

Towards a European Network of Heritage Harbours: Activating Historic Sea-Land Connections for Sustainable Futures

Carola Hein, History of Architecture and Urban Planning, TU Delft, PortCityFutures

EMH SEMINAR 2024 TOWARDS A EUROPEAN NETWORK OF HERITAGE HARBOURS

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Mission

The PortCityFutures mission

PortCityFutures contributes to the new LDE strategy in multiple ways. It brings together researchers from humanities, social and design sciences in the LDE who are eager to collaborate. It focuses on the particularities of the port city region where these three universities are located.

Towards a European Network of Heritage Harbours: Activating Historic Sea-Land Connections for Sustainable Futures

Why European heritage harbors?

How do we define European heritage harbors?

How and for whom can the European Network of Heritage Harbors activate practices for sustainable futures?



Port Cities: A particular type of cities



Port City Cultures, Values, and Maritime Port Cities Special

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Contemporary World. Vol. 11. New York: Berghahn Bo

Vol. 4 No. 2 (2021): Port City Cultures, Values, or Maritime Mindsets, Part 2: Studying and Shaping Cultures in Port City Territories



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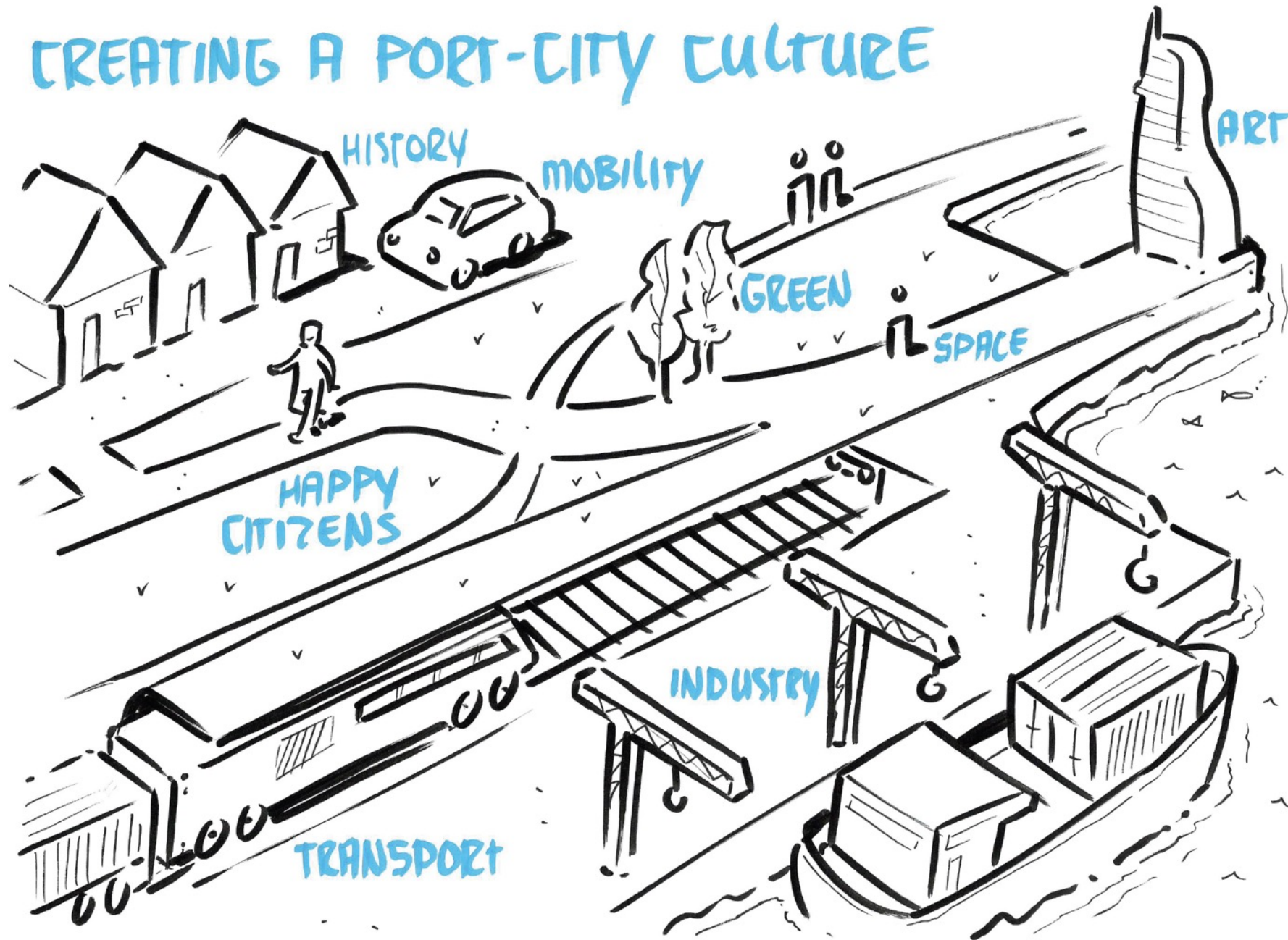
Published: 2021-12-27

Port City Territories: Complex Values

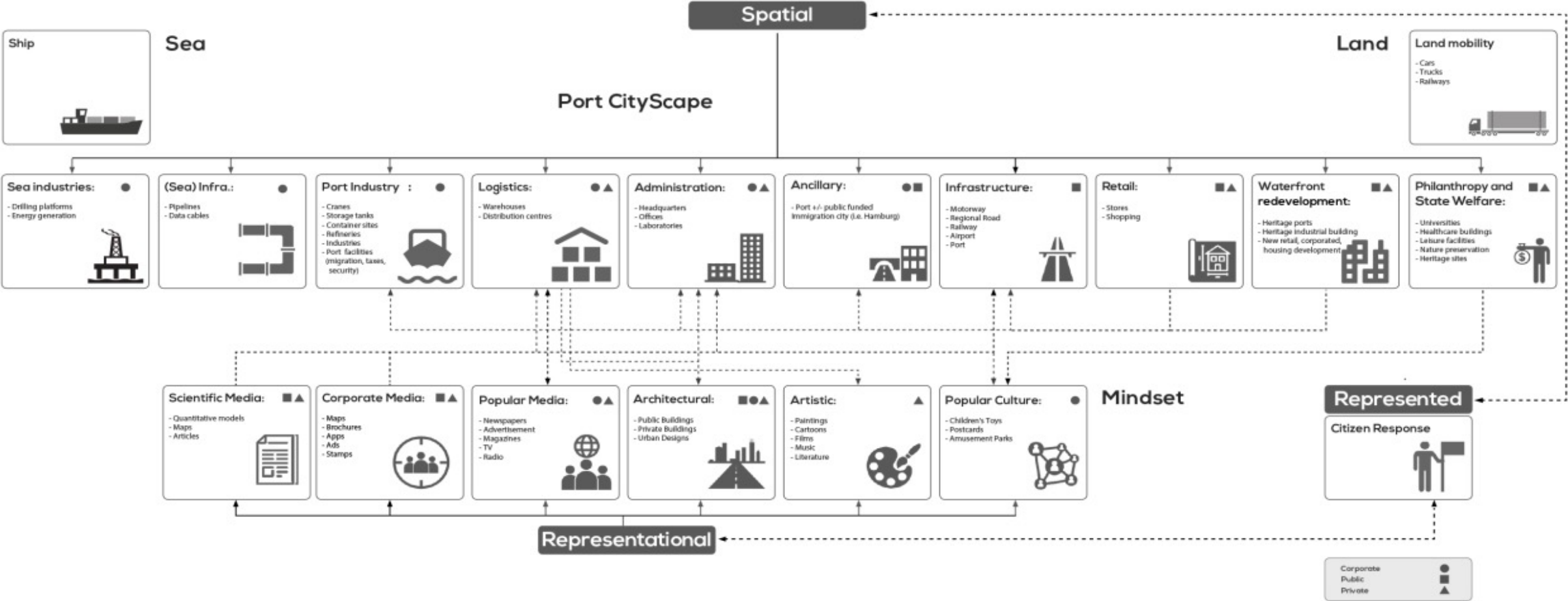
ROTTERDAM



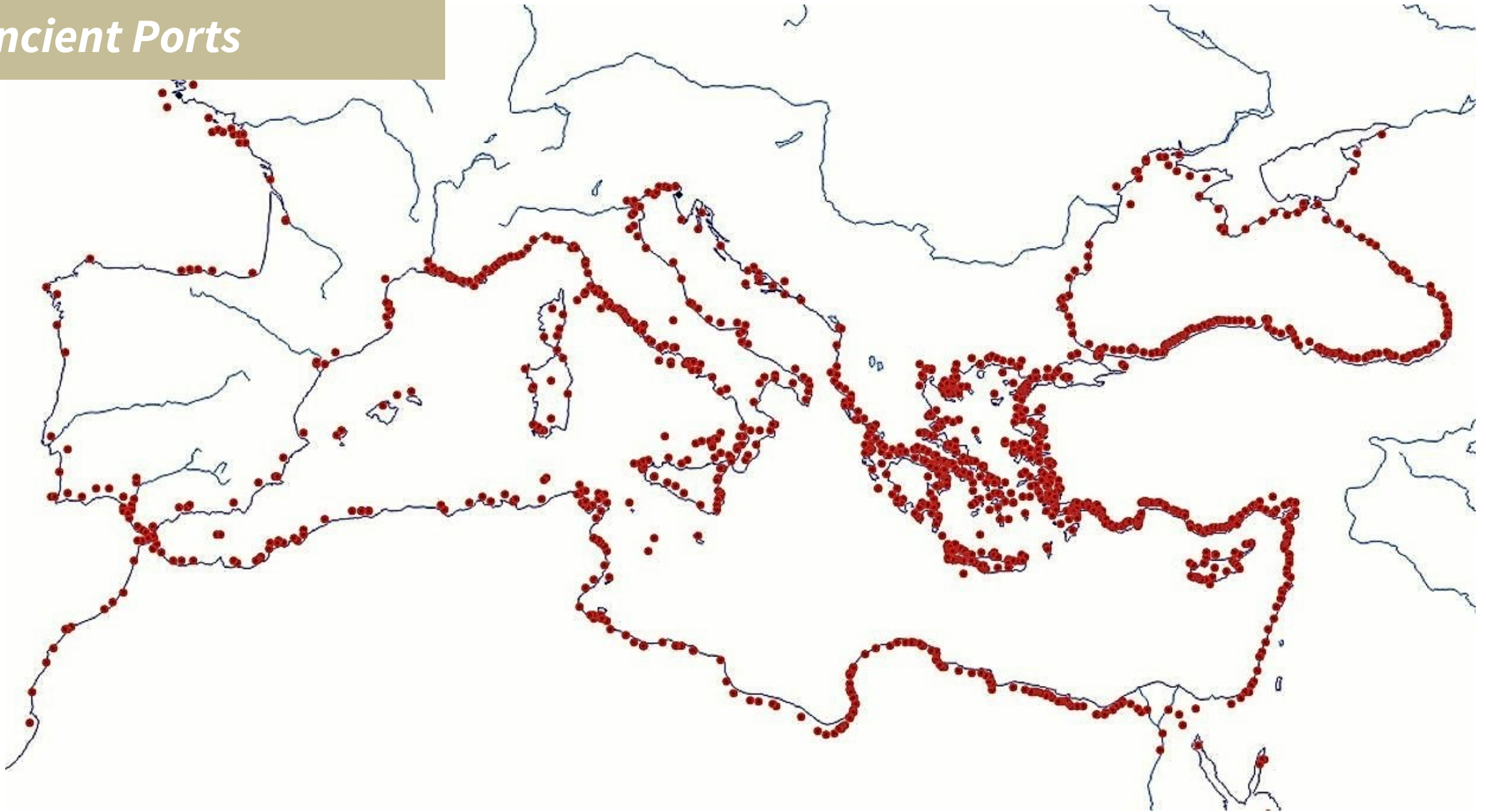
CREATING A PORT-CITY CULTURE



PortCityScape



Ancient Ports



Phoenicians

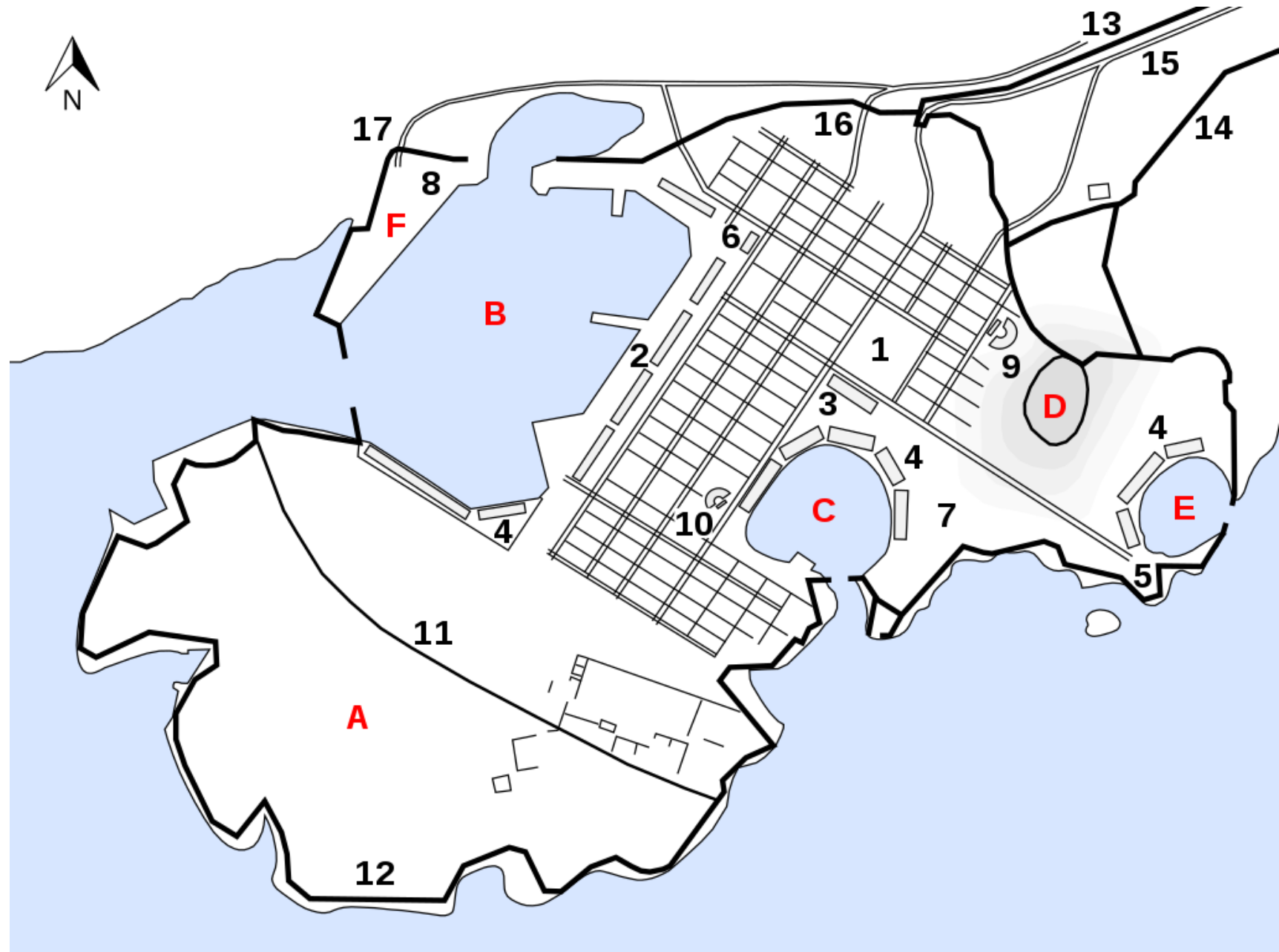


Assyrian Warship, built by Phoenicians (700 BC) CC BY-SA 3.0

Ancient Greece

- A Akte Peninsula
- B Kantharos Harbour
- C Zea Harbour
- D Munichia Hill
- E Munichia Harbour
- F Eetioneia

- 1 Hippodameian Agora
- 2 Emporion
- 3 Arsenal (skeuothēkē)
- 4 Shiphouses (neosoikoi)
- 5 Temple of Artemis Munichia
- 6 Temple of Zeus Soter and Athena Soteira
- 7 Sanctuary of Asclepius
- 8 Sanctuary of Aphrodite Euploia
- 9 Older theatre
- 10 Theatre of Zea
- 11 Wall of Themistocles
- 12 Wall of Konon
- 13 Northern Long Wall
- 14 Southern Long Wall
- 15 Road from Athens to Piraeus
- 16 Main gate
- 17 Eetioneia Gate or Aphrodite Gate



Piraeus

Ancient Greece

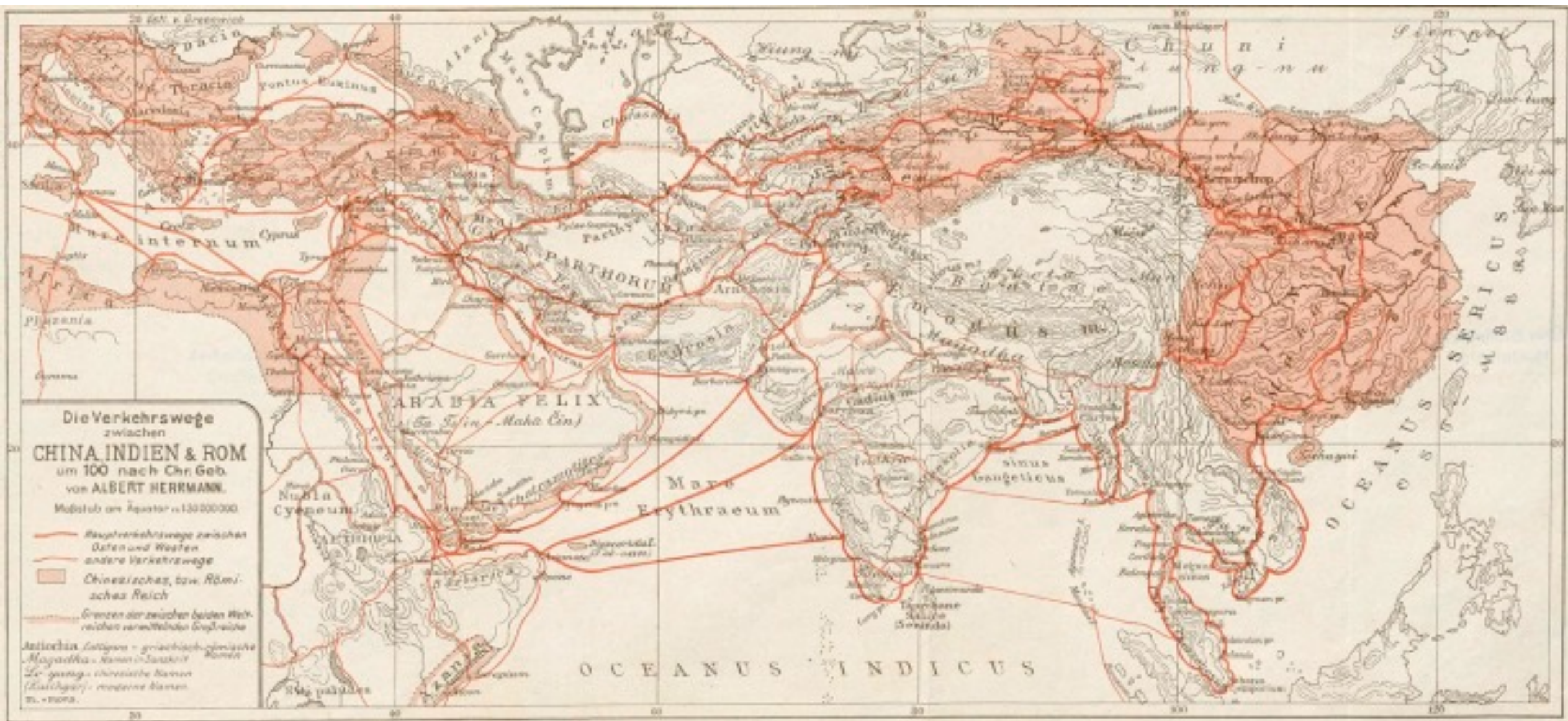


Remains of Nesoikoi (2012) CC BY-NC-SA 2.0

Ancient Greece



Johann Bernhard Fischer von Erlach: Lighthouse of Alexandria (1721) public domain



LONDON CIRCA 1560



AMSTERDAM INSTITUTE FOR
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illa totius Angliae civitas LONDINVM, ad flu-
men sita. Ceteri, et plures eius finit. Trinobritum
insularum gentium coactis nobilitate, gentes duob. armis et
tribus, clava regunt. vna civitas artem deificationis, gra-
tas, peractibus. Denique, omnium rerum copia, neque opus difficulta
esse in eam totius orbis spes ipse. Theatrum, mercato, navibus per
flum. ad orbem praesto alio manifestum est.

