport
Heritage sites
Special protection sites

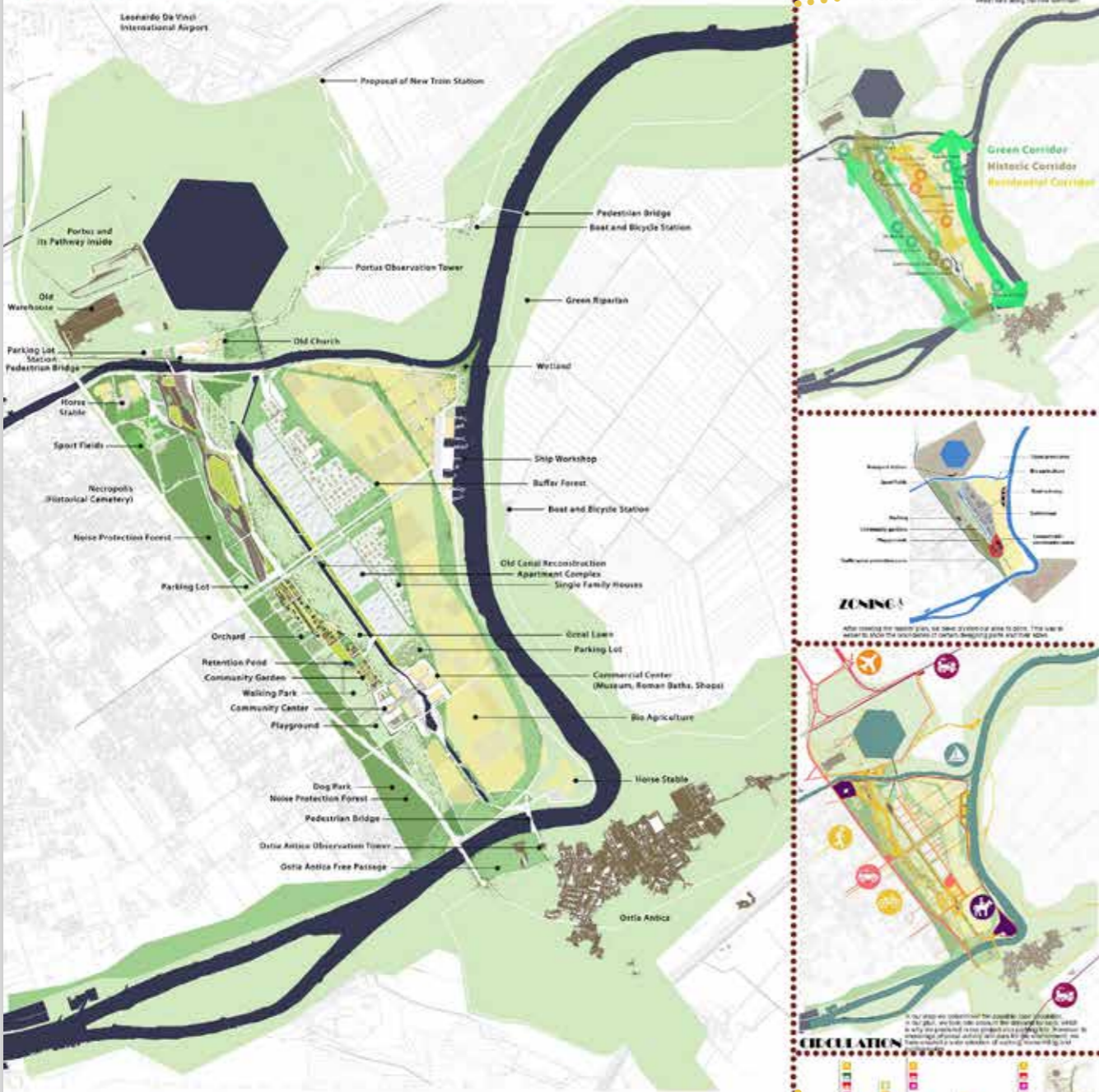
After combining the previous maps we have created a comprehensive map of current activities in the area. We can observe the main activities along the river (boat industry) and along the main road leading to the airport. Going with main road you can also get to the heritage sites.

COMBINED NATURE VALUES

LEGEND:
Water values
Potential green corridor
Special green spaces

After combining the previous maps we obtained a clear picture of the current situation. We can observe a clear lack of suitable amount of green areas and the lack of connections between heritage sites.

PLAN EXPERIENCE Ostia
A new landscape pattern in Ostia



MASTER PLAN 1:5000

ECOLOGICAL VALUE



LANDSCAPE DESIGN



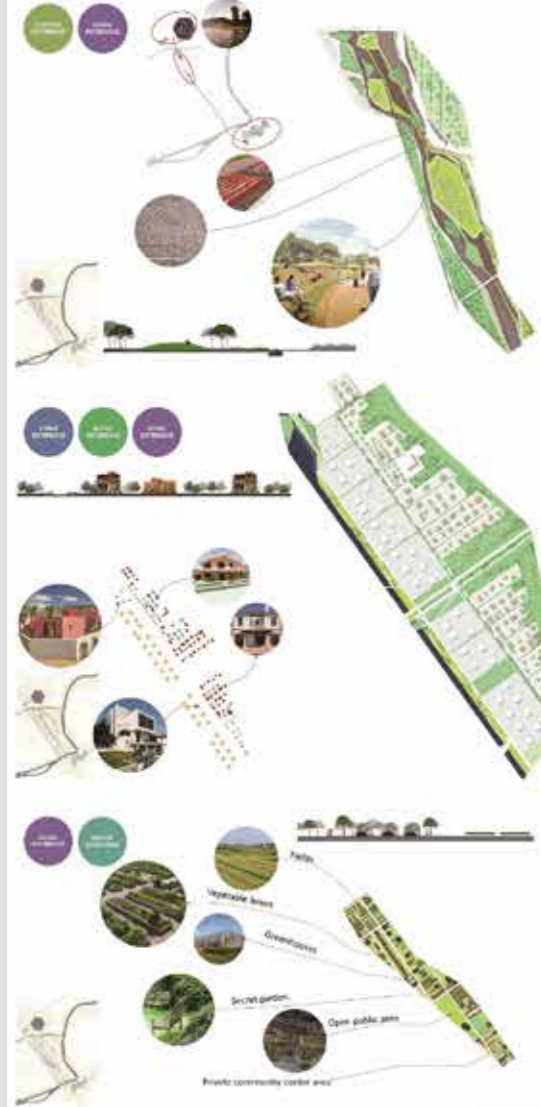
ACTIVITIES

PLANT LIST

Plant Name	Plant Name	Plant Name	Plant Name
Platanus	Quercus	Castanea	Ulmus
Alnus	Salix	Populus	Fraxinus
Prunus	Malus	Pyrus	Crataegus
Rosa	Spirea	Hydrangea	Philadelphus
Deutzia	Abutilon	Verbena	Phlox
Verbena	Phlox	Phlox	Phlox
Phlox	Phlox	Phlox	Phlox

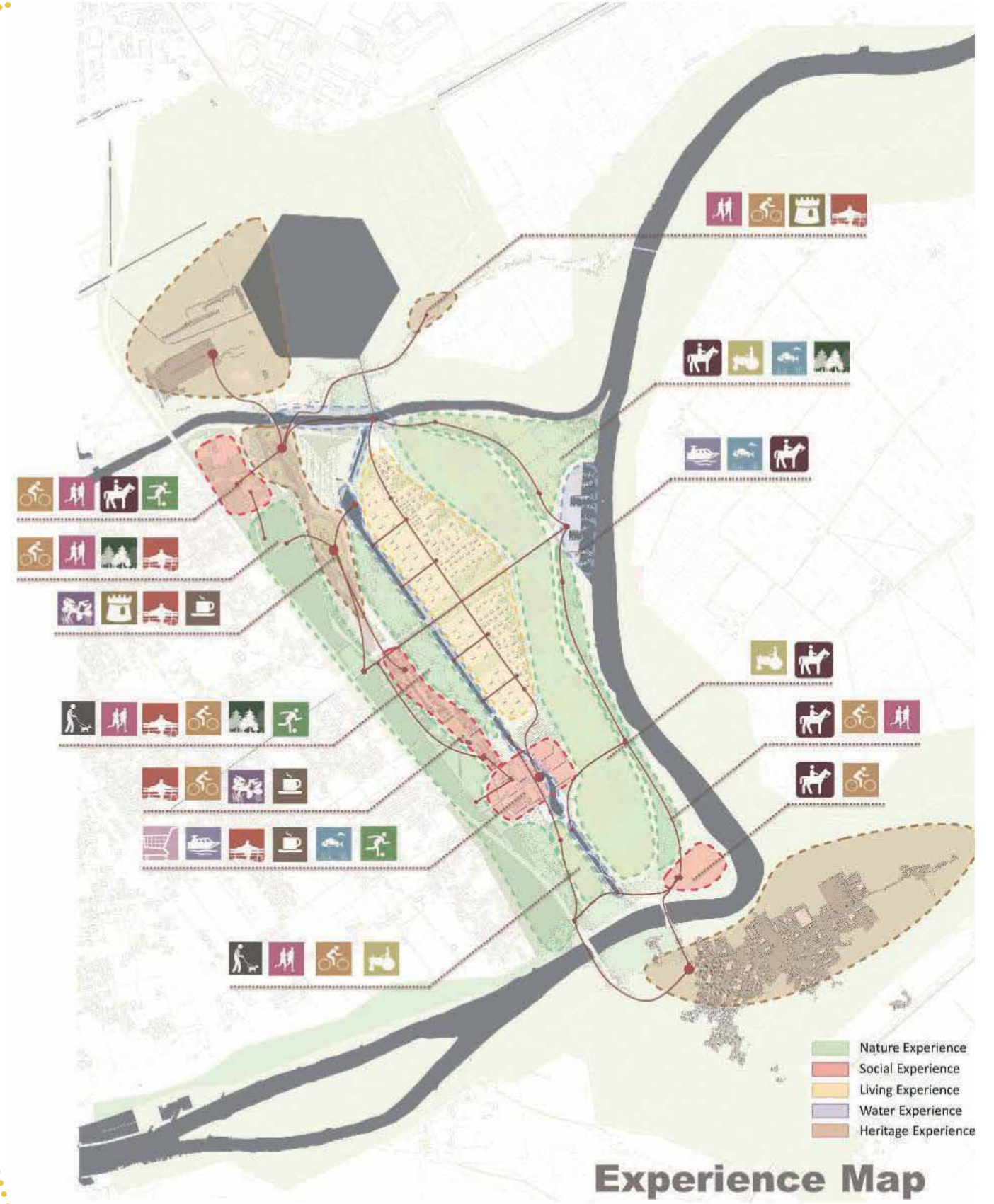


PLAT EXPERIENCE Ostia
A new landscape pattern in Ostia
EXPERIENCE OSTIA



EXPERIENCE OSTIA

In our detailed design we want to show how you can experience Ostia in various aspects. We added them into heritage, nature, water, living and social experiences. In each of these detailed designs we share the appropriate ideas, the picture examples, sections and visualizations. We want to introduce you our vision and let you experience Ostia with us.



OSTIAXES

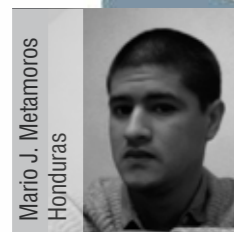
What if the problem could not be solved by one approach? What if the solution was a network of concepts and not one concept?

OSTIAXES is this network. Two large areas with a high variety of landscape characters and structures cannot be solved by a single concept. They need order and communication but this order has to be realized without eliminating the variety.

The main task was to imagine a future in which the sense of ownership of the landscape is returned to Ostia citizens; a future in which you can get everywhere by using not your car, but your bike; a future accessible to all, a big display of all the hidden features of the disordered gate to Rome.

The second task was to give value to all the forgotten potentials: the Tiber, an iconic river, the Ruins of Ostia Scavi, the former Traiano Harbor, the Pier Paolo Pasolini Park and of course the Gate to Rome.

The challenge was to realize that every little change in potential had a collateral effect. If we wanted to give the value to certain areas we had to answer to other social questions on how and where to move the functions without eliminating but improving their conditions. OSTIAXES is an axial strategy that proposes to bond the citizens, the nature and the heritage by two crossing axes, with the ruins as the start point. Why? The ruins are the first image which comes to your mind when you think of Ostia. They are the sacred place; the most sensible, yet valuable zone of the master plan. They inclusively define the river axis by a repetition of their parallel grid, while the other tries to bring back history by creating a vegetal metaphor of the former coastline connecting the lake Traiano and the existing Pinus pinea zones.



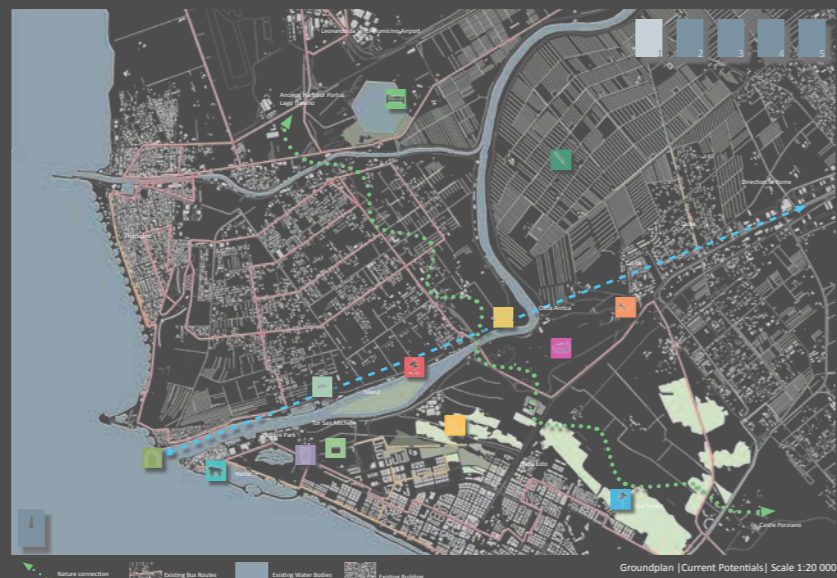
L4ND+2



Ostiaxes - The Analysis

- S**trengths
- historical heritage
 - water channels/ river/ sea
 - agricultural land
 - location to Rome
 - high biodiversity in areas
 - structures from different times
- W**eaknesses
- isolated areas
 - polluted areas
 - slums
 - conventional agriculture
 - missing infrastructure
 - few bridges
 - many boats
 - few bike/ pedestrian routes
 - lack of information about region/ culture
 - no involvement of local people
 - no access/ barriers to cultural heritages
 - missing connection of green structures
- O**pportunities
- connection of sites and green structures
 - improvement of infrastructure
 - development of sustainable landscape
 - attract people to cultural heritage
- T**hreats
- floods
 - poverty
 - lack of security
 - traffic jam
 - isolation
 - environmental pollution
 - no road safety and accidents
 - loss of cultural heritages
 - depletion of landscape

SWOT Overall Analysis



Vision
Ostia has a high variety and complexity of functions, our intention is not to eliminate this variety. Rather than that, Ostiaxes brings order to variety. It is consisting in a rich fusion of contemporary landscapes and revitalized potentials with coherence, analytical and axial orientation.

Procedure



Strategy

recognize values
(dis)connect what is needed
discover possibilities
maximize potentials
give orientation
think

BIG!



<p>No access to a beautiful place</p> <ul style="list-style-type: none"> S: high biodiversity/ history W: no access/ isolated O: connect via public/ paths 	<p>Just one bridge</p> <ul style="list-style-type: none"> S: high biodiversity/ untouched W: no access/ high O: connect via public/ private 	<p>Isolated island</p> <ul style="list-style-type: none"> S: high biodiversity/ untouched W: no access/ high O: connect via public/ private 	<p>Overloaded banks with slums</p> <ul style="list-style-type: none"> S: banks W: many ships O: create living spaces T: nobody/ no access to the river 	<p>Access with barriers</p> <ul style="list-style-type: none"> S: existing structures W: access with barriers O: create access without barriers T: no access for handicapped 	<p>Cultural heritage stage not visible</p> <ul style="list-style-type: none"> S: cultural heritage W: not visible O: information/ equipment/ new visibility T: no visitors and maintenance 	<p>Gate to the world</p> <ul style="list-style-type: none"> S: river/ bridge/ landmark W: poor visibility O: creation of new/ old/ right T: being identity/ definition of landscape 	<p>Waste</p> <ul style="list-style-type: none"> S: hidden/ covered areas W: waste O: clean/ maintain T: environmental pollution 	<p>Closed and neglected parks</p> <ul style="list-style-type: none"> S: parks for recreation W: closed and neglected parks O: parks for recreation and leisure T: nobody/ families/ people 	<p>Green fragments</p> <ul style="list-style-type: none"> S: high biodiversity/ recreation/ nature W: small/ fragmented green structures O: create living spaces T: isolated green structures 	<p>Slums</p> <ul style="list-style-type: none"> S: future development W: poor/ poor O: recreation area along the coast T: poverty/ community 	<p>Unused land</p> <ul style="list-style-type: none"> S: big area W: nothing is happening there O: area with functions T: division of the landscape 	<p>Conventional farmland</p> <ul style="list-style-type: none"> S: open land W: poor visibility O: ecological transformation T: division of the landscape
--	---	---	---	---	---	--	--	---	--	---	--	--

SWOT Detailed Analysis

In October 2013 the region of Ostia was discovered from the students of the IMEA semester from the Nürtingen-Geislingen University of Applied Sciences and students from the Facoltà di Architettura Sapienza from the Università di Roma. The topic of the workshop was to find a concept for a sustainable development of changing peri-urban landscapes which are related to the cultural heritage site of Ostia Antica.

The region of Ostia has a lot of components which are often isolated and hidden with a lot of opportunities. The region is defined of several land uses and different pattern of ancient times. The cultural heritage Ostia Antica is one contemporary witness of these times. It was the old access to the capital Rome and nowadays it is not included to the surrounded landscape. The green structures - Lake Traiano, Pine Forest and Ostia Antica - are isolated and fragmented in the landscape environment.

These green structures are one of the components which are used to redefine the new landscape of the region. Other components are the water bodies. The canal grid is a well organised structure. Nevertheless the conditions are not proper. The ancient coastline is another issue which is considered in the concept. To create new sensibility, the ancient and the recent landscape were included.

There are a lot of parks which are closed and neglected. The existing lack of recreation areas is one gap that has to be solved.

The river Tiber can be an opportunity to revitalize the region. At the moment the shores are occupied by ships and not well defined. By bringing this in a new order the occupied areas will be minimized.

