Inclusive Coastal Landscapes

Session 10: Integrated Planning + Design

Friday, 27th of March 2020

Co-funded by the Erasmus+ Programme of the European Union

Universitatea de Arhitectură și Urbanism "Ion Mincu"

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Eesti Maaülikool
Estonian University of Life Sciences

Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen

HOCHSCHULE WEIHENSTEPHAN-TRIESDORF UNIVERSITY OF APPLIED SCIENCES

ULB Faculté d'Architecture La Cambre Horta

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Agenda

Welcome and Warm-up:

Tell/type us your strategy or vision

How to translate your strategy into a spatial design?
(Ingrid Schegk)

- Core questions of (coastal) design
- Suitable design approach in coastal contexts: Introduction of the transect method

Exercise:

Sketch your transect

Preview

Question & Answers

Moderation: Ellen Fetzer

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Tell us your strategy/your vision in one catchy phrase or slogan (outcome of the last lecture).

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How to translate this strategy into a spatial design?

Key issues and core questions

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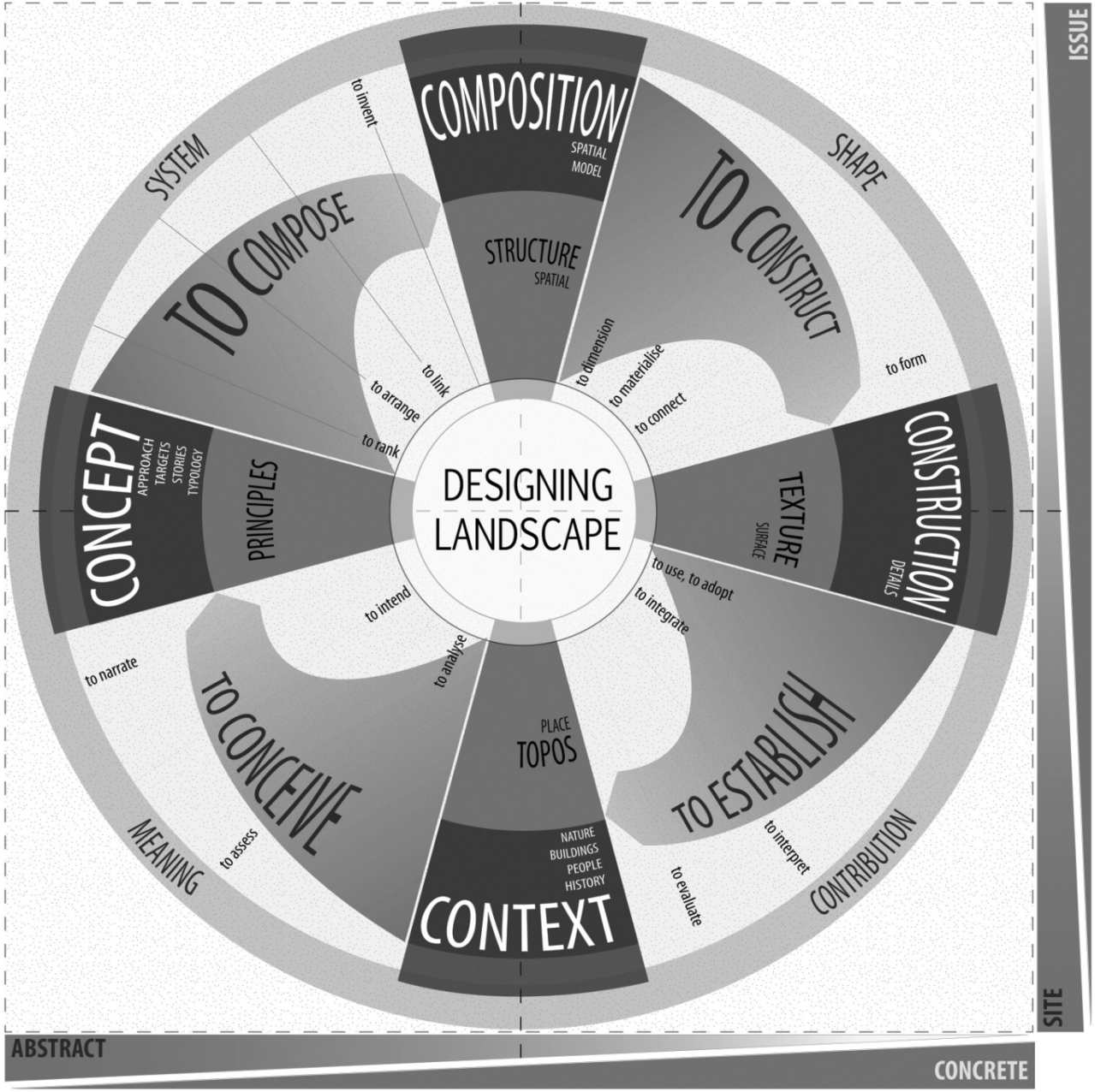

Design as a circular process in a context-oriented planning approach
Source: Author

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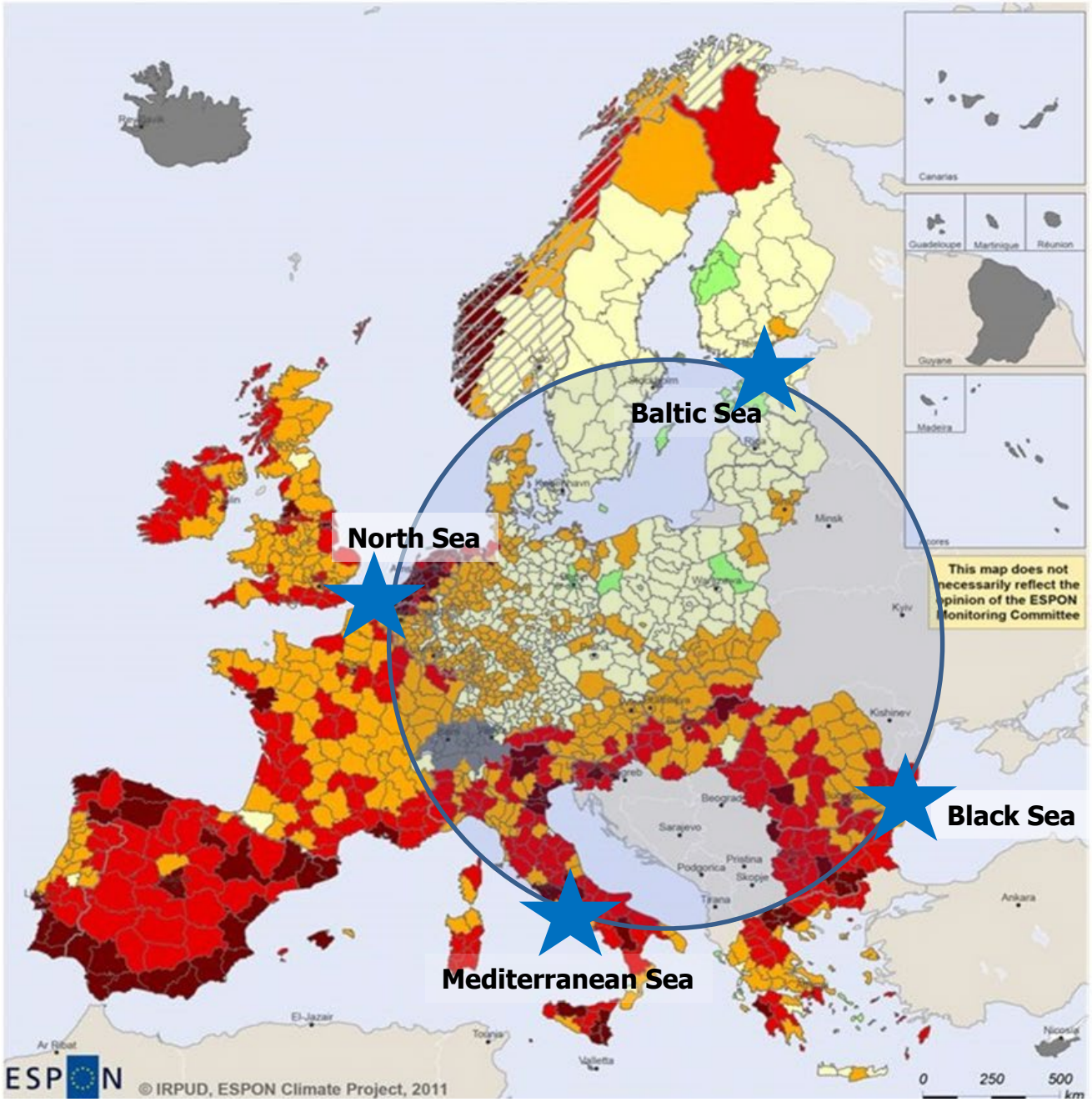

GLOBAL/ EUROPEAN CONTEXT

Source: ESPON Climate Project 2011

Natural contexts: Maremma, Tuscany, Italy
West-Mediterranean Sea

Iguana Island, Cuba
Caribean Sea (Photos: Author)

Urban context: Trogir, Croatia,
Adriatic Sea

Context of the Tallinn project area
(Photos: Author)

Context of the Napoli/Pozzuoli project area
(Photos: Jonas Gruber)