STILLIARIVM) Hanc, Gallica de se, universum, ad in-
terum civitatum est confederata Societas, cum ab gradibus
clari tum ab foveam terra, maribus, mercatorum tra-
ictum Regibus, patrum, et al. nobilissim. abbatibus
san. interea plurimae, Regum, et Principum, natione Anglorum,
Magistr. Medicorum, nec non Londin. ac Bretherton. De eorum praesidi-
tibus coacta sunt. Aliter in quatuor Corpora, Cantores quidem
civitatum negotiorum refertur, foveam mercatus coactum. Nam, a
in longis, economis nec, habet. Londin. Gallicis. Britannicis quod

Medieval Trade Routes and Hanseatic Warehouses



Map painted on a wall of a trading house in Tallinn, Estonia | PD
Hanseatic warehouses Tallinn, Estonia | By Carola Hein | CC BY NC SA

Medieval Hanseatic Warehouses



Hamburg



Lübeck



Amsterdam

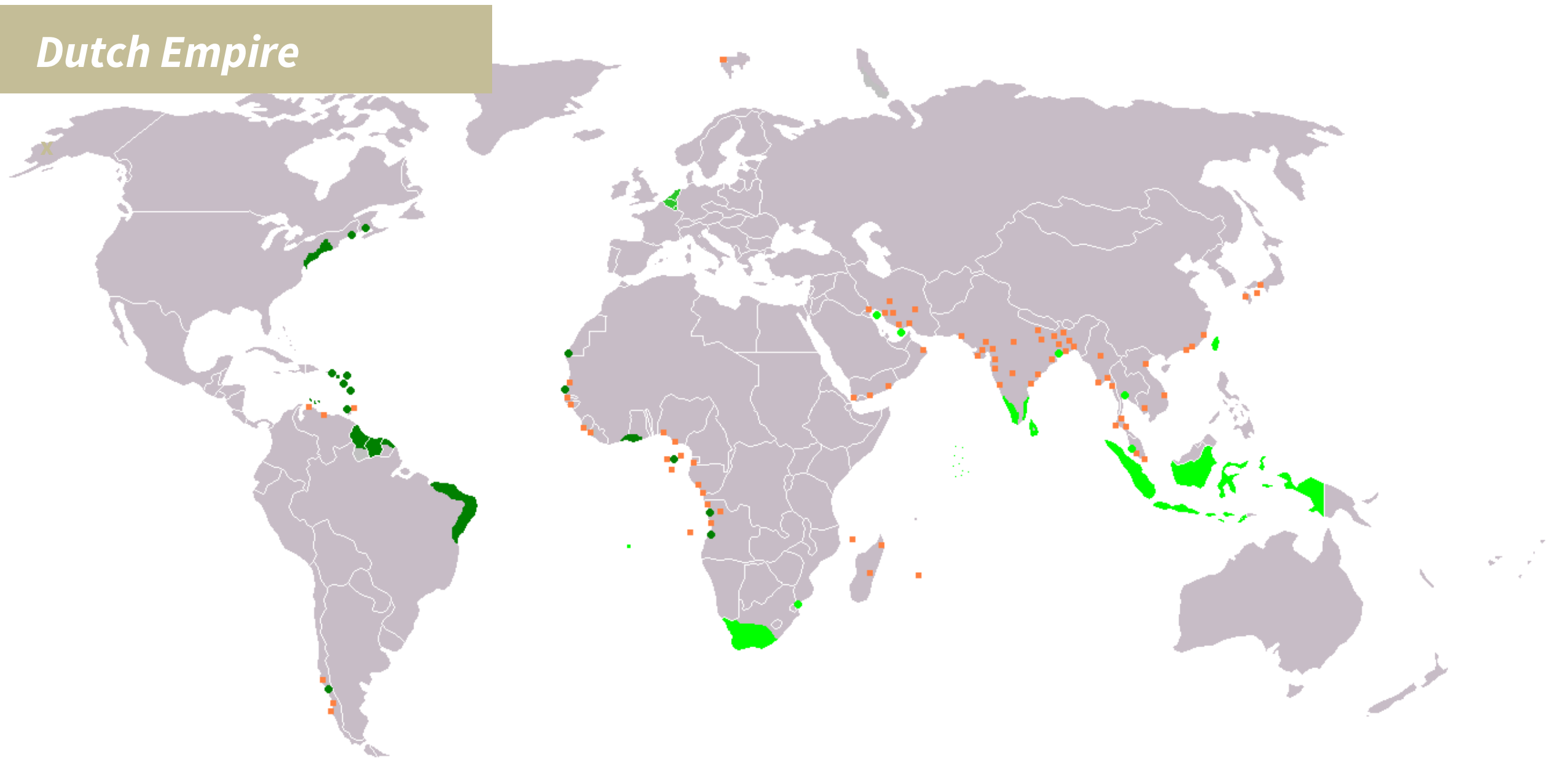


AMSTERDAM 1544

AMSTELREDAMVM, nobile Inferioris Germaniæ oppidum, ad
recipiendos, ex omnib. mundi partibus, mercatores, recenter natum, genus
hominum incolit mercimonijs deditum quæ quidem, tum blanda populi comi-
tatz, ac sedula diligentiq. indus tria; tum portus comoditate permagna, usq. adco
incrementa sumpserunt, vt ex vllum mercaturæ genus excogitari possit, quod hæc
non exerceatur. Hinc fit, vt opum lucrique cupiditas, & remotissimis etiam
terris, negotiatores, in hanc ciuitate inuitet, qui varia hinc bona, & maxime
rem frumentaria, in Brabantiam, æteraq. longè distita, totius vniuersi loca,
transferentes; ingentes ex cuiuscemodi commertio opes consequantur.

1. Clarissen.
2. S. Aert.
3. De Amstel.
4. Nieuwenhof.
5. Oudehof.
6. Vrij Mach.
7. Paul Broes.
8. Die Paer.
9. Begijnhof.
10. De Heilige.
11. S. Maria.
12. Claeren.
13. S. Madalenen.
14. S. Margriet.
15. S. Anthonis.
16. S. Jans.
17. S. Anthonis.
18. S. Jans.
19. Houtmarkt.
20. Die Plaats.
21. Statthuis.
22. Oudekerk.
23. Nieuwe kerk.
24. Lieverouwer.
25. Tynshuis.
26. S. Jakob.

Dutch Empire



Batavia

x



Clement de Jonghe, Jan Janssonius: Map of the Castle and the City of Batavia (1681) Public domain

VENICE 1565

Venice, Italy



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NOME DEI RII PRINCIPALI 1 Rio della Trinità 2 Dei Saloni 3 Dei Spiriti Santo 4 De san Vito 5 De san Tronzo 6 De san Basilio 7 De santa maria maggiore	15 S. Marina preti 16 S. Maria nuova preti 17 S. Cantianedone e il traghetto di mur. p. 18 S. Gio. grillo (omo preti) 19 S. Apoll. preti qui un trag. de rialto 20 S. Maria pti qui un trag. de rialto 21 S. Felice pti ane altro che buia alla caule	36 S. Samuele pti qui è un trag. che buta a san barnaba 38 S. Giovanni de rialto pti 39 S. Maria de rialto preti 40 S. Cuffin preti 41 S. Silvestro preti qui è un trag. che buia alla caule del cario	55 S. Margherita preti 56 S. Barnaba preti 57 S. Raphael pti don e il trag. di lussafina 58 S. Nicola preti 59 S. Tronzo pti qui è il trag. che buta alla giudea 60 S. Tamaso pti qui è un trag. che buta a S. stephano 61 S. Basilio preti	79 La madona de l'arsenale 80 La ca de dio 81 Sepulcro monache 82 La pieza 83 La celestia monache 84 S. Francesco della nigna frati 85 S. Iouan de furlani priorado	DELLE COSE PIU' NOTABILI 81 Arsenale nuovo 82 Arsenale vecchio 83 Porta dell'arsenale 84 Il signor bartholamio cognione 85 La bocca della mara in sotto il reio 86 Le due colonne doue s'ha la iustitia	Cattedra Cappella Cassino H. Cantillier Grando H. Serraglio Ombrelli Oratorei duosfere Principum Ambascia Spada Corno Secretarij Cassino Magnus Concepcion	1565	1565
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Venice



Fondazio dei Tedeschi (2012) CC BY-SA 4.0

Venice



Canaletto: Entrance to the Arsenal (1732) public domain

Venice



Arsenal (2017) CC0

ADEN JEMEN 1590



HAVANA 17TH CENTURY



TRADING HOUSES, CANTON AREA 18TH CENTURY



PIRAEUS ATHENS PORT 1837





IMPERIAL FEDERATION. MAP OF THE WORLD SHOWING THE EXTENT OF THE BRITISH EMPIRE IN 1886.

STATISTICAL INFORMATION FURNISHED BY CAPTAIN J. C. R. GORDON, R.F. COMMISSIONER, R.M.A. BRITISH TERRITORIES, COLONIES, &c.

[illegible]

WEST INDIA DOCKS 1802



LONDON DOCKS WITH SAIL SHIPS c.1800



Europe



Liverpool dry docks (2018) Tino Mager

Industrialization

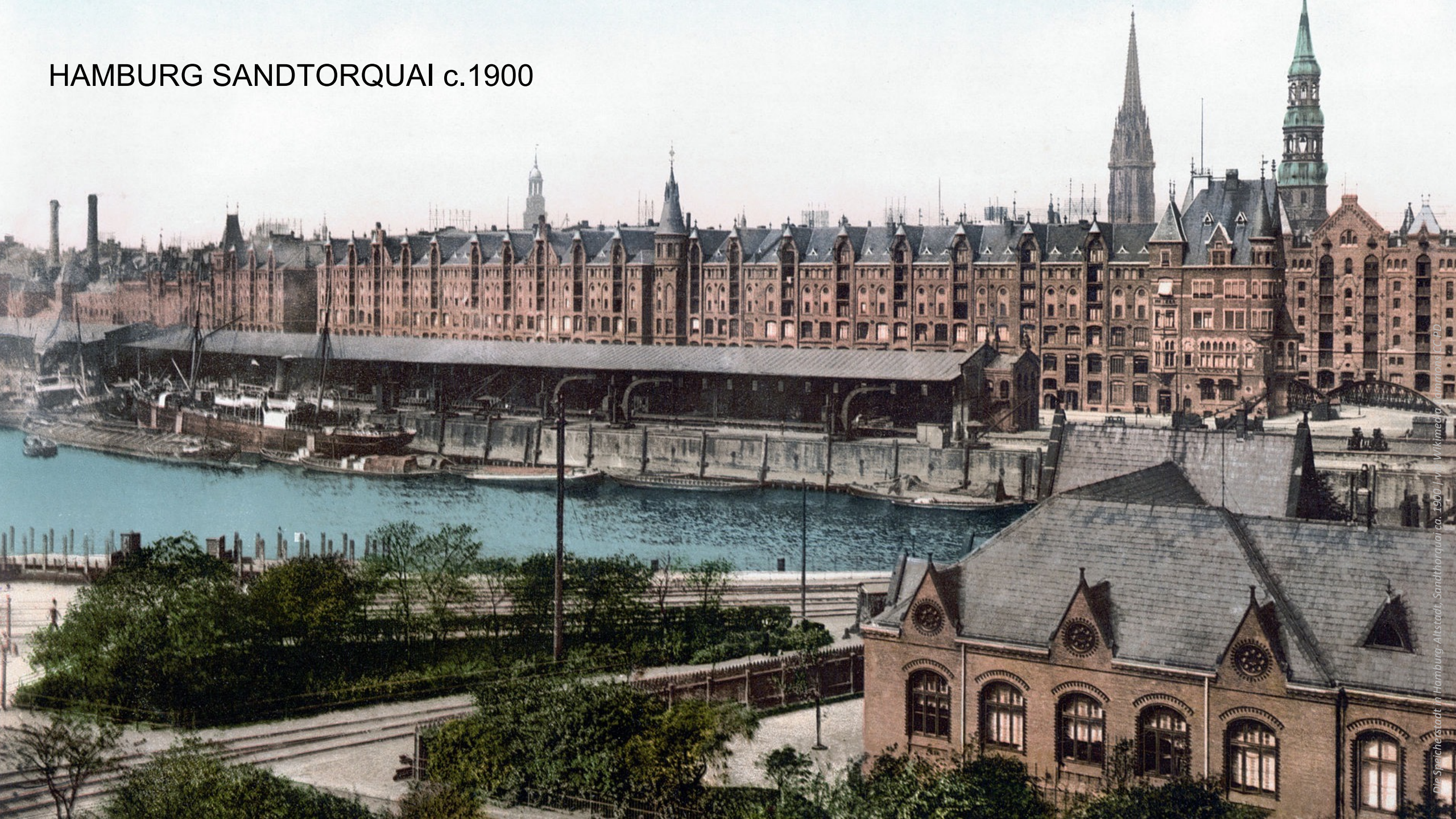


Liverpool dry docks (2018) Tino Mager

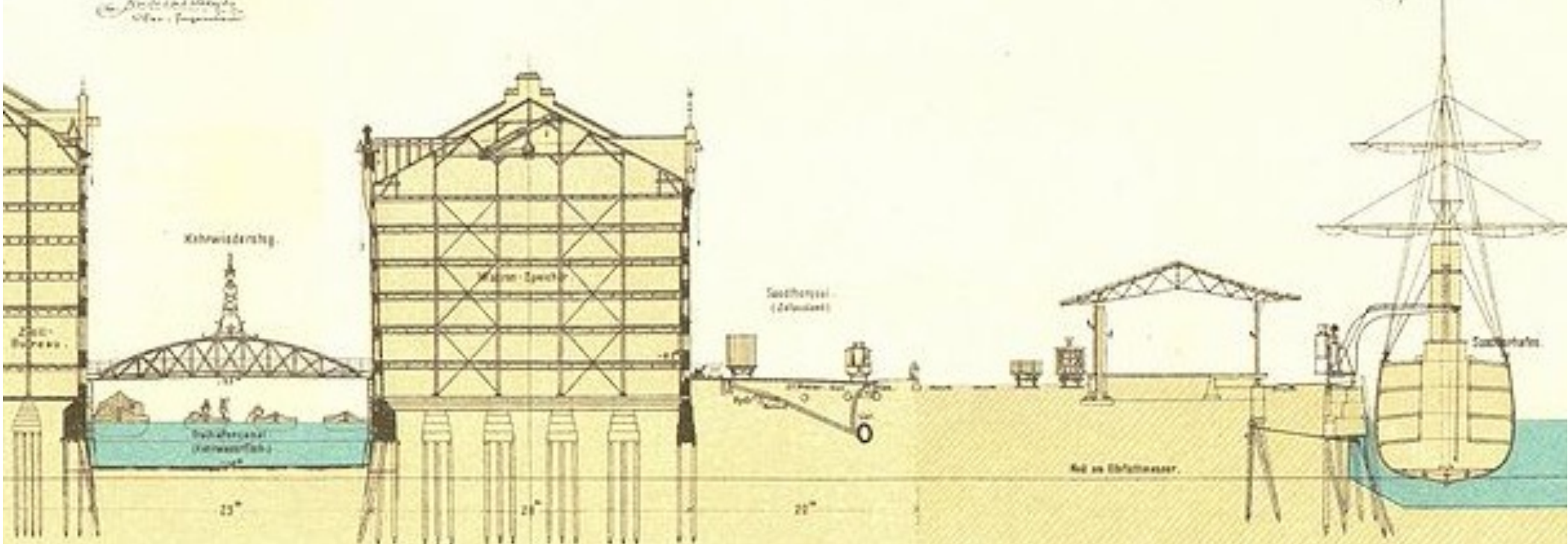
BROOKLYN QUEENS WATERFRONT 1911



HAMBURG SANDTORQUAI c.1900



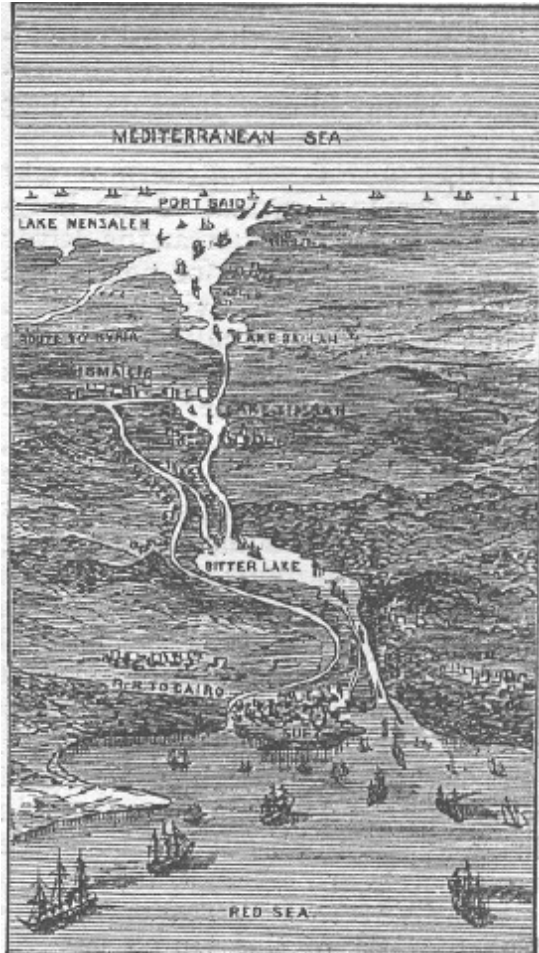
HAMBURG SPEICHERSTADT 1888



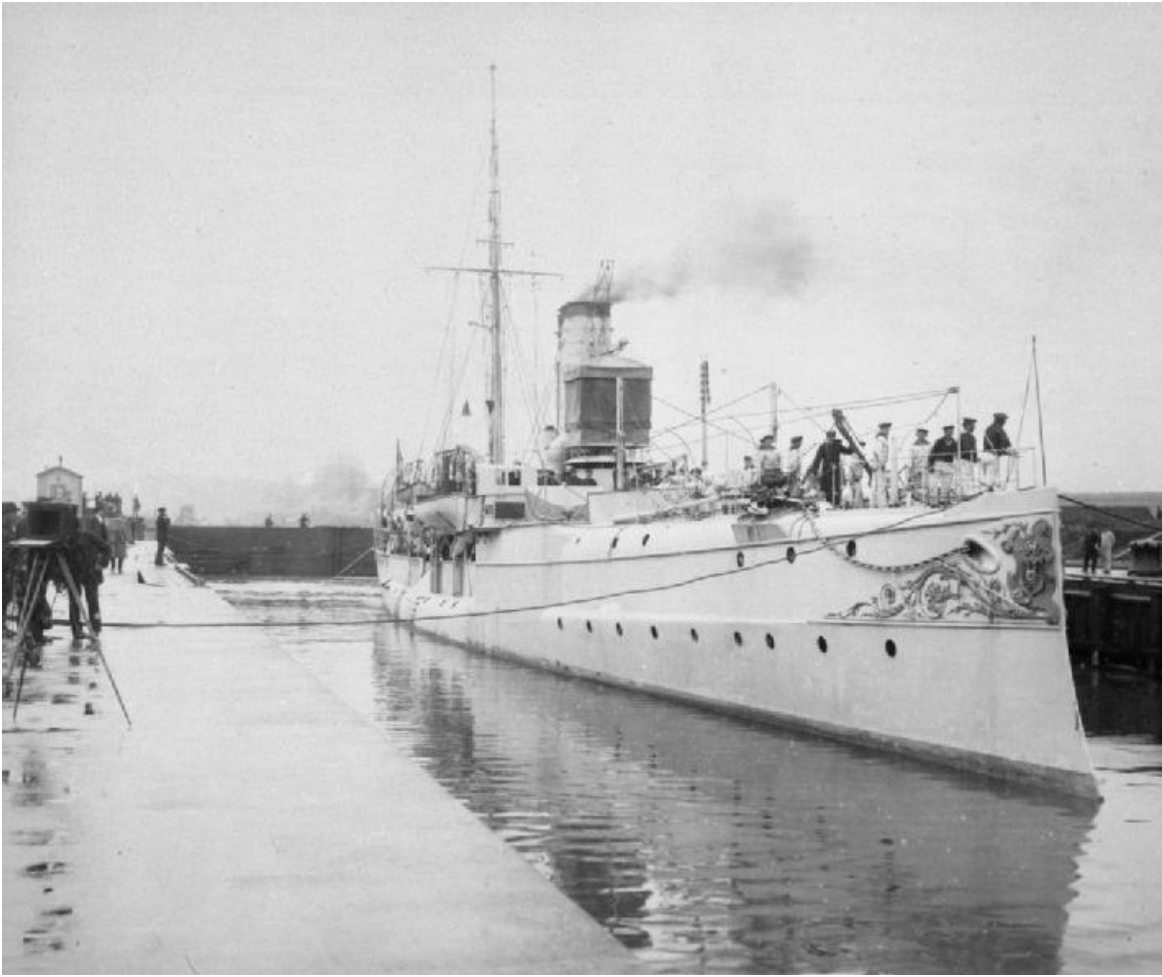
Major Telegraph Lines 1891



New Canals & Passage Ways Suez Canal

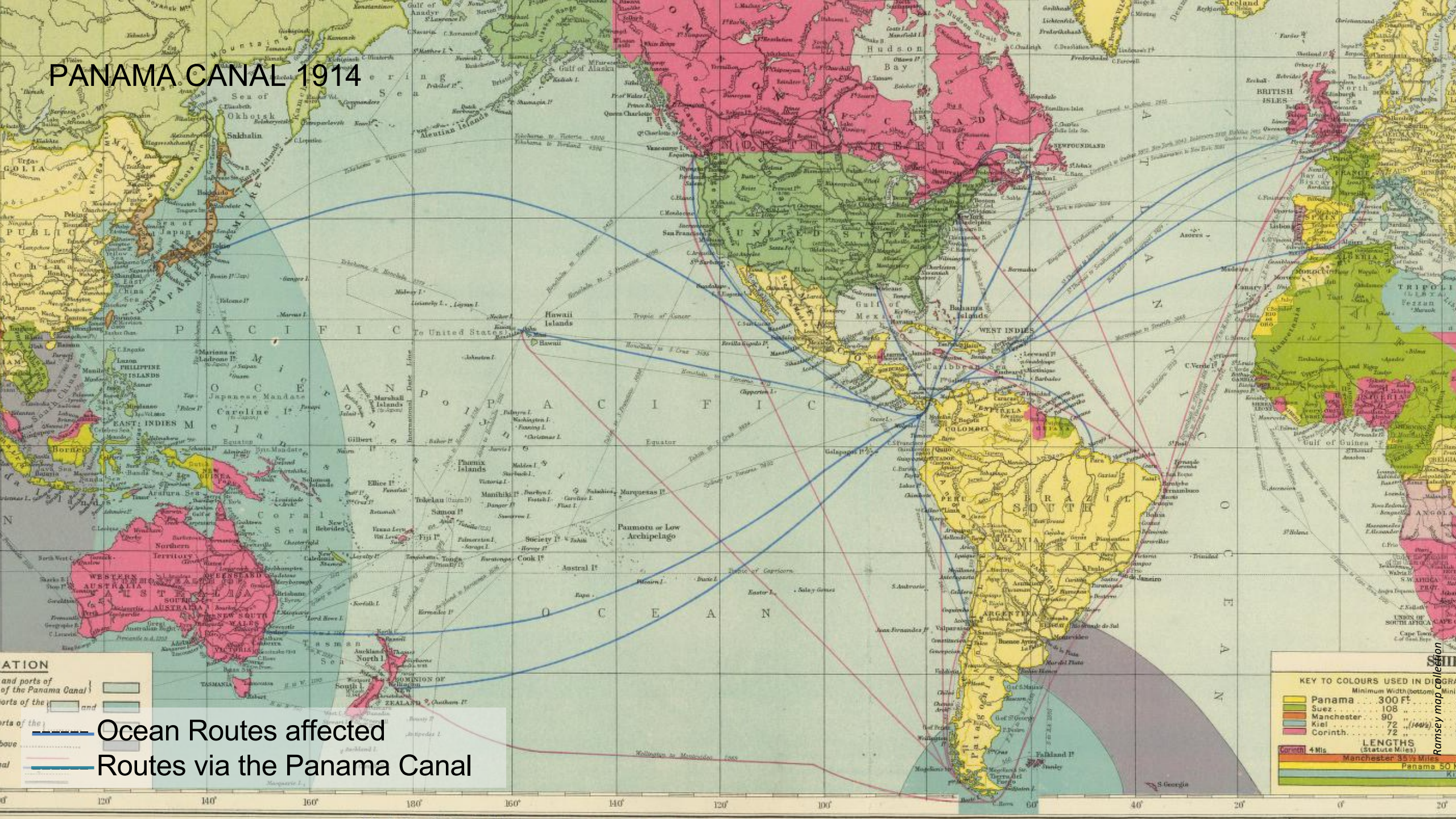


KIEL CANAL NORTH GERMANY 1895



Kiel die Schlussteinereimonie | By Photoglob Company in Zürich, Switzerland, and the Detroit Publishing Company, Detroit, Mich | CC PD, Opening of the Kiel Canal, 21 June 1895, Germany Before the First World War 1890 – 1914 | CC PD

PANAMA CANAL 1914



Ocean Routes affected
Routes via the Panama Canal

TRANSFORMING PORT TECHNOLOGIES

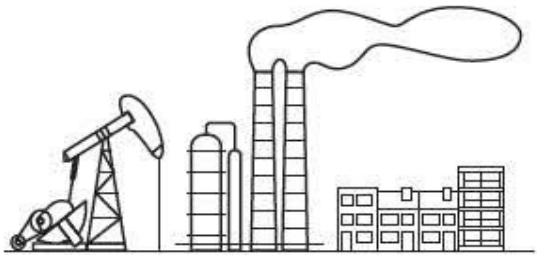


RESTRUCTURING OF SHIPPING NETWORKS



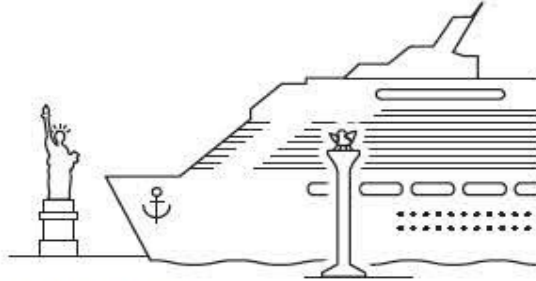


Port City Dualities



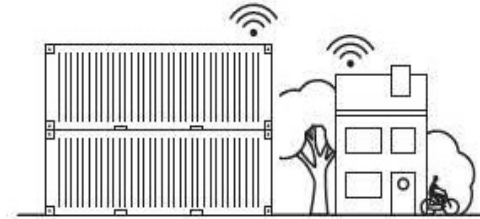
Pollution | Urban Development

How can policy makers, urbanists and architects help mitigate the spatial impact of highly polluting industries in line with sustainable urban development?