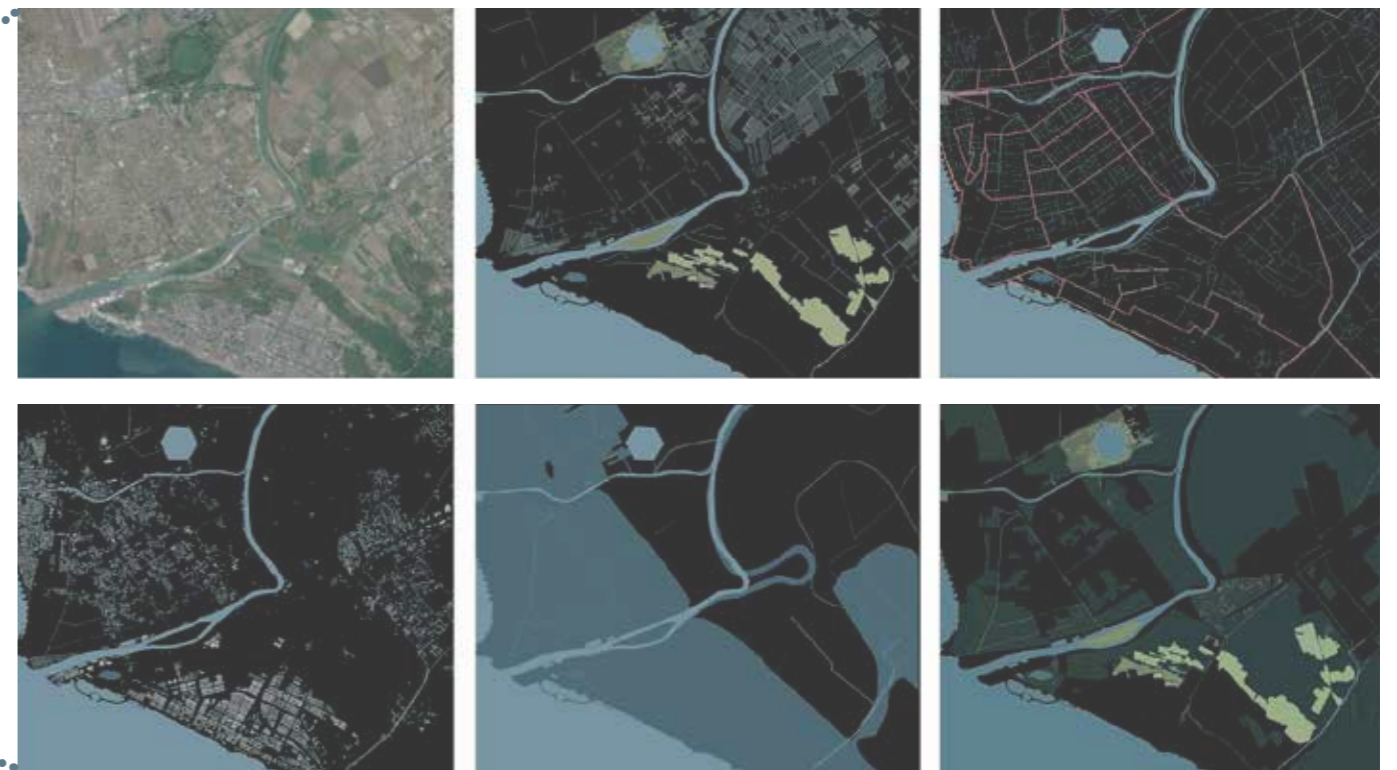
The bicycle paths are very rare and not connected. The region cannot be discovered by bike paths. The urban structure is disordered and has no well defined densities. The sprawl of the settlements is not in coherence to the landscape environment. The history influence should be one topic to define new urban structures.

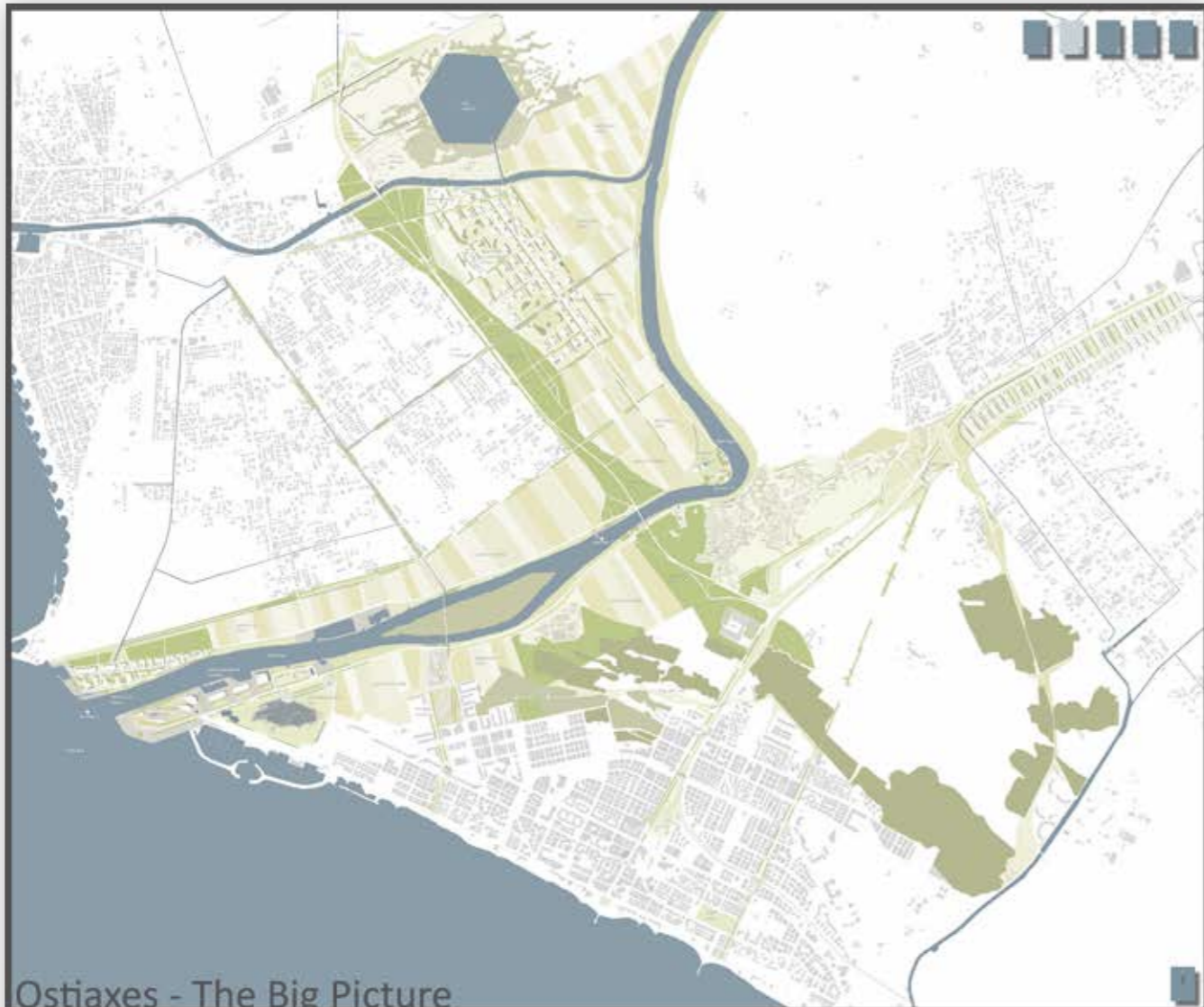
This analysis was the first step for the definition of the concept for the new landscape for Ostia.



NUOVI PAESAGGI PER OSTIA - NEW LANDSCAPES FOR OSTIA
International Master of Landscape Architecture | Main Project II
Winter Term 2013/14 | NEWU Nürtingen-Geislingen
Anika Binder | Mario Matamoros | Negar Mehryar | Tina Vetter

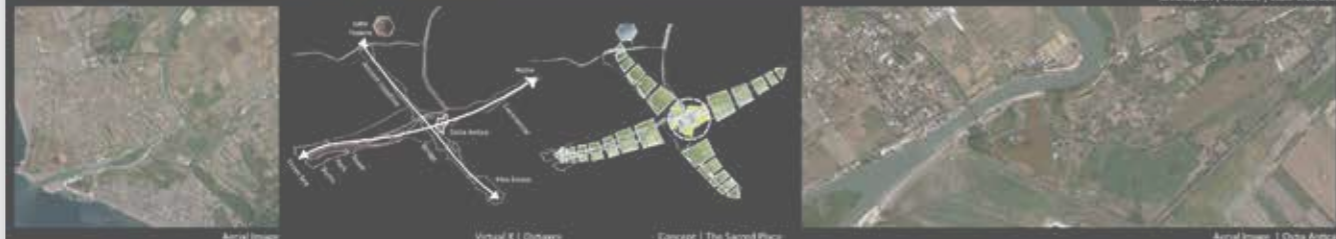
OSTIAXES





Ostiaxes - The Big Picture

Groundplan | Ostiaxes | Scale 1:10,000



Ostiaxes is an aerial solution for a broad and disordered landscape pattern found in the gates of Rome. It is intended to be experimental and risky: the topic of bringing new life to a forgotten and neglected historical site which has fallen in spontaneous urban sprawl and social segregation. Despite of all its development potential, Ostia Lido is facing strong social differences. Its spontaneous urban growth has caused the loss of land value in the most desirable parts of its landscape. Its growth disregards its values and history. To lower this story combining purifying is not the answer.

The ideal proposal is not a sacrifice, the axes are an evident response to a conflict zone found around two axes. 80% of all the historical and natural sites are found on two directions crossing in the Ostia Antica ruins. Most of these potentials are abandoned or ignored. Others are located on the wrong spots, causing a misuse of potential. Our intention is to bring order to complexity without eliminating the existing variety.

Regardless of the radical appearance, Ostiaxes is not inventing or designing by creating history. The design's intention is to adapt the opportunities the current situation already gives us. The new development order grows along an existing line route. The most important tourists and recreational features are located around the existing historical sites and the sea: order is respecting both historical urban structures from Ostia Antica and the vegetation corridor of Pinus. The result: two different design directions. One intentionally rigid and practical full of geometrical rhythms that defines better the borders of the Tiber and the urban and agricultural activities. The second design direction is intended to improve the ecological conditions by creating a green belt around the highway. This also diminishes the visual and sound pollution of the disordered Tiber. The green bubbles belt is taking back the self-connection with the sea meaning of separating noise and heat from nature and leisure, which Tiber Sacra actually lacks.

Ostia also lacks a open cultural life. It's next to the sea but the access to the beach is privatized. Why shouldn't the gate of Rome not be a public space open for cultural entertainments.

MUOVA PIAZZAGGI PER OSTIA - NEW LANDSCAPES FOR OSTIA
International Master of Landscape Architecture | Main Project II
Winter Term 2012/13 | IAP/01/04/05/06/07/08/09/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100
Anika Binder | Marco Mariani | Nigar Malyar | Tina Vetter

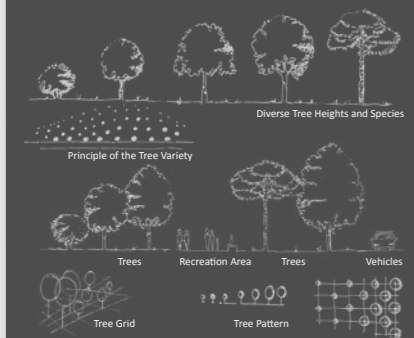


OSTIA XES





Ostiaxes - The Green Axis



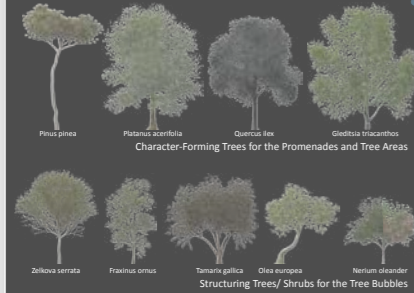
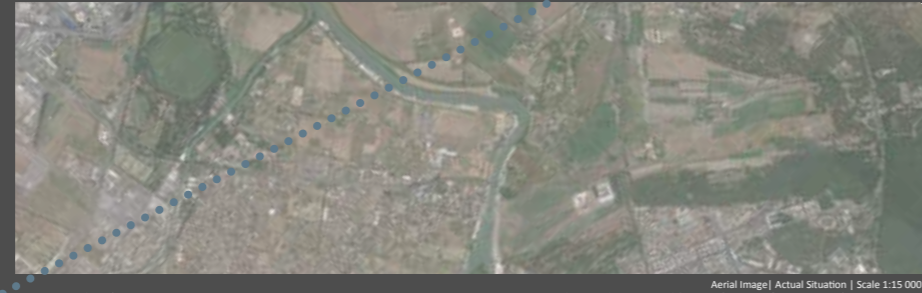
The Green Axis of Ostiaxes

The region of Ostia has a lot of neglected land along roads and no space for people and their recreational issues. The pedestrian paths are not in proper conditions. They have barriers and the surfaces are demolished by roots or succession.

The existing green structures - Lago Traiano, the Island in the Tiber, the cultural heritage Ostia Antica and the pine forest - are isolated, hidden and mostly inaccessible. The design of the green bubble considers all these areas by connecting these with a corporate design of a green belt which is joining and linking the spots. The green area represents the ancient coastline and avoids the urban sprawl in the areas around the green belt.

The pedestrian path inside the green belt is hidden from the existing traffic by using different varieties of character-forming and structuring trees and shrubs. To provide more and less densities of shade the trees are positioned in a grid that has more denser areas towards the streets and less denser areas towards the open landscape.

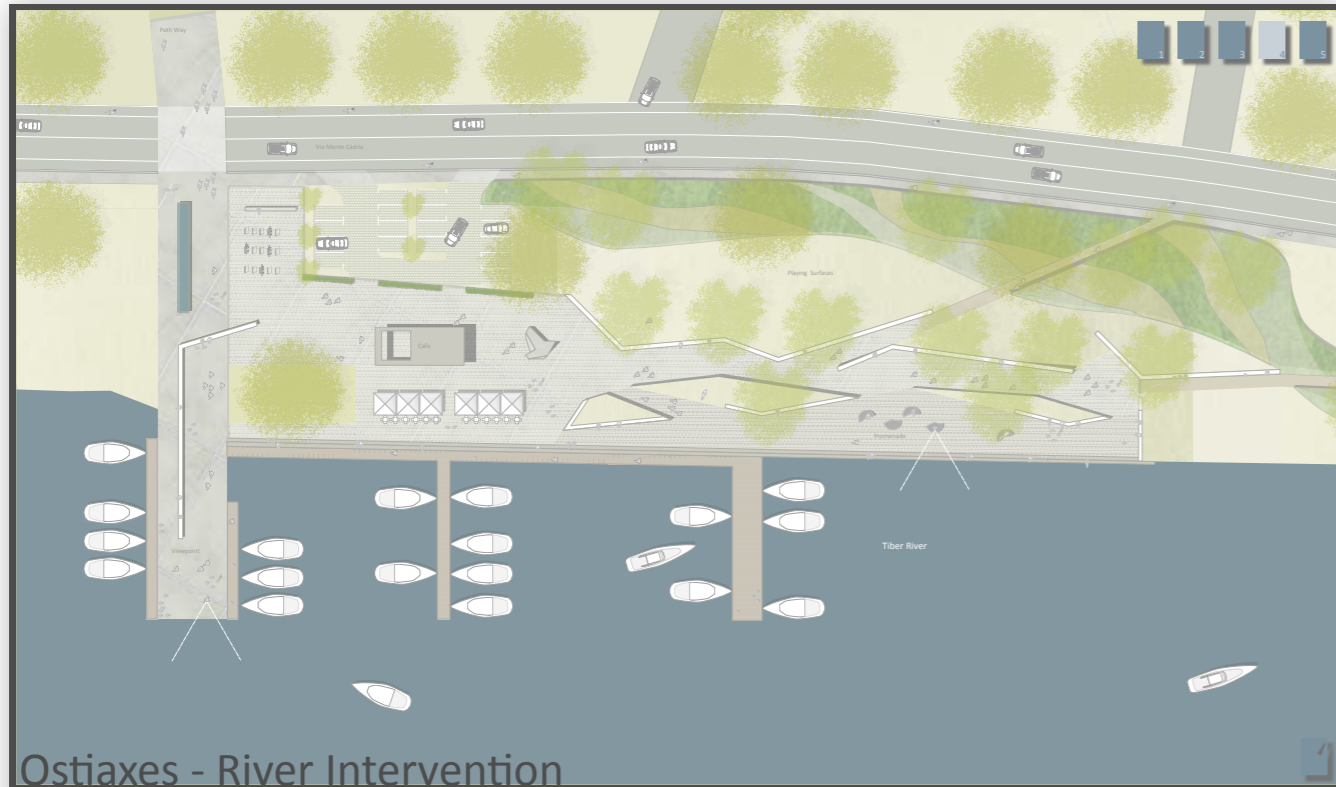
Ostiaxes is proposing more than 1.3 Mio. square meters of green structures and is preventing noise and air pollution for the region.



Character-Forming Trees for the Promenades and Tree Areas



Structuring Trees/ Shrubs for the Tree Bubbles



Ostiaxes - River Intervention

Groundplan | Promenade along the river Tiber | Scale 1:250

Concept | The River Intervention

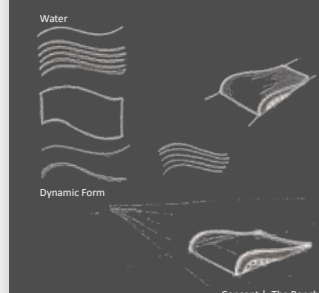
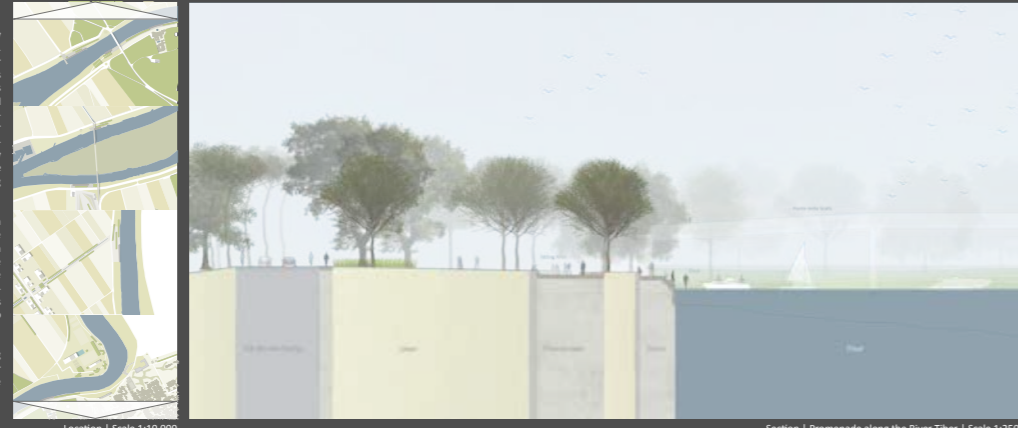
Aerial Image

Revitalization and Redensifying of the Tiber

Water is the backbone of human history in terms of economy and transportation. Today rivers have little meaning to the society. The meaning has been lost due to neglect and pollution. The Tiber itself was one of the most recognized rivers worldwide, but faces today a growing misuse of a small sector of Ostia's population. Its riverbank has become a horrible „parking lot“ or an overloaded continuous dock. It was known that the situation was not sustainable since the traffic and approach of boats makes it unpleasant for tourists and locals. So it had to play a main role in Ostiaxes's strategic plan. By observing the urban centers it became visible that they were sadly separated from water and such things like taking a bike ride along the Tiber or just sitting down and have a picnic viewing the river was just impossible.