Physical Context of the De Panne project area (Photo: Author)

Physical Context of the De Panne project area
(Photo: Author)

Intangible Context of the Belgian coast: Narrative and image

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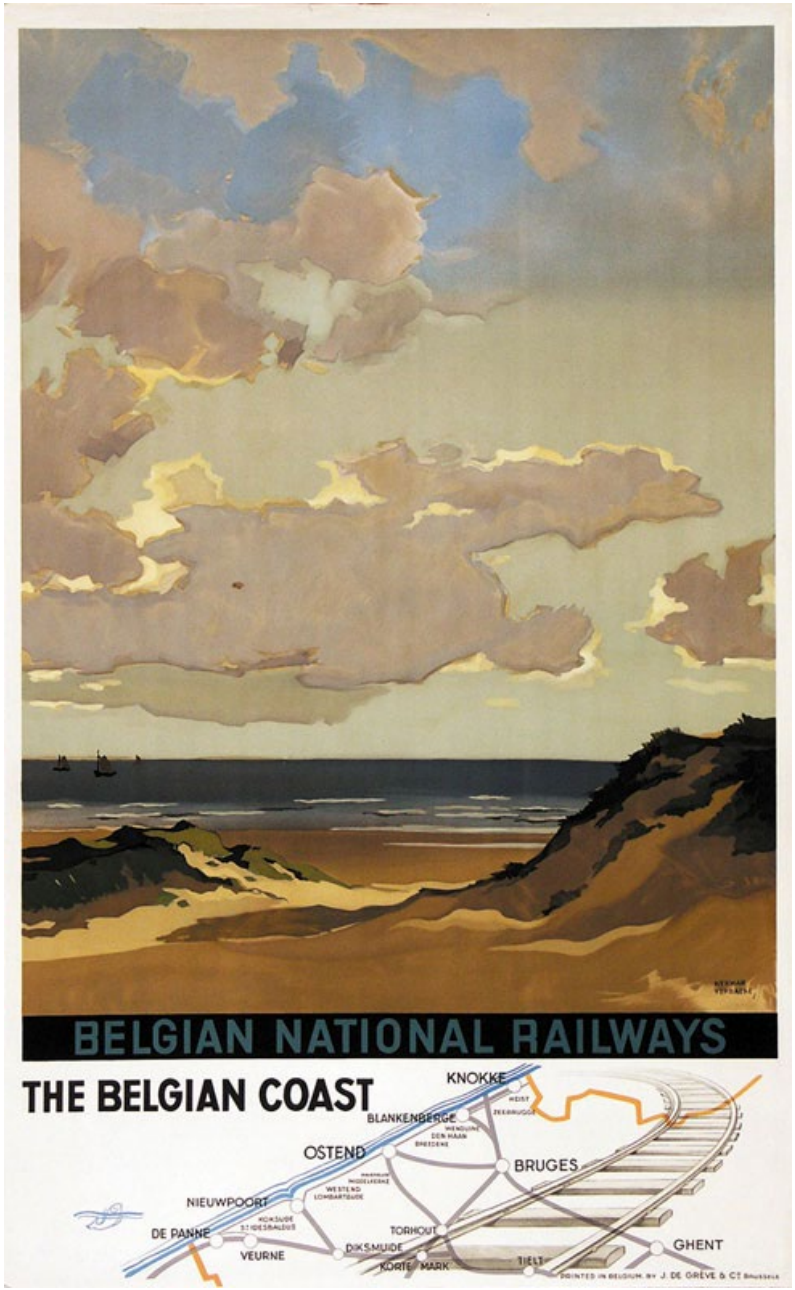
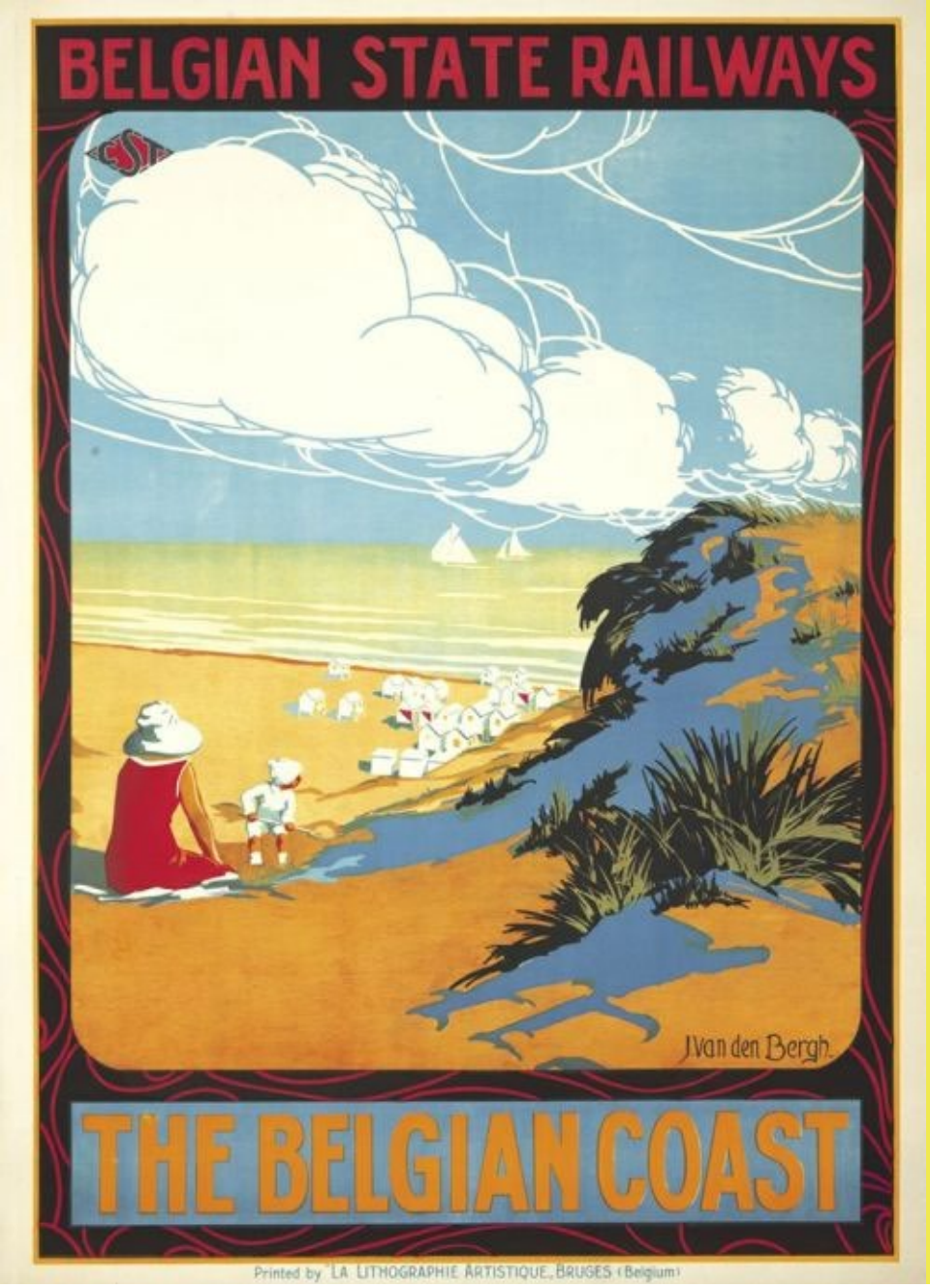
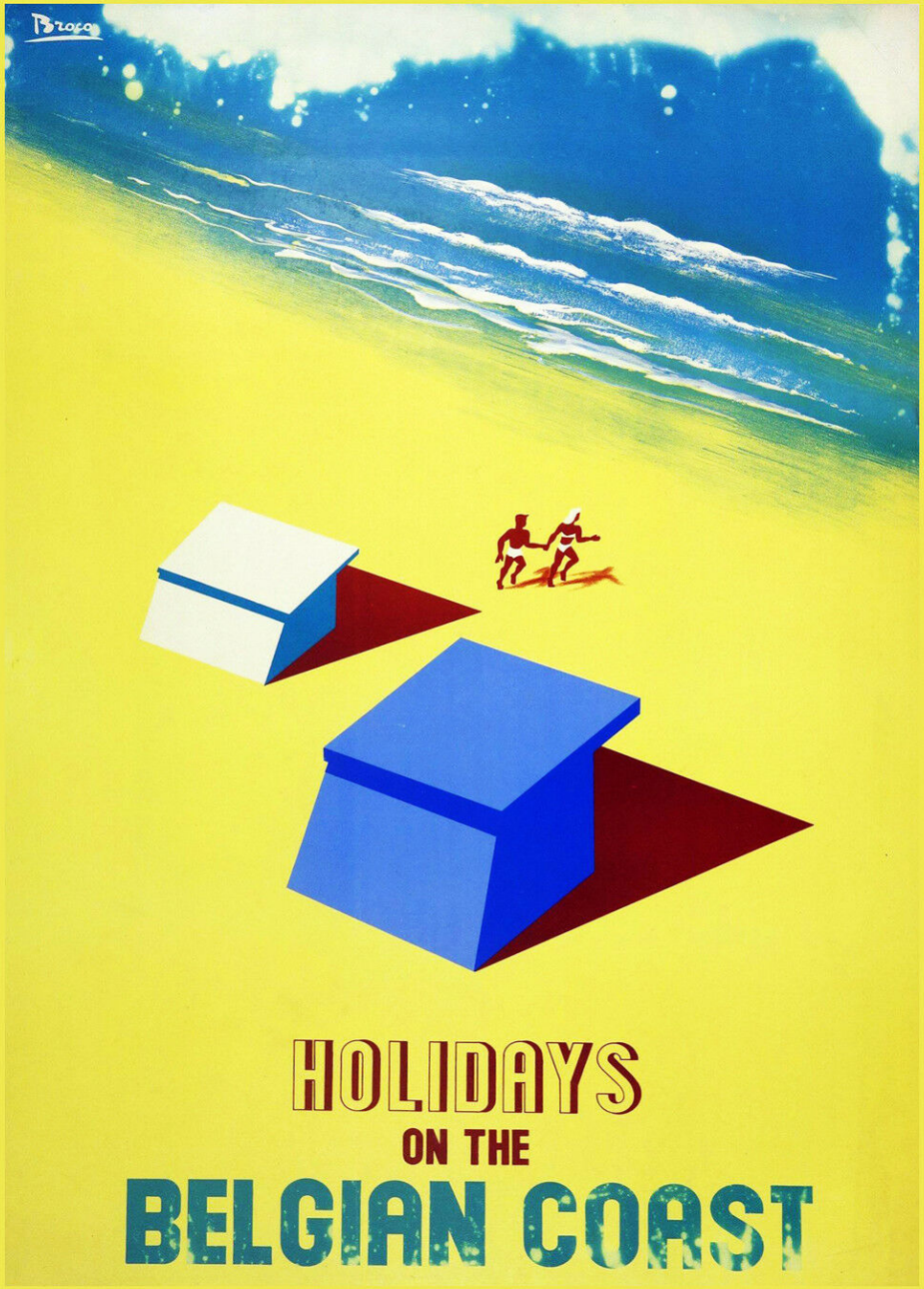