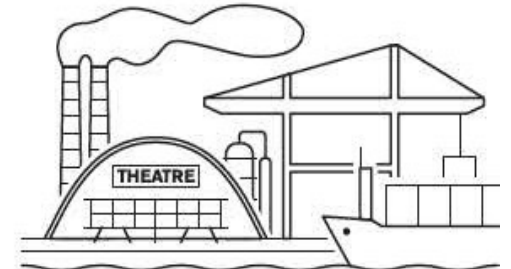
Heritage | Migration

How can historical cultural diversity and the values embedded in the built heritage meet the needs of citizens and migrants currently living in, working in, and traveling through port cities.



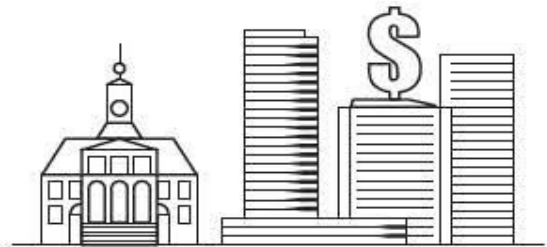
New Technologies | Happiness

How will new industrial technologies and services in the port affect living conditions for all citizens?



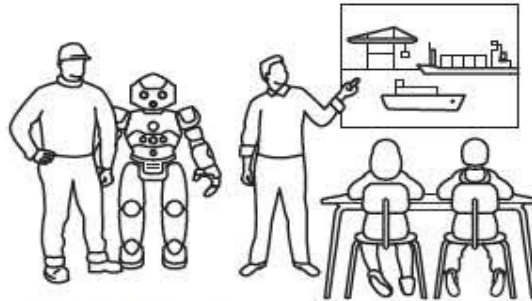
Culture | Production

How can all local stakeholders create a port city culture that critically supports (port-related) spatial development needs?



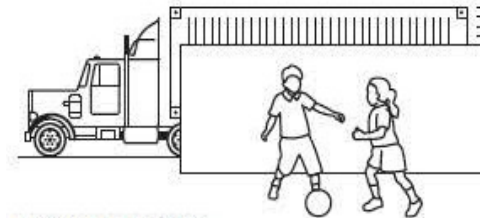
Governance | Global Trade

How can local governments engage with and regulate a port that is intimately linked to global trade flows?



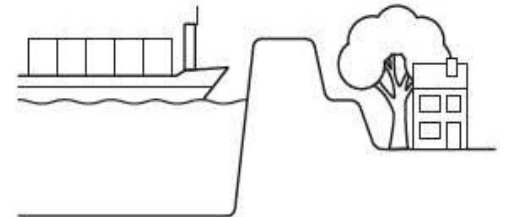
Education | Automation

How will automation of technology, services and administration affect a port's spatial economy (jobs and spaces) and how can we educate children to be ready for the port city regions of the future?



Logistics | Liveability

How can cities and port authorities guide daily freight traffic flows in a way that they can deliver goods to city and port but do not impede city livability?



Economy | Climate Change

How can economic benefits for a modern port city and the construction of (publicly funded) infrastructure, be combined with a climate adaptation strategy, which pays attention to flood risk reduction by 'building with nature' and ecological restoration?



Waterfront abandonment, Royal Victoria Dock, London



Leisure-led redevelopment in Baltimore Inner Harbor



Reclaimed land and inner harbor, Singapore Marina Bay

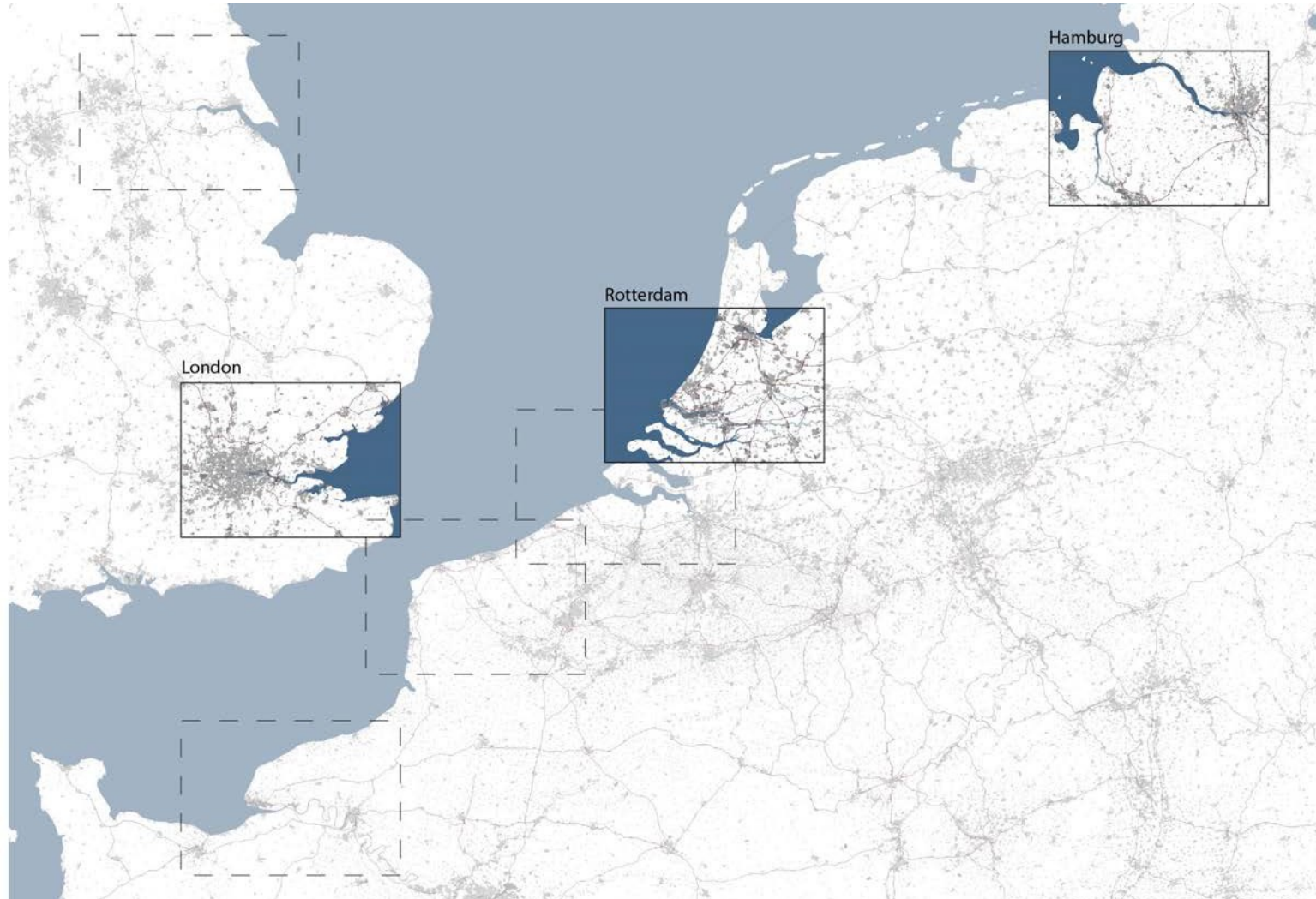


HafenCity, Hamburg

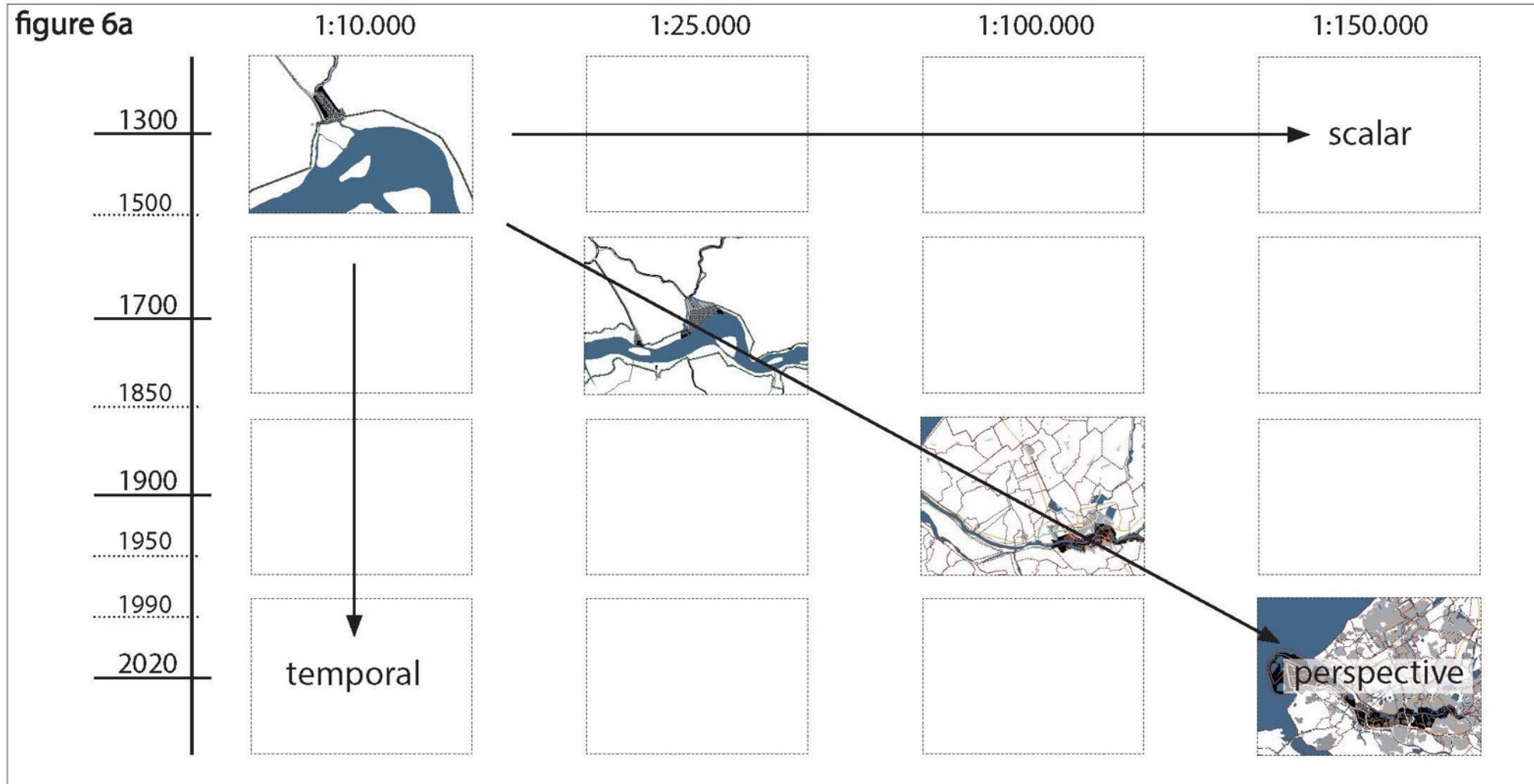


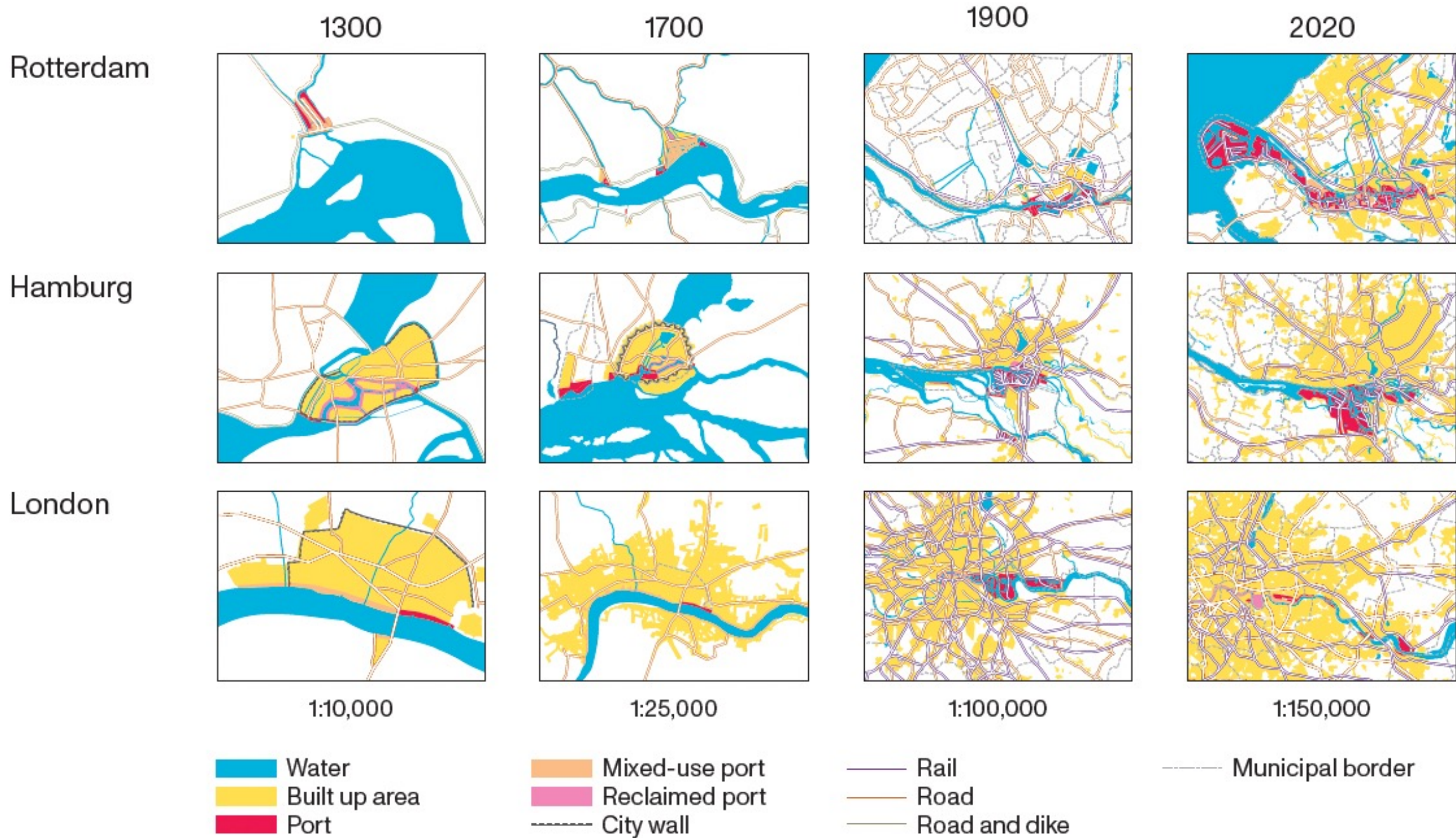
Hamburg, cruise days

Port Cities: The North Sea

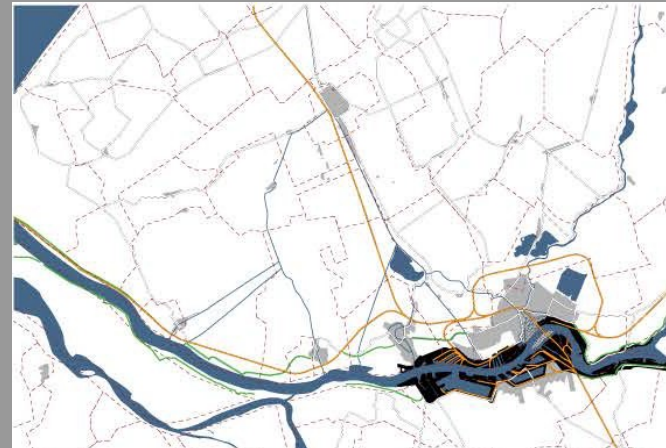
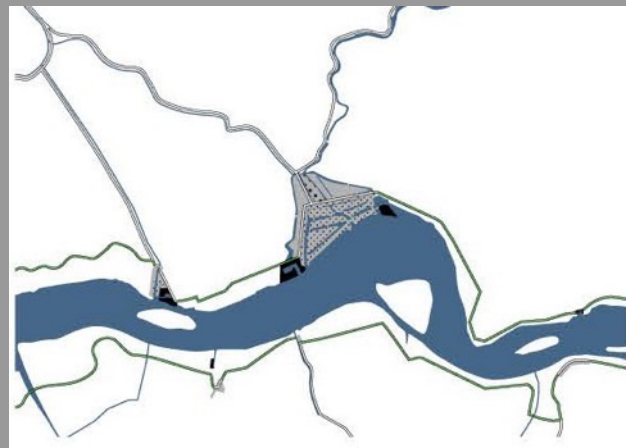
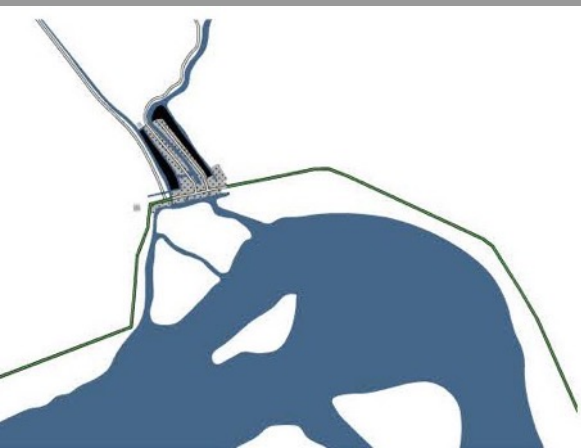


Port Cities: Deep Mapping





Rotterdam: Port leads

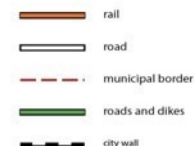
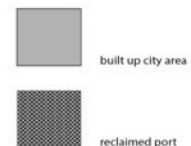
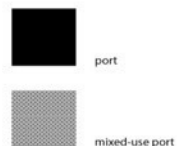
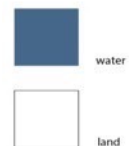


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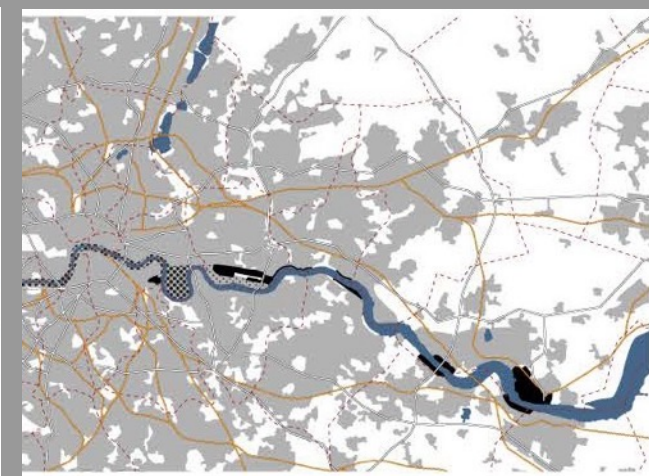
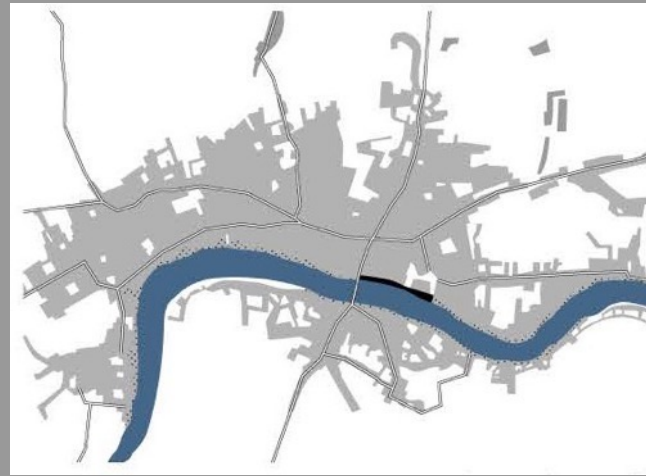
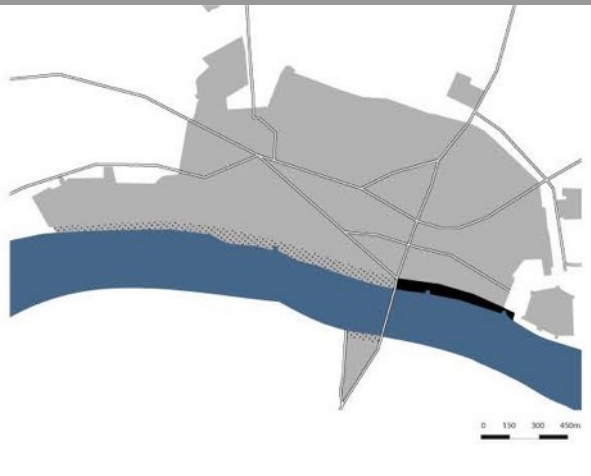
1700