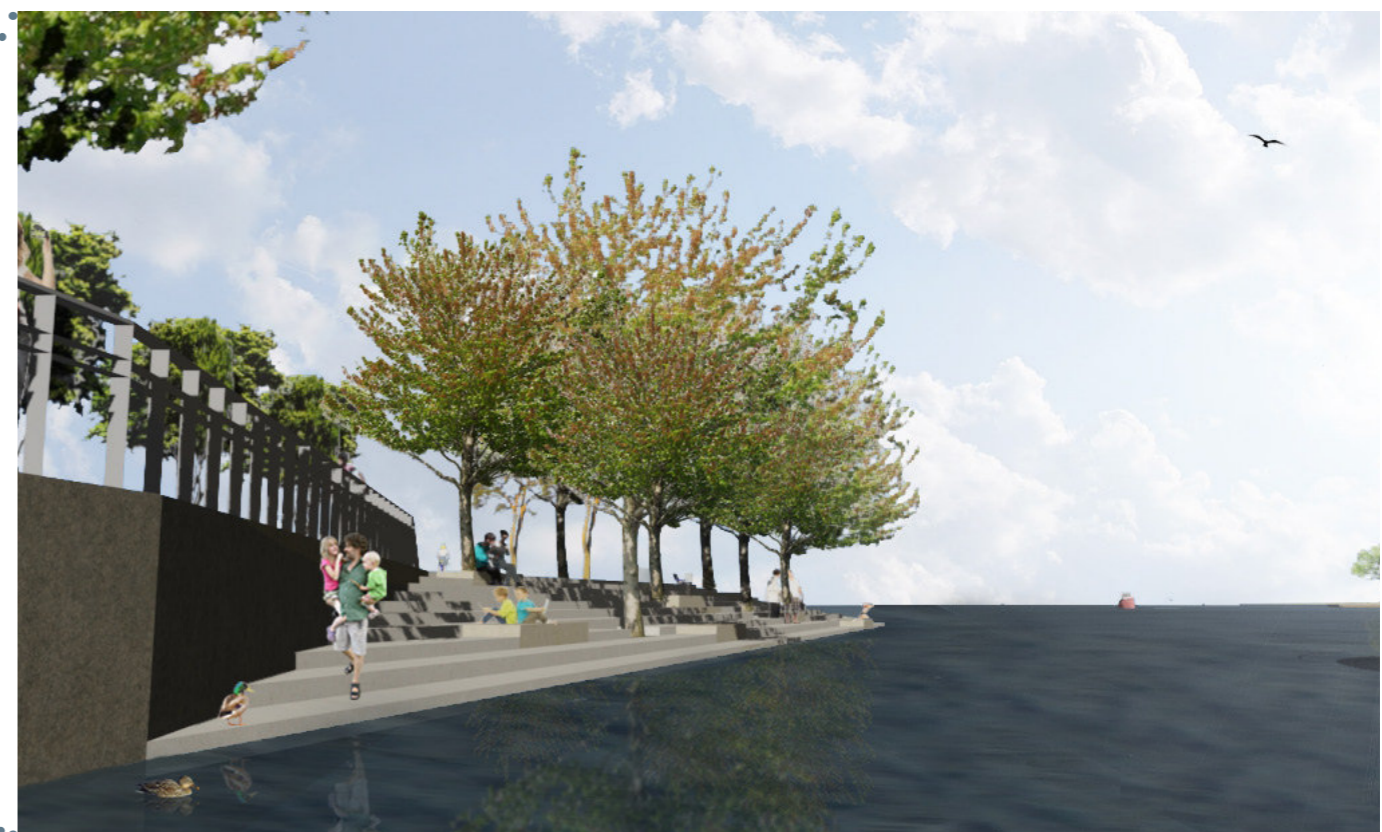
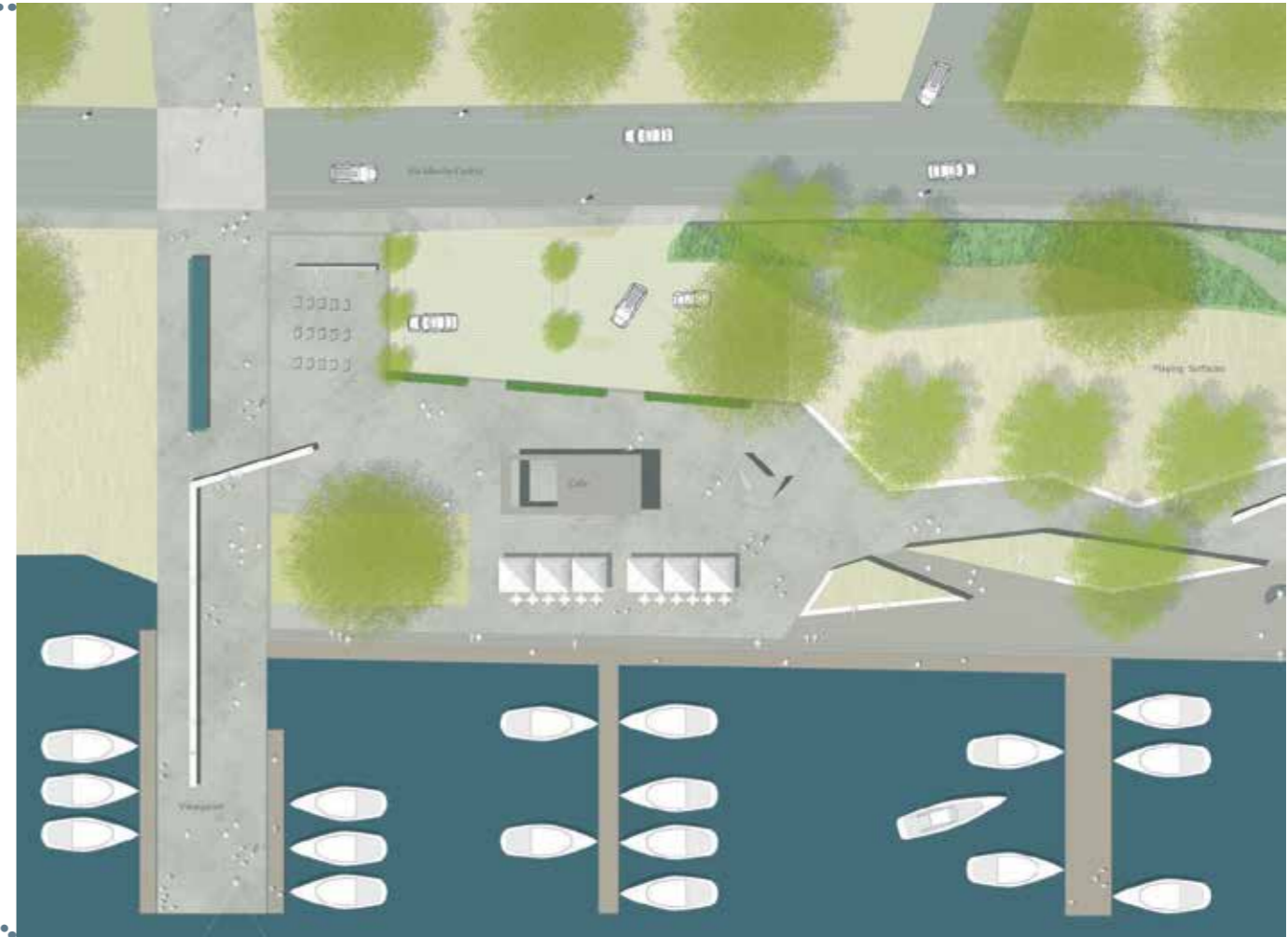
A river should be a backbone of biodiversity, which means a richness of habitats, flora and fauna. Ostiaxes strategy is therefore to redensify the docks, eliminate the over-usage of the river as a continuous endless dock and leaving more open and natural space to revitalize the river. The second objective of Ostiaxes regarding the river is to create meaningful places for a shared sense of community to connect the urban centers and the people with the river. This connection enforces the sense of identity and meaning of water to the society.

Ostiaxes, as a strong new impulse for the future, is about giving back the value to simple and evident things like enjoying the river on a hot summer day, go jogging along a riverbank full of life. These changes will also bring changes in behavior and thinking.



OSTIAXES

NUOVI PRESAGGI PER OSTIA - NEW LANDSCAPES FOR OSTIA
 International Master of Landscape Architecture | Main Project II
 Winter Term 2013/14 | HFWU Nürtingen-Geislingen
 Anika Binder | Mario Matamoros | Negar Mehryar | Tina Vetter





Ostiaxes - New Development

Groundplan | New Development Area | Scale 1:500



Aerial Image



Concept | New Residential Area

New Development and New Potentials

Logic says that waterfronts and seafonts are desirable spots, places for social gathering and urban-nature transitions. Instead of that, Ostia has poor and spontaneous developments along these areas. You cannot even say that the people are there for the view, since the decaying urban structure there does not allow them to enjoy such things, they are there by chance and negligence of the authorities.

The project has the intention to locate the different urban strata in the correct spots without endangering the living quality of any citizen. It is impossible to change the economic structures but it is possible to provide more democratic public conditions to the inhabitants without compromising the ecological sustainability and welfare. The new potentials are going to be achieved by relocating in terms of public use: a new cultural center in the most iconic position; the delta of the Tiber.

Museums, art installations and opera houses will find place with vast new open public parks and access to the beach. On the other side a new residential and high quality commercial center will take place.

This new development will be ecofriendly and pedestrian oriented despite the constructiveness might suggest. The inhabitants will find themselves between urban forests and huge promenades to enjoy the gates of Rome.



Concept | New Gate to Rome



Groundplan | New Gate to Rome | Scale 1:3000



Aerial Image

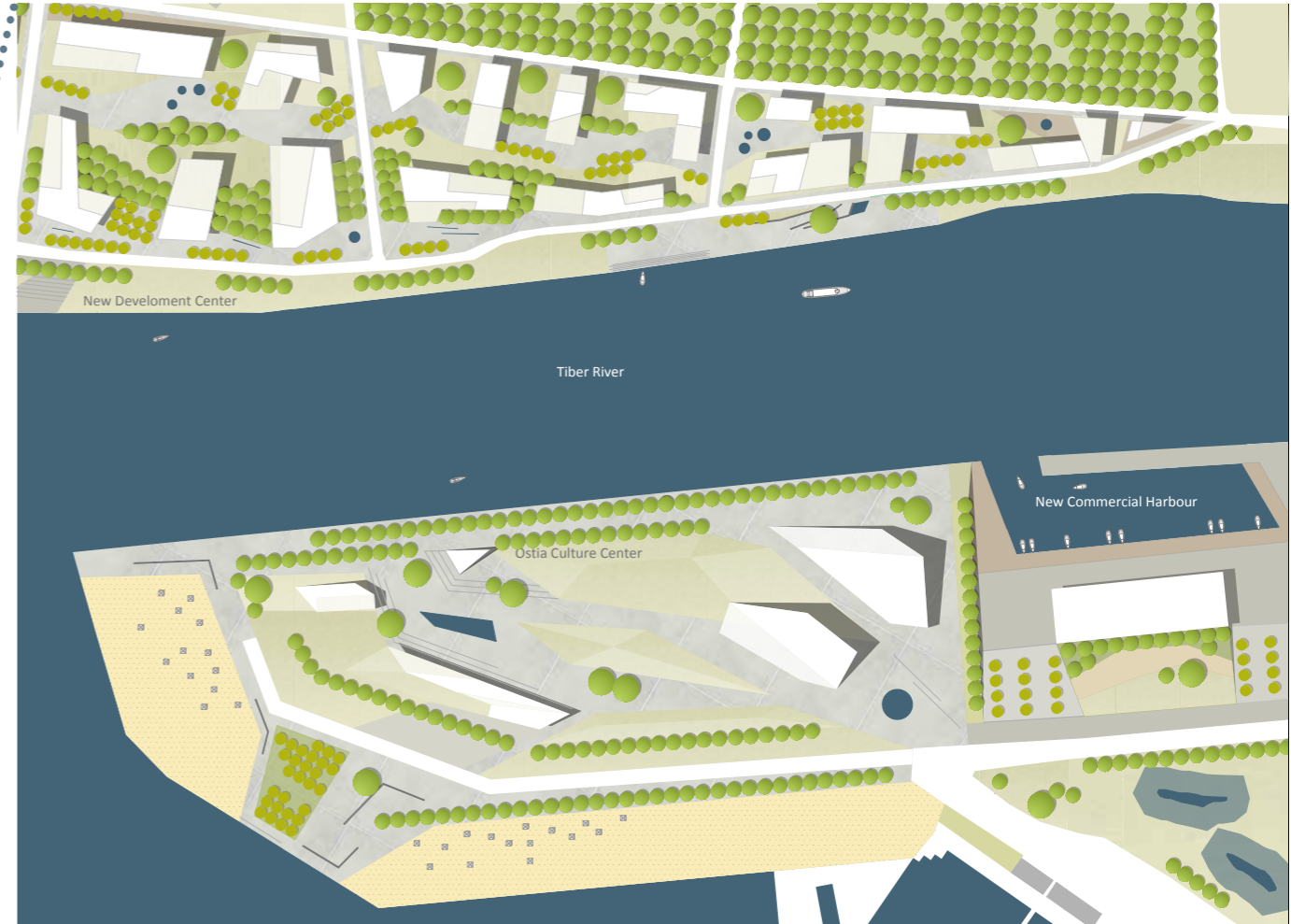


Bird View | New Gate to Rome



Perspective | New Gate to Rome

NUOVI PAESAGGI PER OSTIA - NEW LANDSCAPES FOR OSTIA
 International Master of Landscape Architecture | Main Project II
 Winter Term 2013/14 | HFWU Nürtingen-Geislingen
 Anika Binder | Mario Matamoros | Negar Mehryar | Tina Vetter



ACQUETTIVA



Gagan I. Singh
India



Francesca Perrone
Italy



Masoumeh Rajabi
Iran



Julia Ramler
Austria



Venere Rosa Russo
Italy



Anna Szilagyi-Nagy
Hungary

VISION

For the region of Rome, we focus on the circulation of water at regional level and catchment area. We have defined that water management, purification and retention should be organized in this area. Ultimately, creating natural landscape around the river, which dissolves to urban, is one of our goals. At urban level, water combines the space together. For example we have two different levels in this area i.e. street and building, where we collect, purify and reuse water. Our strategy can be seen at three levels: Blue infrastructure: We use existing water canals and water elements to develop our concept. We can see how Rome is connected to the coast through the water as a medium. Green infrastructure: Green spaces combine to form the green landscape. We combine green and blue, land and water and design new landscape for Ostia. Traffic network: Urban areas are where this concept is shaped with a sustainable approach. With green and blue infrastructure we developed water friendly spaces.

REGIONAL CONCEPT PLAN

We divided the river into separate parts on one hand to reflect the existing situation on the other hand it reflects the potentials of the different areas. We create repeated elements that allow the possibility to provide general solution for the similar sites and go into depth on our own focus area with a specified design that can be different in character from the ones outside the focus area. These motives are defined by the traditional land use and the historical feature of the river.

IMAGE OF NATURE AND SPATIAL CONCEPT

Firstly, we summed up the existing water features along the river characterized by human activity and the built environment. Then we defined new intervention areas that bring new features to the site or modify the existing water system. With our concept we strengthen the connection between people and the river and among the different settlements.

CONNECTING LANDSCAPE

Connection between Rome and Ostia till the coast is through transportation along the river (as it was in the past). This route will be used as a new tourism route with stations at the places we intervene with. We connect Fiumicino airport and Castel Porziano by strengthening the existing line of the channel system. We create an intense road network which connects the old harbor to Ostia through an urbanized network. Here we show the old coast line through design language. In the design part we focused on two different areas: a natural recreation wetland area and a sustainable settlement area. The landscape in the wetland area is characterized by a chain of ponds serving as a water retention and purification site combined with recreation, nature education, and bicycle renting possibilities. The concept of this settlement arises from and is based on water, a sustainable settlement designed with an attempt to clear and improve water quality. The key focus of the whole project is to improve water quality in the whole area; in the urban settlement it is achieved with unique innovation.

GREEN GO!

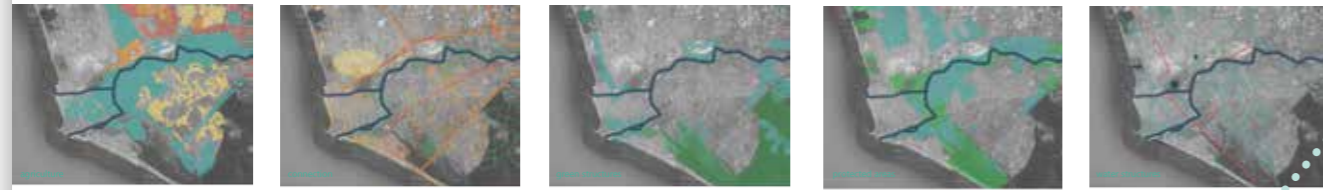


ACQUETTIVA

new landscapes for ostia

imilia ANNA GAGAN JULIA MASOMEH
sapienza_FRANCESCA ROSA

ANALYSIS



In Ostia and the region around there is now good water quality. In most of the areas there is a worse quality and a lot of industrial discharges.

Some facts about analysis:

- most of the agriculture area has no high value
- there are some protected nature areas in the region
- Ostia is not through a good bicycle connected

Italy is also influenced from climate change. The existing temperatures and rain will decrease. Extreme weather with draughts and floods are predicted.

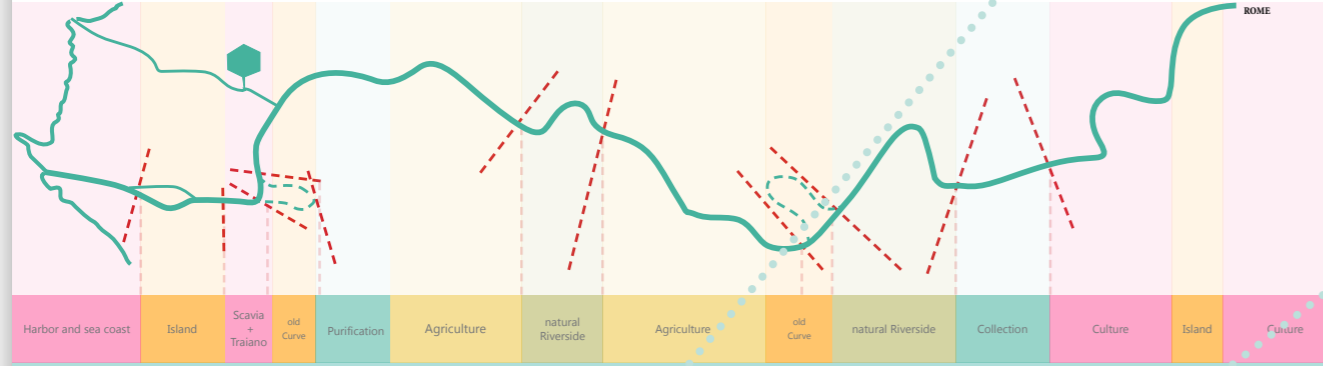
Methodological approach
Methodological approach is a set of step by step procedures that are employed to arrive at a solution. What we have done in this part is we divided our methodical approach at 4 levels which are:

- 1) Regional circulation 2) Urban circulation 3) Agriculture circulation and finally Solar pond system.

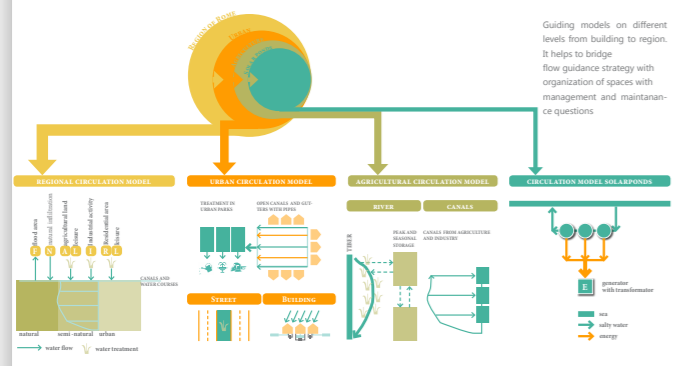
For region of Rome, we focus on the circulation of water at regional level and catchment area. We have defined that water management, purification and retention should be organized in this area. Ultimately, creating natural landscape around the river, which dissolves to urban is one of our goals.

At urban level, water combines the space together. For example we have two different levels in this area i.e. Street and building, where we collect, purify and reused water.