Hermann Herzog: 'Sunset on the Belgian Coast at Blankenberge', 1873

Postcard of the Belgian National Railway





THE BELGIAN COAST

VIA HARWICH-ZEEBRUGGE — L·N·E·R

NIGHTLY SERVICE FROM 28TH JUNE TO 9TH SEPTEMBER 1935

FULL INFORMATION FROM CONTINENTAL TRAFFIC MANAGER, L.N.E.R. LIVERPOOL STREET STATION LONDON E.C.2. OR HULL: L.N.E.R. STATIONS, OFFICES AND TOURIST AGENCIES

THE BELGIAN COAST

VIA HARWICH-ZEEBRUGGE OR DOVER-OSTEND

Information from Continental Departments, L·N·E·R Liverpool Street Station, London, E.C.2., or Southern Railway, Victoria Station, London, S.W.1.
or principal L·N·E·R and S.R. Offices and Agencies

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Key issues of coastal landscapes

- **Global developments** (climate change, increasing sea level, social diversity etc.) versus **local problems and potentials** (local landscape values, regional urban developments, tourism etc.)
- Dynamic, ephemeral **'short term' landscape** (natural shore line) versus **'long term' landscapes** (built coastal lines with harbours, streets, landmarks etc.)
- Translation of **global planning strategies** (sustainability, inclusiveness) into **local design solutions/interventions** (dealing with heritage, local stories/narratives, traditions, structures, nature, materials etc.)

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Demands on spatial design

- Sustainable (ecological, economical, social and cultural)
- Resilient
- Trans-areal and trans-scalar
- Site- and problem-oriented
- Participatory and interactive
- Process-oriented
- Inclusive…

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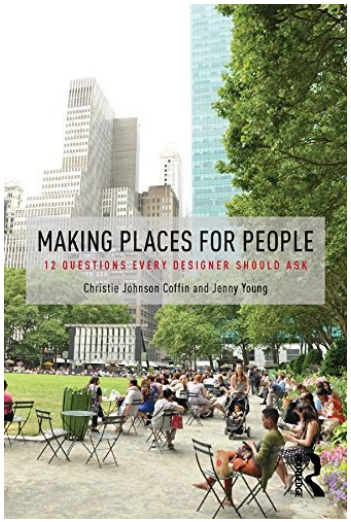
12 Questions a designer should ask

1. What is the story of this place?
2. Whose place is this?
3. Where is this place?
4. How big is this place?
5. What logic orders this place?
6. Does this place balance community and privacy?
7. What makes this place useful?
8. Does this place support health?
9. What makes this place sustainable?
10. Who likes this place?
11. What evidence is there this place will work?
12. Does this place foster social equity?



Source:
Christie Johnson Coffin,
Jenny Young (2017)

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How to express and visualise the spatial design/the spatial composition?

Introduction of the transect method

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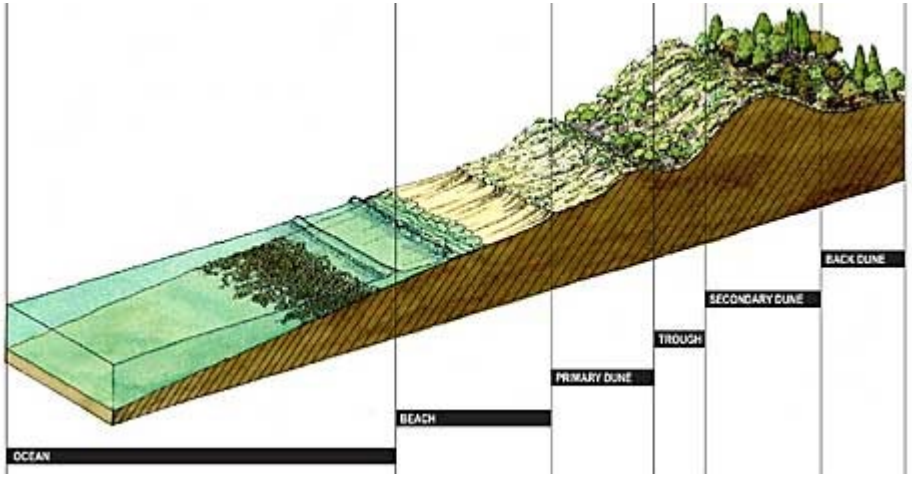
A transect…

"… is a cut or path through part of the environment showing a range of different habitats. Biologists and ecologists use transects to study the many symbiotic elements that contribute to habitats where certain plants and animals thrive."



Transect
of a (natural) coastal landscape

Source: CATS (Center of Applied Transect Studies), https://transect.org/

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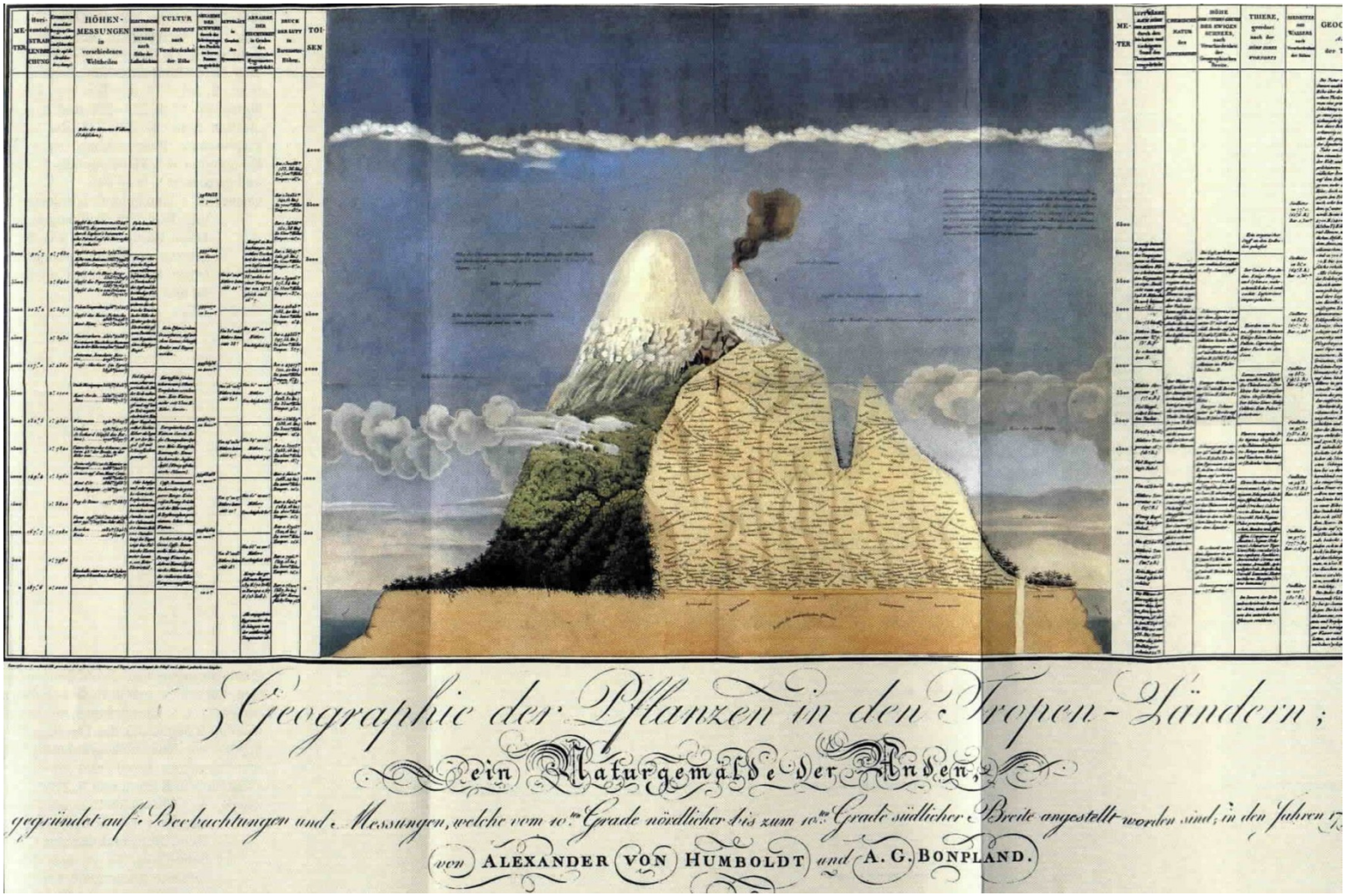
The first transect