1910

2019



London: City without a port

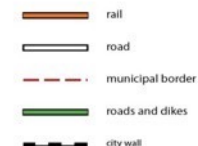
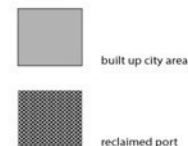
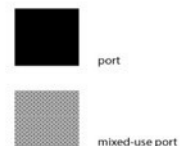
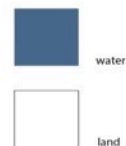


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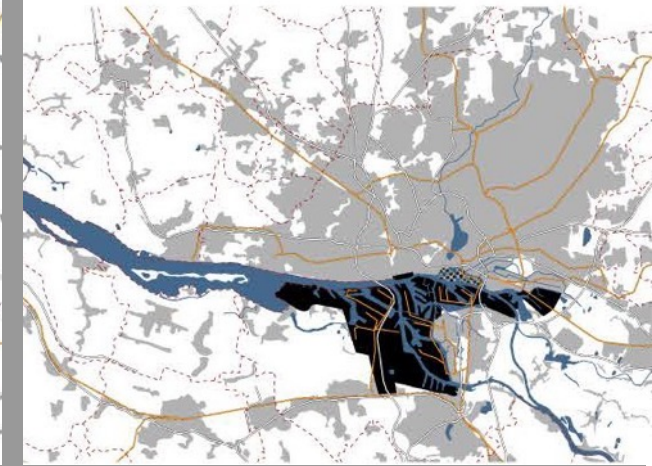
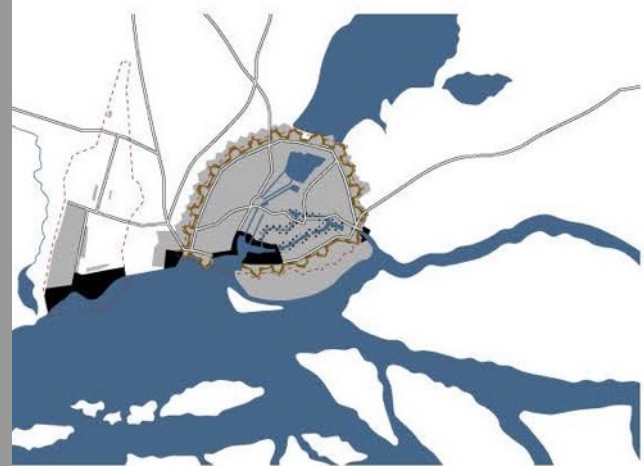
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1910

2019



Hamburg: Port and city tandem



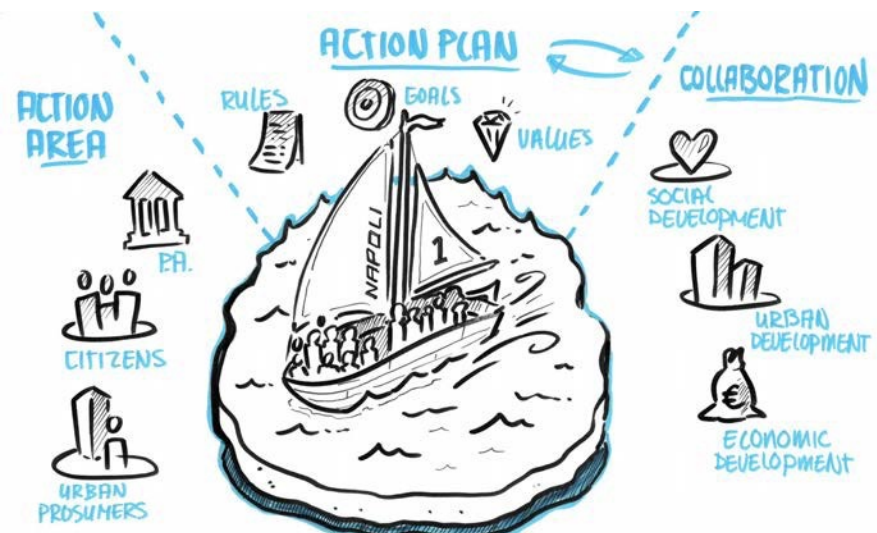
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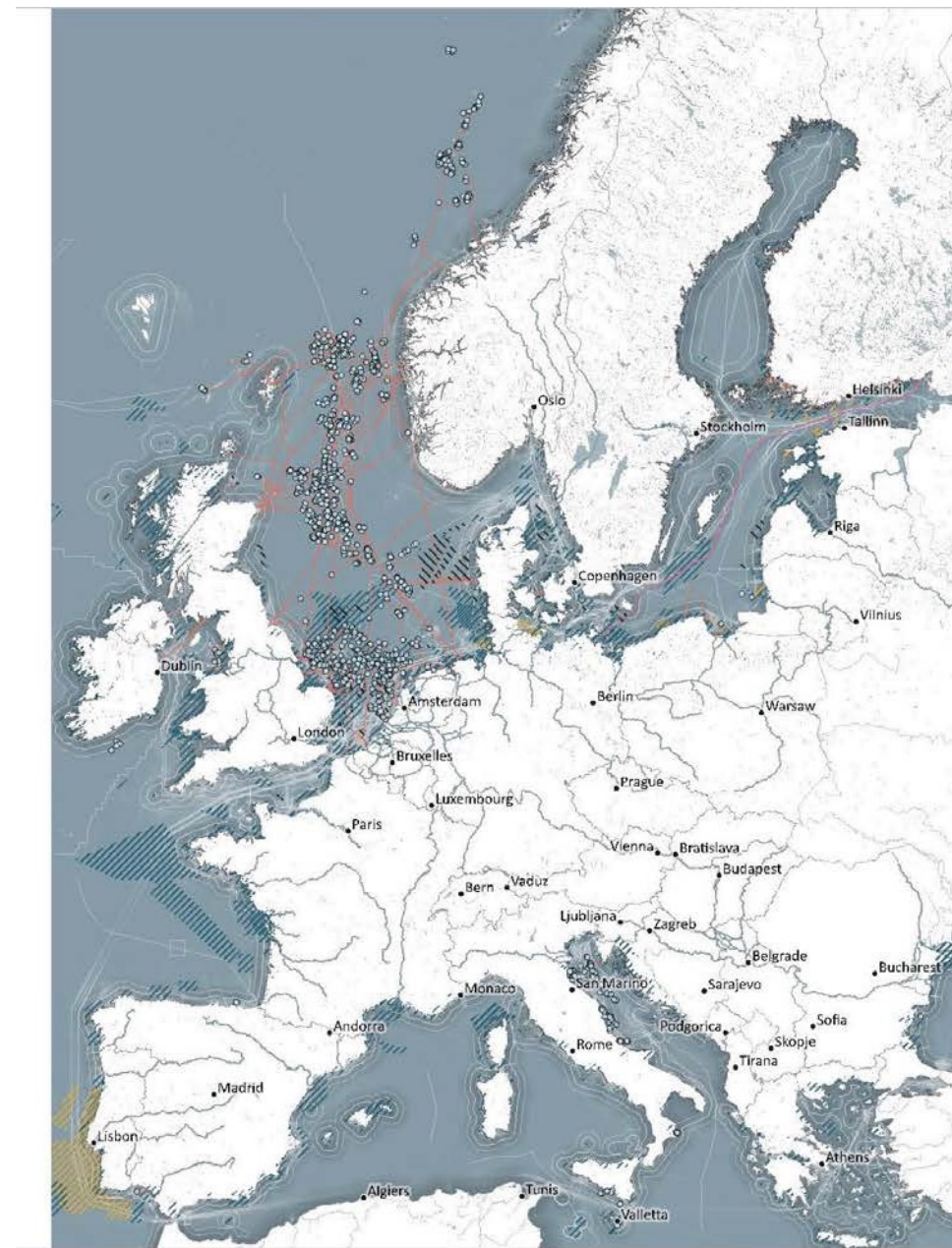
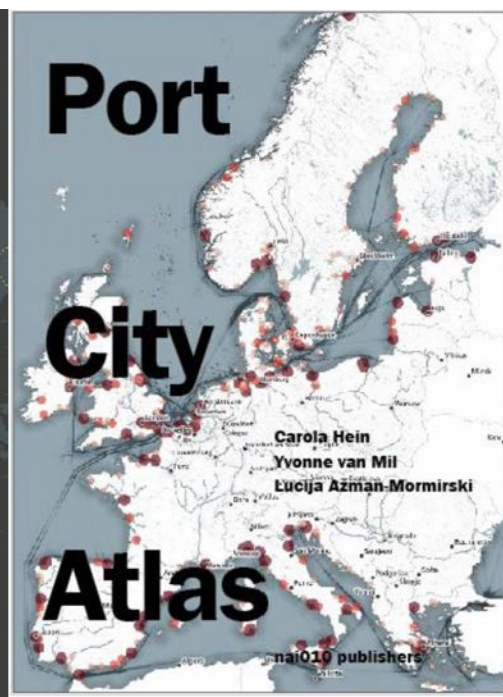
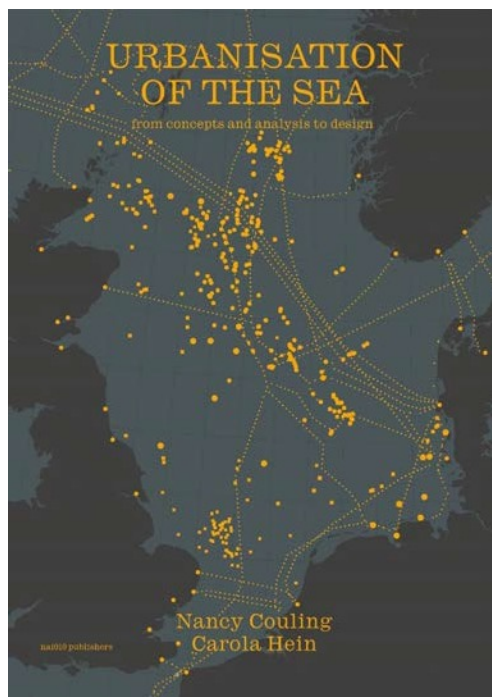
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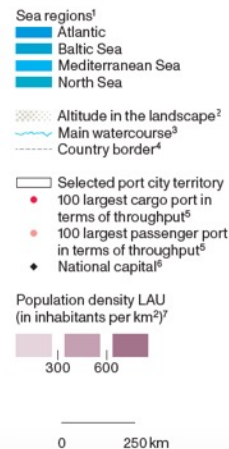


THE SEA AS A COMMON GOOD



Europe through its Four Waters

The west coast of Europe is surrounded by water: the Baltic Sea, the North Sea, the Mediterranean Sea and the Atlantic. Each maritime water has its own unique character, shaped by its geographical landscape and maritime history. They provide a common, sheltered base for port cities to emerge and develop in. The map shows that we selected our 100 port city territories based on the ranking of the largest European ports in terms of passenger and cargo throughput and the population density of local administrative areas (LAU). Although the selected ports are all leading ports in Europe, the inter-individual differences in volume of transit are significant, both within a maritime water and between maritime waters. This becomes clear when studying the list of selected ports attached to the maps of the four maritime waters (p. 81, 133, 185, 236 – 237). Although almost all port cities are located in densely populated areas, the combination of maps and data also makes it clear that high population density is not necessarily a prerequisite for high throughput.



- EMODnet Human Activities: Regional Advisory Councils, 2014.
- EEA EuroGeographics EuroDEM, 2022.
- Based on EuroGeographics, (2020). EuroGlobalMap. Version 2020 Eurogeographics. Retrieved from <https://eurogeographics.org/maps-for-europe/open-data>.
- Eurostat NUTS 1 data.
- Eurostat Maritime transport data, 2019.
- Natural Earth
- Eurostat, GISCO LAU, 2019.



PORT



RTM (%)

58.2



RTM

Liquid	7,050
Dry bulk	939
Container	5,474
Specialized	197
General	5,162
Cruise ship	
Passenger	
Other	43

Vessels 18,865



41.8



RTM

Liquid bulk	207,366
Dry bulk	70,612
Containers	127,901
RoRo	12,039
Other	21,713

Cargo (t) 439,631



Passengers 1,333

CITY



RTM

Greater Rotterdam

→ Capital national (km)

→ Amsterdam 58

→ Capital regional (km)

→ Antwerp 75

Area (km²)

563

Built-up area (km²)

283

Density (per km²)

2,191

Population

1,232,747

Population structure (%)



Distribution built area (%)



TERRITORY



RTM

Groot-Rijnmond

Area (km²)

1,498

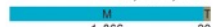
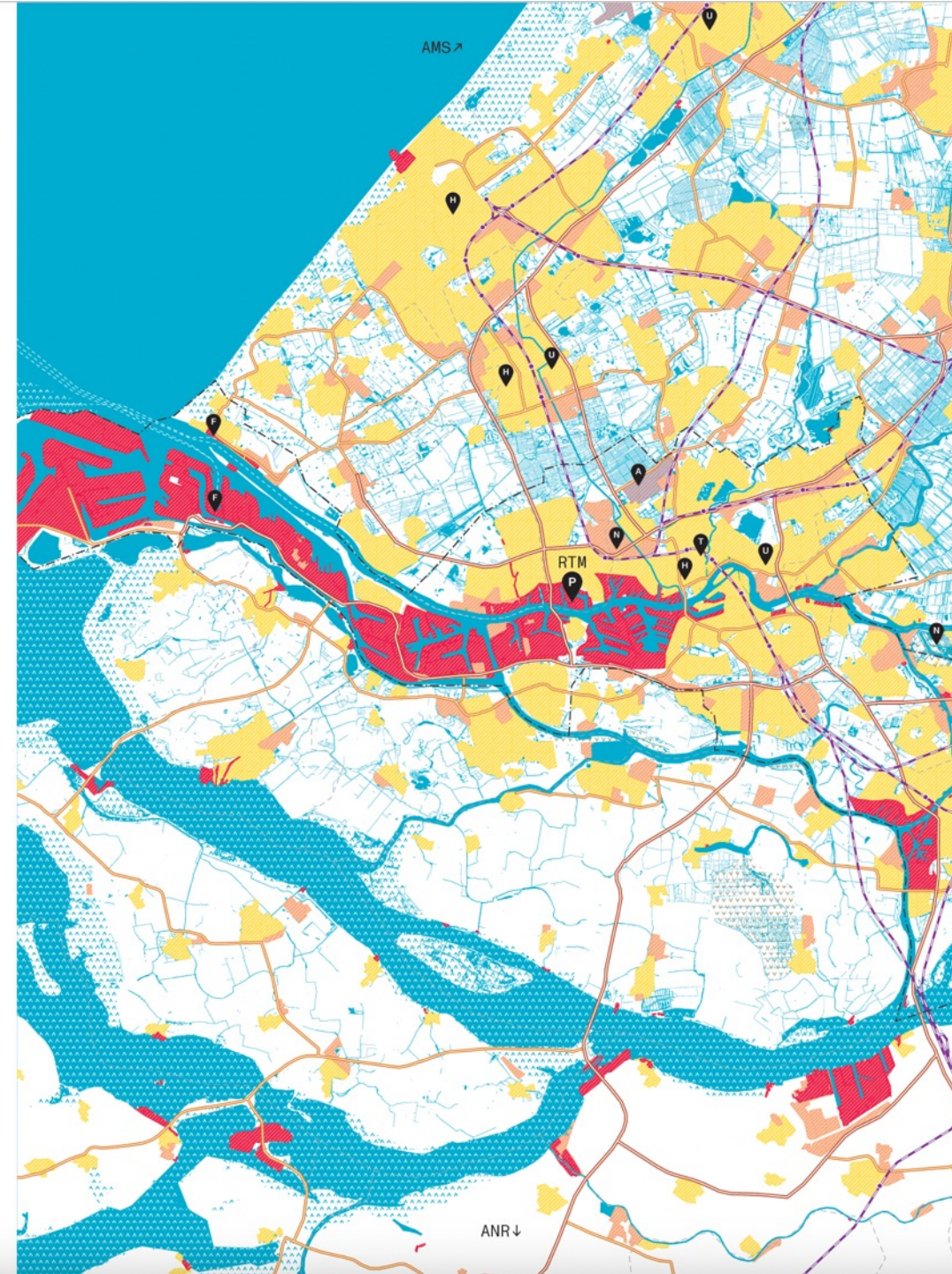
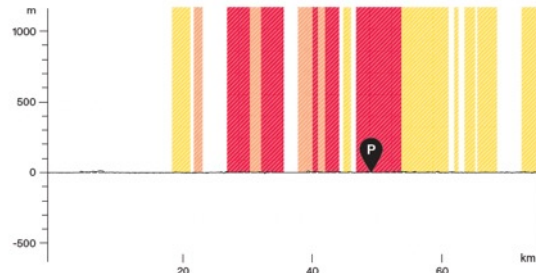
Density (per km²)

963

Population

1,441,452

Natura2000 (km²)



100 European Port City Territories

BALTIC SEA

ID	Port Name
HEL	Helsingborg, SE
HLS	Helsingør, DK
CPH	København, DK
TRG	Trelleborg, SE
MMA	Malmö, SE
RNN	Rønne, SE
STO	Stockholm, SE
LLA	Luleå, SE
TKU	Turku, FI
NLI	Naantali, FI
HEL	Helsinki, FI
SKV	Sköldvik, FI
TLL	Tallinn, EE
RIX	Riga, LV
VNT	Ventspils, LV
LPX	Liepāja, LV
KLJ	Klaipėda, LT
BOT	Butinge, LT
GDN	Gdansk, PL
GDY	Gdynia, PL
SZZ	Szczecin, PL
SWI	Swinoujscie, PL
RSK	Rostock, DE
RDF	Rødby, DK
PUT	Puttgarden, DE
SLM	Sillamäe, EE
LBC	Lübeck, DE
KEL	Kiel, DE
FRC	Fredericia, DK
AAR	Århus, DK
SST	Statoil-Havnen, DK
SJO	Sjællands Odde, DK

NORTH SEA

AAL	Aalborg, DK
FDH	Frederikshavn, DK
HIR	Hirtshals, DK
EJB	Esbjerg, DK
BRB	Brunsbüttel, DE
HAM	Hamburg, DE
BRE	Bremen, DE
WVN	Wilhelmshaven, DE
BRV	Bremerhaven, DE
DZL	Delfzijl, NL

EME	Emden, DE
AMS	Amsterdam, NL
RTM	Rotterdam, NL
ANR	Antwerp, BE
GNE	Ghent, BE
ZEE	Zeebrugge, BE
DKK	Dunkirk, FR
DVR	Dover, UK
CQF	Calais, FR
MED	Medway, UK
LON	London, UK
FXT	Felixstowe, UK
HRW	Harwich, UK
IPS	Ipswich, UK
IMM	Immingham, UK
HUL	Hull, UK
MME	Tees & Hartlepool, UK
TYN	Tyne, UK
FOR	Forth (Edinburgh), UK
BGO	Bergen, NO
GOA	Gdansk, NO
OSL	Oslo, NO
GOT	Göteborg, SE

ATLANTIC

CYP	Clydeport (Glasgow), UK
CYN	Cairnryan, UK
BEL	Belfast, UK
LAR	Larne, UK
DUB	Dublin, IE
LMK	Limerick, IE
ORK	Cork, IE
HYM	Heysham, UK
LIV	Liverpool, UK
HLY	Holyhead, UK
MLF	Milford Haven, UK
BRS	Bristol, UK
SOU	Southampton, UK
PME	Portsmouth, UK
LEH	Le Havre, FR
NTE	Nantes Saint-Nazaire, FR
LRH	La Rochelle, FR
BOD	Bordeaux, FR
BIO	Bilbao, ES
GIJ	Gijón, ES
LCG	La Coruña, ES

FRO	Ferrol, ES
LEI	Leixões (Porto), PT
LIS	Lisboa, PT
SET	Setúbal, PT
HUV	Huelva, ES
LPA	Las Palmas, ES
SCT	Santa Cruz de Tenerife, ES
CAD	Cádiz, ES

MEDITERRANEAN SEA

ALG	Algeciras, ES
CEU	Ceuta, MA
CAR	Cartagena, ES
VLC	Valencia, ES
CAS	Castellón, ES
TAR	Tarragona, ES
BCN	Barcelona, ES
MRS	Marseille, FR
TLN	Toulon, FR
GOA	Genova, IT
SVN	Savona, IT
SPE	La Spezia, IT
LIV	Livorno, IT
CVV	Civitavecchia (Roma), IT
NAP	Napoli, IT
PFX	Porto Foxi, IT
CAG	Cagliari, IT
PMO	Palermo, IT
SIR	Siracusa, IT
MSN	Messina, IT
MLZ	Milazzo, IT
GIT	Gioia Tauro, IT
REG	Reggio di Calabria, IT
TAR	Taranto, IT
RAN	Ravenna, IT
VCE	Venezia, IT
TRS	Trieste, IT
KOP	Koper, SI
MNF	Monfalcone, IT
RJK	Rijeka, HR
SPU	Split, HR
PIR	Peiraias (Athene), GR
PER	Perama, GR
EEU	Elefsina, GR
SKG	Thessaloniki, GR



- Multiple scales of analysis:
- The European Continent
 - Four maritime waters
 - 100 port city territories
 - 129 port or port cities

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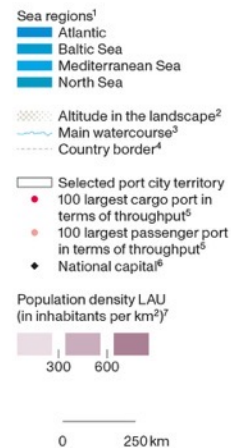
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Europe through its Four Waters

The west coast of Europe is surrounded by water: the Baltic Sea, the North Sea, the Mediterranean Sea and the Atlantic. Each maritime water has its own unique character, shaped by its geographical landscape and maritime history. They provide a common, sheltered base for port cities to emerge and develop in. The map shows that we selected our 100 port city territories based on the ranking of the largest European ports in terms of passenger and cargo throughput and the population density of local administrative areas (LAU). Although the selected ports are all leading ports in Europe, the inter-individual differences in volume of transit are significant, both within a maritime water and between maritime waters. This becomes clear when studying the list of selected ports attached to the maps of the four maritime waters (p. 81, 133, 185, 236 – 237). Although almost all port cities are located in densely populated areas, the combination of maps and data also makes it clear that high population density is not necessarily a prerequisite for high throughput.



¹ EMODnet Human Activities: Regional Advisory Councils, 2014.

² EEA EuroGeographics EuroDEM, 2022.