REGIONAL CONCEPT



GUIDING MODELS



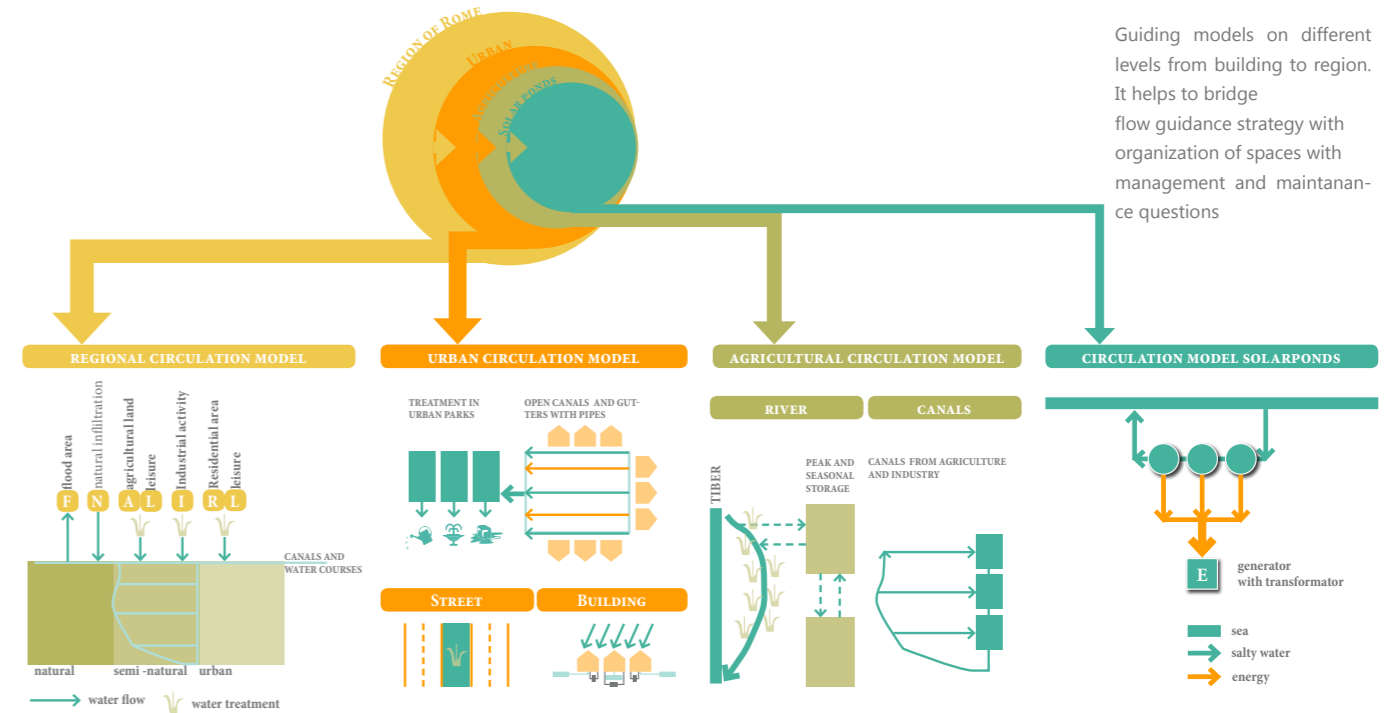
SYSTEMATIC ANALYSIS



BLUEGREEN INFRASTRUCTURE



GUIDING MODELS



SYSTEMATIC ANALYSIS

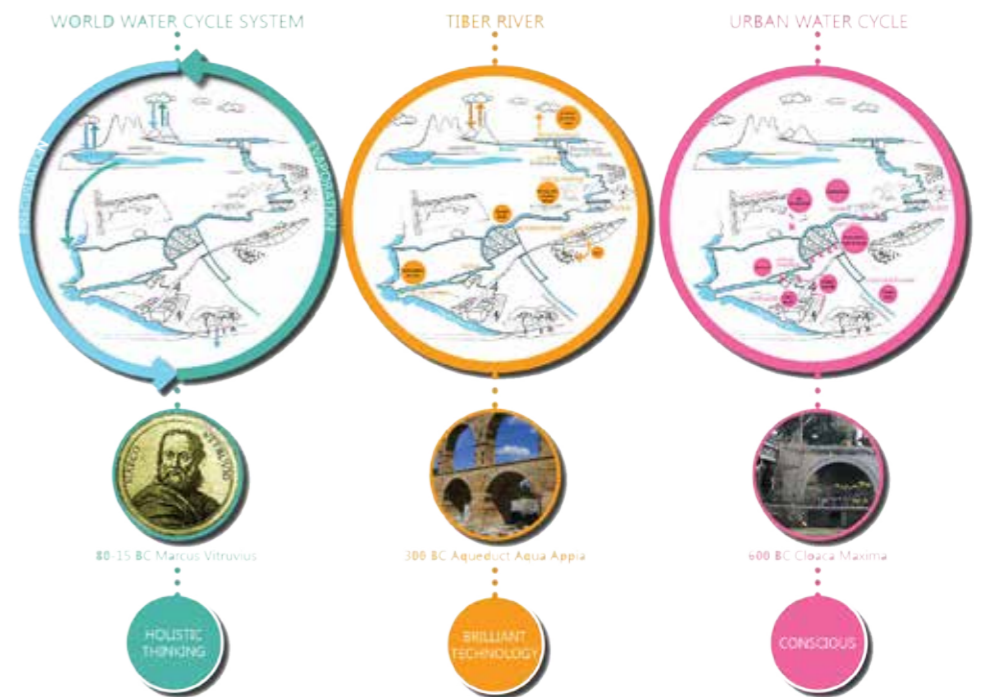
To explain our regional concept map We have defined the landscape along the river in several parts, with different functions.

We explained the importance of water and the necessity to clean water. Therefore, it is easy to imagine our vision.

Strategy
Blue infrastructure
We used existing water canals and water elements to develop our concept. We can see how Rome is connected to the coast through the water as a medium.

Green infrastructure
Green spaces combine to form the green landscape. We combine green and blue, land and water and design new landscape for Ostia.

Traffic network
Urban areas are where this concept is shaped with a sustainable approach. With green and blue infrastructure we developed water friendly spaces.

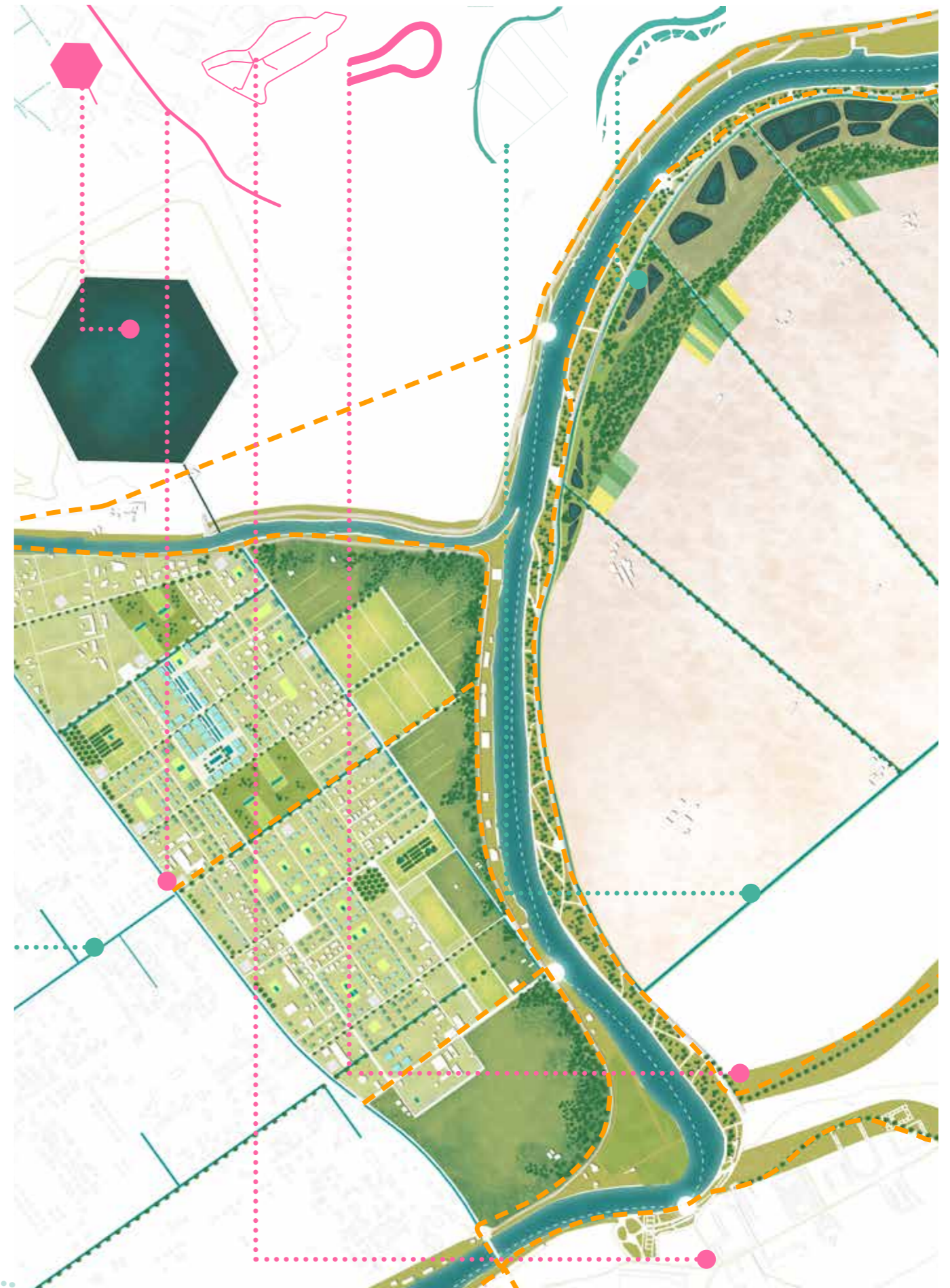
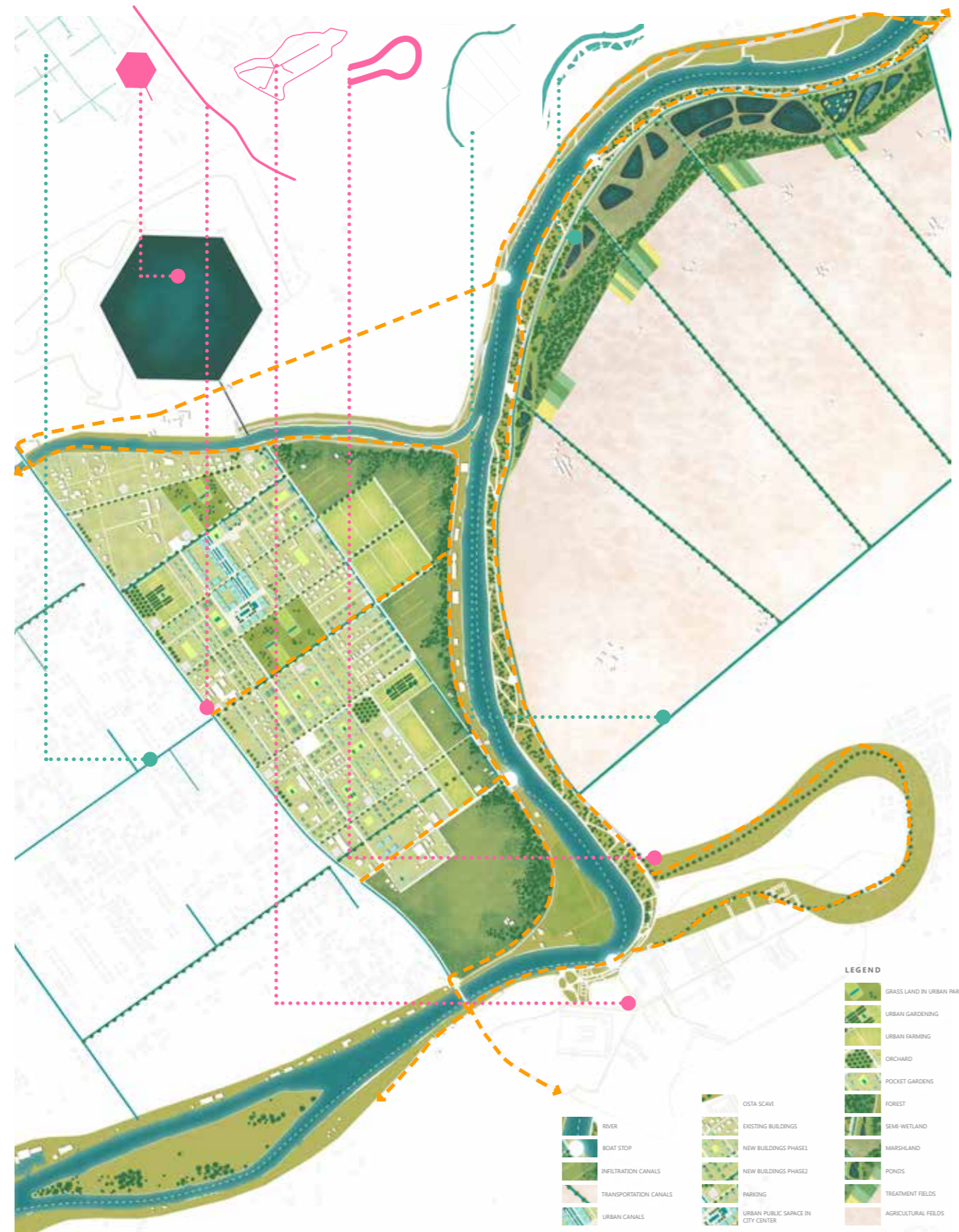


ACQUETTIVA

new landscapes for ostia



MASTERPLAN



ACQUETTIVA

new landscapes for ostia



DESIGN PATTERNS



Every space has been given a new characteristic function as the varied urban spaces are categorized as private, public and mixed use areas. The urban lines were drawn to organise the whole structure with new roads, buildings and open and green spaces interested by the blue infrastructure. These open blue-green spaces create opportunity for community growth and development.

The core problem of this area was the unorganised growth of the residential plots. Details of the blue green infrastructure of our concept were adapted to the urban areas creating urban farms, vegetable gardens, orchards with ponds and marshes for filtering water and pools for water retention. We use this idea to promote community development and growth.

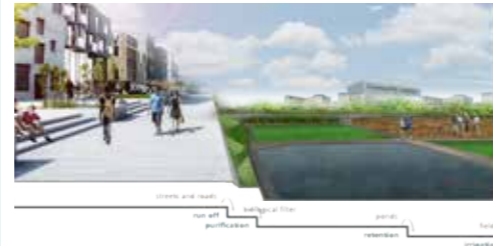
INVESTMENT BENEFITS



DETAILED PLAN



WATER CYCLE VISUALIZATION



SUSTAINABLE DISTRICT VISUALIZATION



TREES FOR NATURAL AREA



TREES FOR SETTLEMENT AREA



WATER IN SETTLEMENT VISUALIZATION



SETTLEMENT CENTER VISUALIZATION



„Water sensitive urban settlement“

As the name suggests this is a yet another sustainable settlement designed with an attempt to clear and improve water quality of the area. The concept of this settlement arises from and is based on water. As the key focus of the whole project is to improve water quality in the whole area, here in the urban settlement this has been achieved with a unique innovation. The idea of using biological pond filters has been incorporated in various urban areas, private estates creating recreational, functional and productive spaces.

To make an efficient, futuristic and sustainable settlement the advanced transport systems was kept in mind. The idea was to make interactive and lively streets. Thus, a pedestrian friendly locality was created by designing different categories of roads. We don't just create user friendly but an eco friendly environment.

In our plan of a pedestrian friendly street life the roads were further classified as per different areas. The next step for the traffic plan was to give way for easy access by all inhabitants. Thus, an electric bus line was incorporated in the design. It was calculated and analysed that the over all cost of an electric bus is much more effective than the average cost of 500cars. This would also reduce more than 100 tons of carbon emission. The future is going to be with hybrid and electric cars, many people go for bikes than cars in Europe, therefore investing in an electric bus line is not only better in terms of cost but facilities for maintenance of the electric bus like the charging station will also be used for the hybrid or electric vehicles in the settlement.

We not only provide new conceptual ideas for the settlement but strategically plan our concepts which will create an interdependent community. This concept is self sustaining and works efficiently by covering all necessary requirements of the inhabitants.

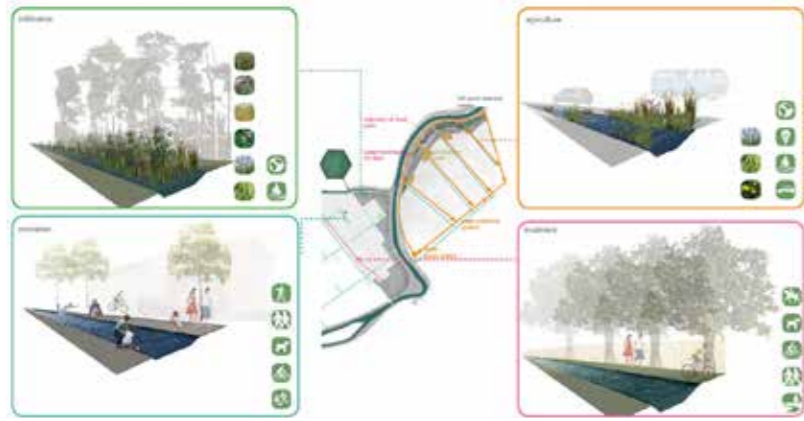


ACQUETTIVA

new landscapes for ostia



CANAL SYSTEM



ECOSYSTEM SERVICES

ecological integrity	biodiversity	biotic water flows	reduction of nutrient loss	abiotic heterogeneity		
regulating ecosystem services	flood protection	air quality regulation	global climate regulation	groundwater recharge	local climate regulation	water purification
provisioning ecosystem services	crops/fodder	capture fisheries	aquaculture	fresh water		
cultural ecosystem services	water heritage	cognitive development	educational	recreation	aesthetic value	

WATER TREATMENT WETLANDS

The landscape is characterized by a chain of ponds serving as a water retention and purification site combined with recreation, nature education, and bicycle riding possibilities. The area consists:

- a commercial area with fish farming, fishing and coffees;
- 3 different wetland sites (Pond, Marsh, Semi-wet);
- and an aquatic vegetation nursery providing the planting material for the site and the surrounding areas.

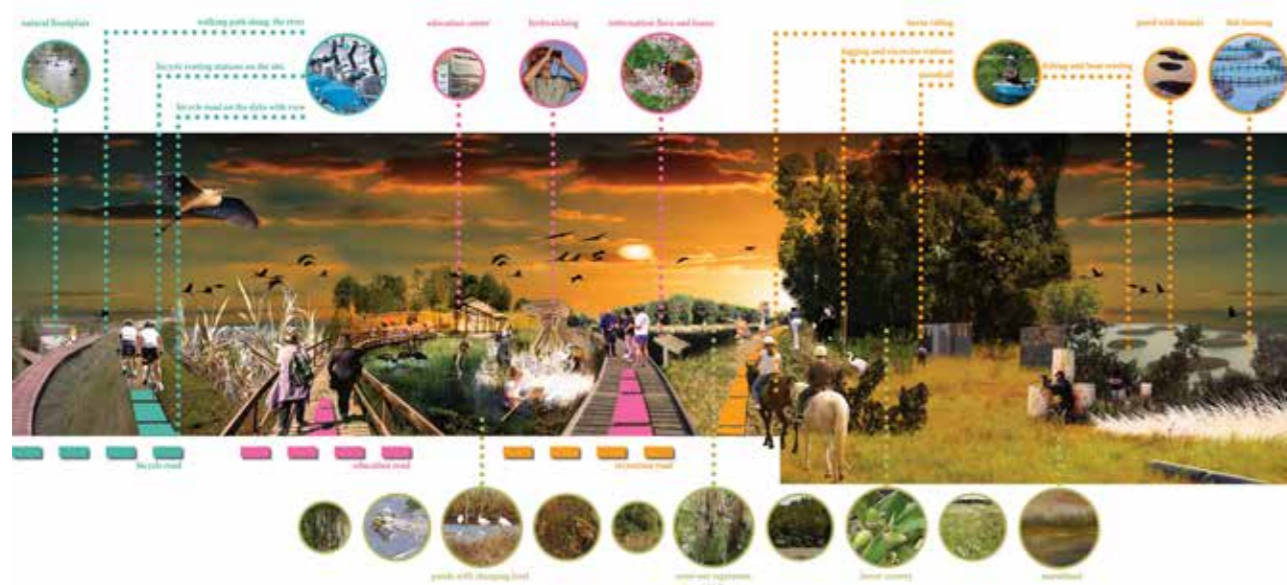
The wetlands are designed in the way to fulfill the minimum size requirements of their type. When walking through the landscape different ratios of pond-marshland and semi-wetland areas create various impressions of spaces. Also the time of the visit influence this effect, the area let space for peak and storage events so the water continuously shapes this landscape.

