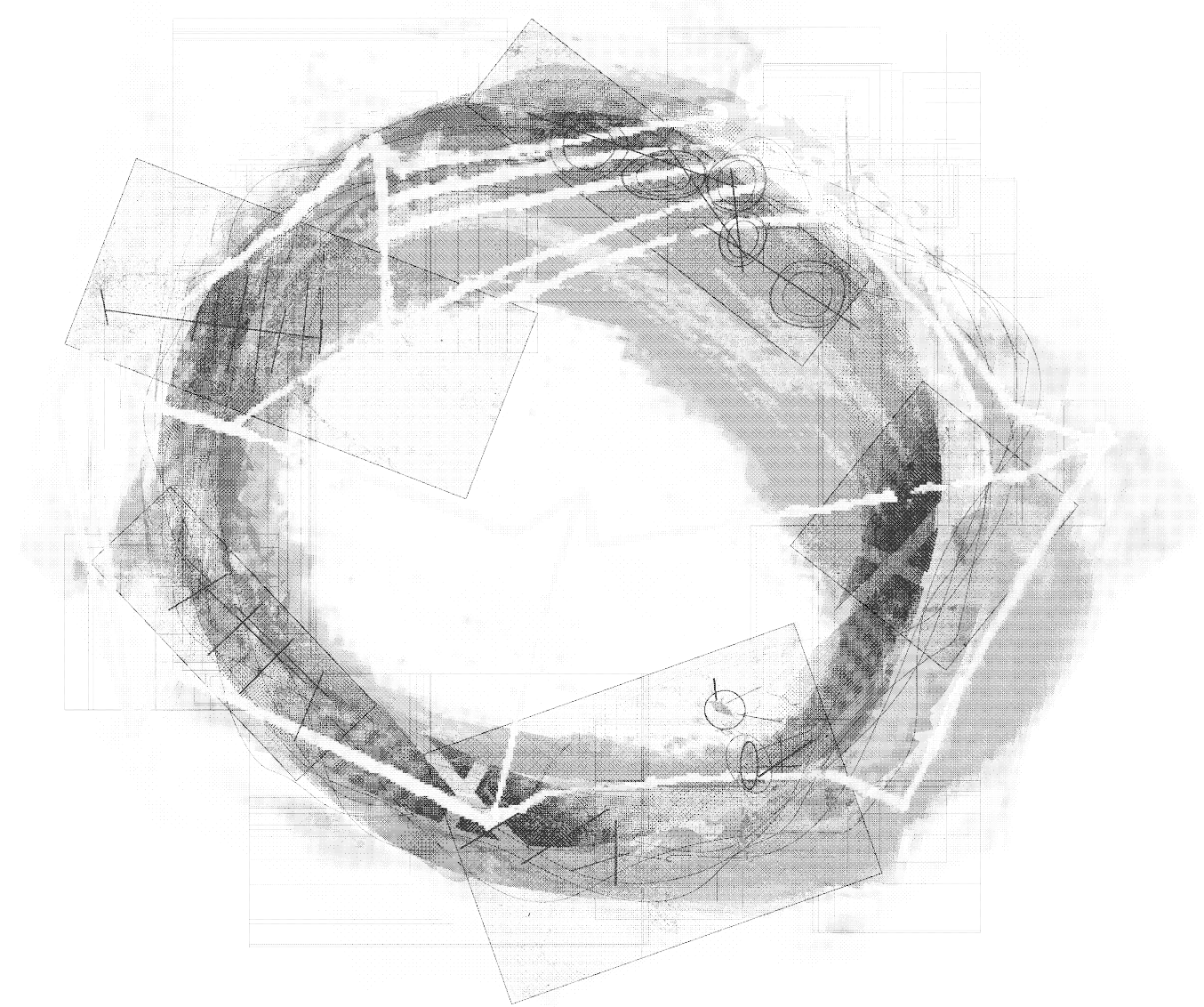


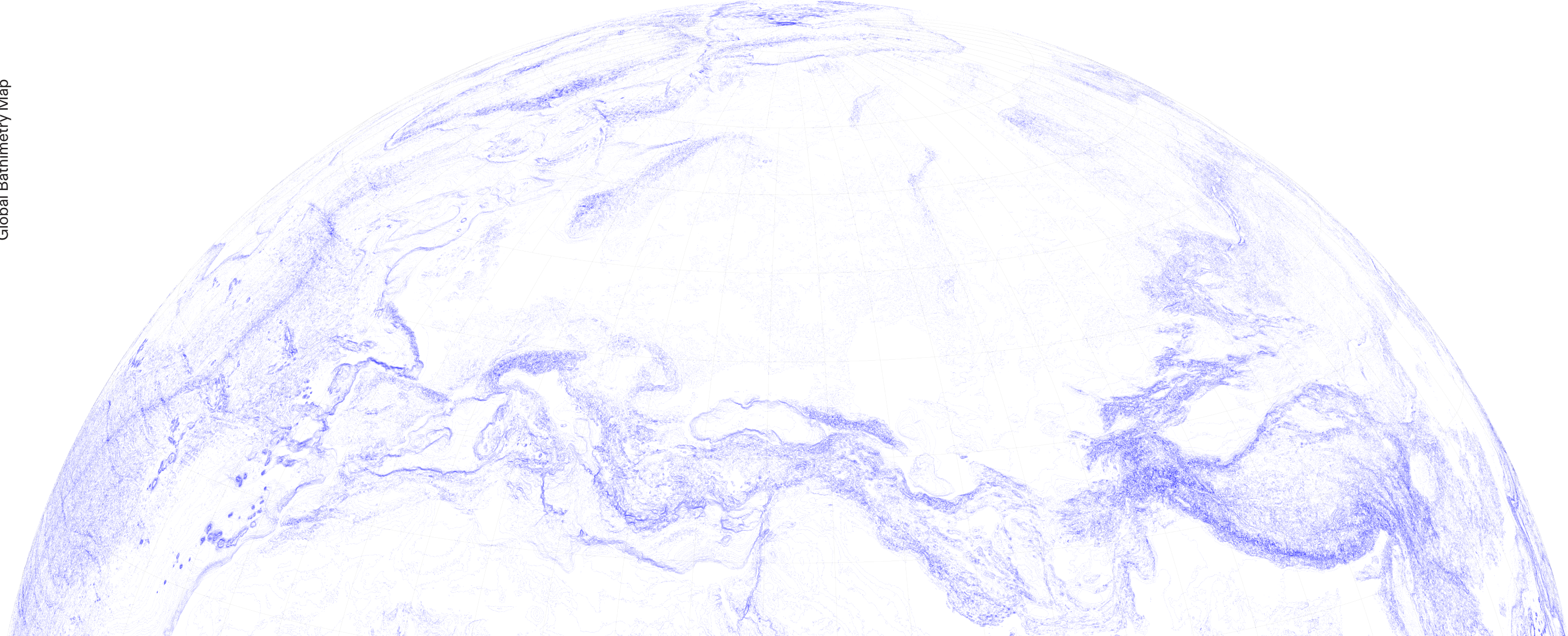


Mediterranean Bastards

A Biopolitical Project for a Tropicalising Sea

Pietro Bernardini
Graduation A4 Presentation | TU Delft
Urbanism | Rights of Nature Cluster
Mentors: Luisa Maria Calabrese | Diego Sepulveda Carmona