³ Based on Eurogeographics, (2020). EuroGlobalMap. Version 2020 Eurogeographics. Retrieved from <https://eurogeographics.org/maps-for-europe/open-data>.

⁴ Eurostat NUTS 1 data.

⁵ Eurostat Maritime transport data, 2019.

⁶ Natural Earth

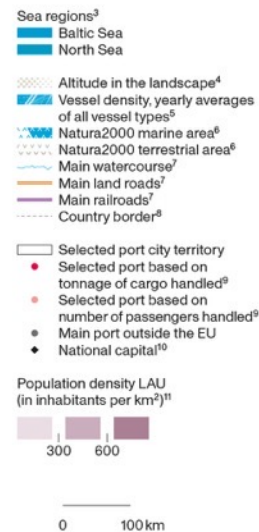
⁷ Eurostat, GISCO LAU, 2019.



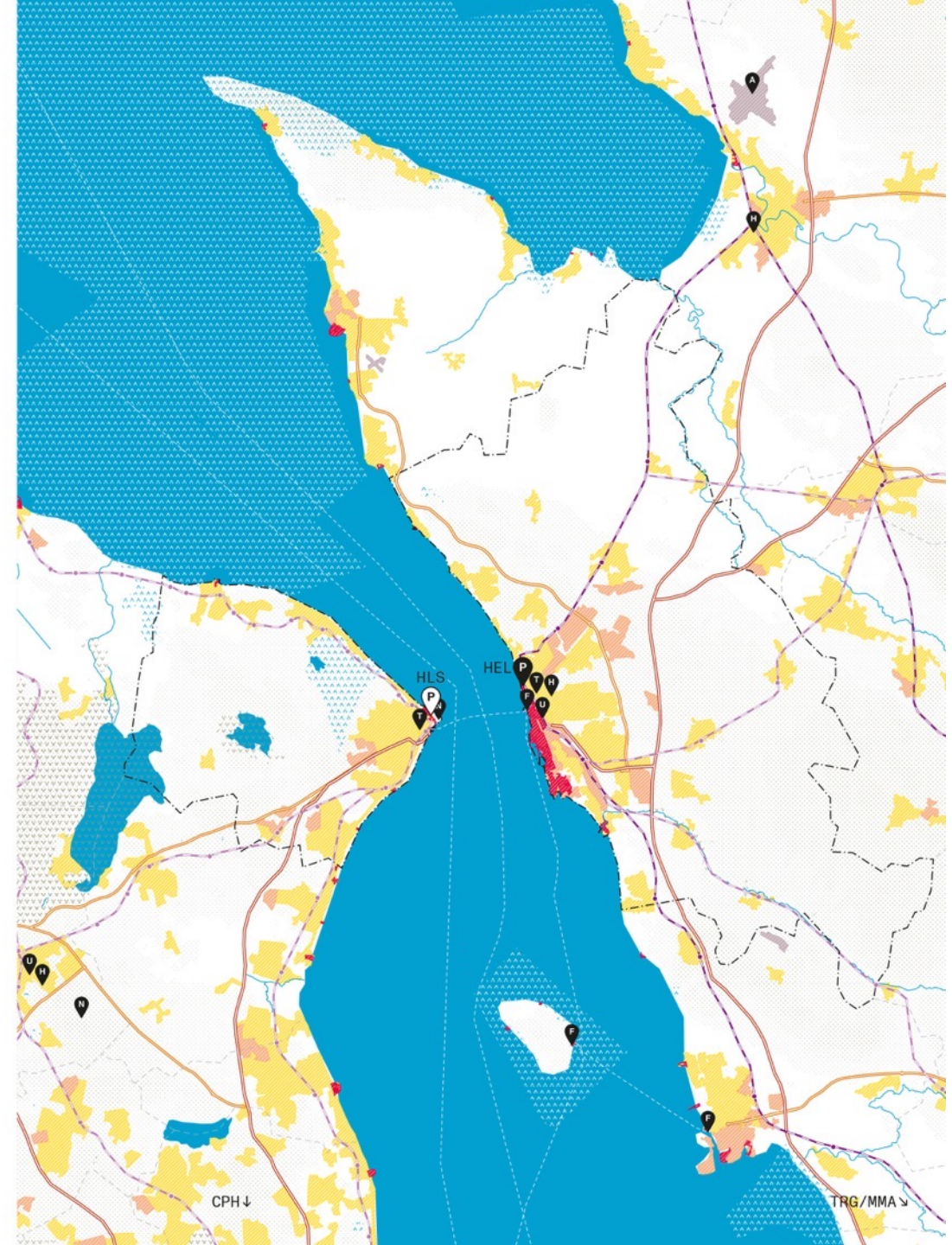
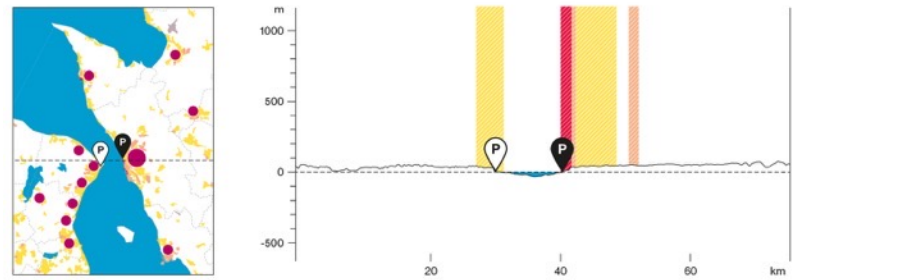
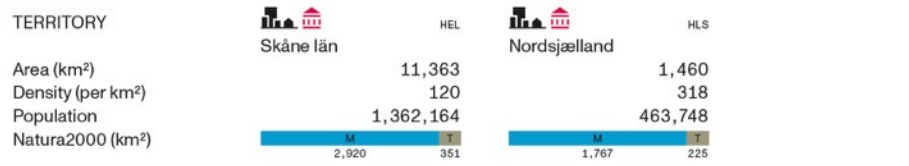
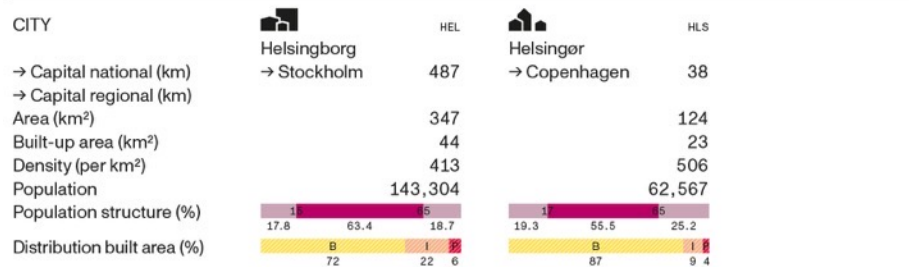
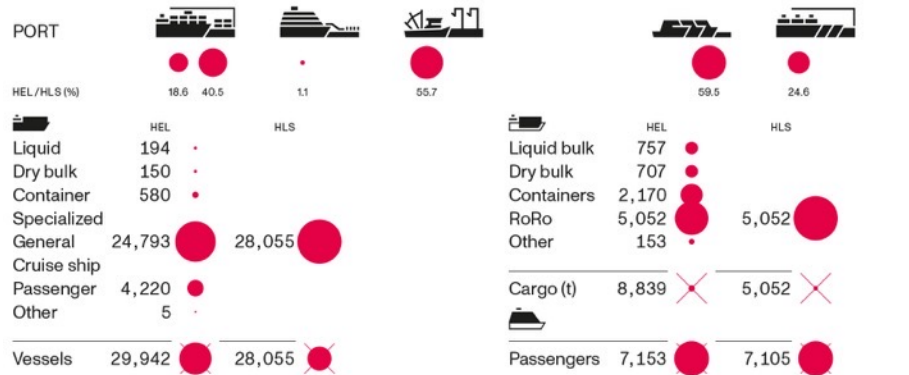
Baltic Sea Map and Statistics

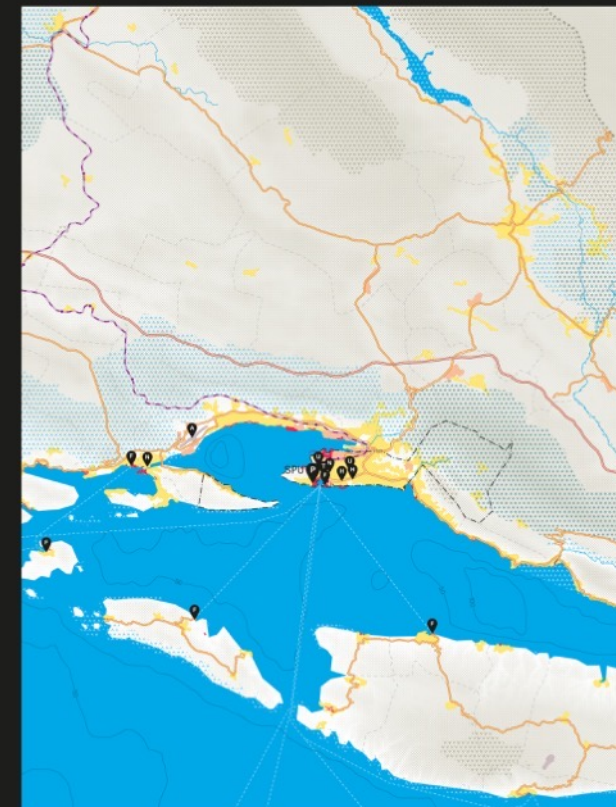
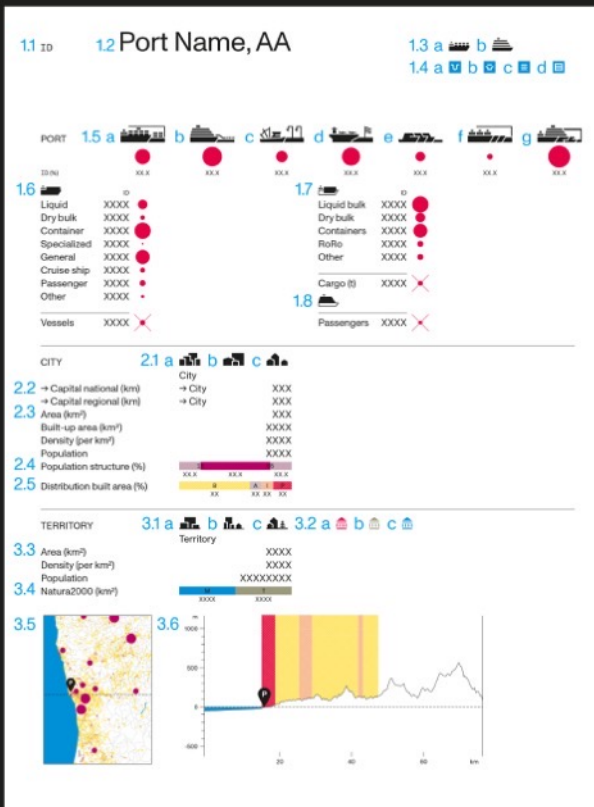
ID	Port name	 ¹	 ²
HEL	Helsingborg, SE	8,839	7,153
HLS	Helsingør, DK	5,052	7,105
CPH	København, DK	6,659	1,213
TRG	Trelleborg, SE	11,798	1,814
MMA	Malmö, SE	7,813	329
RNN	Rønne, SE	1,393	1,860
STO	Stockholm, SE	4,726	8,349
LLE	Luleå, SE	7,355	0
TKU	Turku, FI	2,134	3,137
NLI	Naantali, FI	7,589	194
HEL	Helsinki, FI	14,370	11,619
SKV	Sköldvik, FI	25,198	
SLM	Sillamäe, EE	10,492	
TLL	Tallinn, EE	19,636	9,961
RIX	Riga, LV	30,628	799
VNT	Ventspils, LV	19,600	232
LPX	Liepāja, LV	7,025	40
KLJ	Klaipėda, LT	42,705	343
BOT	Butinge, LT	9,542	0
GDN	Gdansk, PL	45,520	289
GDY	Gdynia, PL	20,551	791
SZZ	Szczecin, PL	9,583	6
SWI	Swinoujście, PL	15,937	1,170
RSK	Rostock, DE	19,993	3,394
ROF	Rødby, DK	8,394	0
PUT	Puttgarden, DE	5,375	6,007
LBX	Lübeck, DE	16,022	458
KEL	Kiel, DE	4,819	2,331
FRC	Fredericia, DK	6,869	0
AAR	Århus, DK	8,617	3,385
SST	Statoil-Havnen, DK	7,900	0
SJO	Sjællands Odde, DK		3,493

- 1 Total tonnage of cargo in thousands and in relation to the other selected European ports. Eurostat, 2019.
- 2 Total number of passengers in thousands and in relation to other selected European ports. Eurostat, 2019.
- 3 EMODnet Human Activities: Regional Advisory Councils, 2014.
- 4 EEA EuroGeographics EuroDEM, 2022.
- 5 EMODnet Human Activities, Vessel Density Map 2019.
- 6 —, Environment, Natura 2000, 2015.
- 7 Based on Eurogeographics, (2020). EuroGlobalMap. Version 2020 Eurogeographics. Retrieved from <https://eurogeographics.org/maps-for-europe/open-data>.
- 8 Eurostat NUTS 1 data.
- 9 Eurostat Maritime transport data, 2019.
- 10 Natural Earth.
- 11 Eurostat, GISCO LAU, 2019.



HEL Helsingborg, SE HLS Helsingør, DK





extensive legends in the front of the book

condensed legend as bookmark



Atlantic Map and Statistics

ID	Port name	 ¹	 ²
CYP	Clydeport (Glasgow), UK	8,801	0
CYN	Cairnryan, UK	2,705	1,770
BEL	Belfast, UK	18,515	1,626
LAR	Larne, UK	2,767	467
DUB	Dublin, IE	26,332	1,991
LMK	Limerick, IE	9,622	2
ORK	Cork, IE	8,706	114
HYM	Heysham, UK	4,538	284
LIV	Liverpool, UK	34,314	694
HLY	Holyhead, UK	5,324	1,886
MLF	Milford Haven, UK	34,952	327
BRS	Bristol, UK	8,190	0
SOU	Southampton, UK	33,151	1,807
PME	Portsmouth, UK	3,620	1,754
LEH	Le Havre, FR	60,173	172
NTE	Nantes Saint-Nazaire, FR	30,155	0
LRH	La Rochelle, FR	9,763	0
BOD	Bordeaux, FR	6,499	1
BIO	Bilbao, ES	33,881	107
GIJ	Gijón, ES	17,220	0
LCG	La Coruña, ES	13,584	1
FRO	Ferrol, ES	11,154	0
LEI	Leixões (Porto), PT	17,924	1
LIS	Lisboa, PT	10,465	73
SET	Setúbal, PT	6,735	0
HUV	Huelva, ES	33,255	43
LPA	Las Palmas, ES	19,850	1,994
SCT	Santa Cruz de Tenerife, ES	9,788	5,615
CAD	Cádiz, ES	4,015	25

Sea regions³

- Atlantic
- Mediterranean Sea
- North Sea

- Altitude in the landscape⁴
- Vessel density, yearly averages of all vessel types⁵
- Natura2000 marine area⁶
- Natura2000 terrestrial area⁶
- Main watercourse⁷
- Main land roads⁷
- Main railroads⁷
- Country border⁸

- Selected port city territory
- Selected port based on tonnage of cargo handled⁹
- Selected port based on number of passengers handled⁹
- Main port outside the EU
- National capital¹⁰

Population density LAU
(in inhabitants per km²)¹¹

300 600

0 100 km

- Total tonnage of cargo in thousands and in relation to the other selected European ports. Eurostat, 2019.
- Total number of passengers in thousands and in relation to the other selected European ports. Eurostat, 2019.
- EMODnet Human Activities: Regional Advisory Councils, 2014.
- EEA EuroGeographics EuroDEM, 2022.
- EMODnet Human Activities, Vessel Density Map 2019.
- , Environment, Natura2000 2015.
- Based on Eurogeographics, (2020). EuroGlobalMap. Version 2020 Eurogeographics. Retrieved from <https://eurogeographics.org/maps-for-europe/open-data>.
- Eurostat NUTS 1 data.
- Eurostat Maritime transport data, 2019.
- Natural Earth.
- Eurostat, GISCO LAU, 2019.

VLC

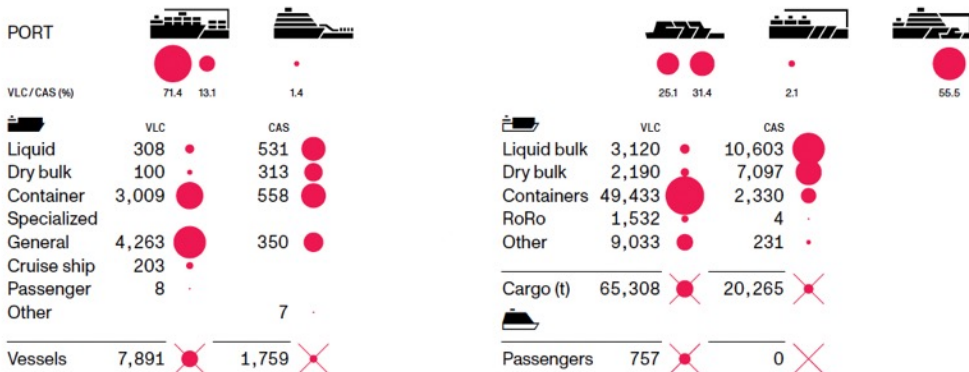
CAS

Valencia, ES Castellón, ES

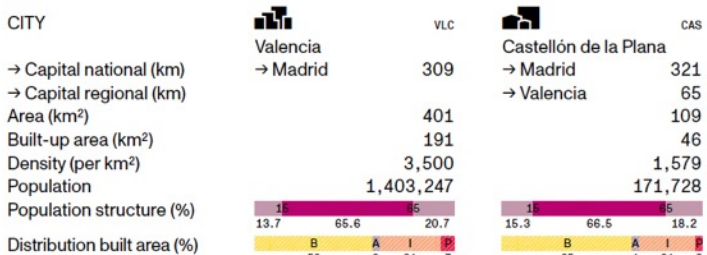
Balearic Sea

Balearic Sea

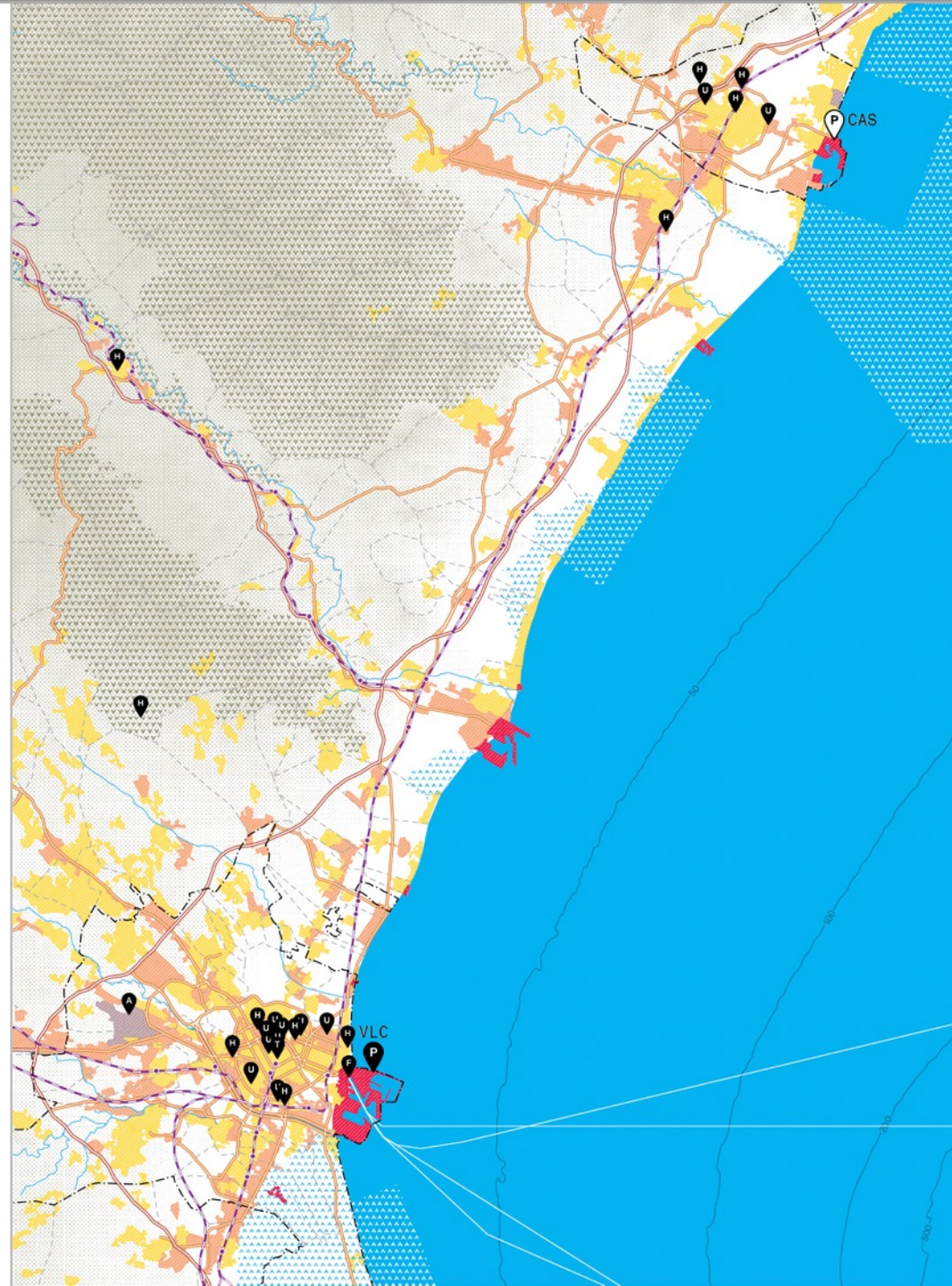
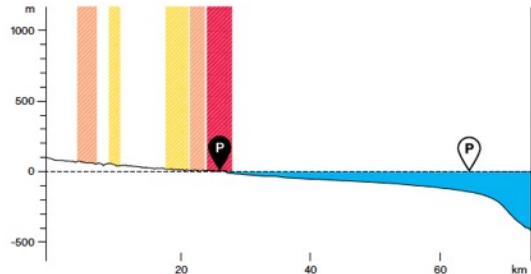
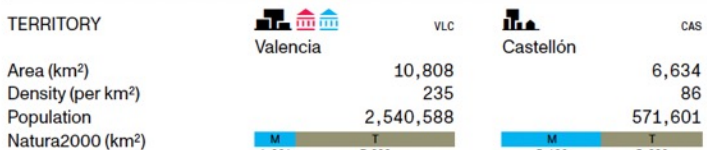
PORT