Alexander v. Humboldt (1793), source: https://transect.org/

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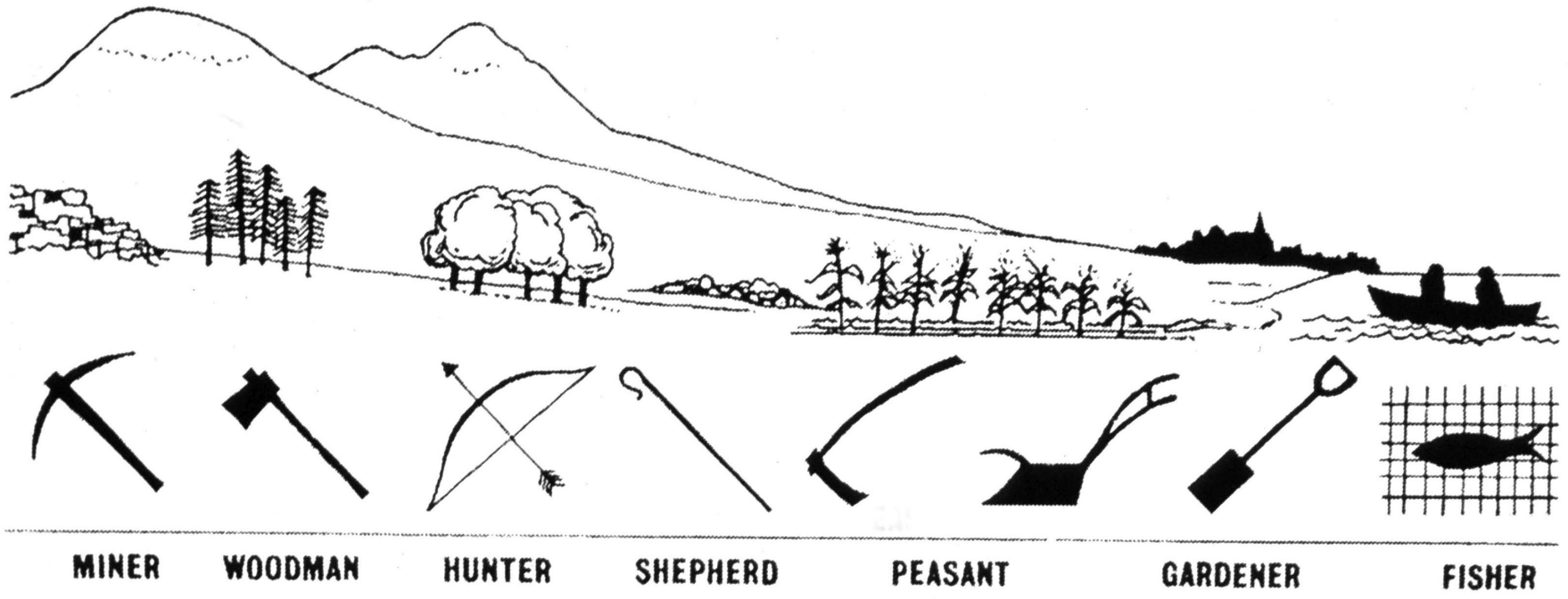
Analytical transects



“Valley Section” by Patrick Geddes (19th century): Design with Nature, source: https://transect.org/

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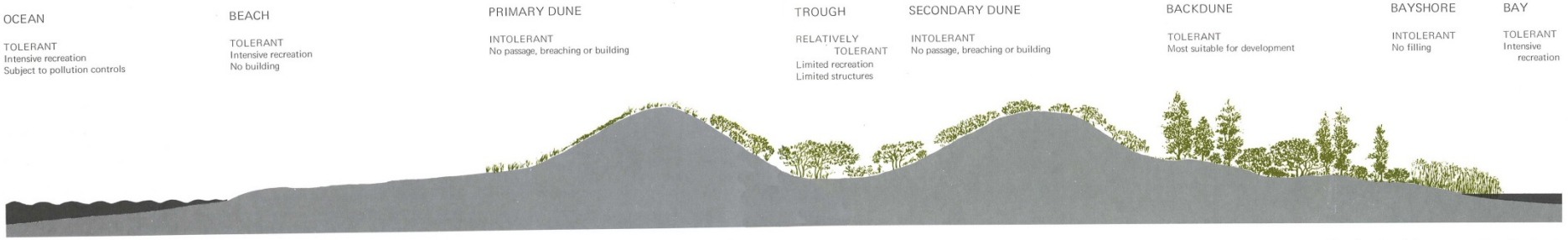
Analytical transects



and it is here, propitiously, that the most delightful, diverse, safe and tolerant environment exists.

We could now consider positive recommendations for development of the shore based upon this little knowledge. The backdune's widest stretch would appear to offer the maximum opportunity for the concentration of facilities, be it a village, a group of houses or a recreational center—depending upon actual dimensions. There will of necessity be a highway. It will inevitably run parallel to the sea and the dunes and could well be located on the backdune. If sufficiently elevated, it could not only proffer splendid views of the ocean and the beach, but it could provide a third dune, the equivalent of the Dutch Dreamer.

This backdune could offer protection from winter storms and could prevent the breaching of the sandbar from the bayshore as has happened in the past. In creating works like an artificial dune to support a highway, it is important that the sand be withdrawn from the ocean and not from the bay. The beach is not a very rich environment while the bay is the very richest. As Dr. Stanley Cain, the eminent ecologist, has revealed,* dredging of such rich environments can produce biological deserts.

Now if communities are established there arise the problems of water supply and sewage disposal. First let us consider the matter of water. There are resources of groundwater in the sandbars as we have seen, but the water level must not be lowered so far as will extinguish the stabilizing vegetation. This suggests that withdrawal be distributed among a number of wells. But water from this source will be a limiting factor to growth. Sewage presents another problem. The silts of the bayshore are unsuitable for septic tanks and, moreover, the employment of this technique is certain to pollute the groundwater supply. Both a sewer and a sewage treatment plant will be necessary before development is permitted on the dune.

We now have the broad outlines of an ecological analysis and a planning prescription based upon this understanding. A spinal road could constitute a barrier dune and be located in the backdune area. It could contain all utilities, water, sewer, telephone and electricity and would be the guardian defense against backflooding. At the widest points of the backdune, settlement could be located in communities. Development would be excluded from the vulnerable, narrow sections of the sandbar. The bayshore would, in principle, be left inviolate. The beach would be available for the most intensive recreational use, but without building. Approaches to it would be by bridges across the dunes, which would be prohibited to use. Limited development would be permitted in the trough, determined by groundwater withdrawals and the effect upon vegetation. A positive policy would suggest accelerating the stabilizing processes, both of dune formation and of vegetative growth. To do this the appropriate vegetation for the associations would be planted. Particular attention would be given to marram grasses on dunes and to planting red cedars and pines on the backdune.

In the Netherlands, confronted with a similar situation, it became a matter of national resolve to reclaim land from the sea and a positive policy was developed towards that end. If this were applied to the New Jersey Shore it would involve the creation of continuous dikes and dunes facing the sea. There would be locks at these locations where the lagoon was connected to the ocean. Fresh-water flow from the land mass into the bay would be regulated as would incursions of salt water from the ocean. Constraints would be exercised to maintain dunes and dikes, groundwater withdrawals and native vegetation.

Sadly, in New Jersey no such planning prin-


14


15


16


18

*Stanley A. Cain, Letter to the Editor, *Landscape Architecture Quarterly*, Jan., 1967, Volume 57, page 103.