Global Bathymetry Map





The Gulf of Pozzuoli - J.P. Hackert 1799



Holy Allegory - G. Bellini 1490-1500



The Gulf of Pozzuoli - J.P. Hackert 1799



Pesca - F. Clemente 1989



The Gulf of Pozzuoli - J.P. Hackert 1799

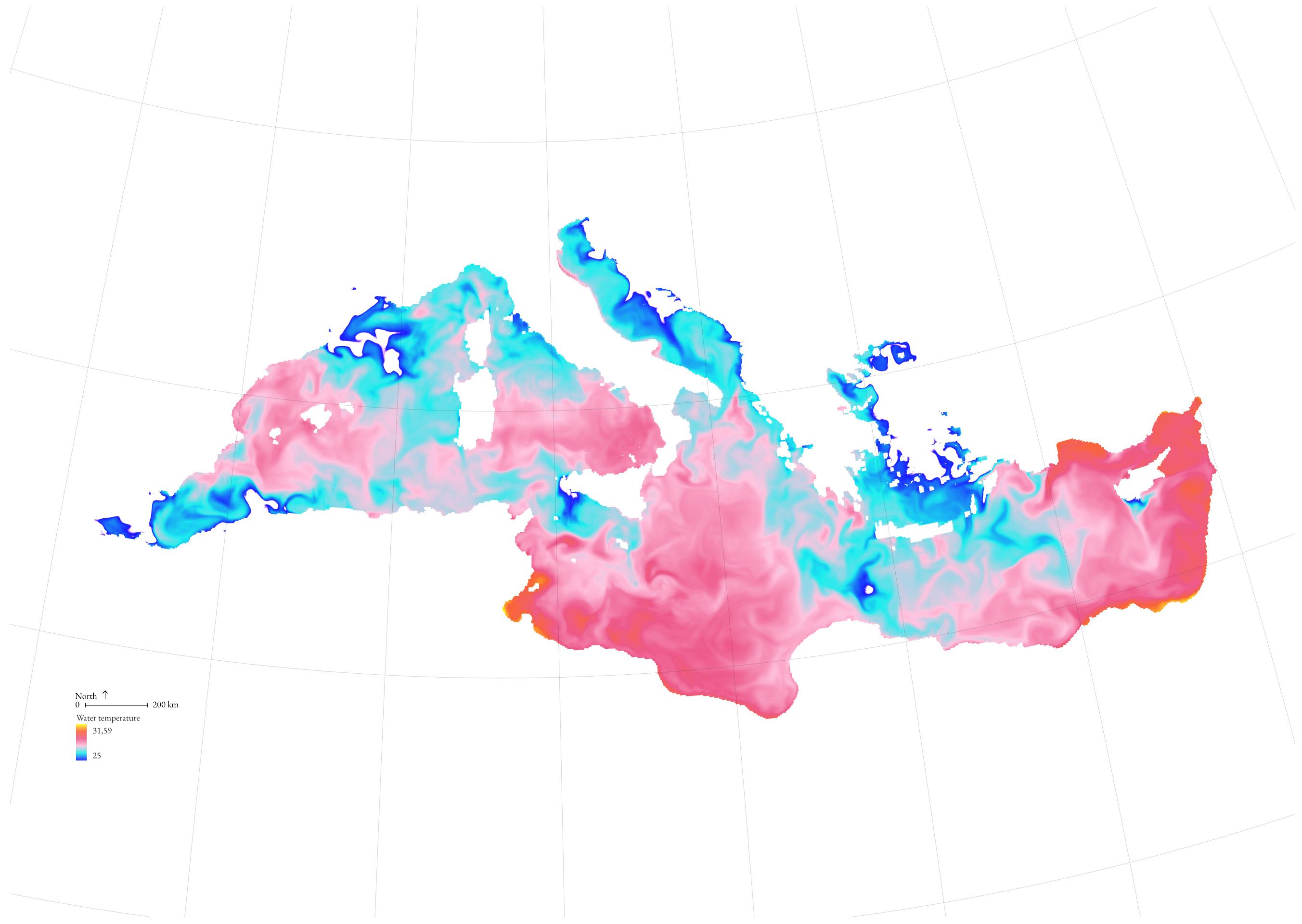


The Calm Sea - G. Courbet 1869



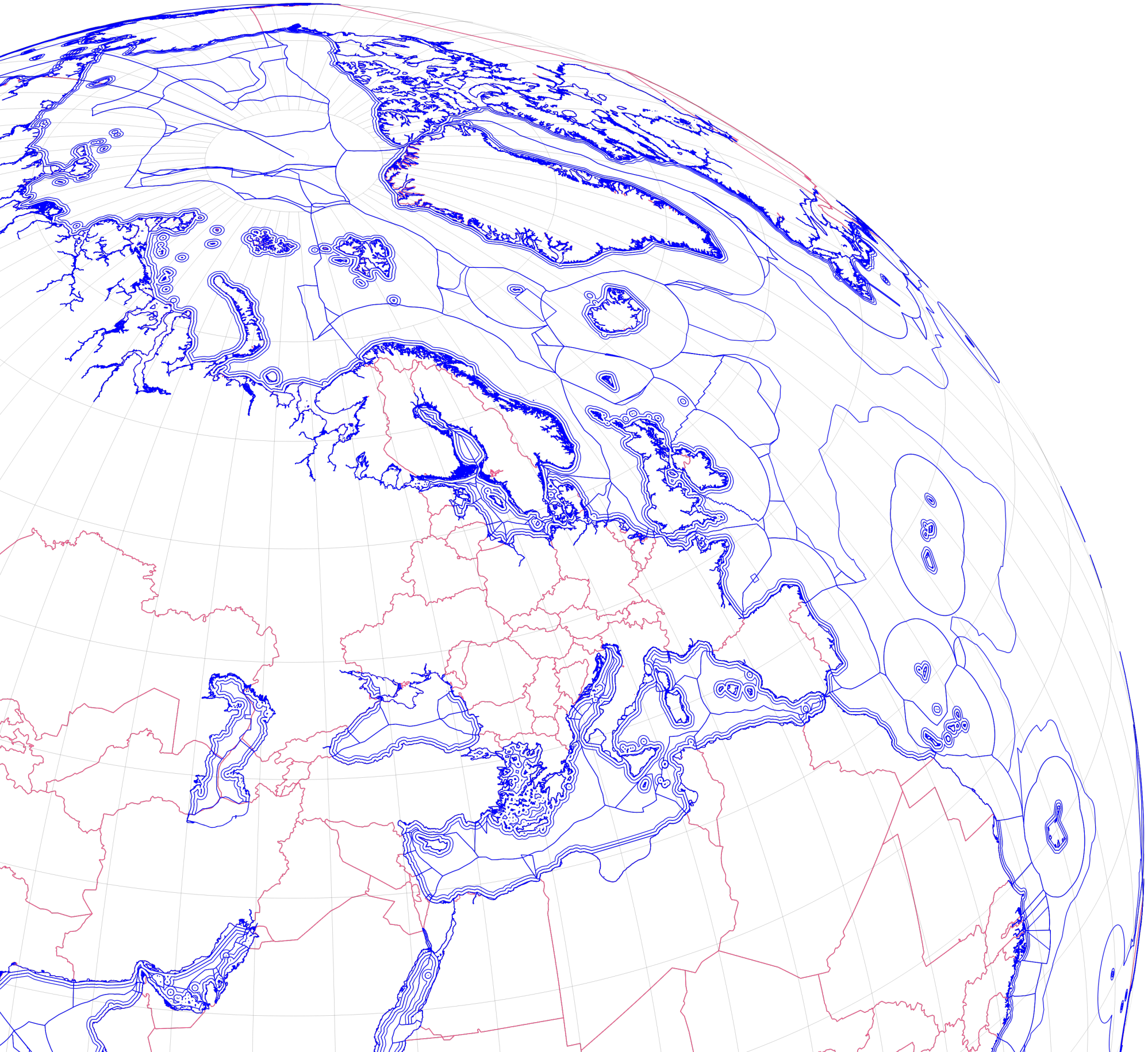
The Gulf of Pozzuoli - J.P. Hackert 1799

Tropical Waters in a Day of SUMmer (2024)