CITY



TERRITORY

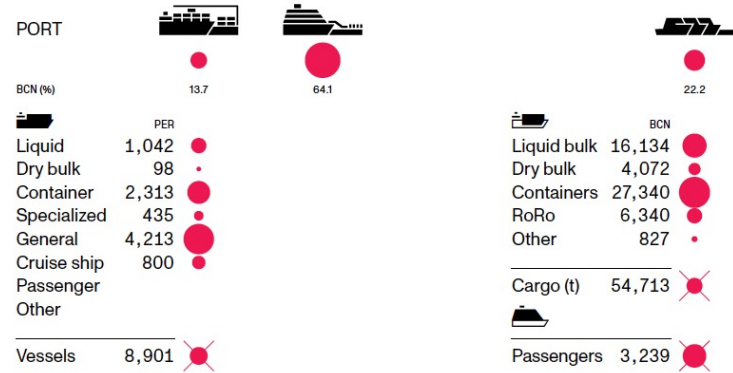


BCN

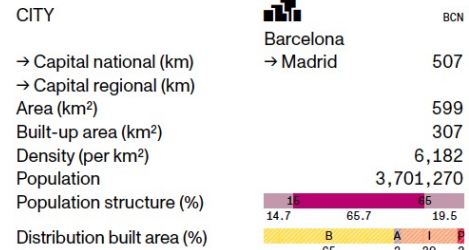
Barcelona, ES

Balearic Sea

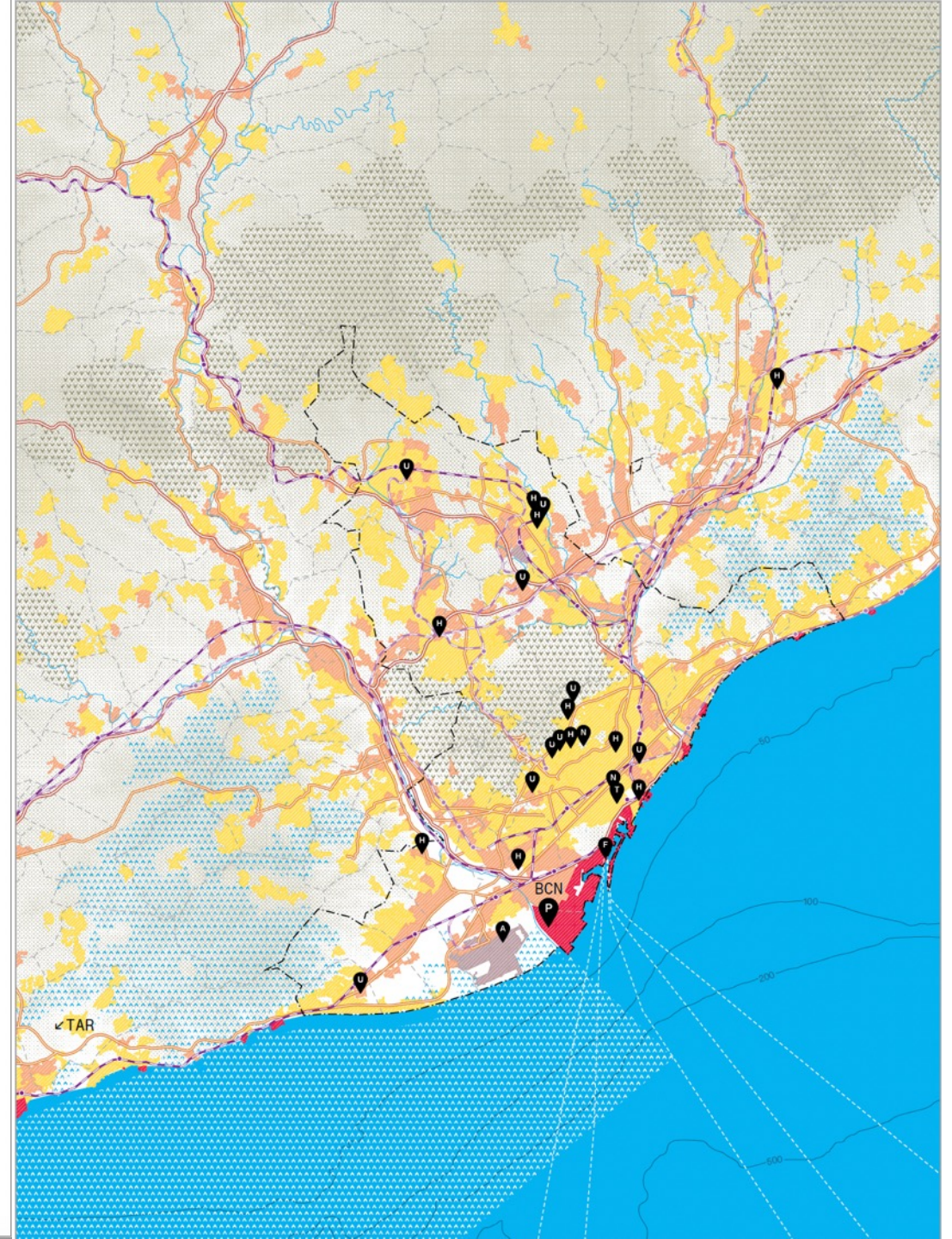
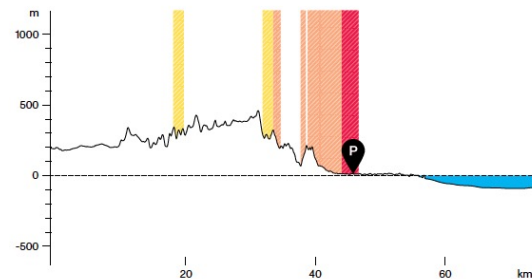
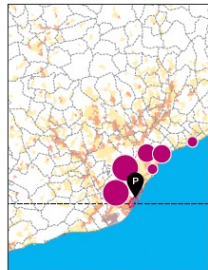
PORT



CITY



TERRITORY

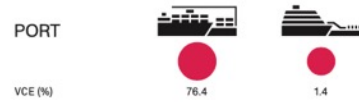


VCE

Venezia, IT

 Gulf of Venice

PORT



	VCE
Liquid	639
Dry bulk	353
Container	945
Specialised	30
General	1,322
Cruise ship	350
Passenger	
Other	
Vessels	3,903

	VCE
Liquid bulk	8,447
Dry bulk	10,461
Containers	5,924
RoRo	2,186
Other	917
Cargo (t)	27,935
Passengers	854

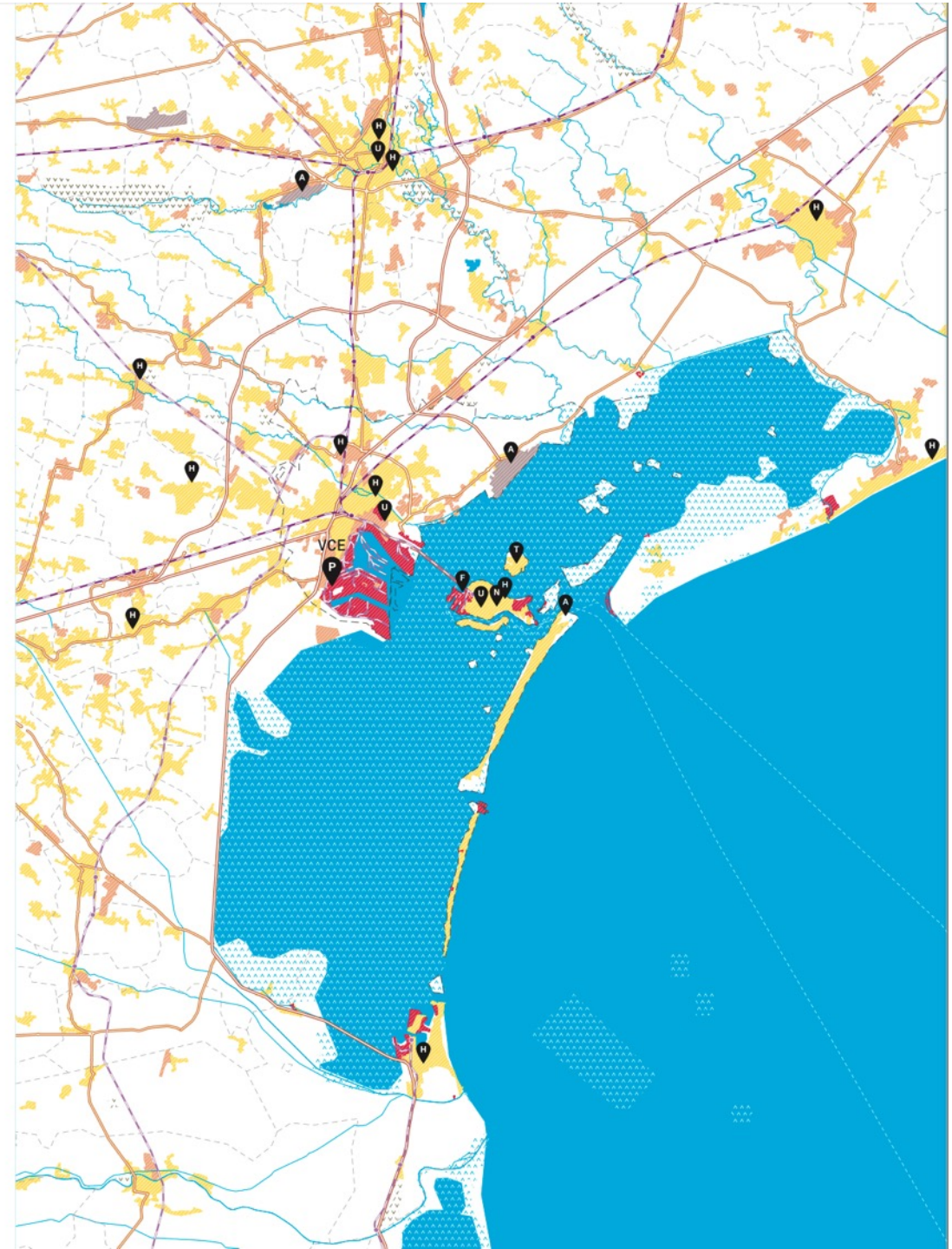
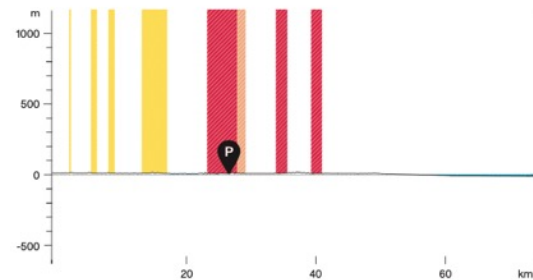
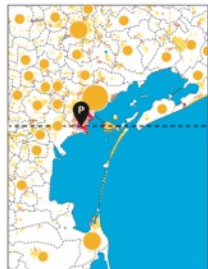
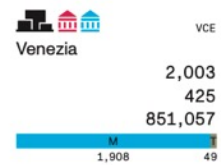
CITY

→ Capital national (km)
 → Capital regional (km)
 Area (km²)
 Built-up area (km²)
 Density (per km²)
 Population
 Population structure (%)
 Distribution built area (%)



TERRITORY

Area (km²)
 Density (per km²)
 Population
 Natura2000 (km²)



LIS

SET

Lisboa, PT

Setúbal, PT

 Tagus River

 Estuário do Sado

PORT



LIS/SET (%)

5.2 29.1

1.5

5.1

2.8

2.5

81.4

6.6

65.8



LIS

SET

Liquid

430

159

Dry bulk

240

57

Container

844

300

Specialised

18

376

General

675

562

Cruise ship

317

Passenger

Other



LIS

SET

Liquid bulk

1,661

367

Dry bulk

4,925

3,446

Containers

3,710

1,136

RoRo

9

518

Other

160

1,268

Cargo (t)

10,465

6,735



Passengers

73

CITY



LIS



SET

→ Capital national (km)

Lisboa (C)

0

→ Lisboa

31

→ Capital regional (km)

→ Lisboa

299

→ Porto

170

Area (km²)

637

170

Built-up area (km²)

161.34

9.18

Density (per km²)

1,859,838

115,758

Population

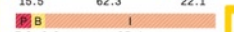
2921

680

Population structure (%)




Distribution built area (%)

TERRITORY



LIS



SET

Area (km²)

2,853

2,853

Density (per km²)

998

998

Population

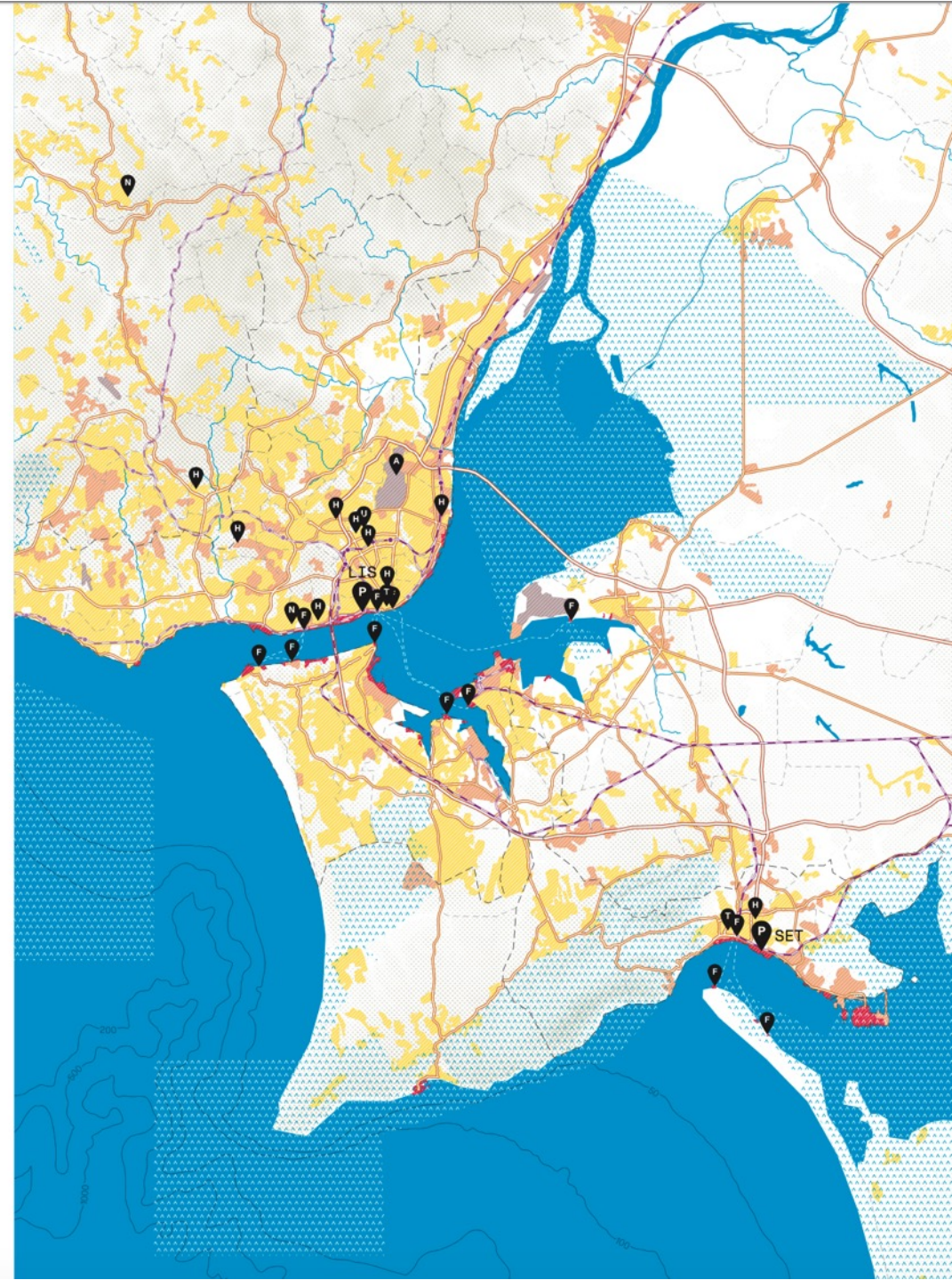
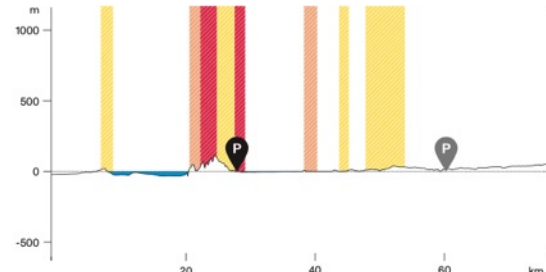
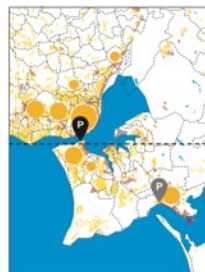
2,846,332

2,846,332

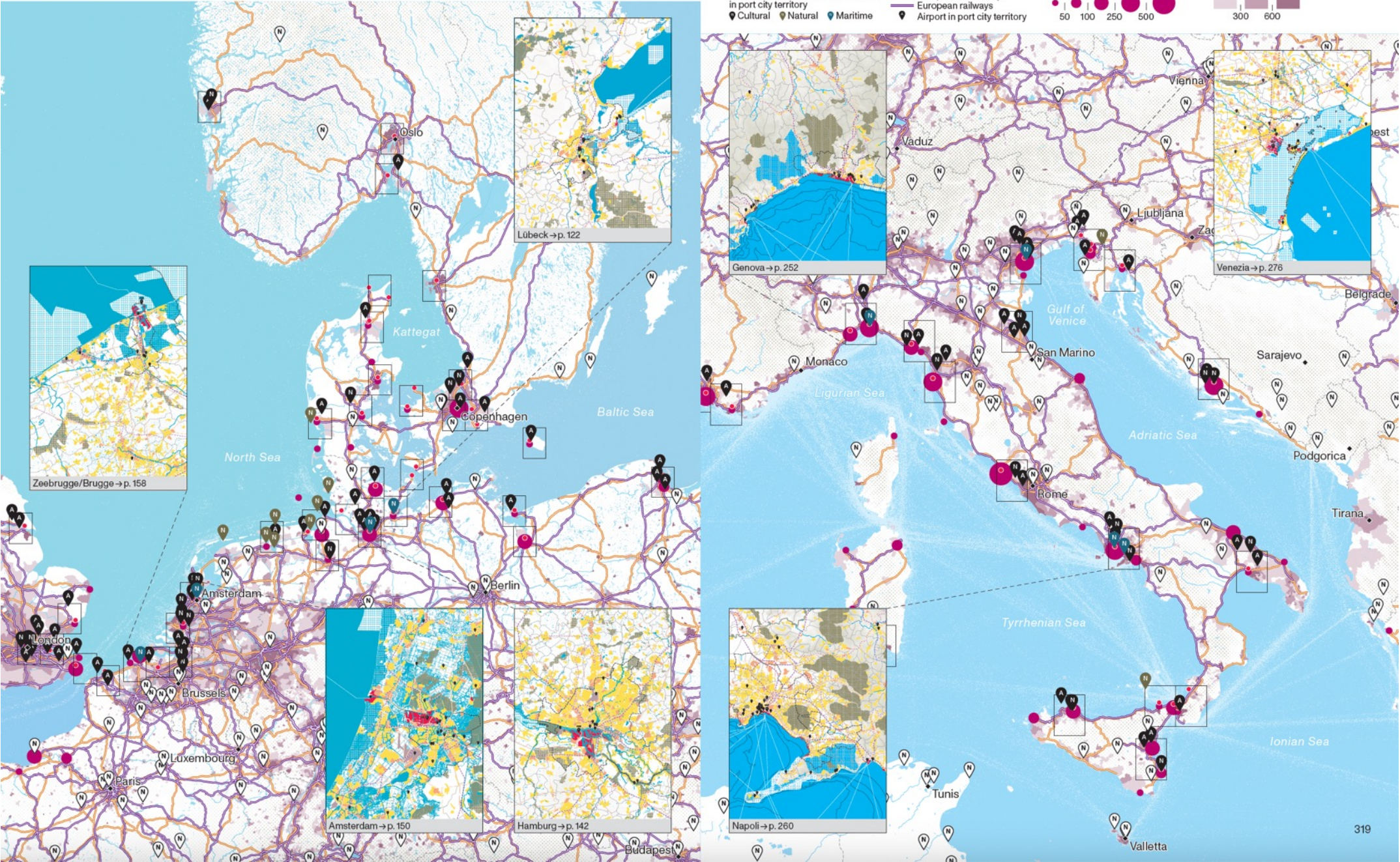
Natura2000 (km²)

3,630

3,630



European Port City Territories and UNESCO World Heritage Properties



Free open course on EdX: (Re)Imagining Port Cities

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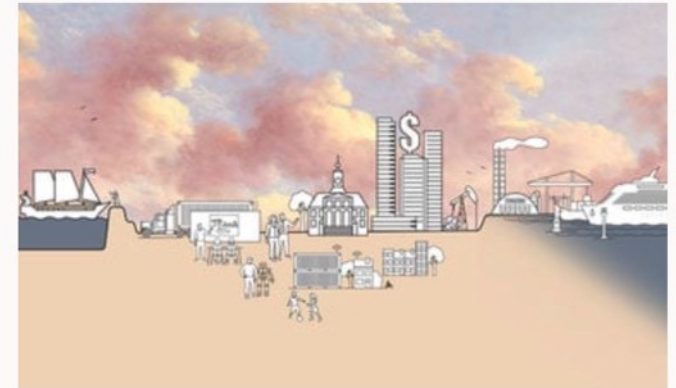
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(Re)Imagining Port Cities: Understanding Space, Society and Culture

Port city regions are at the forefront of many urgent contemporary issues such as migration, climate change, digitization, etc. Addressing these challenges and developing sustainable solutions, requires more than technical interventions, it requires rethinking and redesigning the basic spatial and socio-cultural paradigms that prevail at present.

In this course we will analyze examples of port cities from a multi-disciplinary, cross-cultural perspective. You will develop the skills to identify and address the challenges port cities face now and into the future.

**Estimated 6 weeks**

4–5 hours per week

**Self-paced**

Progress at your own speed

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Optional upgrade available

IS WATER ACTION NEGOTIABLE?