This complex area merges various functions in it and provides space for diverse recreational activities in special habitats. The experience of the landscape is changing in the area from open water surfaces, through various reed lands, marshlands, woodlands till forested areas. Semi-wetlands are extremely important in the structure since they can support both aquatic and grown up vegetation.

WETLAND STRUCTURE



WATER TREATMENT VISUALIZATION



ECOSYSTEM SERVICES

ecological integrity	biodiversity	biotic water flows	reduction of nutrient loss	abiotic heterogeneity		
regulating ecosystem services	flood protection	air quality regulation	global climate regulation	groundwater recharge	local climate regulation	water purification
provisioning ecosystem services	crops/fodder	capture fisheries	aquaculture	fresh water		
cultural ecosystem services	water heritage	cognitive development	educational	recreation	aesthetic value	



ISOLA VERDE



GREEN LINK

VISION

At Isola Sacra, located on the Tyrrhenian coastline near Rome, the office G-Link proposes a sustainable long time development plan to create a sustainable and harmonic future. Through the first wave of research and on site impressions, we began to recognize the characteristic features, and challenges to this area: the hidden presence of water, semi-urban sprawl, and a confusing mixture of ruins, agricultural fields and houses.

Since the beginning, the vision was consistently to bring order from the disorder through recognition and creation of identity. By separating the landscape into themed layers, we gained valuable insight into the interaction of these various systems.

METHODOLOGY

The grid that defined the Isola Sacra as a place of agriculture has slowly dissolved due to advancement of sprawl. The former net is still visible and functions together with the raster of infrastructure as the main existing structural element in this fragmented landscape. For G-Link, the target system was an interplay of agriculture, sprawl and the historical canal network as structural element.

We envisioned a mosaic of land use, a gradient from the Tiber River to the Tyrrhenian Sea across the Isola Sacra, ordered and structured by canals. We would bring order to residential patterns, revitalize the important traditional agriculture, and create new green space and infrastructure for recreational and ecological functions through a modular mosaic solution.

MASTERPLAN

As we moved forward, G-Link had to recognize the potential difficulties of enacting such a large-scale change to the island of Isola Sacra.

Therefore Agrilife, an agricultural exhibition and life fair, was developed as a kickoff event towards our end goal. We would use this event to begin the slow process of applying our design to the landscape.

While focusing on the specific topic of careful, sustainable change we developed some detailed designs: The CSA as an example of site-specific long term sustainability; a cable car and structural riverside outlooks as elements for sharing our new landscape with shareholders, visitors and residents.

Beginning with Agrilife, and over the course of time, the Isola Sacra can become an Isola Verde hosting in its multifunctional landscape the concepts of production, protection and recreation.



VISION

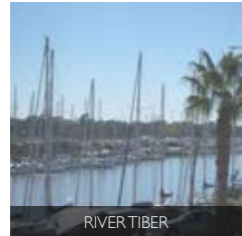
MOSAIC

Mosaic.
GLINK's concept for the Isola Sacra is an interplay of gray and green, of development and agriculture. The tiles of the mosaic fit neatly into the historic grid of irrigation canals, stretching like a backbone across the surface of the island. Our mosaic brings order from the ancient to the present.



CANALS

ANALYSIS



RIVER TIBER



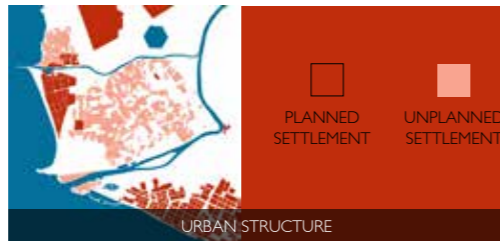
OSTIA SCAVI



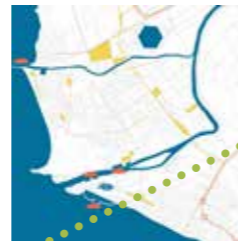
WORKING AREA



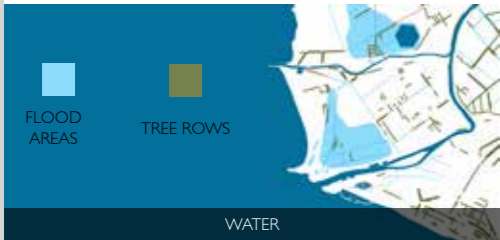
AGRICULTURE FIELDS OPEN GREEN SPACES



PLANNED SETTLEMENT UNPLANNED SETTLEMENT



TRANSPORT NETWORK PARKING LOT



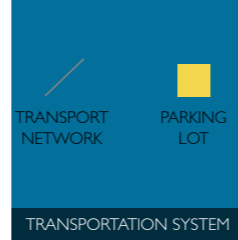
FLOOD AREAS TREE ROWS

WATER



PUBLIC PRIVATE RESTRICT

PROPERTIES

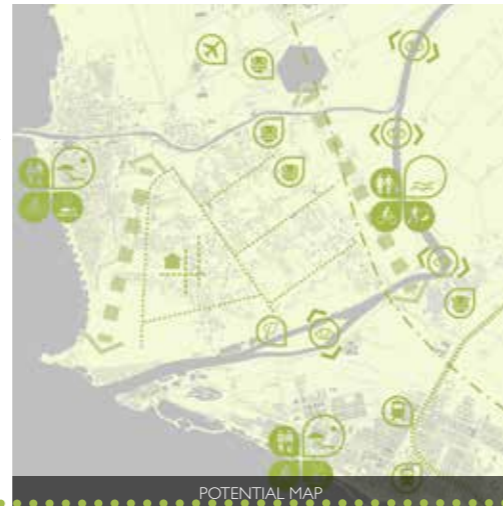


TRANSPORTATION SYSTEM

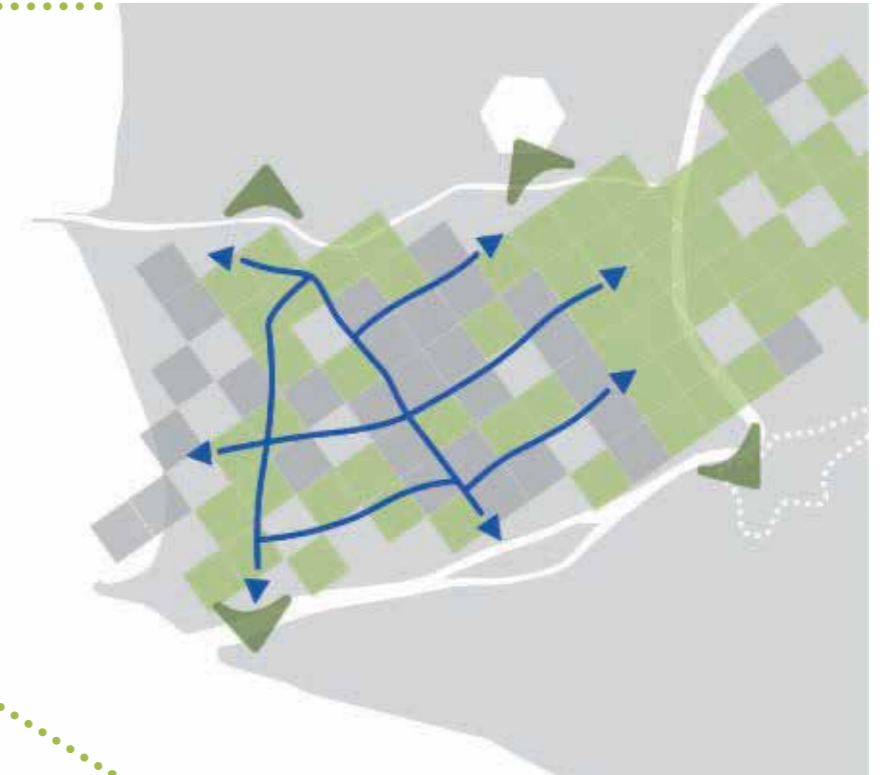


CONFLICT MAP

- LACK OF IDENTITY ?
- NO PUBLIC TRANSPORT
- SPRAWL
- PRIVATE
- POLLUTION
- NOISY
- HIGH SPEED
- SLUMS
- ACCESS BLOCKED
- MISSING CONNECTION
- PESTICIDES
- BEACH RECREATION
- RIVER RECREATION
- ARCHAEOLOGICAL SITE
- AIRPORT
- TRAIN STATION
- ISLAND
- VIEWPOINTS
- CANALS
- OLD COAST LINE
- POSSIBLE GREEN CONNECTION
- SPRAWL MOSAIC



POTENTIAL MAP

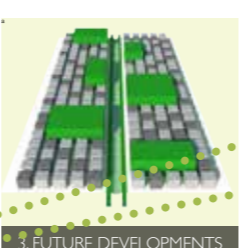
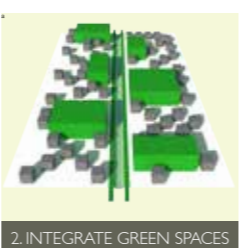


CONFLICT MAP

- LACK OF IDENTITY ?
- NO PUBLIC TRANSPORT
- SPRAWL
- PRIVATE
- POLLUTION
- NOISY
- HIGH SPEED
- SLUMS
- ACCESS BLOCKED
- MISSING CONNECTION
- PESTICIDES

ISOLAVERDE

2050



Our mosaic concept starts with the need to design with the pre existing structures and not against them. We develop a careful masterplan based in tree different steps.
 First we emphasize the existing canals and use them as main structure axes of the Isola Sacra generating a network between settlement, beach and river. The second step is to define which areas have the proper scale to be used as recreational gathering points.
 Finally we use the left overs spaces for future developments, releasing the more fertile soils near the river for agriculture.
 This way we combine what we believe that is a multifunctional landscape. A landscape of production, protection and recreation.



AGRILIFE 2015

Isola Sacra
agrilife 2015



The Agrilife 2015 is an international agricultural exhibition and life fair located between Lago Traiano and Ostia Scavi to kick off the successive spatial development process. A cable car connects the 7 sections, Fiumicino Airport and Metro Station in Ostia Scavi. The events happening in 2015 arise interest of stakeholders and investors as well as tourists and locals to promote the implementation of Isola Verde 2050.

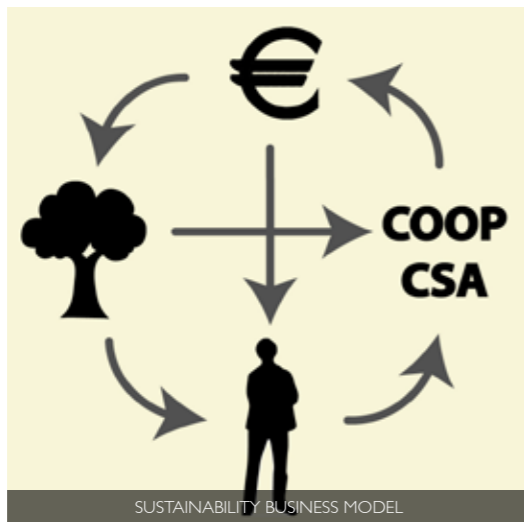


APPLICATION



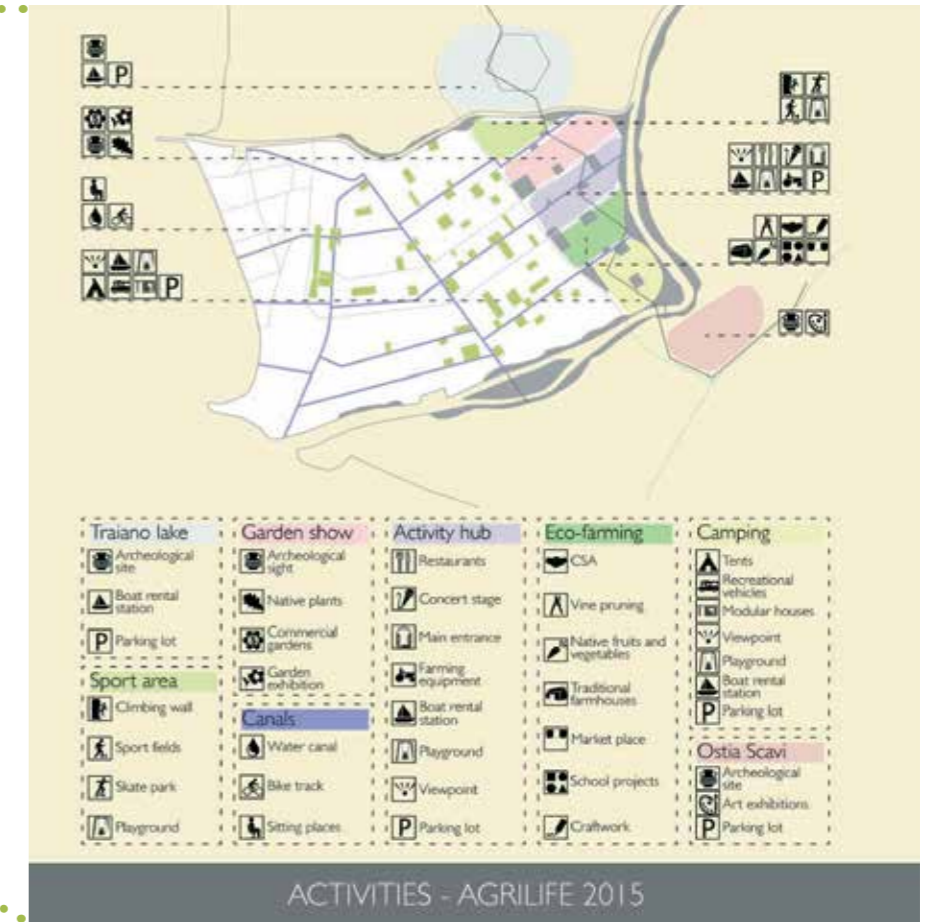
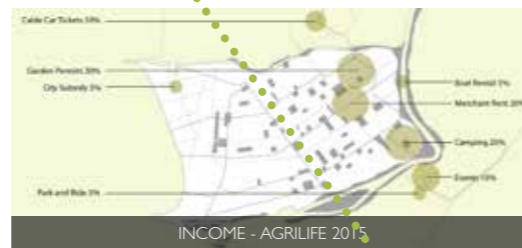
CROSSING BETWEEN CANALS AND MAIN TRAFFIC AXE

This diagram describes the underlying system logic, the cycle by which our entire design will be implemented and maintained. Here, the interconnectivity of each piece of the puzzle can be seen; each aspect, people, Umwelt, and productivity combine to create a supportive net.



A coop is any organization in which local people work together to create mutual benefit. It is a modification of typical business structure, designed to reinvest in the communities that power it.

This sustainable model unites the moving pieces of our design for Isola Sacra. It is the underlying mechanic that allows the whole thing to work over time, creating a higher quality of life, environment, and economy for the area.



CROSSING BETWEEN CANALS AND MAIN TRAFFIC AXE



GREEN VIA SEVERIANA



Vivien Ilcikó Harmati
Hungary



Evelina Knyzelyte
Lithuania



Neha Shrestha
Nepal



Azadeh Soltan Ahmadi
Iran



Daniele Stefano
Italy

F.S.L. - STUDIO

VISION

The vision of Green Via Severiana project is about new sustainable landscape for Ostia Antica and its surroundings with the special focus on heritage, agriculture and urban agriculture, and as a very important fact with the attention of identity. This vision of the Italian landscape is to have a green connection from the Lago Traiano, followed by Isola Sacra, passed through the Tiber River, through Ostia Antica until the existing Pineta. The previously mentioned parts are not only chosen because they have the potential to reconnect segmented valuable landscape, but also as memorial places of the ancient seashore and the road followed along it, called Via Severiana. Since the project respects the history of the Italian landscape, it uses these historical elements in order to reconnect and give identity for the new interpretation of the site by respecting the existing structure of the area.

METHODOLOGY

The methodological approach of the project has two basic parts. The site is a large scaled area that shows a lot of uniqueness and that is very diverse in its landscape patterns and typologies. As a first step of the project six different landscapes have been defined in the focus areas, each with own features.

Afterwards these different landscapes were further analyzed by the SWOT. Strengths and opportunities but also weaknesses and threats became visible. The results of the SWOT analysis were very helpful for the upcoming design process. According to the 6 landscape typologies different areas were developed.

TARGETS

The target groups of the project are locals and tourists. Out of this reason the project aims to create new green spaces, parks, riverside restoration, lay down new bicycle roads and pathways which connect the different natural and historical attractions by providing new recreational possibilities. Second important part of the concept is the existing agriculture and its production. In the project it is important to support the farmers and provide further urban agriculture possibilities for the locals by creating for instance urban gardens, community gardens and school gardens. The uniqueness of the spatial concept is to bring together tourists and locals. The designed area is the platform of the touristic attraction, and recreational but in the same time it let the visitors experience and look into the present life and atmosphere of Ostia landscape, which is the agricultural production surrounded by ancient historical sites.

The sustainable approach is a principal question of the project. Providing the environmental friendly transportation bike ways and pedestrian accessibilities have priority. The economical point of view of the project is to support local producers through different programs such as the CSA (Community Supported Agriculture) or Agro-Farm Tourism.

MASTER PLAN

The master plan integrates the historical memorial place (Via severiana, old seashore) and urban agriculture into the north-east part of Isola Sacra and between the Portus Traiano and Ostia Antica.

Furthermore it provides the connection to the Pineta. The team aimed an important goal in the starting phase of the project: to respect the existing main structure of the site and not providing further residential development since the site suffers from the fact of unorganized urban sprawl. The open space has to be seen in a large context and must not be segmented anymore.

The urban development strategy of Fuimicino shows that the municipality aims to built further residential areas till the via dell Aeroporto Fuimicino as an invisible boundary separating urban structures from agricultural natural landscape.



METHODOLOGY

SUSTAINABILITY ASSESSMENT GUIDELINES

ANALYSIS	IMPACTS	OPTIMIZATION
Step 1 PRESENT SUBJECT	Introduction	
Step 2 CRITERIA	GENERAL INFORMATION	
Step 3 DEFINE PROCEDURE	ANALYSIS	
Step 4 CONDUCT ANALYSIS	CONCEPT BOUNDARIES	
Step 5 ASSESSMENT	IMPACTS	
Step 6 OPTIMIZATION	OPPORTUNITIES AND DESIGN	
Step 7 PRESENT RESULT	VISUALIZATION	

VISION

WORKSHOP

OUTCOME: THE IDEA OF VIA SEVERIANA AND OLD HARBOUR
 IMPORTANT CONNECTION IN TWO DIRECTIONS NORTH-WEST & SOUTH-EAST NOT ONLY ROMA-OSTIA
 NEWSPY OF THE HISTORICAL LANDSCAPE (OLD ROMA-OSTIA) AND HISTORY OF OSTIA ANTICA AND THE OLD HARBOUR

OUR GOALS:

- NEW INTERVENTION OF THE AREA RESPECTING THE HISTORY
- EMPHASIZE THE CULTURAL HERITAGE OF THE SITE ALONG THE VIA SEVERIANA
- GIVE EMPHASIS TO SUSTAINABLE APPROACHES
- CREATING NEW IDENTITY TAKING IN ACCOUNT THE EXISTING ONE
- NORTH-WEST & SOUTH-EAST CONNECTION

STRATEGY

GREEN VIA SEVERIANA OSTIA . ITALY.