Ian McHarg (1963): Design with Nature, source: https://transect.org/

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Transect methods…

- "…employ the **transareal and trans-scalar** understanding of Alexander von Humboldt's scientific model, framed through the landscape architecture lens **in a problem-oriented research approach** that seeks **to map and narrate the relational, the dynamic, and the atmospheric qualities of sites**.
- Additionally, the transareal transect method **enables designers to focus and reflect on site qualities as a mobile form of on-site exploration**, complementary to the in-studio study of documented site conditions such as statistics, cadaster and topographic maps, Google searches, and other pragmatic diagramming techniques."
- "(…) we (…) propose a form of landscape research that constitutes **a journey from on-site to non-site, from physical to mental site, from thought to conversation, as we move back and forth**. This is an inclusive journey that invites engagement with landscape design as a moment within ongoing and open works."

Source: Lisa Diedrich et al. (2014), https://www.nanocrit.com/issues/issue6/transect-method-mapping-narrating-water-landscapes-humboldts-open-works-transareal-travelling

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The Transects…

- "…engage with site and design through **an experiential and intellectual approach**."
- "…make us aware of the fact that reading about water is different from getting wet, but that combining these two insights is all we need for **design practice and theory.**
- …provide access to an experiential-intellectual apprehension of sites that completes factual knowledge through a reflective process *(…**site thinking**)* into a more comprehensive form of knowledge, namely ***site knowledge***."
- "…entice their participants **to relate structures with experiences**, territories with projects, weather with roads, design with critique, and much more."
- "…are not in themselves a research program, but they constitute a **methodology for setting up research agenda**s."

Source: Diedrich, L., G. Lee and J. Raxworthy (2012): Transects: Developing an Experience-based Methodology for Design Education and Design Research in Jonas & Monacella (eds). 2012. Exposure: Design Research in Landscape Architecture 2012, RMIT.

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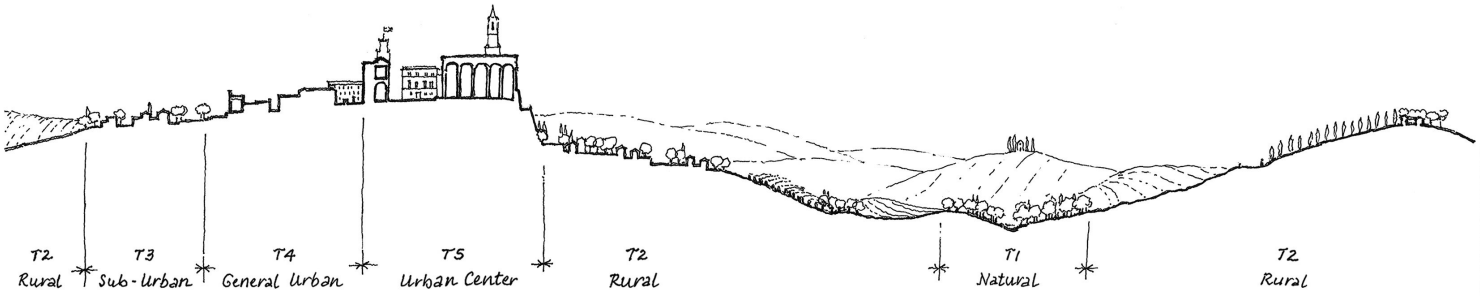
The rural-to-urban-transect

"Human beings also thrive in different habitats. (…). (…) urbanism could be analyzed as natural transects are analyzed. To systemize the analysis and coding of traditional patterns, a prototypical American rural-to-urban transect has been divided into **six Transect Zones, or T-zones**, for application on zoning maps."

Rural-to-urban-transects:
Typologie (left + right)
by CATS
Pienza, Italy (below)
by Elizabeth Plater-Zyberk,
source:
https://transect.org/



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Transect as an artwork

Jo Struyven: 'Land-in-Zicht', 2011 (parts)

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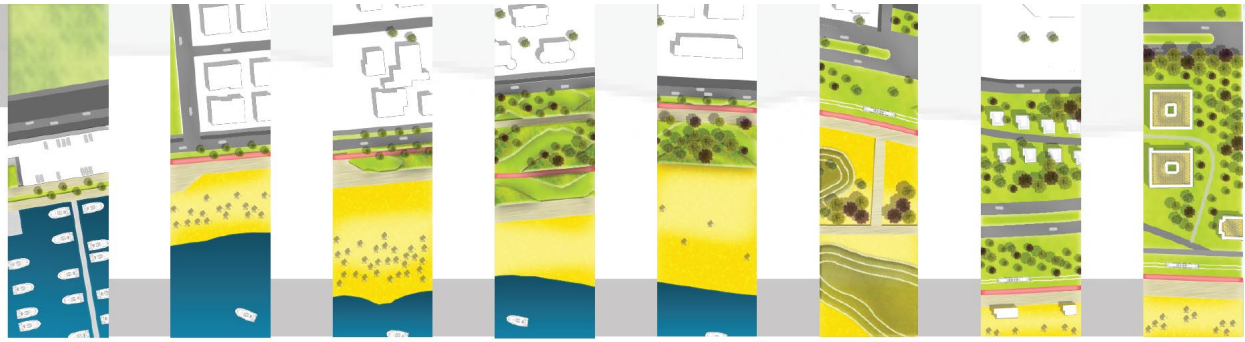
Application to coastal design

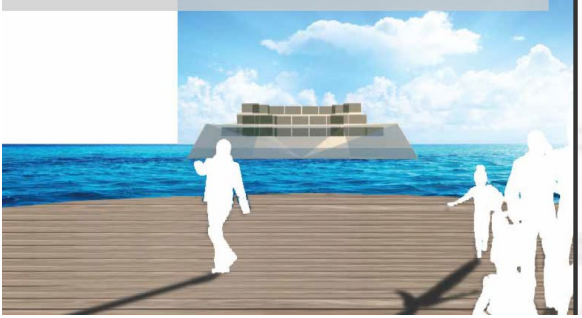
AIMS

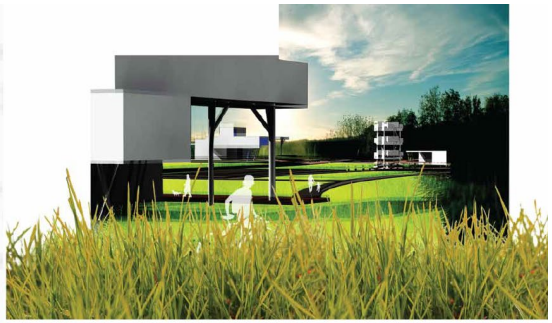
Public landscape for all:
Removing barriers and relocate services
Facilities improvement:
Comfortable mobility infrastructure
Tourism redistribution:
Establish new eco tourism hub
Heritage awareness:
Highlighting cultural and landscape heritage
Coastline rehabilitation:
Introducing green corridor & ecological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

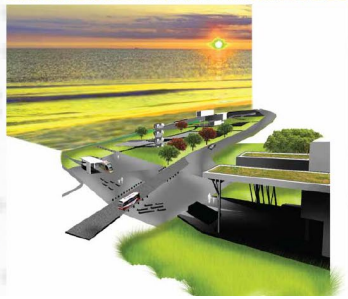


SEA MONITORING STATION

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







Nuovi Paesaggi per Ostia
New Landscapes for Ostia
Visuals:
Rasha Jaboodi, Kinga Jánossy, Andreia Oshiro, Janice Thien
(2014)
Source: www.imla-campus.eu