Not at all



Very much



WATER VALUES

*'This game has
opened my eyes. It is
time to act. Now!'*



portcityfutures.nl/unesco-chair/watervalues-a-serious-board-game



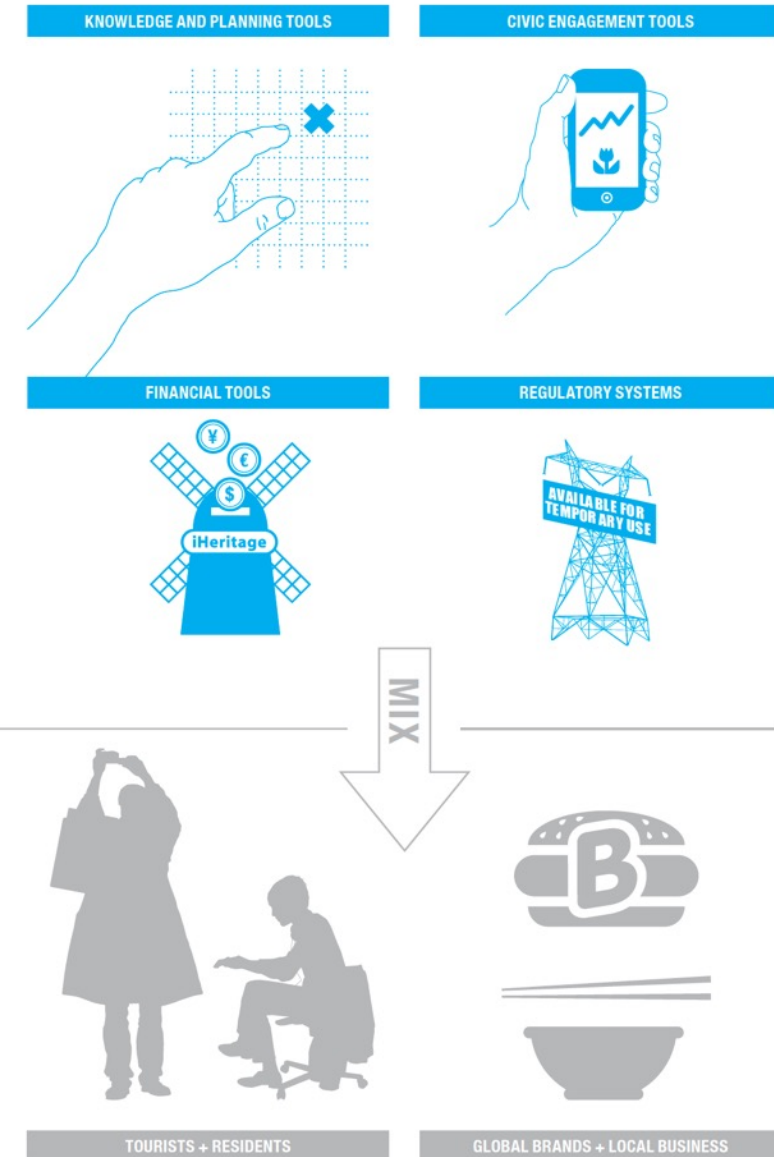
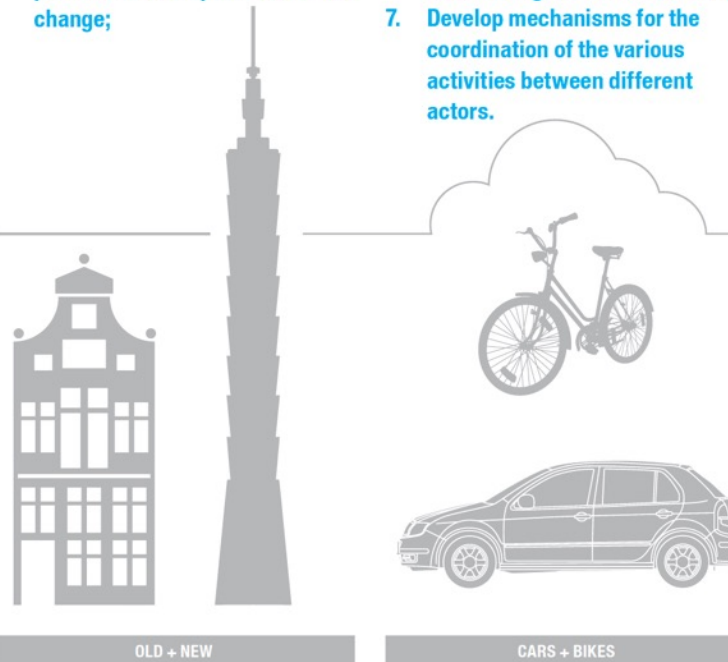


New life for historic cities

The historic urban landscape approach explained

The historic urban landscape approach in action

1. Undertake a full assessment of the city's natural, cultural and human resources;
2. Use participatory planning and stakeholder consultations to decide on conservation aims and actions;
3. Assess the vulnerability of urban heritage to socio-economic pressures and impacts of climate change;
4. Integrate urban heritage values and their vulnerability status into a wider framework of city development;
5. Prioritize policies and actions for conservation and development, including good stewardship;
6. Establish the appropriate (public-private) partnerships and local management frameworks;
7. Develop mechanisms for the coordination of the various activities between different actors.



The historic urban landscape approach sees and interprets the city as a continuum in time and space.

Countless population groups have left their mark, and continue to do so today.



Developing shared scenarios

From Awareness to Action

An open platform for exchange between academics and professionals and stakeholders of all backgrounds

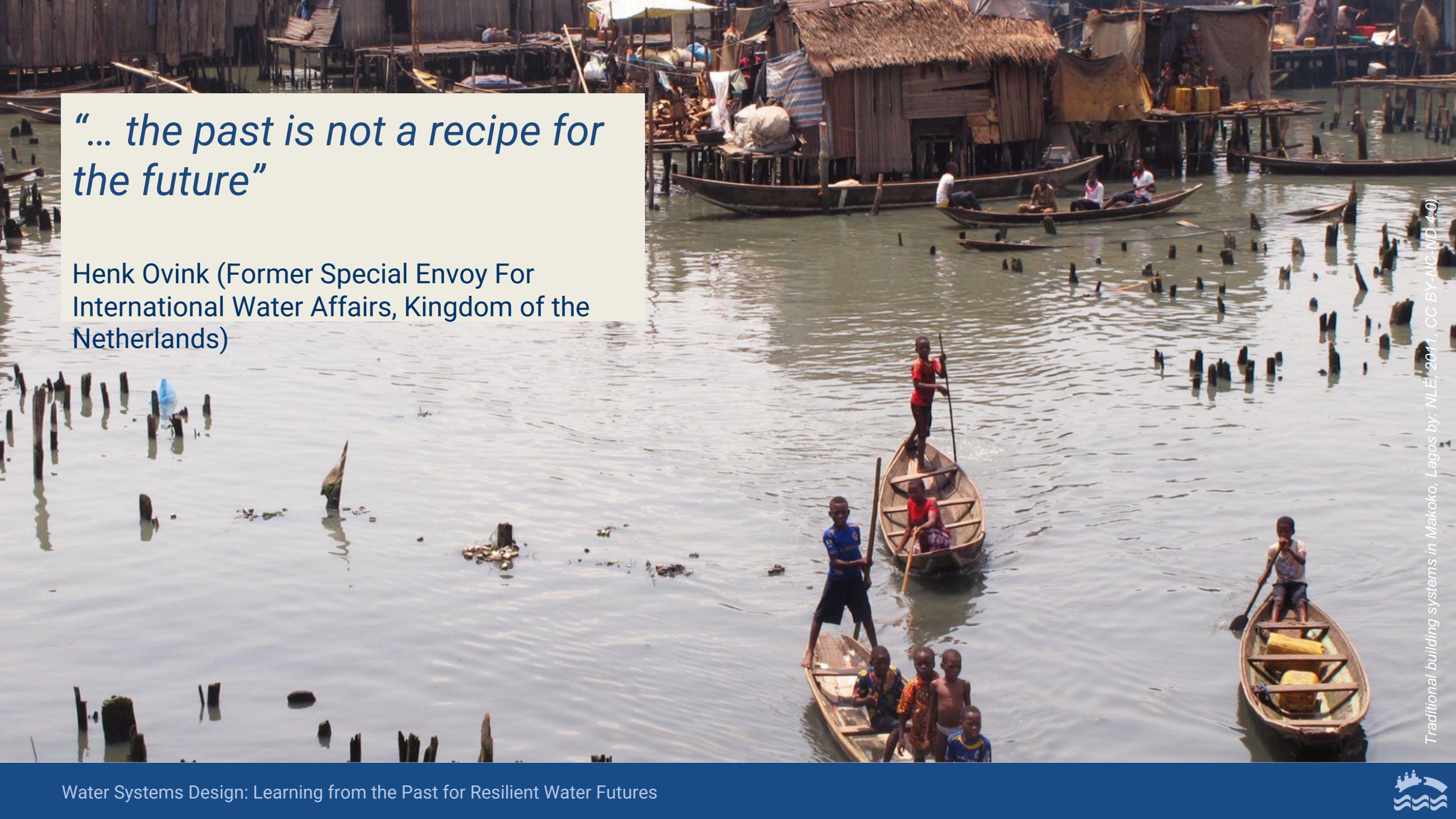
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Open access courses to disseminate and engage with learners around the world

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New methodologies and engagement tools, such as serious games

Water Values

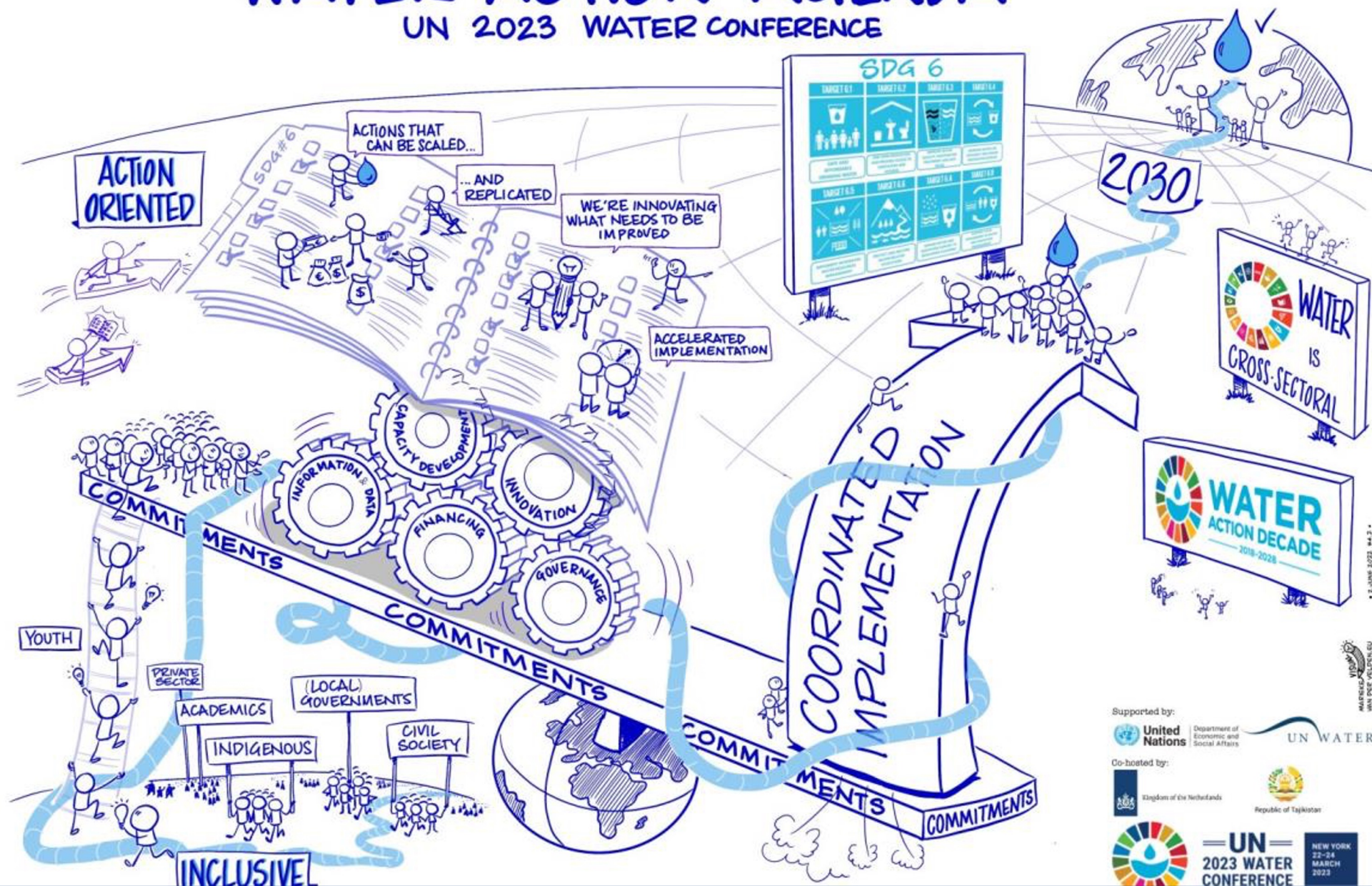


“... the past is not a recipe for the future”

Henk Ovink (Former Special Envoy For International Water Affairs, Kingdom of the Netherlands)

Traditional building systems in Makoko, Lagos by: NLE, 2011, CC BY-NC-ND 4.0).

UN 2023 WATER CONFERENCE



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Mutual accountability for action

6



Co-developing solutions that centre Indigenous self-determination in tackling global freshwater issues

2 3 5 6 12 15 17



A Gamechanger for water access

6 17



Water for the Entire World by 2030

6



IARH commits to complete by 2025 the ongoing project "Dialogues on Water and Sustainable Development" among different stakeholders working in social, environmental and economic areas of important productive activities of Argentina, looking for agreeme

2 6 8 12



Scaling up WASH in Schools program in India

6



Design for Good

6



Water Action Agenda – Commitments



Search Keywords

heritage

Countries

Afghanistan
Albania
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SDGs

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Saving the Worlds Water Towers Campaign



The Ripple Effect: Partnering with Heart to Create Coherent Concentric Circles of Water and Dignity for All



Supporting awareness raising and active knowledge sharing about prevention of waterborne infections and environmental surveillance of infectious disease



Combining efforts to guarantee universal access to water and sanitation in Brazil



UN-Water SDG 6 Capacity Development Initiative



Scaling up people-centered flood and drought Early Warning Systems



Scale up Uganda's response to conflict and climate change induced migration and displacement through improved water services and water security



Supporting the realization of the human rights to safe drinking water and sanitation at national, regional and global levels



Implement water related priorities in the updated Nationally Determined Contributions to improve Uganda's resilience to Climate Change



Water Action Agenda – Commitments with ‘heritage’

Search Keywords

past

Countries

- Afghanistan
- Albania
- Algeria
- Andorra
- Angola
- Antigua and Barbuda
- Argentina
- Armenia
- Australia

SDGs

Entity Types

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166 results

Global Strategic Institute for Sustainable Development

2 3 6 16



Saving the Worlds Water Towers Campaign

3 4 6 10 11 12 13 14 15 16 17



Promoting hydro-diplomacy, cooperative action, and multi-stakeholder engagement on transboundary water

6 13 16 17



Implementing the triple nexus to respond to WASH displaced people needs

1 2 5 6 7 8 13 16



UN-Water SDG 6 Capacity Development Initiative

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17



Scale up Uganda's response to conflict and climate change induced migration and displacement through improved water services and water security

6 11 13 14 16



Supporting the realization of the human rights to safe drinking water and sanitation at national, regional and global levels

1 3 4 5 6 16



Africa water Scarcity Reduction

14



Kikuube Youths Network Association

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17



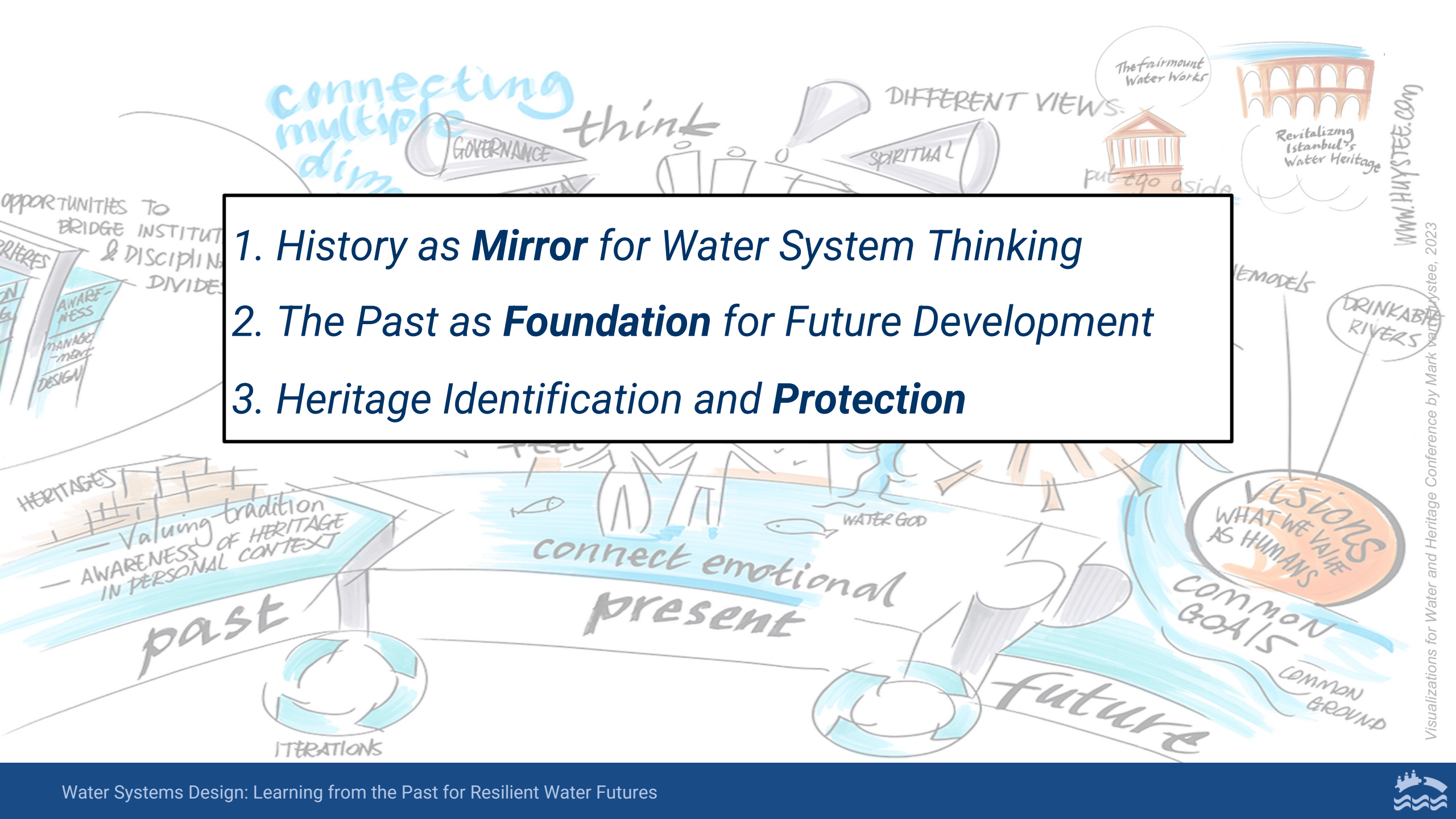
Water Action Agenda – Commitments with ‘past’

Free documentary

Watch the documentary "Water, ports and the UNESCO Historic Urban Landscape approach"



Concept/script/supervision: Carola Hein; Interviews/research: Paolo Martino, Hidde van de Rhee; Production/editing: BonteKoe Media, Paul Tekenbroek; Voice over: Michael Harrigan; Special thanks to interview partners: Henk Ovink, Jyoti Hosagrahar, Paola Viganò, Han Meyer, Mustaph Ndiaye, Abdoul Aziz Guissé, Jean Paul Corten; Additional thanks to: Cees van Rooijen, Joost van den Boogert, Ana Roders. This film has been made possible with the financial support of the Ministry of Education, Culture and Science of the Netherlands.

- 
- The background is a hand-drawn sketch in blue, black, and orange. It features various concepts related to water systems and heritage. At the top, there's a blue cloud-like shape with the text 'connecting multiple dim'. Below it, a grey megaphone contains the word 'GOVERNANCE', and another contains 'SPIRITUAL'. To the right, a speech bubble says 'The fairmount Water Works', and a drawing of a bridge is labeled 'Revitalizing Istanbul's Water Heritage'. A vertical text on the far right reads 'www.huystee.com'. In the center, a large white box with a black border contains three numbered points. Below the box, a blue river flows from left to right. On the left bank, a building is labeled 'HERITAGES' and a list includes 'Valuing tradition' and 'AWARENESS OF HERITAGE IN PERSONAL CONTEXT'. The word 'past' is written in large letters. In the middle of the river, a person is labeled 'WATER GOD'. The word 'present' is written in large letters. On the right bank, a large orange circle contains the text 'VISIONS WHAT WE VALUE AS HUMANS', and below it, 'COMMON GOALS' and 'COMMON GROUND' are written. The word 'future' is written in large letters. At the bottom, two circular arrows represent 'ITERATIONS'.
1. History as **Mirror** for Water System Thinking
 2. The Past as **Foundation** for Future Development
 3. Heritage Identification and **Protection**





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What guides decisions on an invaluable resource? Insights from the Valuing Water Survey





What is Water & Heritage?

Everyday water practices

e.g., Drinking, bathing, washing, cooking, recreation, festivals, rituals



Professional interaction with water

e.g., Water management, architecture, urbanism, infrastructure, engineering



Maritime and marine practices

e.g., Shipping, energy, fluvial, maritime, marine, underwater activities



Human interaction with water systems at the landscape scale

e.g., Migration, urbanization, communication



Water cycle

e.g., Natural processes of saline and fresh water in oceans, lakes, rivers, ice, glaciers, moisture, groundwater

Water, culture and the SDGs



Blue Papers

A Journal for Empowering Water and Heritage



Water & Heritage for Sustainable Development

Vol. 2 No. 2 (2023)

📅 2023-11-08



Water & Heritage for Sustainable Development

Vol. 2 No. 1 (2023)

📅 2023-03-20



Water & Heritage for Sustainable Development

Vol. 1 No. 2 (2022)

📅 2022-12-01



Water & heritage for sustainable development

Vol. 1 No. 1 (2022)

📅 2022-09-01

Leveraging the Past for Better Futures

Henk Ovink

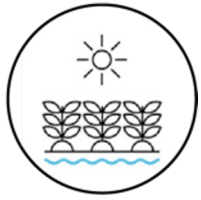
In 1977 the first UN Conference on Water took place in Mar del Plata, Argentina. We were already aware of the need for water security for all, yet unable to figure out how to get there. The effects of pollution and emissions on climate and the interlinkages with water were not left undiscussed. We also discussed the need for action on Water, Sanitation and Hygiene (WASH), Integrated Water Resources Management (IWRM) and more. But there was no clear follow up, no roadmap nor institutional capacity, let alone political or societal ownership. Water, always perceived as a sector, continues to be perceived as a sector. A sector to call on when the pipes fail to function or when water floods our communities or is absent or too polluted to use. That perspective is not only unrealistic, but has led to the abuse of this vital yet scarce resource. The mismanagement and undervaluing of water has helped damage the hydrological cycle, undermining everything we value and want to achieve.