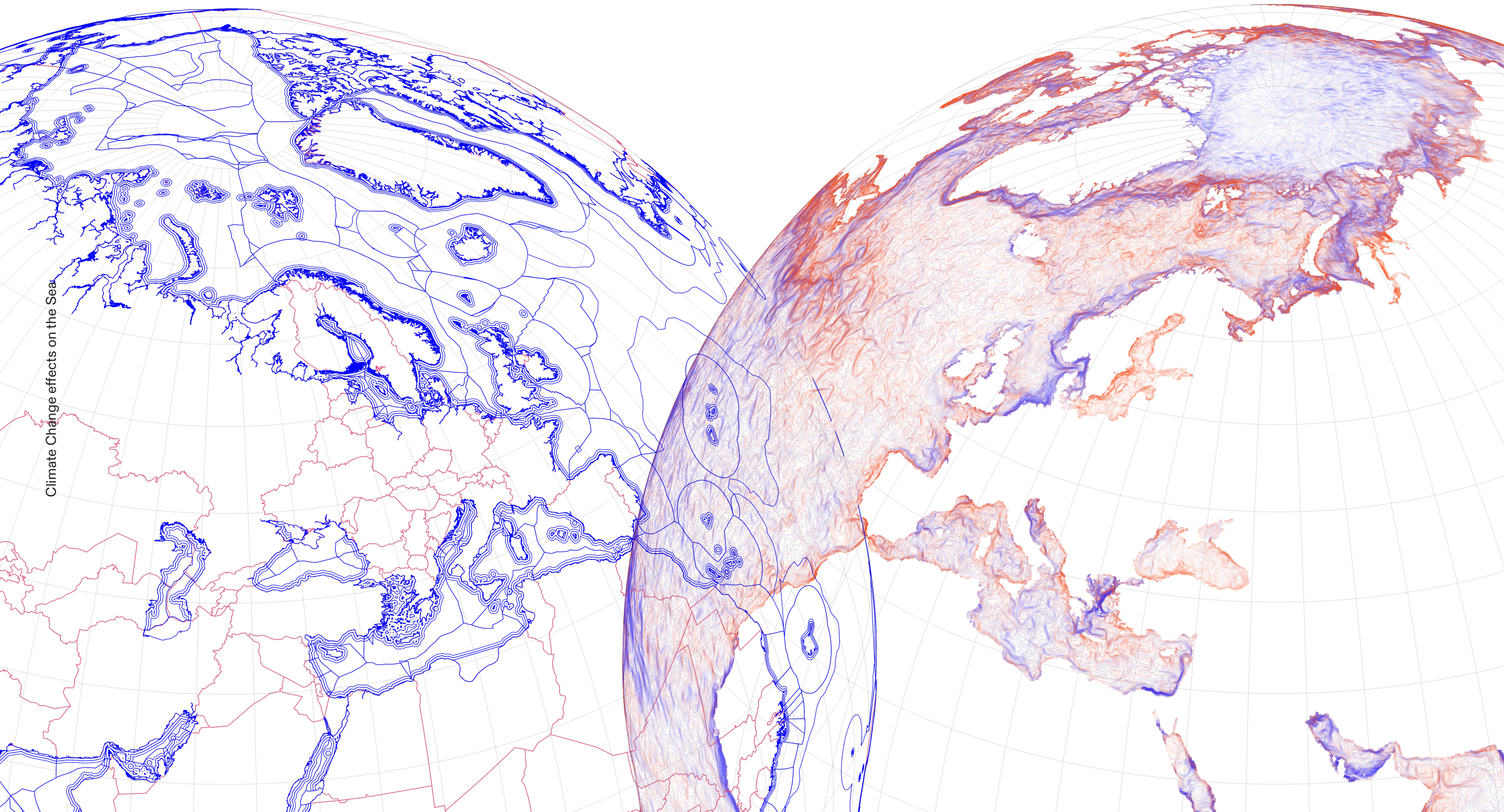


Administrative Zones in the Medirterrenean





Climate Change effects on the Sea





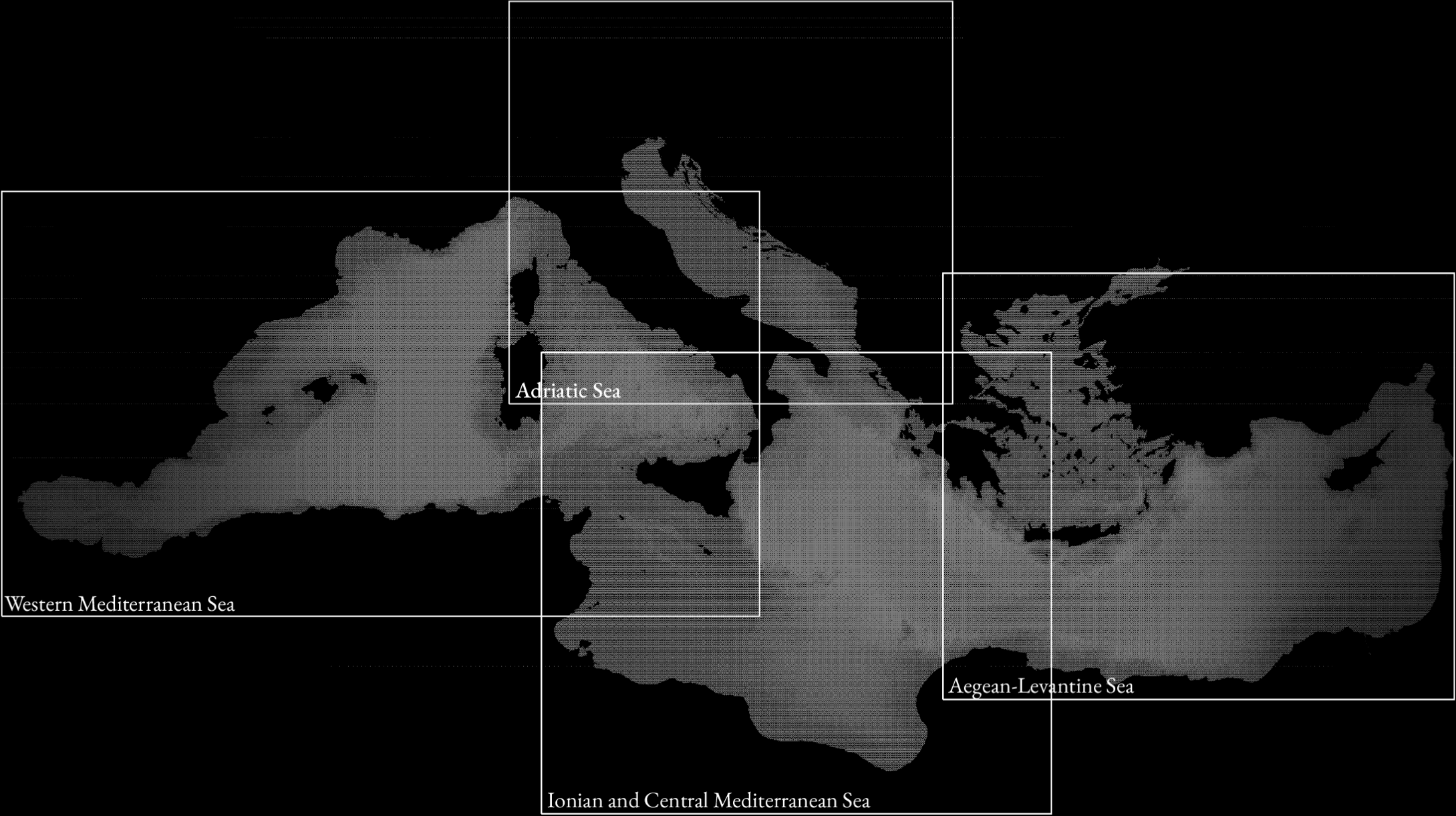
MEDITERRANEAN BASTARDS

A Biopolitical Project for a Tropicalising Sea

ENTITY

RELATION

DISPOSITIF



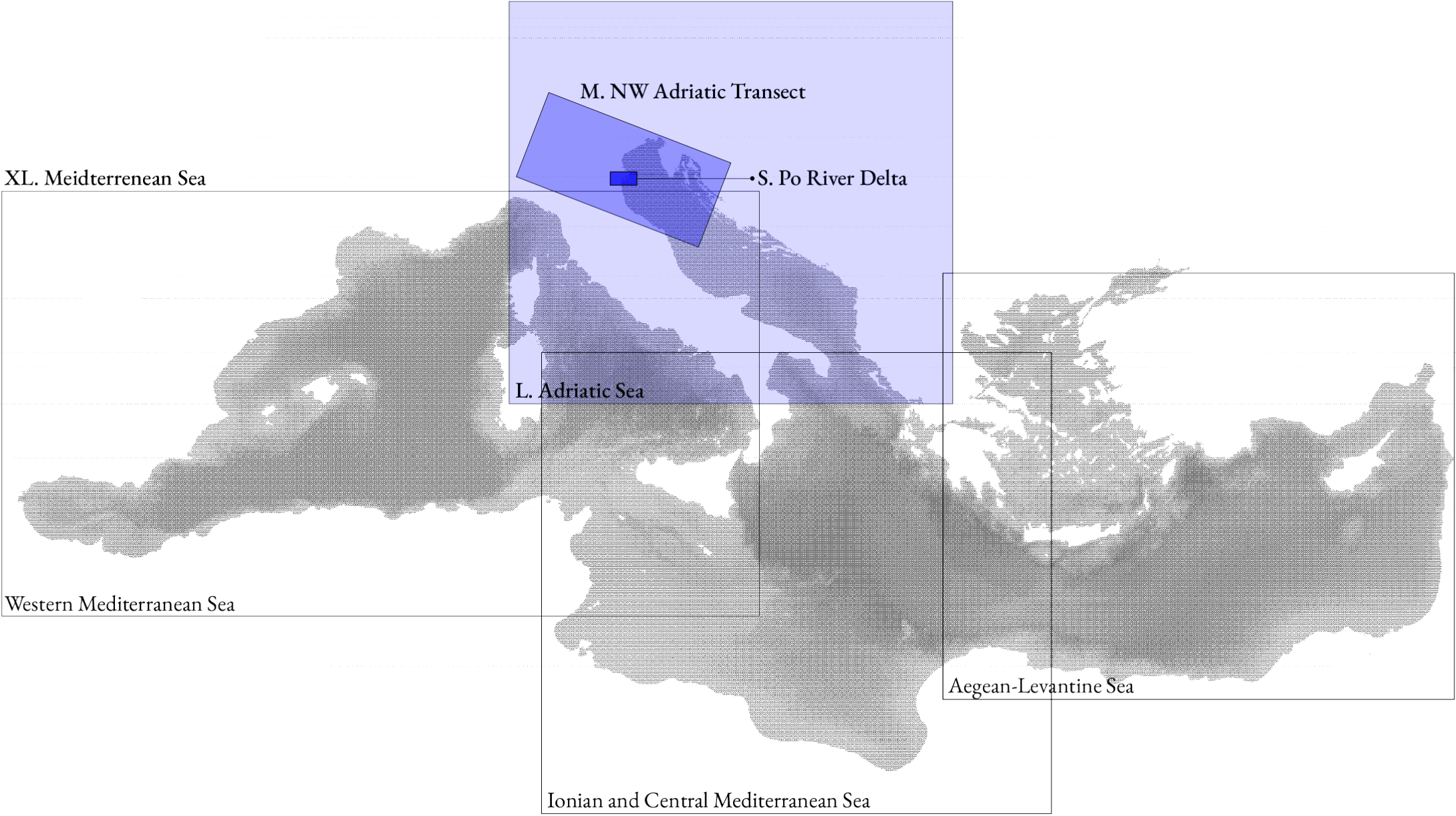
HOW CAN ECO-REGIONS RECOGNITION AS BIO-POLITICAL SUBJECT
INFORM DESIGN AGENCY TO FOSTER TRANSFORMATIVE PLANNING
FRAMEWORKS FOR A TROPICALISING MEDITERRANEAN?

HOW CAN **ECO-REGIONS** RECOGNITION AS BIO-POLITICAL SUBJECT
INFORM DESIGN AGENCY TO FOSTER TRANSFORMATIVE PLANNING
FRAMEWORKS FOR A TROPICALISING MEDITERRANEAN?