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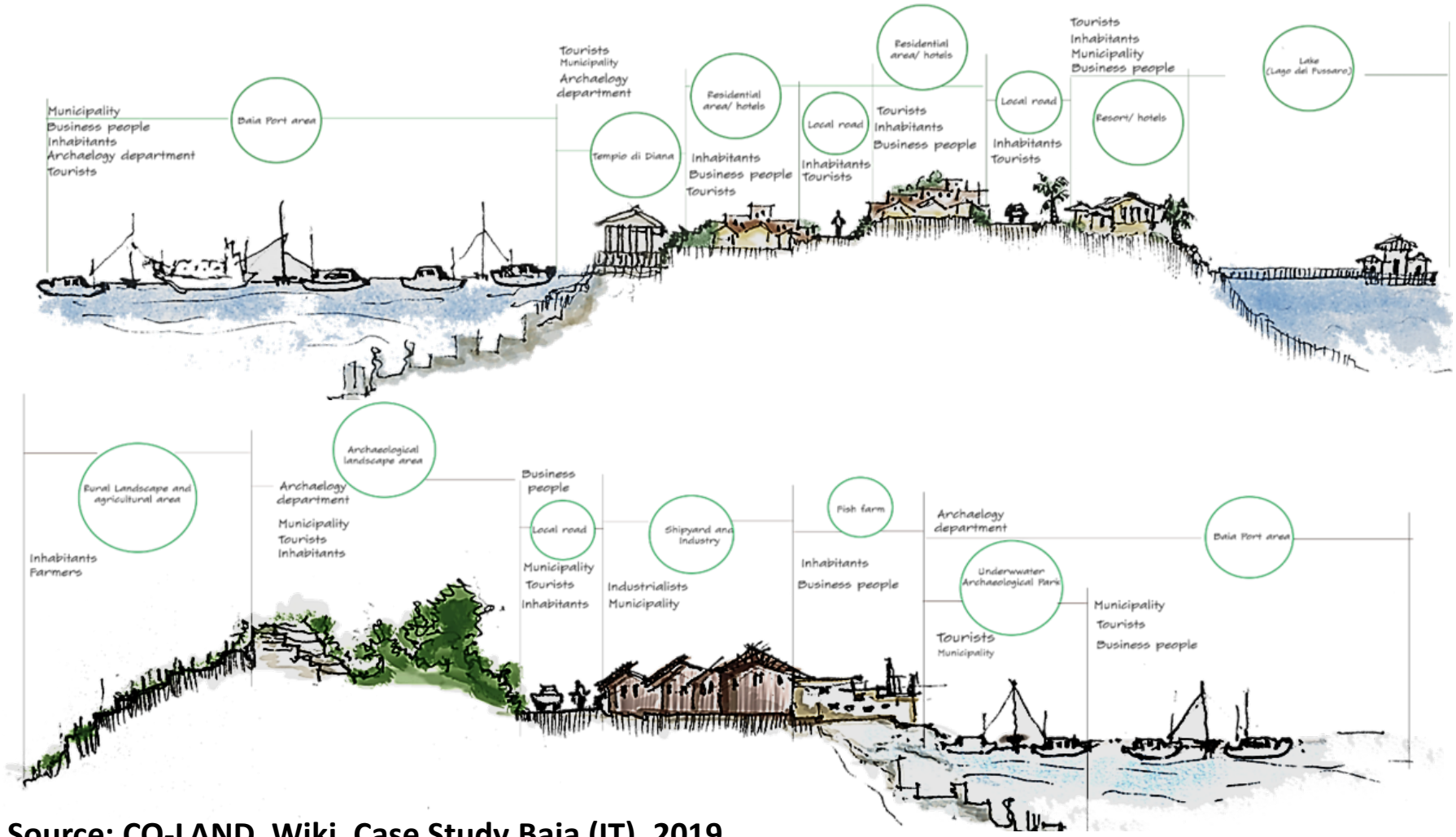
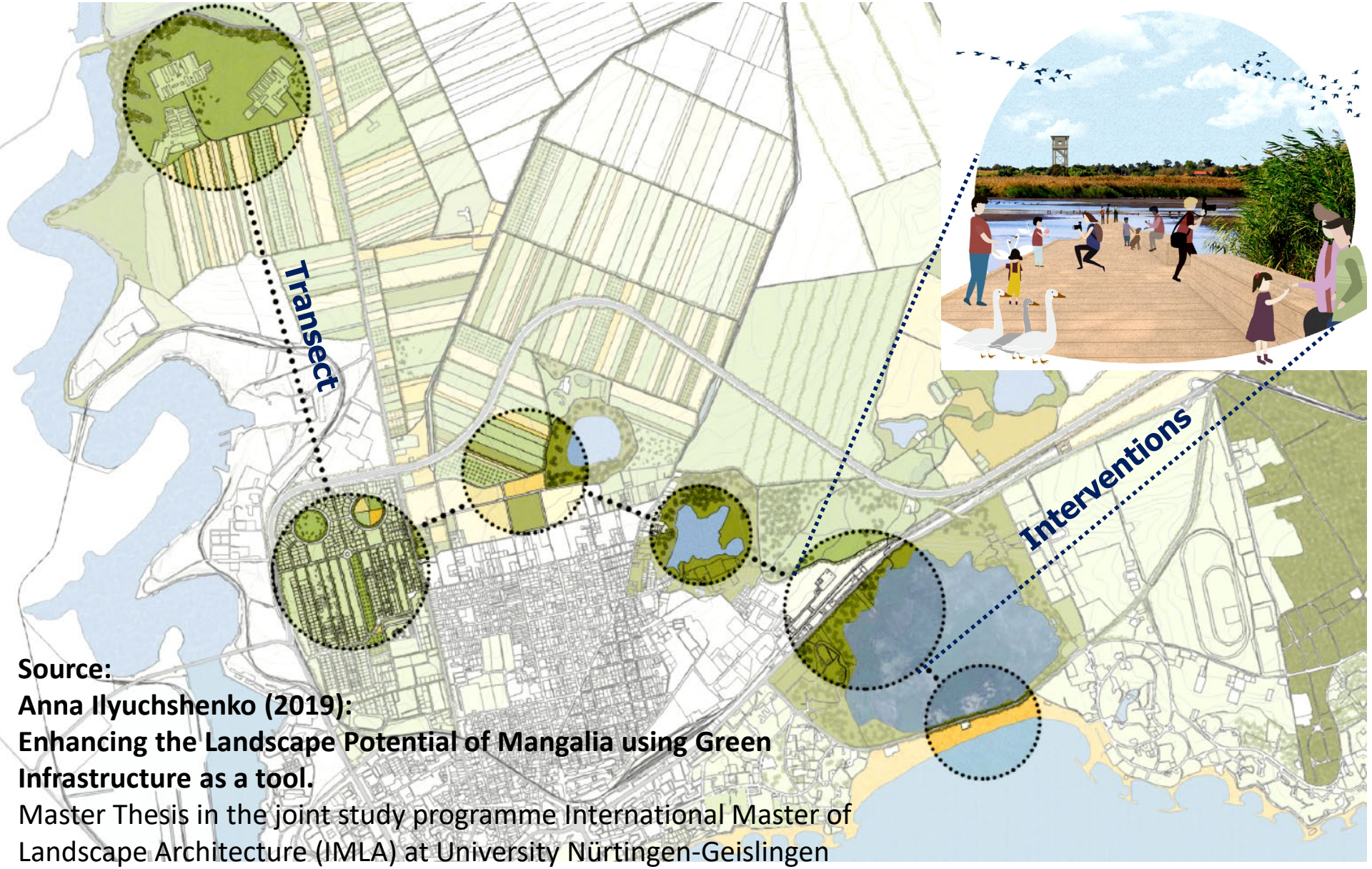
Application to coastal design



Source: CO-LAND, Wiki, Case Study Baia (IT), 2019,

Authors: Panaitescu A., Lungu D., Cairo M., Aquino L., Jayalath S., Miraldi A., Passaro A., Ali A.

Application to coastal design



Source:
Anna Ilyuchshenko (2019):
Enhancing the Landscape Potential of Mangalia using Green Infrastructure as a tool.
Master Thesis in the joint study programme International Master of Landscape Architecture (IMLA) at University Nürtingen-Geislingen

Step 1:

Define a design-transect or corridor

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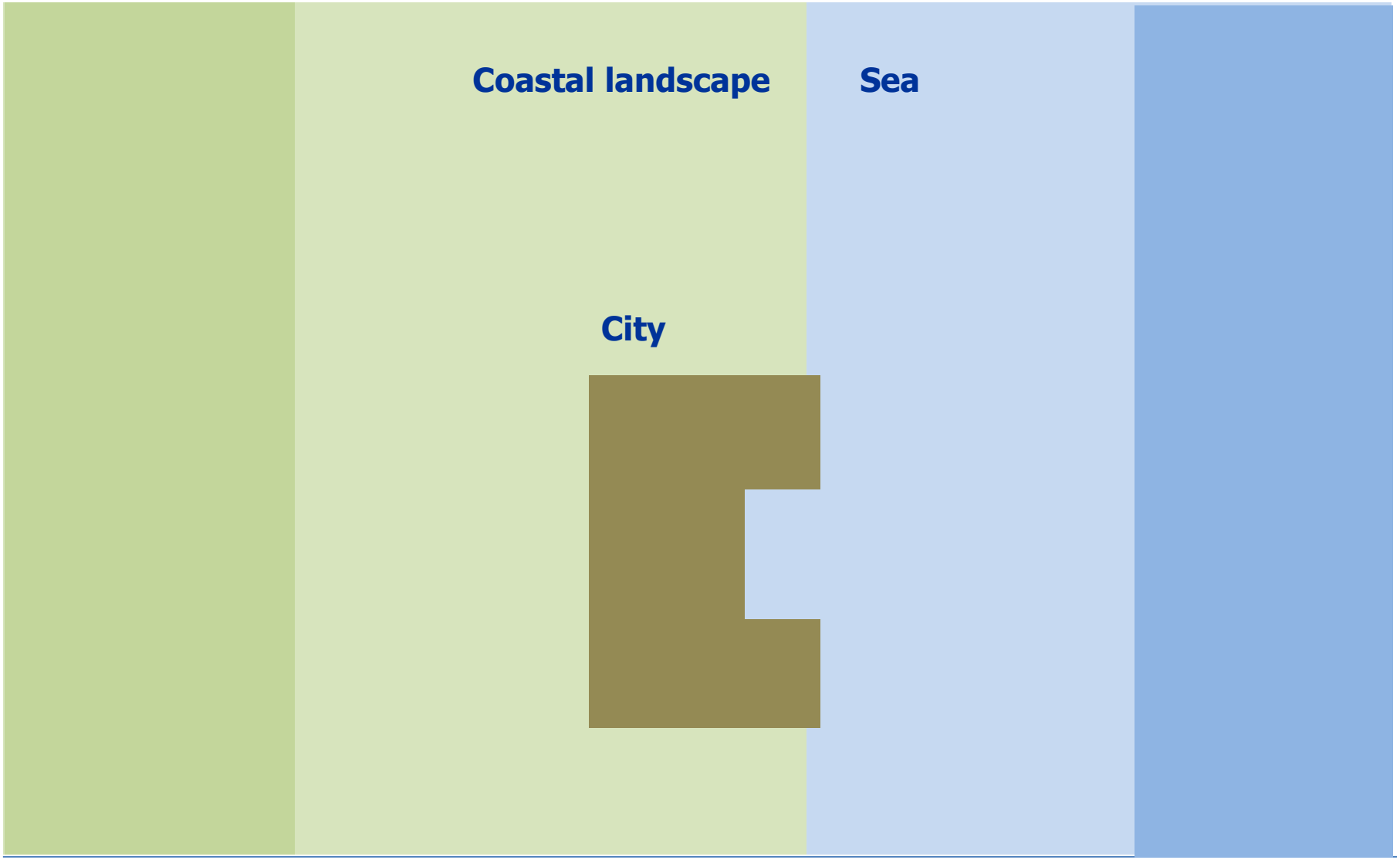