It took 46 years for Mar del Plata to have a successor. The UN 2023 Water Conference in New York, March 22–24, 2023, acts as a midterm review for the Water Action Decade. But its ambition goes way beyond looking back. It aims to change the world with water security by and for all, for good. We must change the economics and politics of water, increase our collective understanding, start valuing water as a global common good and manage it across silos, borders and divides. Water can bring us together but demands radical change. Investment in water trickles down across all SDGs, catalyzes their implementation and scales up inclusive, sustainable and resilient security for communities, our economies and the environment.

Tangible



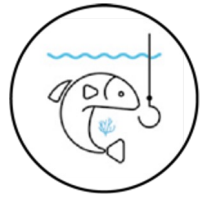
Drinking



Agriculture
and Irrigation



Drainage and
Sewage



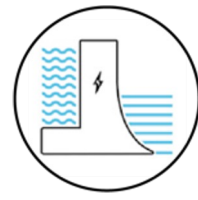
Food from
Water Bodies



Shelter and
Defense



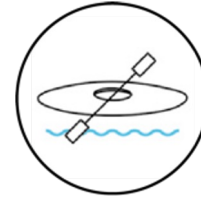
Health



Energy/
Industry



Transport



Places of
Leisure



Place of
Worship

Intangible



Daily Water
Practices



Recreation



Rites and
Rituals



Language
/
Idioms



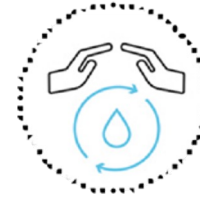
Laws and
Policies



Institutions



Education



Preservation,
Adaptation,
Reuse



Music, Arts
and Dance



Festivals and
Ceremonies

Water Icons





Rebuilding Port Infrastructure Heritage in Jeddah, Saudi Arabia

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Jiwa Utama, Hertasning Ichlas

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Water Systems Design: Learning from the Past for Resilient Water Futures

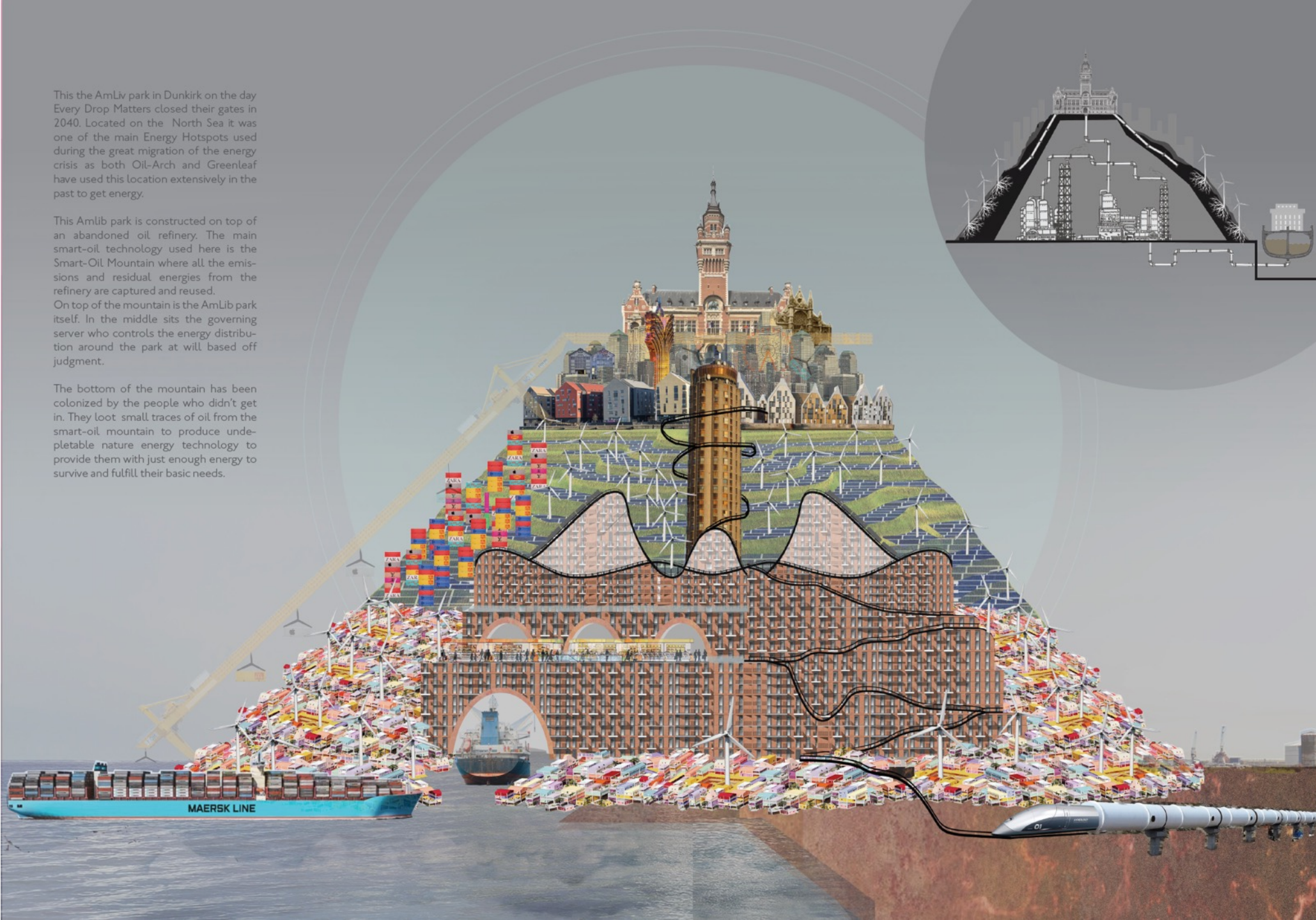


This the AmLiv park in Dunkirk on the day Every Drop Matters closed their gates in 2040. Located on the North Sea it was one of the main Energy Hotspots used during the great migration of the energy crisis as both Oil-Arch and Greenleaf have used this location extensively in the past to get energy.

This AmLib park is constructed on top of an abandoned oil refinery. The main smart-oil technology used here is the Smart-Oil Mountain where all the emissions and residual energies from the refinery are captured and reused.

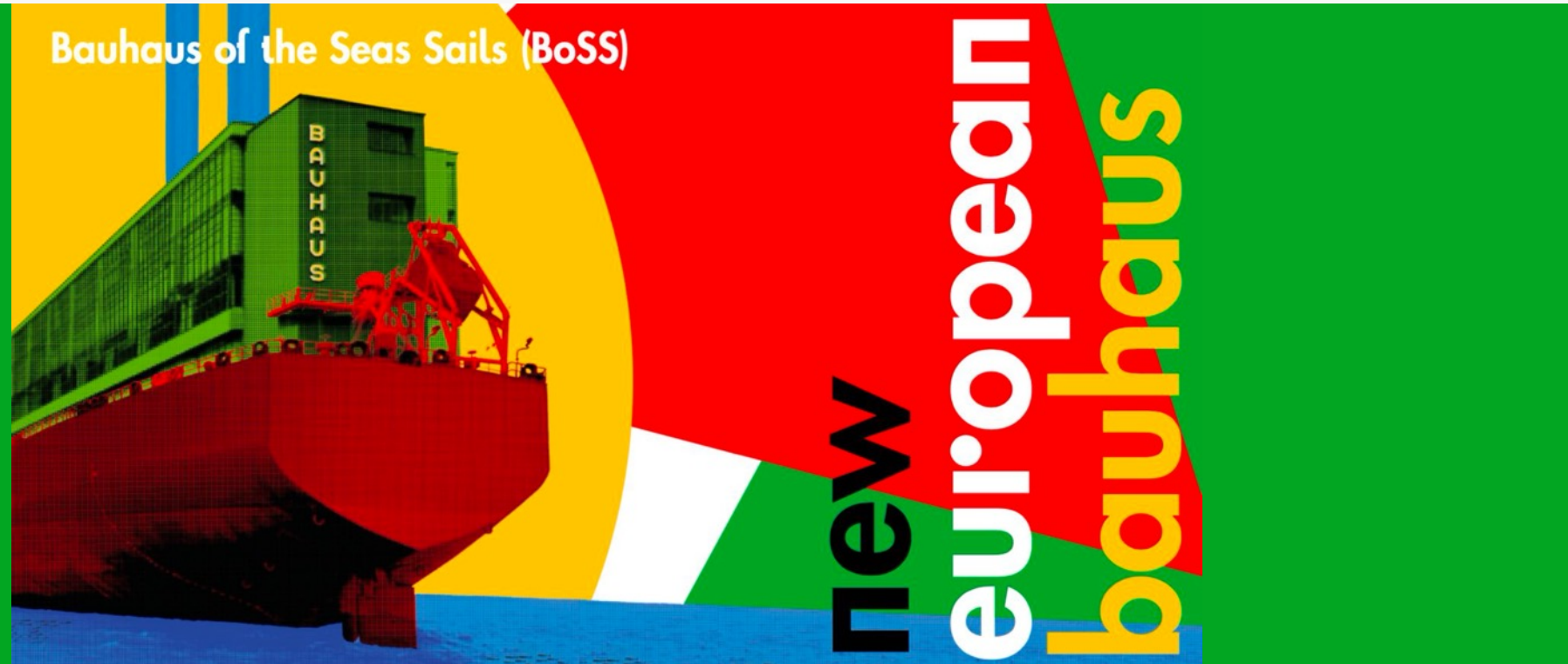
On top of the mountain is the AmLib park itself. In the middle sits the governing server who controls the energy distribution around the park at will based off judgment.

The bottom of the mountain has been colonized by the people who didn't get in. They loot small traces of oil from the smart-oil mountain to produce undepletable nature energy technology to provide them with just enough energy to survive and fulfill their basic needs.



Bauhaus of the Seas Sails

Carola Hein, History of Architecture and Urban Planning, TU Delft, PortCityFutures
Ingrid Mulder, IO, PortCityFutures



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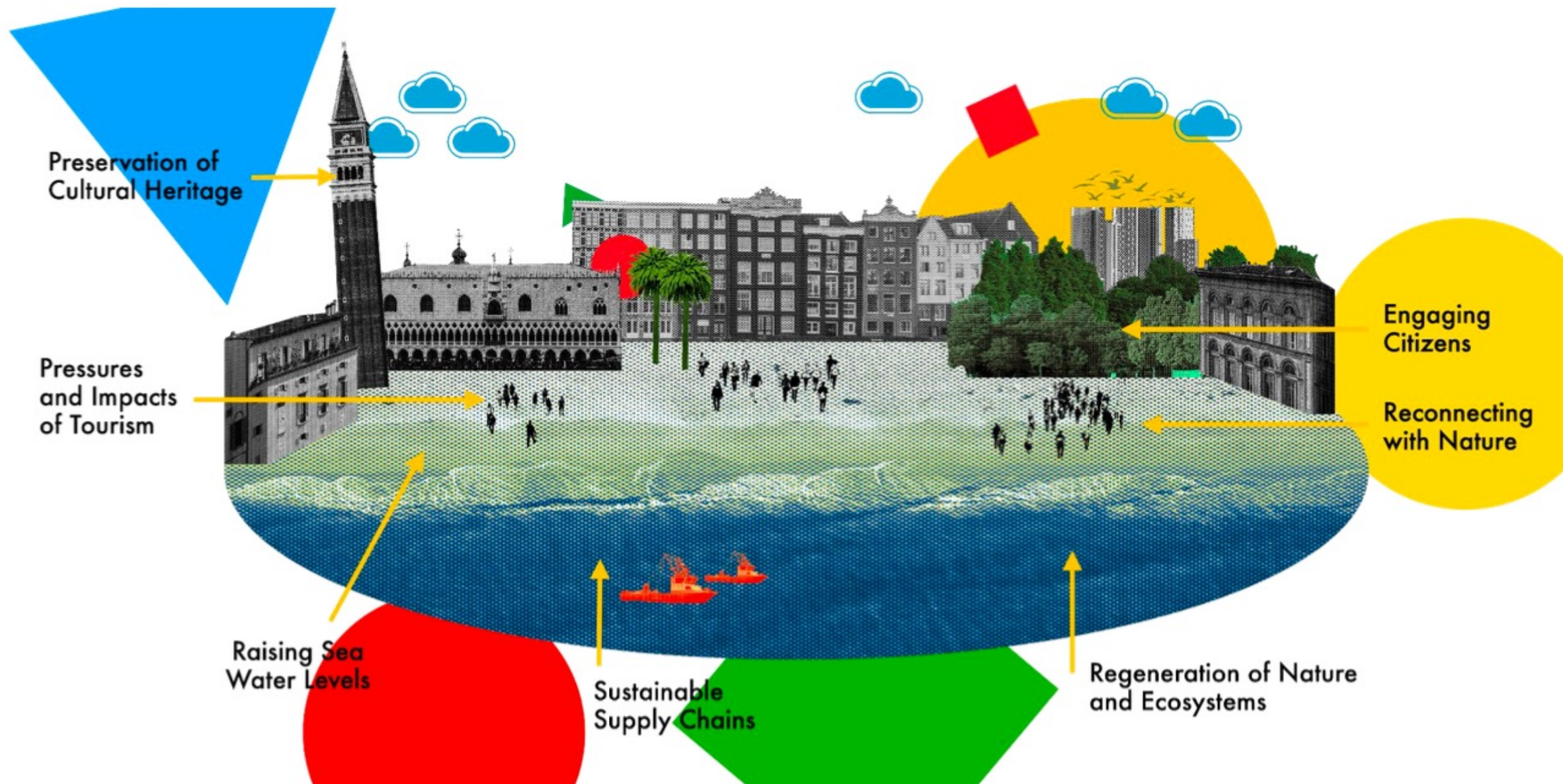
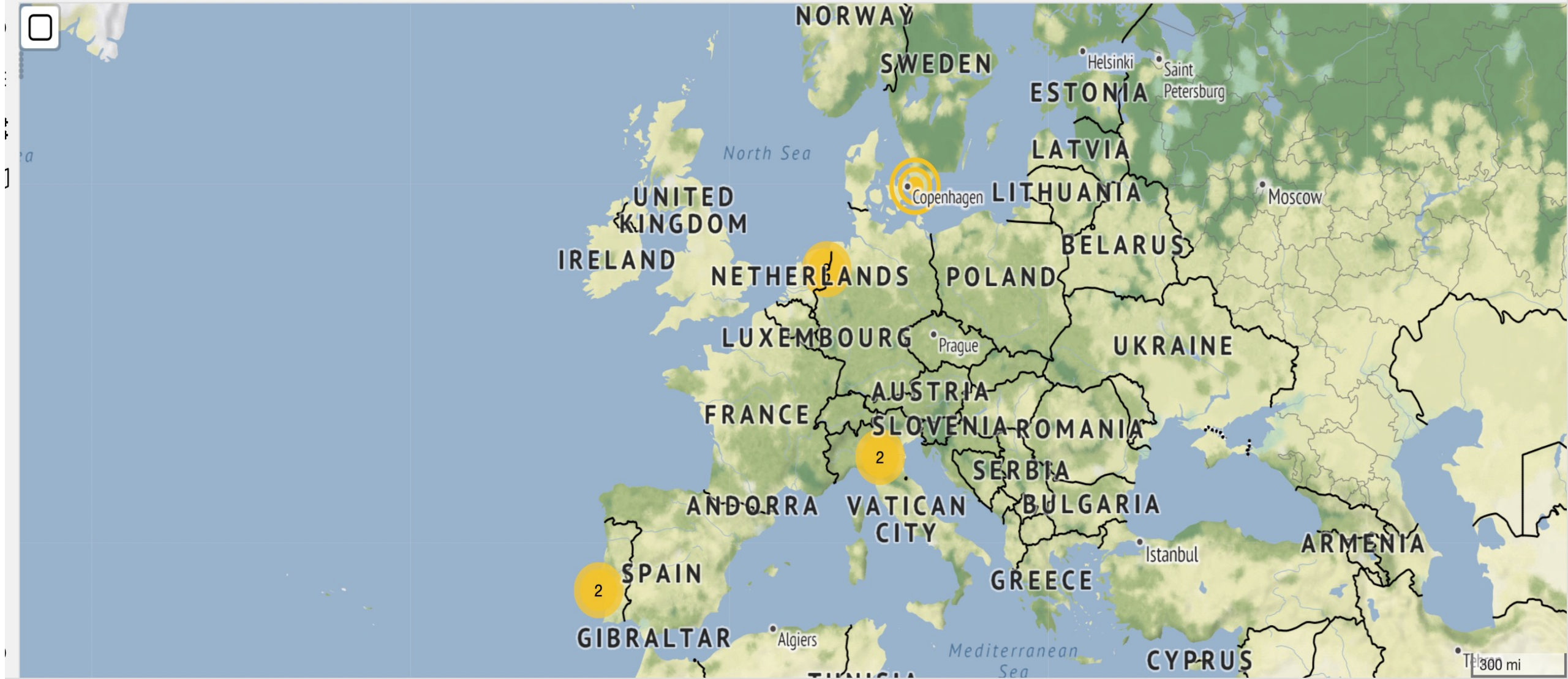


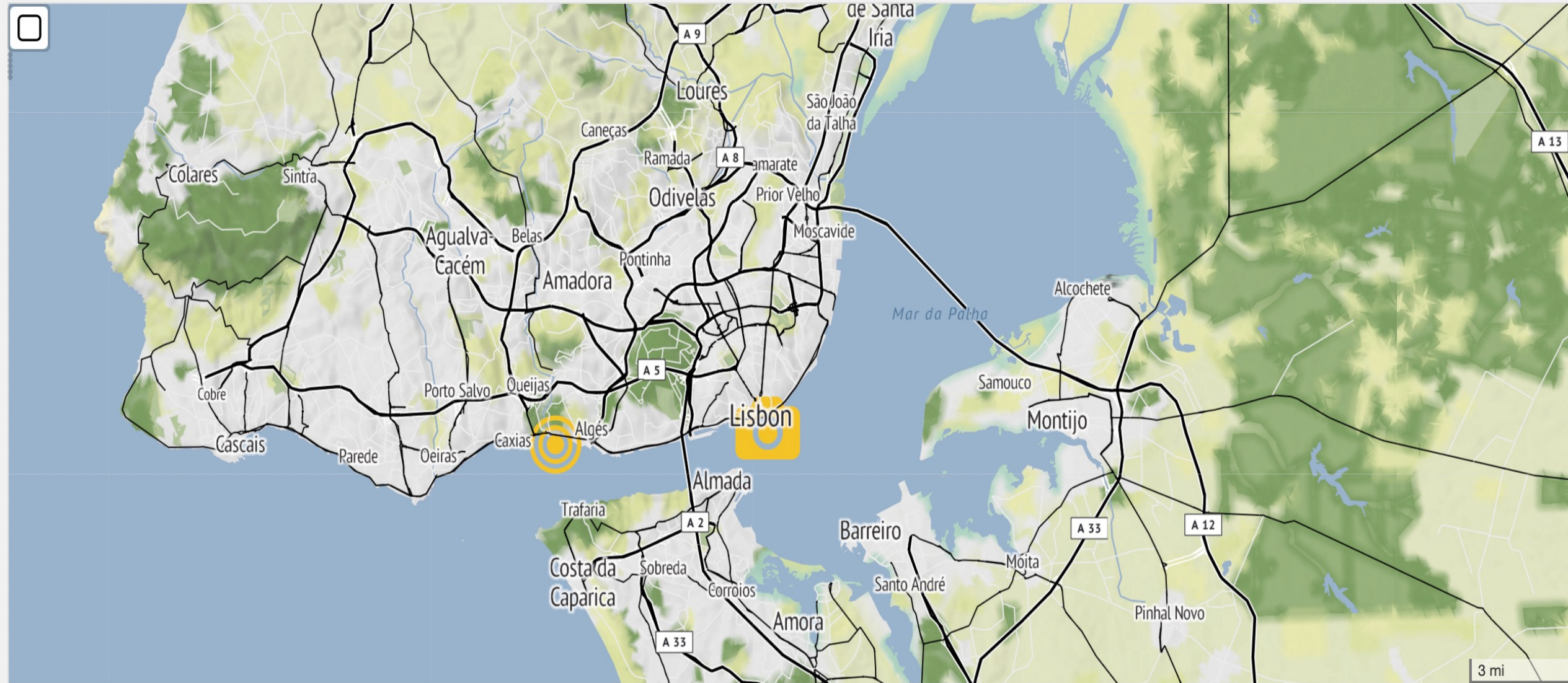
Figure 1 - Challenges faced and addressed on the BoSS

Experimental (Work in Progress)

BoSS



Experimental (Work in Progress)



→ ↺

bossatlas.online/portugal

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Experimental (Work in Progress)

BoSS

Lisbon



Mar da Palha © Humberto Mouco | CML

The Mar da Palha, or Sea of Straw (so named for the visual effect of sunlight on the waters of the Tagus estuary), is the waterway that connects the river to

Colares

Sintra

Aguilva

Cacém

Belas

An

Cobre

Cascais

Parede

Oeiras

Caxias

Almada

Trafaria

Costa da Caparica

Sobreda

Corroios

Amora

Barreiro

Santo André

Móita

Pinhal Novo

Montijo

Samouco

Alcochete

A 2

A 33

A 12

A 13

3 mi

Towards a European Network of Heritage Harbours: Activating Historic Sea-Land Connections for Sustainable Futures

Why European heritage harbors?

- Ports, port cities, port city territories are unique and face unique challenges
- Heritage harbors can be inspirational for sustainable futures through systemic understanding
- Maritime awareness can be promoted through heritage harbors
- Strengthen European culture

How do we define European heritage harbors?

Most European ports have long histories, evidenced through tangible and intangible heritage and natural features

Heritage harbors host traditional ships and heritage on sea and land

Maritime practices are active in heritage harbors

How and for whom can the European Network of Heritage Harbors activate ships, buildings, practices for sustainable futures?

- Heritage needs more than tourism. It can make an active contribution through creative industries, for citizens
- New narratives, both stories and images across multiple scales can help build Europe, maritime knowledge
- European harbours are part of global networks with positive and negative connotations
- Heritage needs to be integral part of port city design from the start to re-create maritime mindsets

Thank you!

Carola Hein, c.m.hein@tudelft.nl



GLOBAL TRADE GOVERNANCE HAPPINESS HERITAGE LIVEABILITY LOGISTICS MIGRATION NEW TECHNOLOGIES POLLUTION PRODUCTION URBAN DEVELOPMENT



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