ENTITIES

LABORATORY

DISPOSITIF



1. ENTITY / THE BASTARDS

CRITICAL MAPPING

TAXONOMY

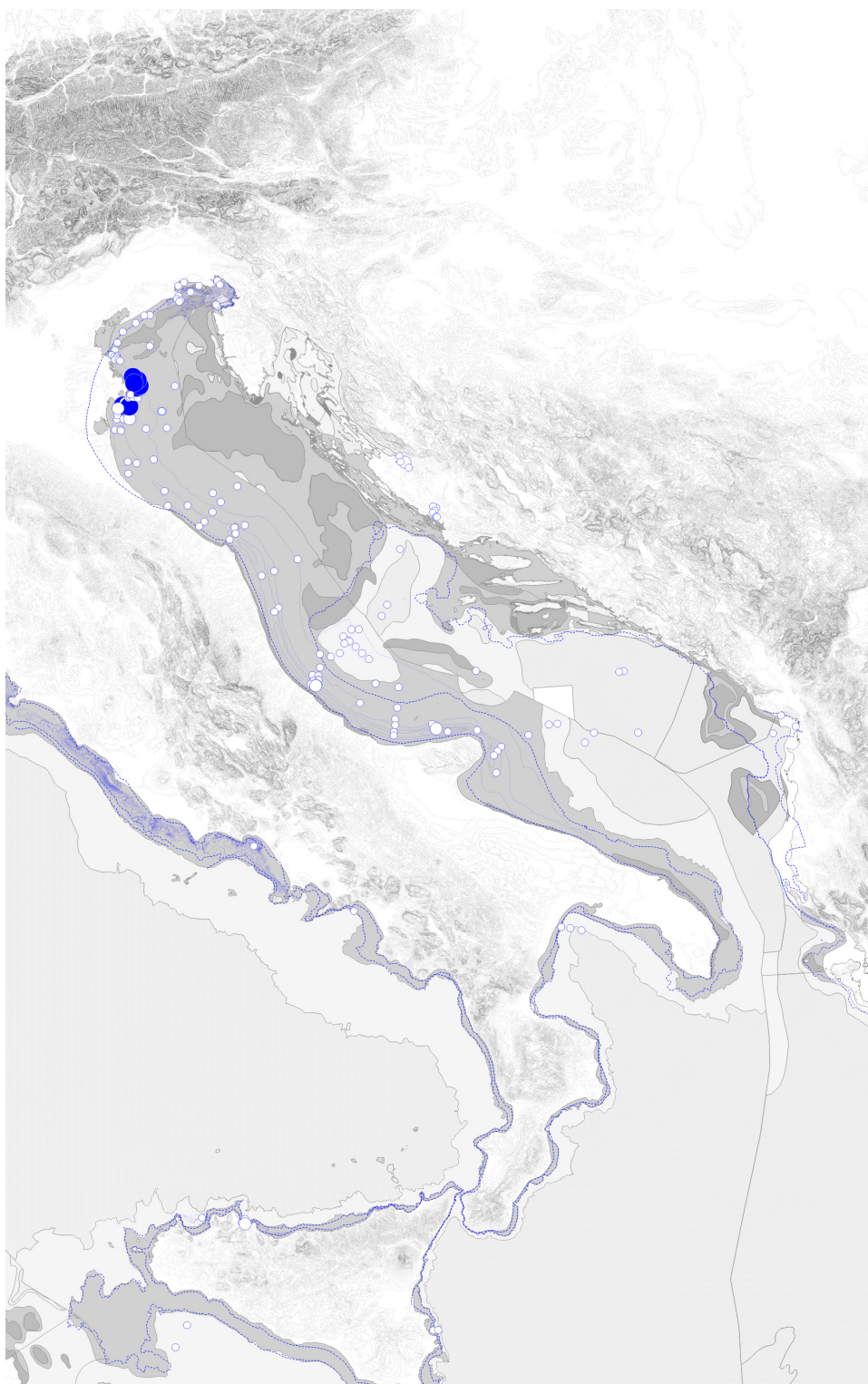
RISK ANALYSIS



ENTITY