URBAN AGRICULTURE
 IMPROVEMENT OF PRODUCTION FROM EXISTING AND BUSINESS GROWTH FROM PRODUCTION AND SERVICE TOGETHER
 ENCOURAGING COMMUNITY SUPPORTIVE MANAGERIAL ECONOMICAL RESULTS FOR LOCAL AND ENVIRONMENTAL

TOURISM AND RECREATION
 CONNECTION VISUAL, WITH LANDSCAPE AND TOURISM
 PARKS AND OTHER SPACES COMMERCIAL SUPPORTIVE MANAGERIAL, ENVIRONMENTAL

IDENTITY
 BRING BACK THE MEMORIES OF OLD GREAT LIFE THROUGH DESIGN ELEMENTS
 HISTORY OF VIA SEVERIANA
 NEW INTERVENTION OF LIGNATURE AND BUILDINGS

LOCAL ANALYSIS
HERITAGE
WATER SYSTEM
URBAN STRUCTURE
AGRICULTURE

TOURISM AND RECREATION
URBAN AGRICULTURE
IDENTITY

Strategy is based on three axis focusing on Identity, Agricultural potential and Tourism based on Agricultural Recreation
 Green connection stretches from the Lago Traiano, followed by Isola Sacra, passed through the Tiber River through Ostia Antica until the existing Pineta. This program includes Archeology, Agriculture and Natural Landscape shaping the identity of the place and creating opportunities for tourism, recreation as economical, cultural, environmental enhance.

METHODOLOGICAL APPROACH

ENVIRONMENT
 BIODIVERSITY, CULTURAL AND NATURAL HERITAGE, WATER, SOIL AREA FERTILITY, QUALITY OF LANDSCAPE, CLIMATE EMISSIONS

SOCIETY
 IDENTITY, CULTURE, EDUCATION LEARNING ABILITY, VALUE, HEALTH, WELFARE, COMMUNITY

ECONOMY
 INNOVATION, EFFICIENT INFRASTRUCTURE, LONG TERM SUSTAINABILITY, VALUE ADDING INVESTMENT, COMPETITIVENESS

Evaluation of the sustainability using Sustainable Assessment Method and setting targets to reach sustainable design by improving in social, economical and environmental levels

REGIONAL ANALYSIS

Regional analysis of the potential for eco-tourism

Regional analysis for the agricultural production

Analysis of Community Supportive Agriculture(CSA) implementation by setting ownerships, rates of production based on community involvement

Examples of agricultural activities: FAMILY FARM, COMMUNITY GARDEN, SCHOOL GARDEN, AGRI-TOURISM FARM, URBAN GARDEN, 'FRUIT JOURNALS'

LOCAL ANALYSIS

HERITAGE

WATER SYSTEM

URBAN STRUCTURE

AGRICULTURE

METHODOLOGICAL APPROACH

ENVIRONMENT
 BIODIVERSITY, CULTURAL AND NATURAL HERITAGE, WATER, SOIL AREA FERTILITY, QUALITY OF LANDSCAPE, CLIMATE EMISSIONS

SOCIETY
 IDENTITY, CULTURE, EDUCATION LEARNING ABILITY, VALUE, HEALTH, WELFARE, COMMUNITY

ECONOMY
 INNOVATION, EFFICIENT INFRASTRUCTURE, LONG TERM SUSTAINABILITY, VALUE ADDING INVESTMENT, COMPETITIVENESS

Evaluation of the sustainability using Sustainable Assessment Method and setting targets to reach sustainable design by improving in social, economical and environmental levels



MAIN PROJECT II: NEW LANDSCAPES FOR OSTIA

INTERNATIONAL MASTER OF LANDSCAPE ARCHITECTURE

Authors: VIVIAN ILDIKÓ HARMATI, EVELINA KNYZELYTE, AZADEH SOLTAN AHMADI, NEHA SHRESTHA, DANIELE STEFANO

2_methodology and site analysis

FSL SPACE

FOCUS AREA



In the focus area defined 6 types of landscape were leading elements in the project design. The strategy focussing on 3 axes: tourism, agriculture and identity was developed after SWOT analysis, which encompasses strengths and opportunities of each type of landscape.

METHOD: 6 TYPOLOGIES OF LANDSCAPE



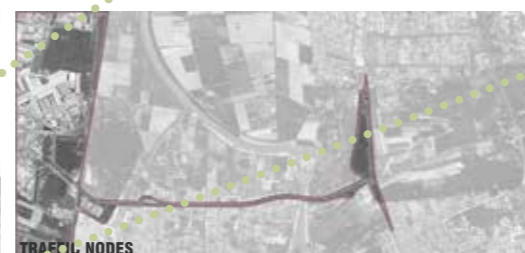
ARCHEOLOGY



RIVERSIDE



FOREST



TRAFFIC NODES



URBAN SPRAWL



AGRICULTURE

SWOT ANALYSIS

URBAN SPRAWL

- S Historical background - raster structure, open spaces between, local community
- W no identity, not sustainable, lack of green spaces, unattractive, unproductive food system, lack of open public space
- O planting trees, green spaces, promoting economic development, involve the people in local community
- T poverty, spreading sprawl, environmental hazards risks, pollution and physical barriers for trees' root growth, vehicles

HISTORICAL SITES

- S tourist attraction, near to Rome and to airport, economical benefits, near to the river, uniqueness
- W accessibility, closed visual connection, maintenance, limited visibility
- O connect the historical sites through the old coast line and Via Severiana
- T economical problems to support the maintenance, climate change, flood, rain, high people interference

RIVERSIDE

- S pleasant view points, Tiber character - history, fishing, vegetation growth, biodiversity
- W accessibility, ships - overcrowded, view points - visual connection, accessibility, recreation like a new platform, promote river front vegetation
- T flooding, damaging the urban area nearby

FOREST

- S Ostia characteristic trees - Pinus Pinea, biodiversity, park, beauty of nature
- W accessibility, lack of natural related activities
- O good viewpoints, identity, tourism - touristic program, attractive connection accessibility for both pedestrian and cyclists
- T danger of animal population and species, road construction, forest fire, damage the environment by the people, overvisited by tourism

AGRICULTURE - OPEN SPACES

- S open spaces, vegetation, quality of soil - fertile soil, active people for interferences, people demand, location
- W Not productive, functionality, sustainability
- O farm production, local markets and bio economy by new character and new function, new green areas - park
- T No benefits of agriculture, weak economy - poor city, no interest in markets

NODES - MAIN ROADS

- S accessibility
- W Noise, pollution, access for pedestrians, lack of green, traffic
- O new better access, vegetation along the roads, new station
- T increasing traffic, climate change, pollution



POSSIBILITIES FOR SOCIAL ACTIVITIES

NODES - MAIN ROADS

RIVERSIDE

OPEN SPACES - AGRICULTURE

FOREST - PINETA

HISTORICAL SITES

URBAN DEVELOPMENT SPRAWL

SWOT ANALYSIS

URBAN SPRAWL

- S Historical background - raster structure, open spaces between, local community
- W no identity, not sustainable, lack of green spaces, unattractive, unproductive food system, lack of open public space
- O planting trees, green spaces, promoting economic development, involve the people in local community
- T poverty, spreading sprawl, environmental hazards risks, pollution and physical barriers for trees' root growth, vehicles

HISTORICAL SITES

- S tourist attraction, near to Rome and to airport, economical benefits, near to the river, uniqueness
- W accessibility, closed visual connection, maintenance, limited visibility
- O connect the historical sites through the old coast line and Via Severiana
- T economical problems to support the maintenance, climate change, flood, rain, high people interference

RIVERSIDE

- S pleasant view points, Tiber character - history, fishing, vegetation growth, biodiversity
- W accessibility, ships - overcrowded, view points - visual connection, accessibility, recreation like a new platform, promote river front vegetation
- T flooding, damaging the urban area nearby

FOREST

- S Ostia characteristic trees - Pinus Pinea, biodiversity, park, beauty of nature
- W accessibility, lack of natural related activities
- O good viewpoints, identity, tourism - touristic program, attractive connection accessibility for both pedestrian and cyclists
- T danger of animal population and species, road construction, forest fire, damage the environment by the people, overvisited by tourism

AGRICULTURE - OPEN SPACES

- S open spaces, vegetation, quality of soil - fertile soil, active people for interferences, people demand, location
- W Not productive, functionality, sustainability
- O farm production, local markets and bio economy by new character and new function, new green areas - park
- T No benefits of agriculture, weak economy - poor city, no interest in markets

NODES - MAIN ROADS

- S accessibility
- W Noise, pollution, access for pedestrians, lack of green, traffic
- O new better access, vegetation along the roads, new station
- T increasing traffic, climate change, pollution

POSSIBILITIES FOR SOCIAL ACTIVITIES

NODES - MAIN ROADS

RIVERSIDE

OPEN SPACES - AGRICULTURE

FOREST - PINETA

HISTORICAL SITES

URBAN DEVELOPMENT SPRAWL

VISUALISATION: THE BIRD VIEW OF THE SITE



SCHEMATICAL APPROACH



- LEGEND**
- 1 Sport leisure
 - 2 Archeological Site
 - 3 Public Square
 - 4 Urban Agriculture
 - 5 Market
 - 6 Food Jungle
 - 7 Passive Recreation Fields
 - 8 Active Recreation Fields with Old Farm
 - 9 Old Warehouses Memorial
 - 10 Riverside Park
 - 11 Lighthouse Park
 - 12 Water Park

MASTER PLAN



SECTIONS THROUGH THE GREEN LINKAGE



MAIN PROJECT II: NEW LANDSCAPES FOR OSTIA

INTERNATIONAL MASTER OF LANDSCAPE ARCHITECTURE

Authors: VIVIEN ILDIKÓ HARMATI, EVELINA KNYZELYTE, AZADEH SOLTAN AHMADI, NEHA SHRESTHA, DANIELE STEFANO

4_detailed design_WAREHOUSES



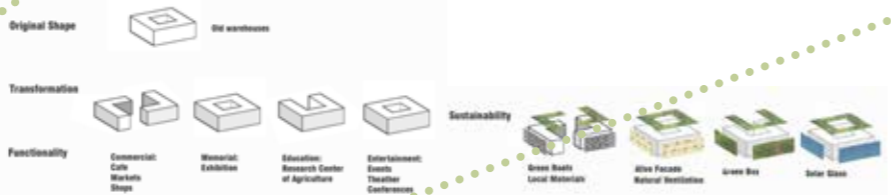
DETAIL OF OLD WAREHOUSES MEMORIAL SITE



The idea of Warehouses Memorial came up from the historical maps. The warehouses had a very important function in Ostia Antica and the region - it was the harbour with the main good flows to Rome, its storage and commerce. During the time, the water moved forward to the sea and left this area empty and nonessential. The new development is recreating the lost historical structures by adding new value and finding the sustainable architectural approach. The vision of the area is a memorial historical park with educational, recreational, commercial areas.

THE BIRD VIEW OF THE DEVELOPED SITE

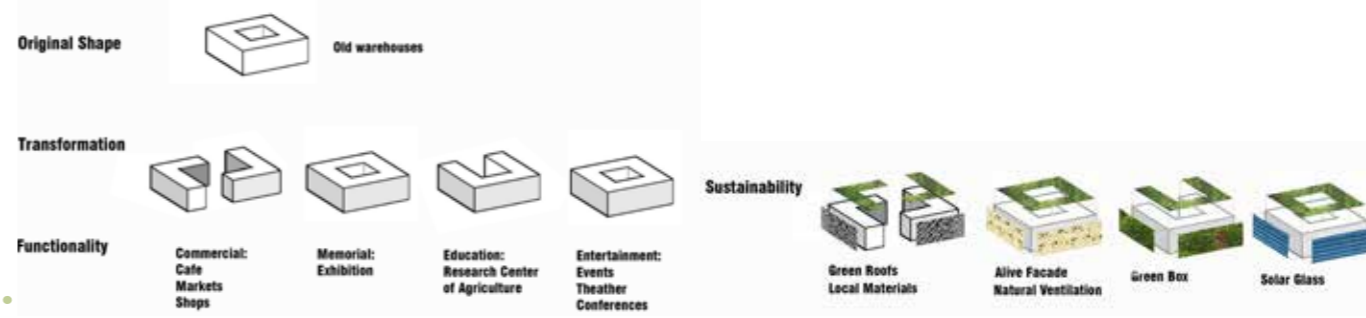
SCHEMES OF ANCIENT STRUCTURES



THE BIRD VIEW FROM THE ROAD



SCHEMES OF ANCIENT STRUCTURES



PERSPECTIVE FROM AGRICULTURAL RECREATION PARK



PERSPECTIVE VIEW OF COMMERCIAL AREA WITH URBAN SQUARE AND MARKETS



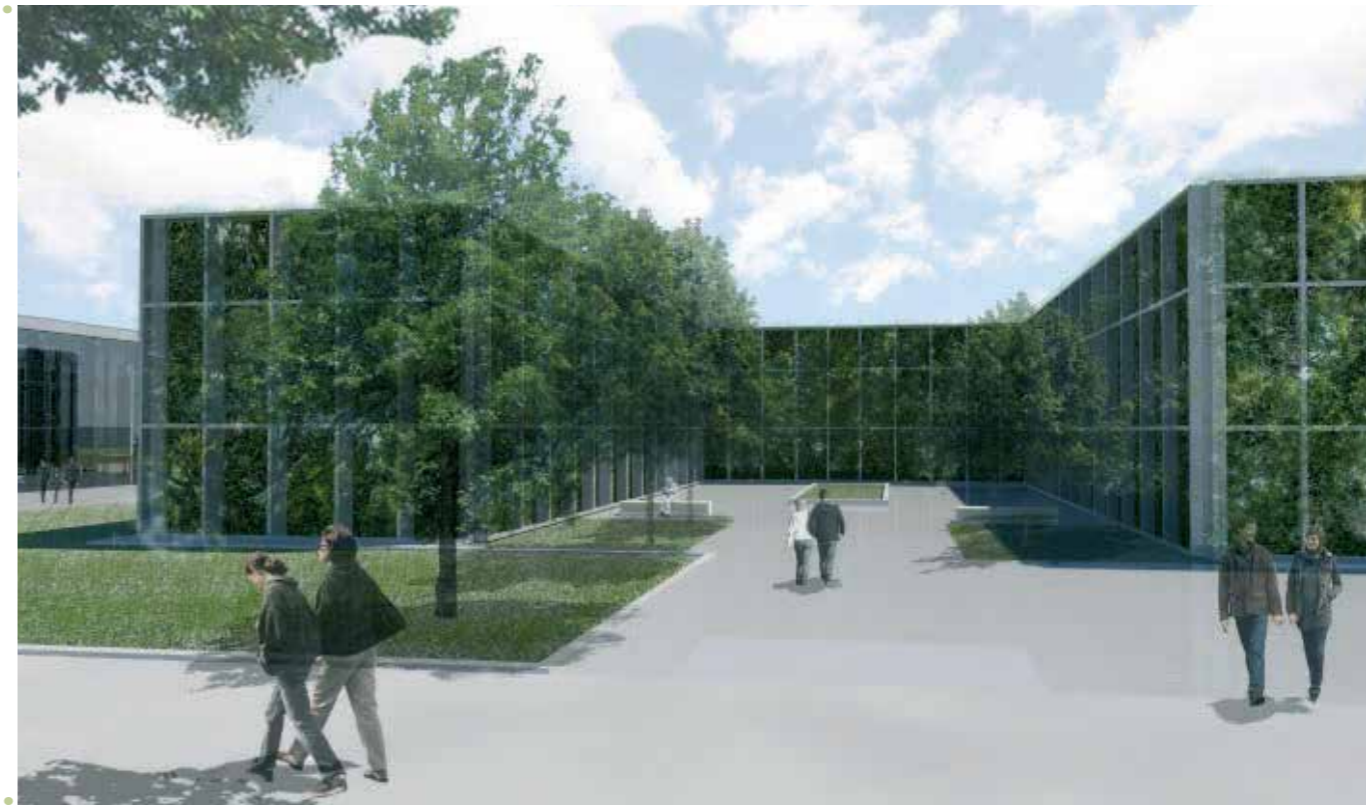
PERSPECTIVE OF AGRICULTURE RESEARCH CENTER



PERSPECTIVE FROM VIA SEVERIANA MEMORIAL ROAD



PERSPECTIVE OF MEMORIAL BUILDING

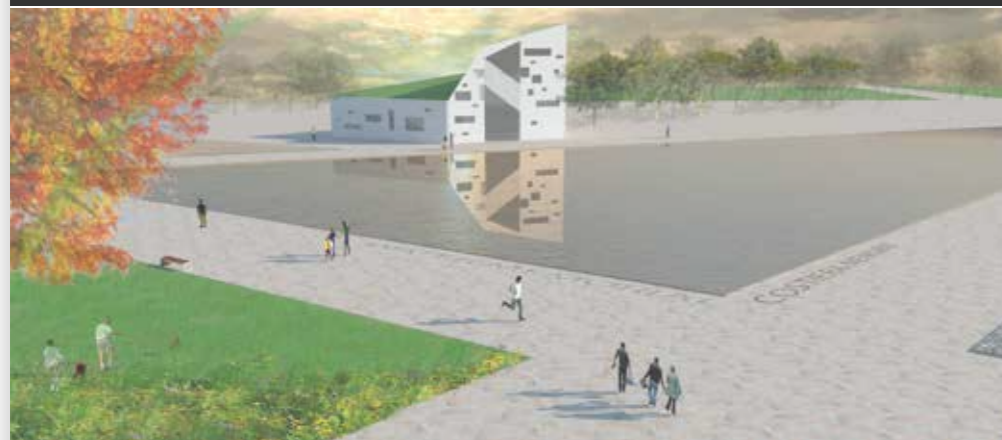


MAIN PROJECT II: NEW LANDSCAPES FOR OSTIA

INTERNATIONAL MASTER OF LANDSCAPE ARCHITECTURE

Authors: VIVIEN ILDIKÓ HARMATI, EVELINA KNYZELYTE, AZADEH SOLTAN AHMADI, NEHA SHRESTHA, DANIELE STEFANO

5_detailed design_PUBLIC SQUARE_LIGHTHOUSE PARK_WATER PARK



PERSPECTIVE OF THE URBAN SQUARE WITH INFO CENTER AND RESTAURANT

The Public Square in the core of the activities represents the space for locals and tourists for recreation, leisure and commerce. The site was redeveloped with systematical approach by finding new axes with the emphasis on existing historical site, agricultural landscape and adding new ones: water memorial space, markets, urban gardens and green spaces. The public square is the opening point to the Green Via Severiana corridor and locates the info center on the entrance to the archeological site, cafe, e-bike station and parking facilities.