Step 1:

Define a design-transect or corridor

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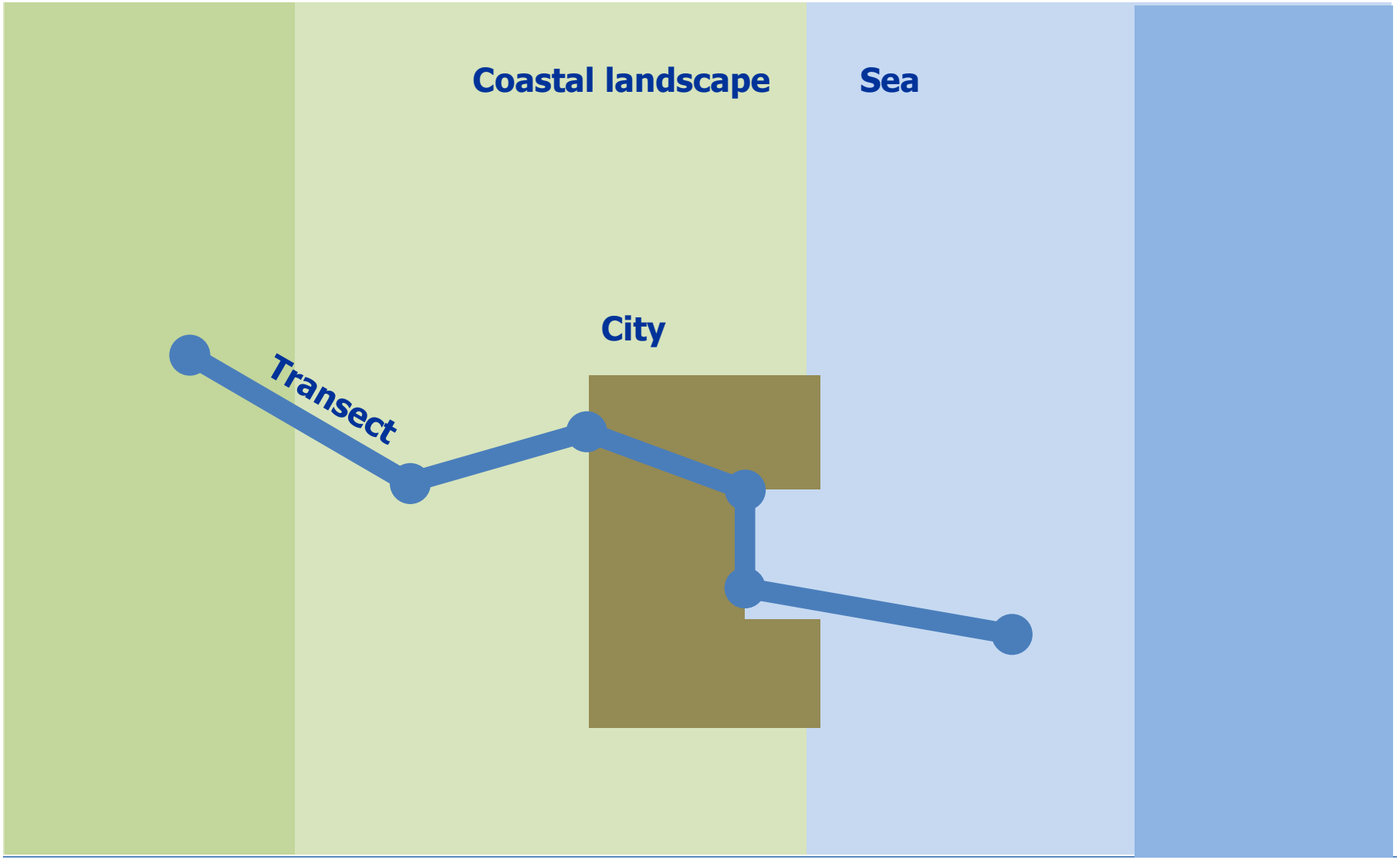

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Criteria…

for defining the transect:

- Representing a gradient (from mountain to sea, from rural to urban, from city edge to harbour etc.)
- Crossing representative and important landscape types, types of open spaces, social hotspots, heritage places etc. with potentials for strategic developments and design interventions
- Following a route or path where a certain perception is possible (land – sea relation, spatial dimensions, vistas etc.)
- Crossing strategic places with potentials for green and blue infrastructure solutions

Step 2:
Visualise your transect

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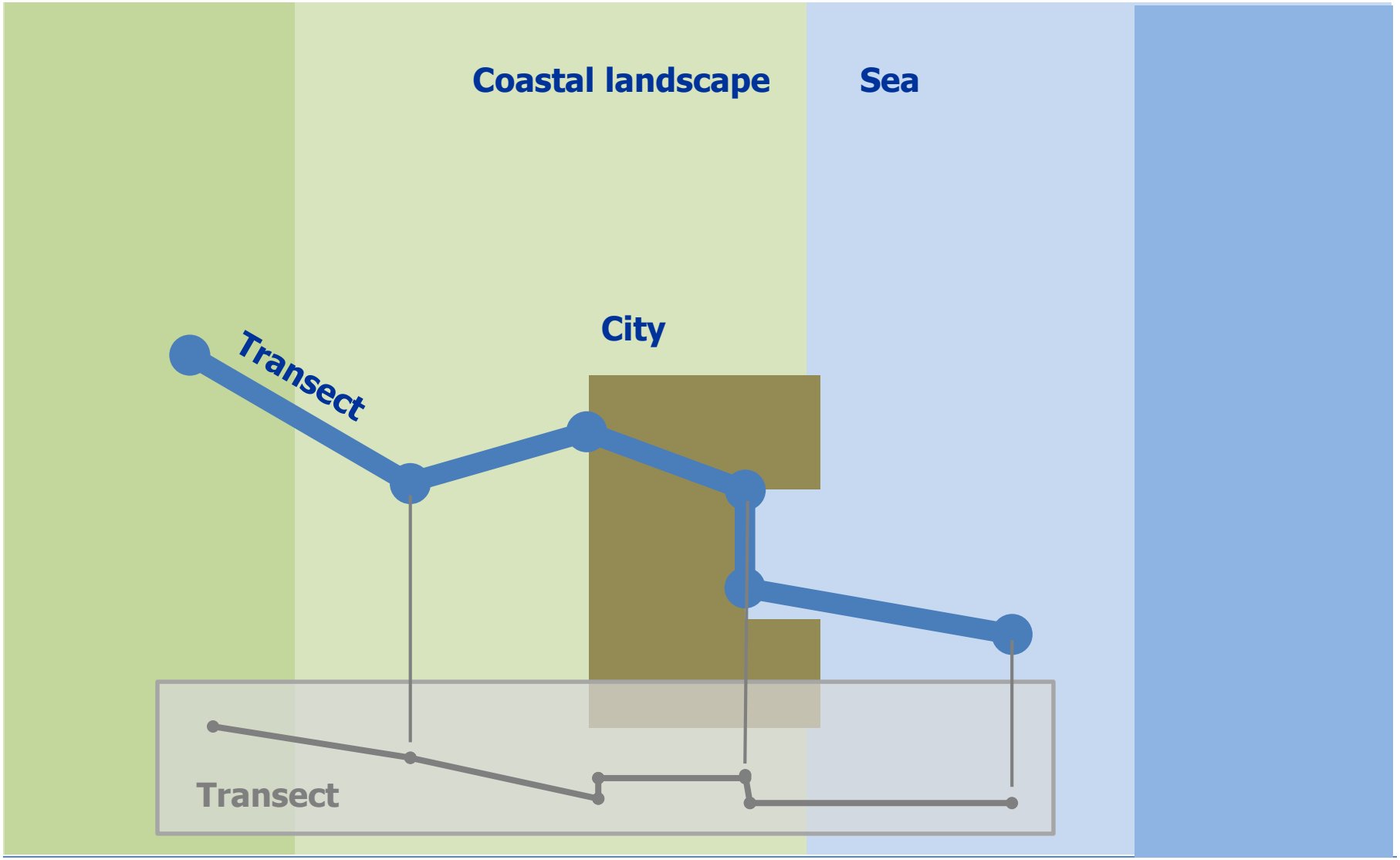

Step 3:

Define your places of intervention

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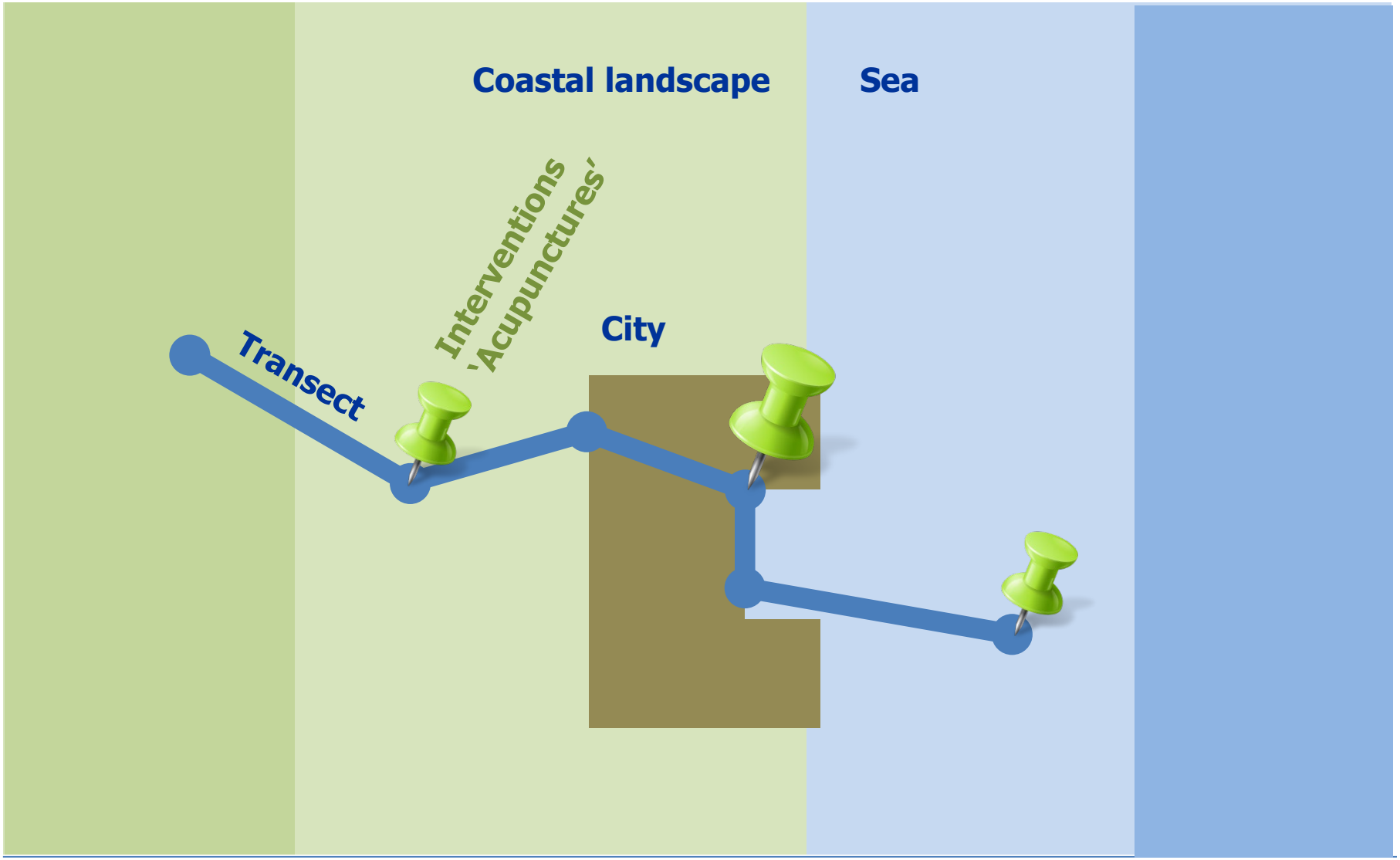

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Criteria…

for interventions:

- Places where different structures/landforms meet
- Interchange of routes or paths
- Borders/edges
- Entrances/exits
- View points in relation to the coastal landscape
- Potential landmarks
- Places where people meet
- Places where strategic processes of change could be started
- …

Step 4:

Visualise your ideas in detail

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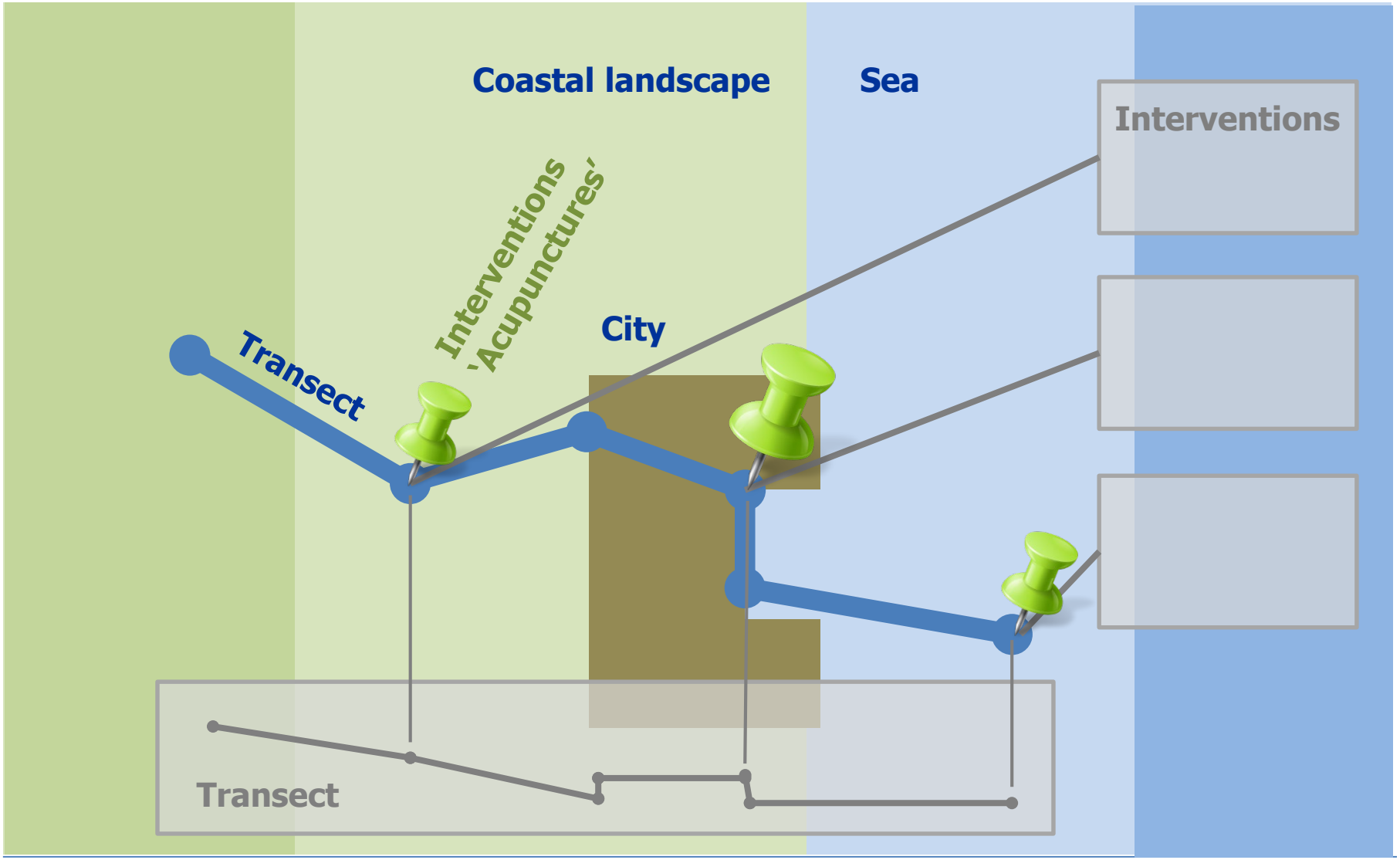

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Readings

Place making, inclusive design:

Christie Johnson Coffin, Jenny Young (2017): Making Places for People: 12 Questions Every Designer Should Ask.

Transect method:

Diedrich, L., G. Lee and J. Raxworthy (2012): Transects: Developing an Experience-based Methodology for Design Education and Design Research in Jonas & Monacella (eds). 2012. Exposure: Design Research in Landscape Architecture 2012, RMIT.

Lisa Diedrich, Gini Lee, Ellen Braae (2014): The Transect as a Method for Mapping and Narrating Water Landscapes: Humboldt's Open Works and Transareal Travelling (https://www.nanocrit.com/issues/issue6/transect-method-mapping-narrating-water-landscapes-humboldts-open-works-transareal-travelling)

http://landscapeandurbanism.blogspot.de/2009/12/representing-transects.html

https://transect.org/

Mantho, Robert (2015): The Urban Section. An analytical tool for cities and streets. London and New York

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Sketch your transect with the focus points or places of potential interventions (step 1 – 3).
Upload a photo of your postcard.

Next session:

Interventions and processes:
The approach of Urban Acupuncture

Speaker:

Jekaterina Balicka, Landscape architect, researcher, Estonian University of Life Sciences

Questions?

Thank you for your attention