LABORATORY

DISPOSITIF

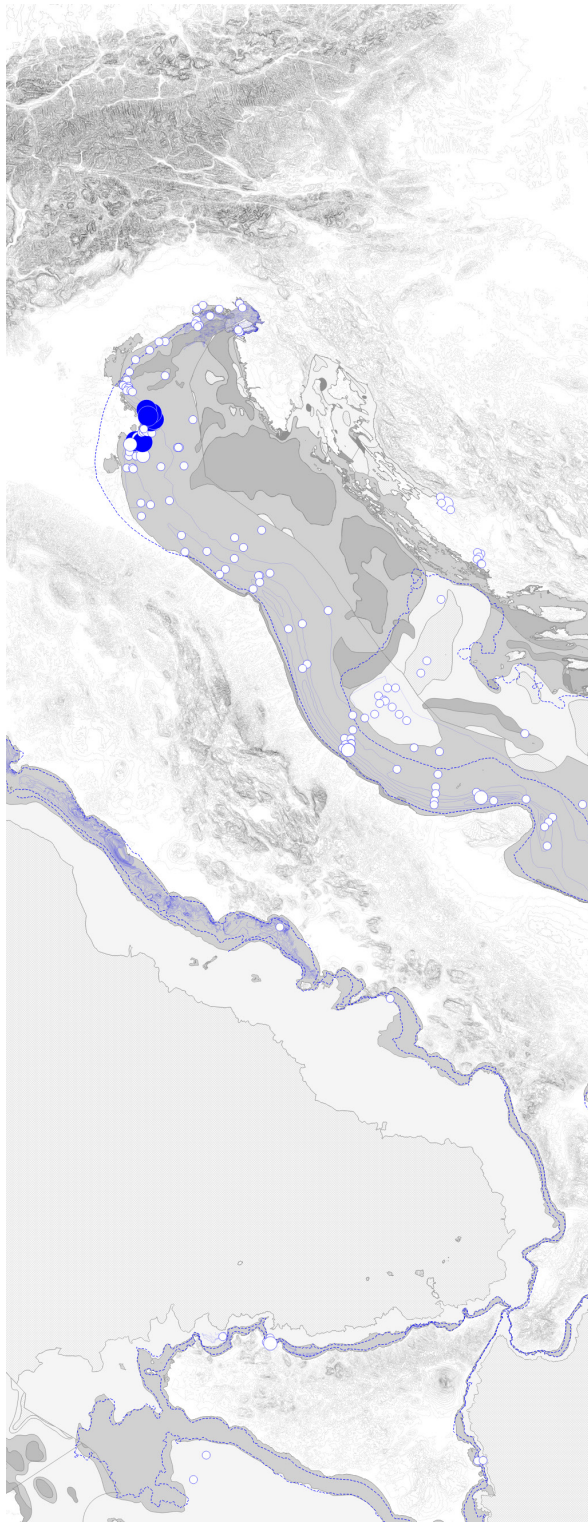


THE BASTARDS

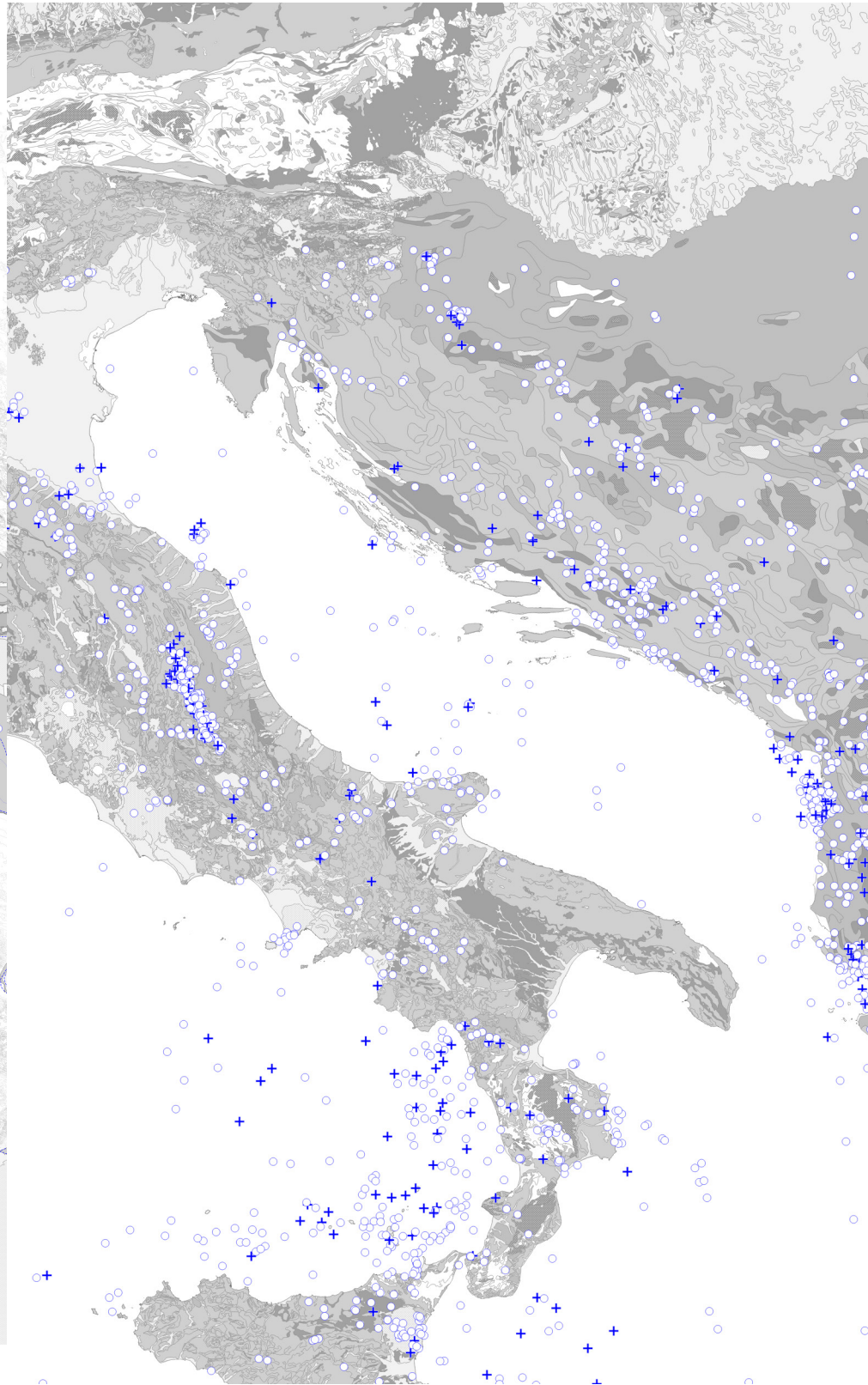
ENTITY

LABORATORY

DISPOSITIF



ENTITY