VIEW FROM THE LIGHTHOUSE



PERSPECTIVE OF THE LIGHTHOUSE PARK



PERSPECTIVE OF WATER PARK

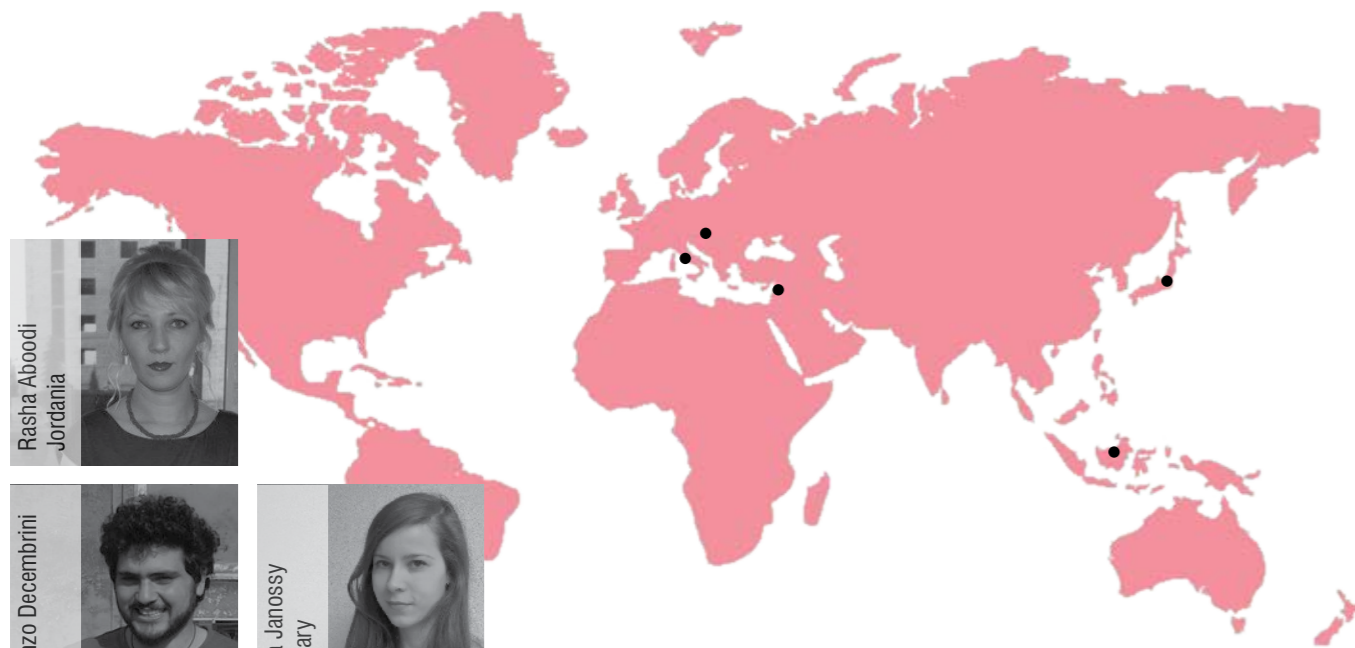
The Water Park recreates the old riverbed, emphasizing the dynamics of river during the history. The sealine receded from ancient town Ostia Antica while the river also changed its flow forming the current landscape. The Water Park is dealing with the instability of water during the seasons. The Water Park with the system of wetlands, islands and different ground levels is capable to reduce the flood impact and creates aesthetical image of wild nature with possibilities for recreation on the riverside.



SCHEME OF WATER DYNAMICS THROUGH HISTORY



RECONNECT LANDSCAPES + PEOPLE



Rasha Aboodi
Jordania



Lorenzo Decembrini
Italy



Kinga Janossy
Hungary



Andrea Oshiro
Japan/Brazil



Janice Thien
Malaysia

A.R.K. - LAB

Ostia has the privilege to be on a very interesting coast line with rich and diverse characters. The State Reserve of Castel Porziano preserves the original Mediterranean Pine Wood Forest and its ecosystems, where a great variety of local flora and fauna have good conditions to keep its balance. This state of ecosystem stability should also be reflected in the urban environment in terms of sustainable use of land, especially along the coast which is under urban and sea pressure.

The basis of the proposal is built upon opening up the beach for public accessibility, as opposed to the current situation where private services have distributed along the coast, creating visual and physical barriers. Green infrastructure and pedestrian/cyclists friendly routes are being deprived of in this car-oriented environment.

Hence, a continuous corridor which consists of promenade, linear park, cycle lane and nodes of interests will be established along the coast all the way from the river mouth, through the urban and semi-urban centers to the naturalistic forest landscape. Existing services and traffic intensity along the coast will be redistributed to existing infrastructure in the semi-urban area, where a new tourism hub will be established. This provides opportunity to reorganize touristic amenities and open up the beach at the urban centre for local residents.

Along this green corridor, nodes of interventions and different street distribution typologies are further developed with different characters – touristic, urban, residential, recreational, and ecological. Three main nodes of interests proposed are the sponge park at the river mouth, the multifunctional urban square, and eco-tourism centre. The sponge park acts as a functional floodplain with local amenities for recreational, cultural and educational purposes apart from delivering ecological services.

The urban square provides spaces for social interaction and recreation by offering seating and multifunctional spaces. This spatial composition can be repeated in other semi-urban centers along the coast. Additionally, new landmarks will be introduced to revive the identity of Ostia, by installing viewing towers and sea measuring stations inspired by cultural heritage.

The planning and design approach focused on a fluid design language which can establish a dialogue with the different typologies and characters along the shore. It should also reflect a set of low impact interventions and minimum maintenance costs in important nodes. Potential for positive changes will be maximized and can be reproduced in other parts of the landscape.



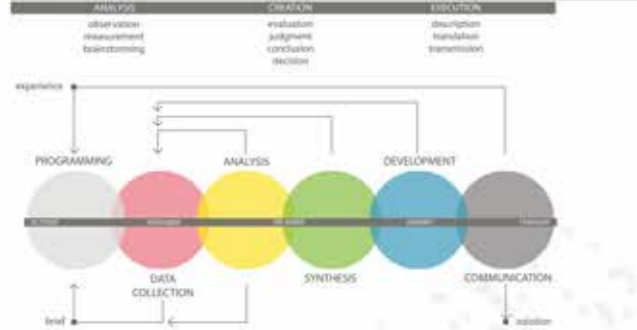


VISION & STRATEGY

Coastal areas especially of tourism industry are subject to rapid changes and often need flexible decision-makings and goals adjustments. This requires close coordination among the administrative levels, the community, interest groups and other stakeholders. The roles of landscape architects/planners do not merely involve delivering design solutions but also as educators and leaders in a collaborative effort towards sustainability of development. The development cycle proposes stages that form an on-going process that may go through a number of cycles before the development is sufficiently implemented with effective results. This approach can be applied to the planning and design process within the working environment of the design team, that emphasizes continuous review/monitoring of progress and references towards updated researches

METHODOLOGY

Archer's model of design process is applied for generating and presenting ideas. It is an iterative process of continual reference of research findings to justify and experiment proposed interventions.



DESIGN PROCESS



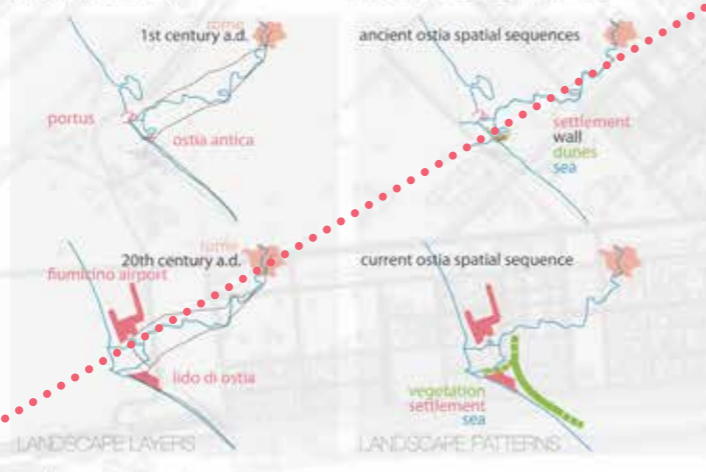
DEVELOPMENT CYCLE

Our design proposal will be part of this instrument of urban development which involves many stakeholders in different phases and levels of participation. The design interventions will be applied at strategic locations, where the positive outcome/changes should increase awareness of public and encourage more engagement from members of society.



WHY THE COAST?

Ostia has always been set in the context of the gateway to Rome. In the ancient times - Ostia Antica and Traiano Harbour; in present times - Lido di Ostia and Fiumicino Airport. The historical significance of this coastal landscape has remained till today.

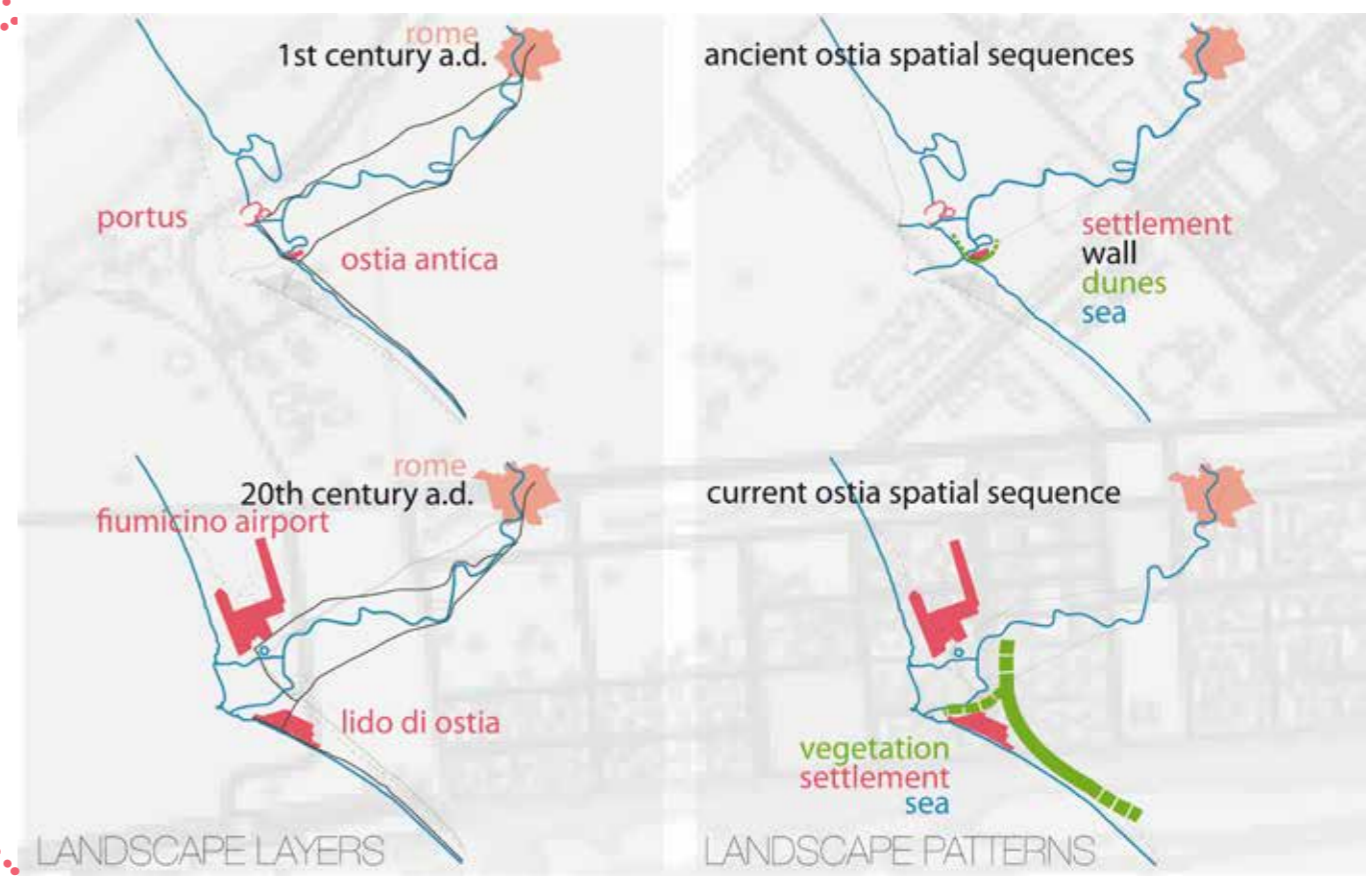
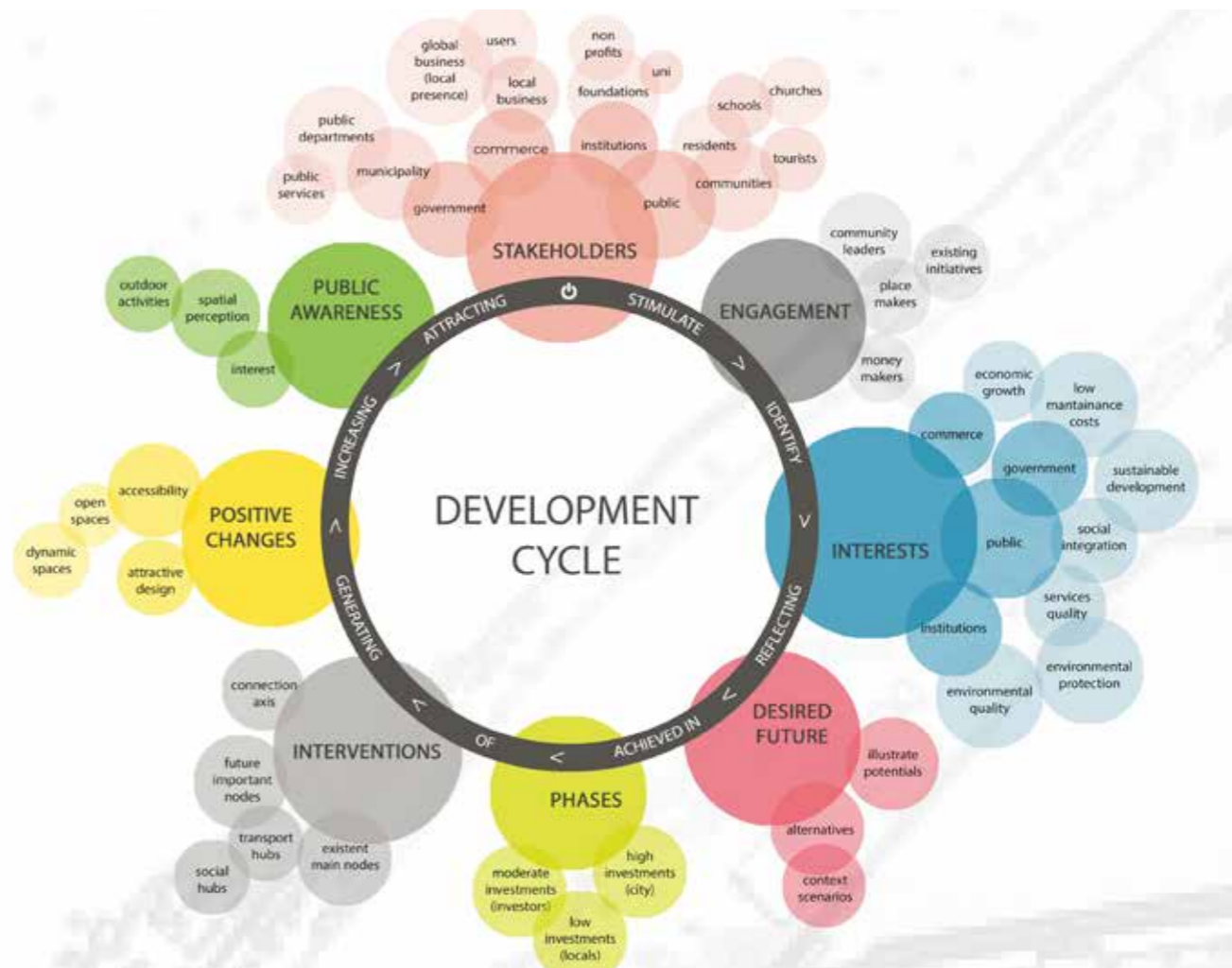


The vision
 for the coast of Ostia is a public beach that is open and accessible to all, creating a harmonious transition between the sea and the built and natural environment.

How do we experiment?
 ARK Lab takes a bold experiment of relocating existing private services along the beach and establishes a continuous green corridor. To achieve this, the current transport network along the coast is required to be realigned, and new areas for regeneration is to be identified in order to cater for tourism and economy needs.

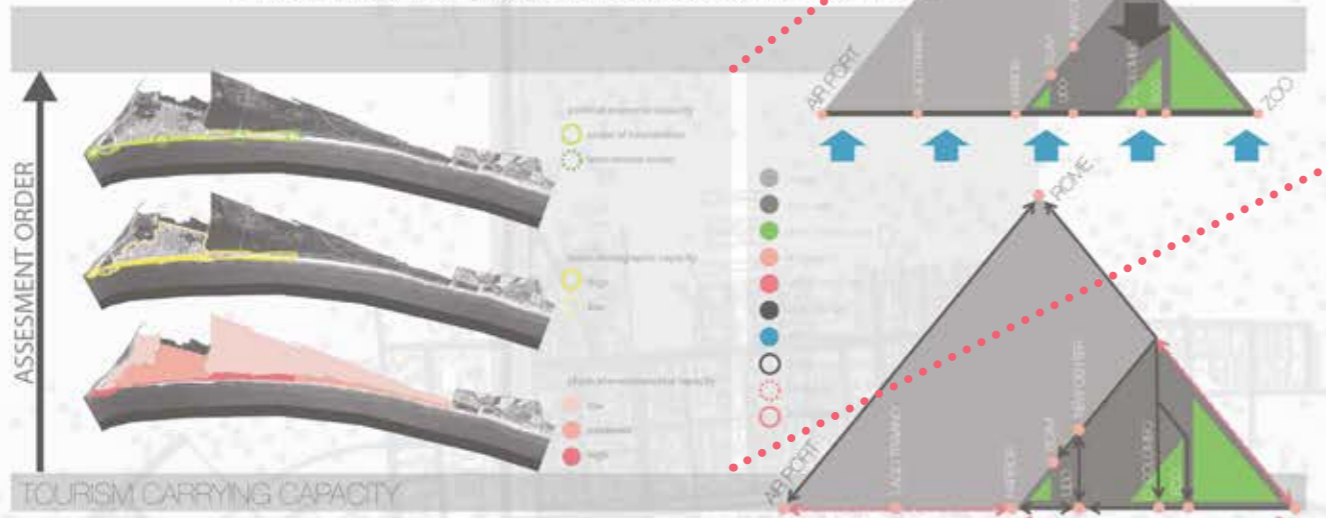
Our perspectives
 A strong impression of visiting Lido di Ostia is its limited access to the beach both visually and physically due to having private services distributed along the shore. This presents an image of a disconnected coastal landscape with its associated social and cultural environment.

The proposed strategy is to introduce new green infrastructure along the coastal corridor, breaking barriers and integrate the different uses and spaces along this realm.



ANALYSIS

Provincial Context and Connections
 The triangular scheme represents the context of interests framed by Rome, the Airport and the Marine Zoo. The shoreline is highlighted to be one of the most sensitive areas due to urbanization forces from the hinterland and sea pressure. The destination points and the green infrastructure are under threat of disconnection and fragmentation. Levels of connectivity are identified within this triangular context which is mostly car-oriented. Sustainable modes of transport especially pedestrian and cycle network should be further developed, which will be demonstrated at the area to be redesigned - the Coast of Ostia.



TOURISM CARRYING CAPACITY
 The scope of project scope is derived through assessing tourism carrying capacity, which is the level of human activity without degrading the physical environment, affecting the locals and having decline in experiential quality for visitors. The first level of assessment is the physical-environment capacity, of which the core urban area and the beach are identified to be able to sustain tourism. The socio-demographic capacity assessment has identified that the core urban area should give priority for the local residents. The stretch of beach is brought to the next level to assess its political-economic carrying capacity, where potential nodes of interventions are determined, some of which already has existing proposals from the municipality.



- | | | | | |
|-----------------|--------|---------------|--------------------|----------------|
| ● urban density | ● road | ● green space | ● scenic viewpoint | ● scenic route |
| ● urban density | ● road | ● green space | ● scenic viewpoint | ● scenic route |
| ● urban density | ● road | ● green space | ● scenic viewpoint | ● scenic route |

PROVINCIAL ANALYSIS

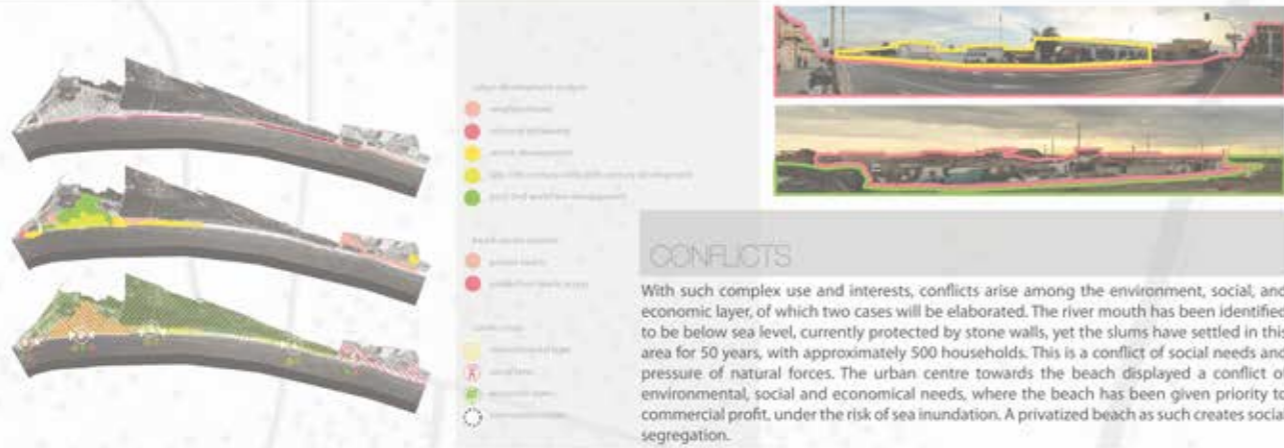
The site was first analyzed in the context of Rome, in terms of urban patterns showing different densities and footprints of the urban environment, and transport network that gives an overview of well established vehicular and rail connections. Between the built environment, lies the green infrastructure layer which is predominantly agricultural-based and also the pinewood forest which is a Natura 2000 site. There is a wealth of archaeological and landscape heritage distributed in this area, connected by scenic drive routes which also offer good vantage points.



- | | | |
|--------------------|-----------------------------|---|
| ● scenic viewpoint | ● recreational green spaces | ● valuable agriculture |
| ● scenic route | ● tree avenue | ● common agriculture |
| ● nature reserve | ● archaeological heritage | ● semi-natural forests |
| | | ● pinewood nature reserves/natura 2000 site |

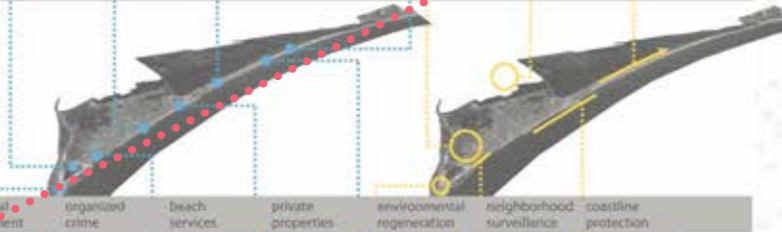


ANALYSIS



CURRENT SITUATION

These images depict the different characters of the coastal landscape of Ostia. They reveal the coast having been exploited in favour of private use for tourism on a public space. The coastal environment has also been developed to be car-oriented, with high coverage of sealed surfaces and limited spaces for green infrastructure and pedestrians. The river mouth is misused for informal and unplanned settlement. On the other hand, there are rich ecological reserves in the vicinity of the coast, for example the pinewood forests, the dunes and also Mediterranean wetland habitats.



TIPOLOGIES



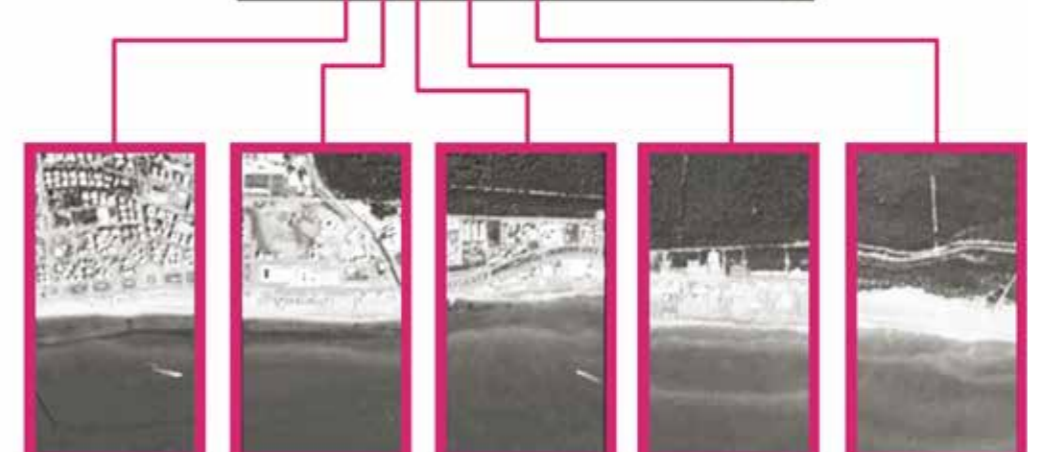
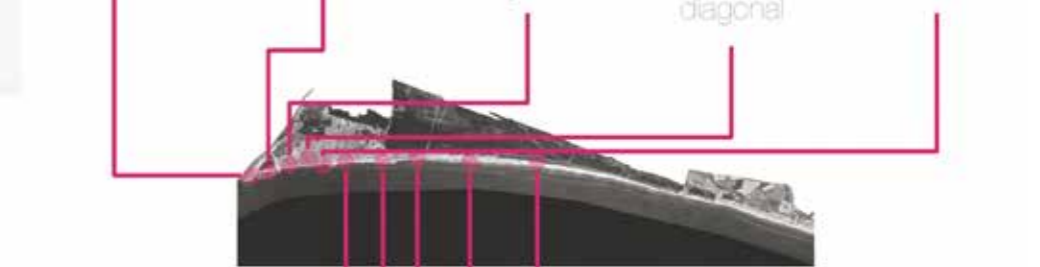
The coastal settlement of Ostia is analyzed of its development sequence, from the historical core, to post-war development, touristic amenity and spontaneous urban growth. Along with urbanization, the beach has become commercialized with the intention of a corporate maintenance of the beach and also for economical benefit. As a result, the beach of Ostia has limited visual and physical access for public users. Along the coast from the river mouth, the configuration of the urban setting ranges from informal layout of slum settlement, to the contrasting touristic harbor, grid form of residential quarter, dense urban centre of mixed uses with a combination of grid and diagonal composition. This gradient gradually decreases in intensity again approaching the semi-urban residential area, which also incorporates recreation, leisure hubs, and other mixed commercial uses, then blends into the naturalistic setting of pinewood forest with occasional beach services and circulation routes.



TIPOLOGIES

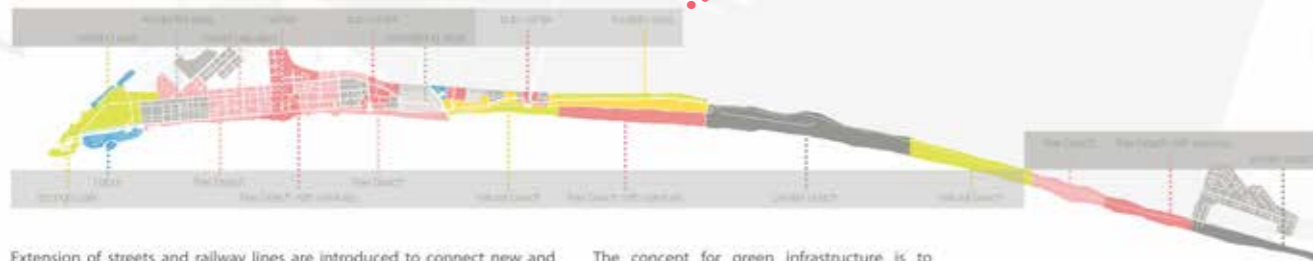


slums harbor residential grid residential/mixed-use diagonal mixed-use center



mixed-use/ sports & recreation & mixed-use natural

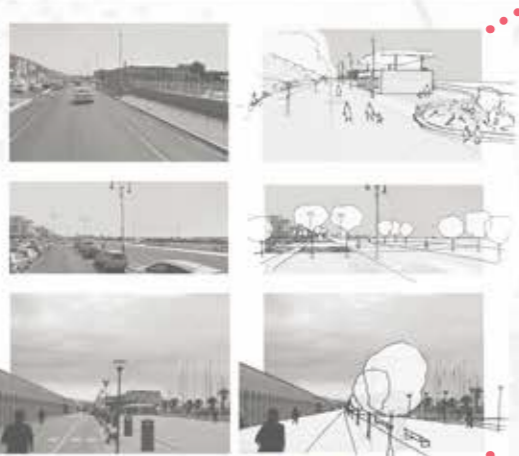
CONCEPT



Extension of streets and railway lines are introduced to connect new and existing attractions, for example connecting existing infrastructure to the proposed commercial harbor in Fiumicino. The transport loop around the Castel Fusano and Castel Porziano will be completed by establishing new connection from the new eco-tourism hub to the Zoomarine Italia. Cycling will be promoted as a sustainable mode of transport and for recreation, through a proposed cycle route around the urban environment, along the coast and nature protection area.

The concept for green infrastructure is to establish habitat and public realm connectivity of existing and proposed green spaces in different scales and forms. The coastal environment is categorized into different character zones, of which the transition areas require holistic interventions.

- 1
- 2
- 3

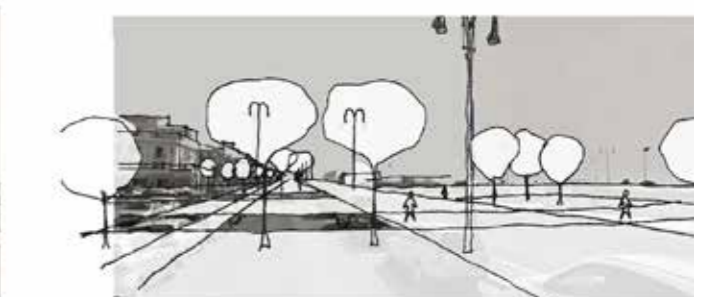


CONCEPT OF REDISTRIBUTING STREETS

Number of lanes of the vehicular roads will be reduced, giving spaces for establishing the linear park, cycle paths and the promenade. For example, along the semi urban area there is currently a 28m-wide transport axis which includes on-street parking. The number of lanes will be reduced to half to make room for the new promenade and linear park. Intensity of traffic along this corridor will be alleviated and redirected to the Via Litoranea, the parallel road one block behind. The existing green space between the lanes of the road will be integrated as part of the proposed linear park.

AIMS

- Public landscape for all:
- Removing barriers and relocate services
- Facilities improvement:
- Comfortable mobility infrastructure
- Tourism redistribution:
- Establish new eco tourism hub
- Heritage awareness:
- Highlighting cultural and landscape heritage
- Coastline rehabilitation:
- Introducing green corridor & ecological breakwaters





DETAILED DESIGNS

ECO CENTER

The idea of introducing an eco center is to promote environmental-friendly form of tourism that encourages nature learning, adventure and sustainable use of resources. This eco tourism zone also plays a role to alleviate the heavy impact of tourism at the urban centre of Lido di Ostia by redistributing the tourists and services. The proposed metro line extension will terminate at the eco centre, with an arrival square and a multifunctional event space.

ENTRANCE

The central square leading to the pier is redesigned to integrate with the new linear park and promenade, accommodating more seating and pockets of green spaces with native plant species for low maintenance. The green and paved surfaces will be open for different public and recreational use for example events, ball games, skateboarding, roller-skating, and picnic in summer. Stairs leading to the beach provide amphitheatre-like seating with ramps for disabled users.

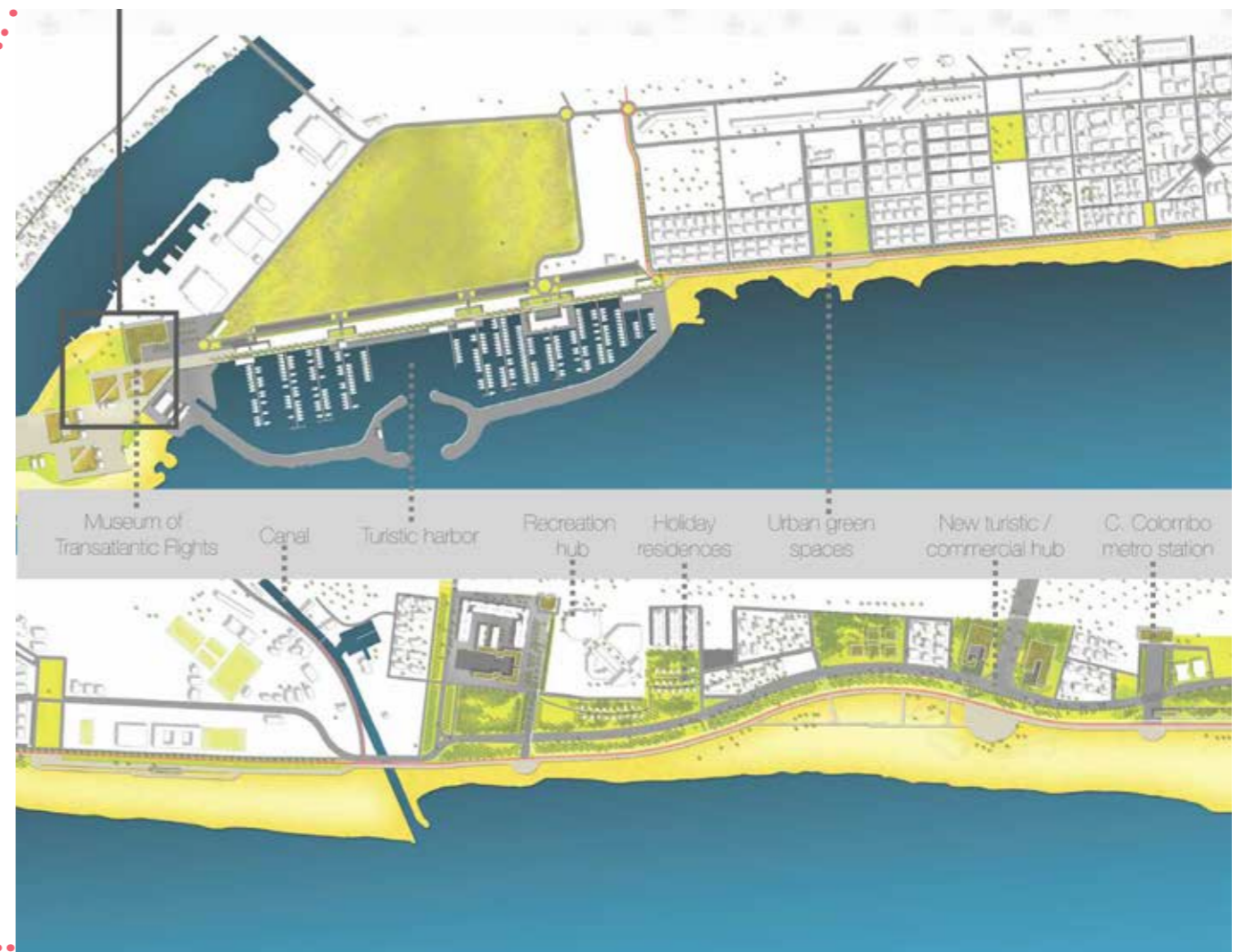
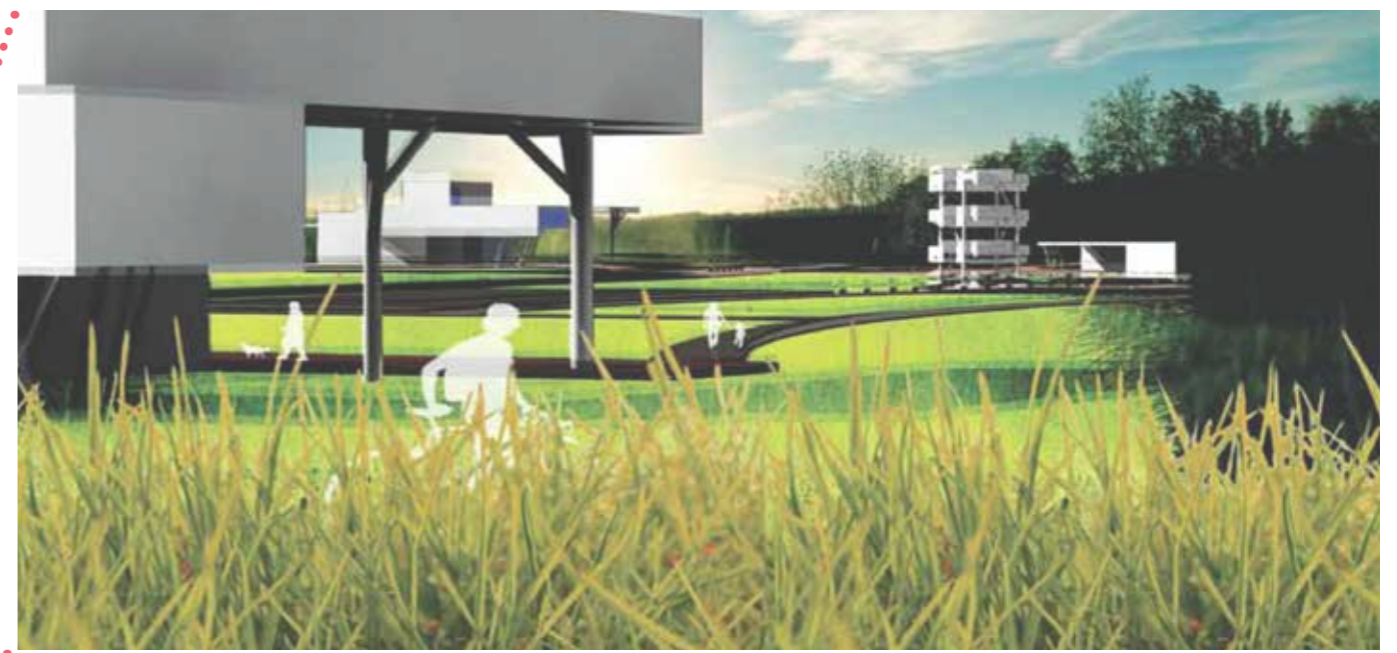
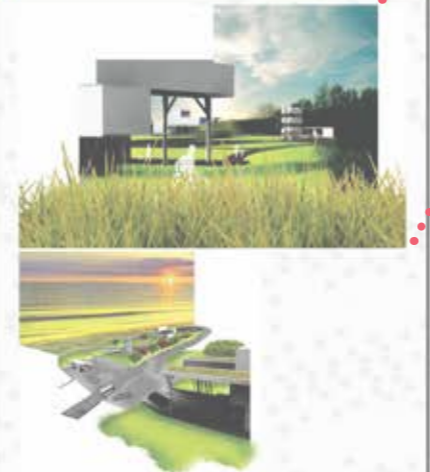


SPONGE PARK

The sponge park design features elevated platforms with openings for wetland vegetation to grow through. It will be a functional floodplain to cope with water level rise and deliver other ecological services for example education, recreational, and biodiversity values. The idea of an elevated platform is to reduce impact of built structure on the ground, allowing regeneration of the wetland ecosystem in this sensitive area. There will be a number of services such as food kiosks, changing rooms, seafood restaurant as a tourist amenity which also attracts local users. An extended fishing platform will be included to cater for the needs of amateur fishers in the area. A museum as proposed by Idroscalo Environmental Regeneration will be located further inland, exhibiting history of the transatlantic flights that used to be based here.

SEA MONITORING STATION

The Sea Monitoring Station serves several purposes: firstly, it supports environmental protection by providing up-to-date information about underwater ecosystems. It also has the potential to become Ostia's new landmark with its outstanding structure. From time to time, the floating building can be visited by students to learn about the life under the sea.



Museum of Transatlantic Flights Canal Turistic harbor Recreation hub Holiday residences Urban green spaces New turistic / commercial hub C. Colombo metro station

IMPRINT

EDITORS

Prof. Ingrid Schegk
Dipl.-Ing. (FH) Stefanie Gruber
Weihenstephan-Triesdorf University of Applied Sciences,
Freising-Weihenstephan (Germany),
Faculty of Landscape Architecture

LAYOUT

Stephanie Janke

DATE

July 2014

ISBN

978-3-927699-24-3

ip/la





International Master of Landscape Architecture, 2014
www.imla-campus.eu

ISBN: 978-3-927699-24-3