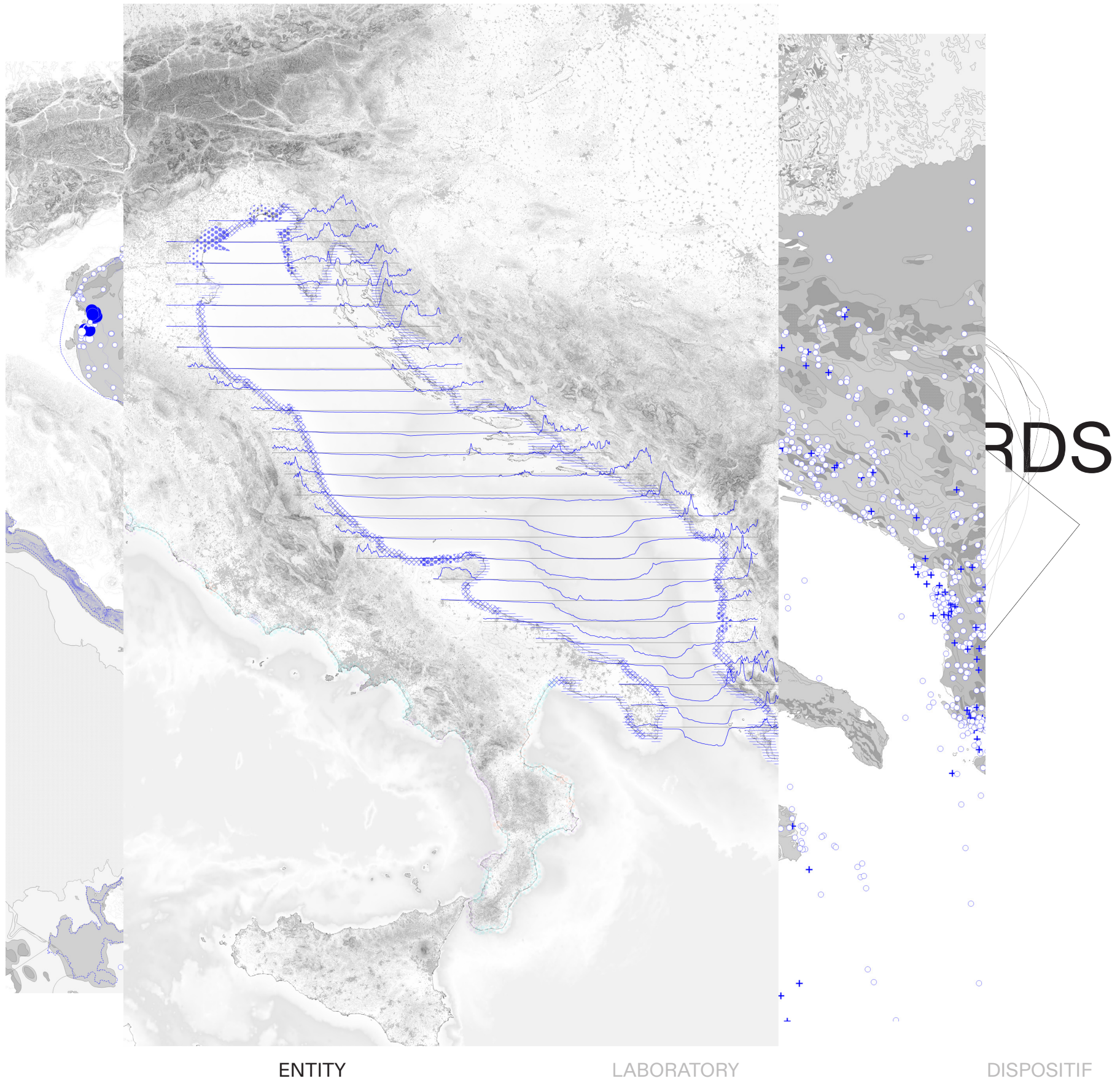


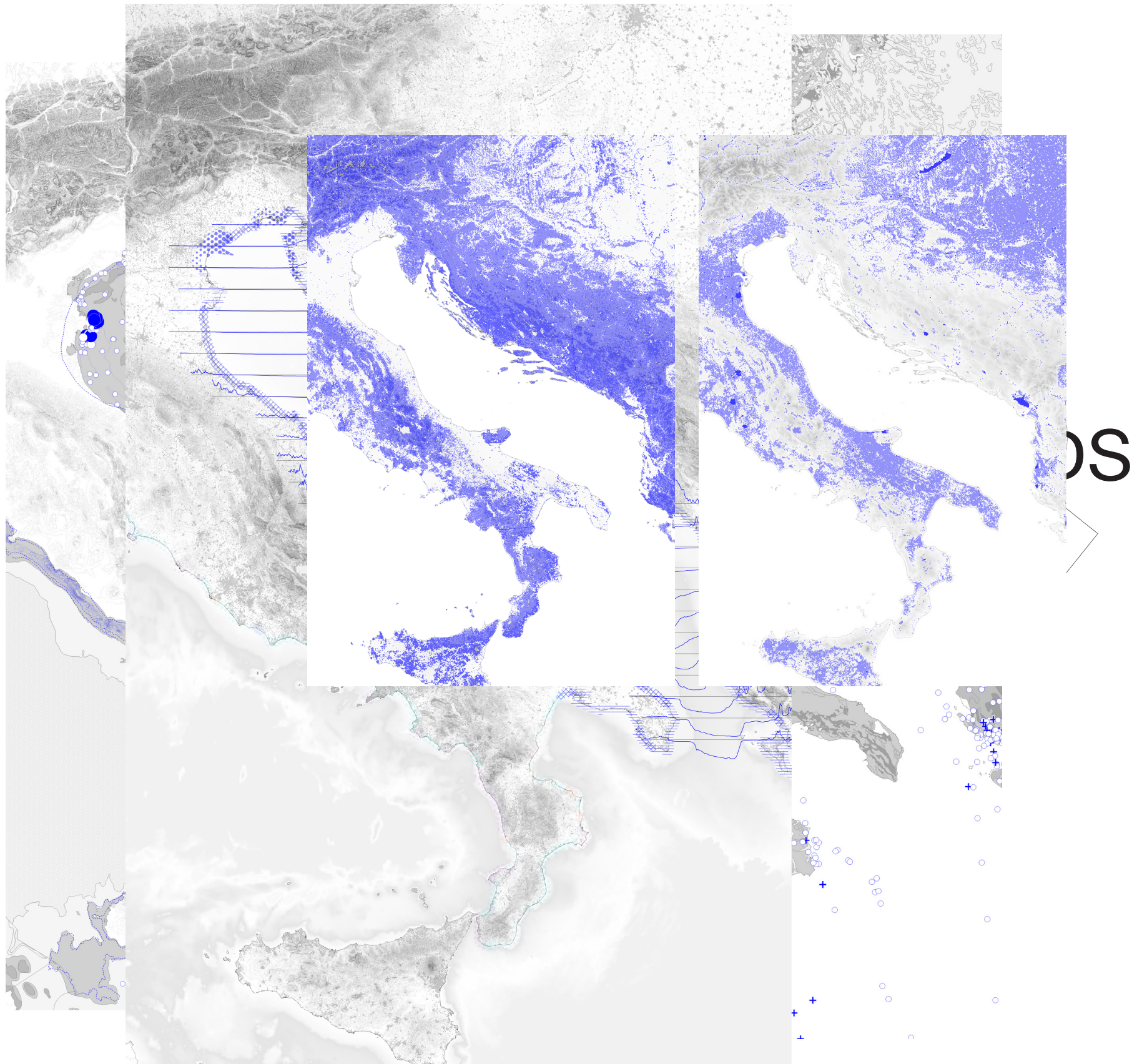
LABORATORY



DISPOSITIF

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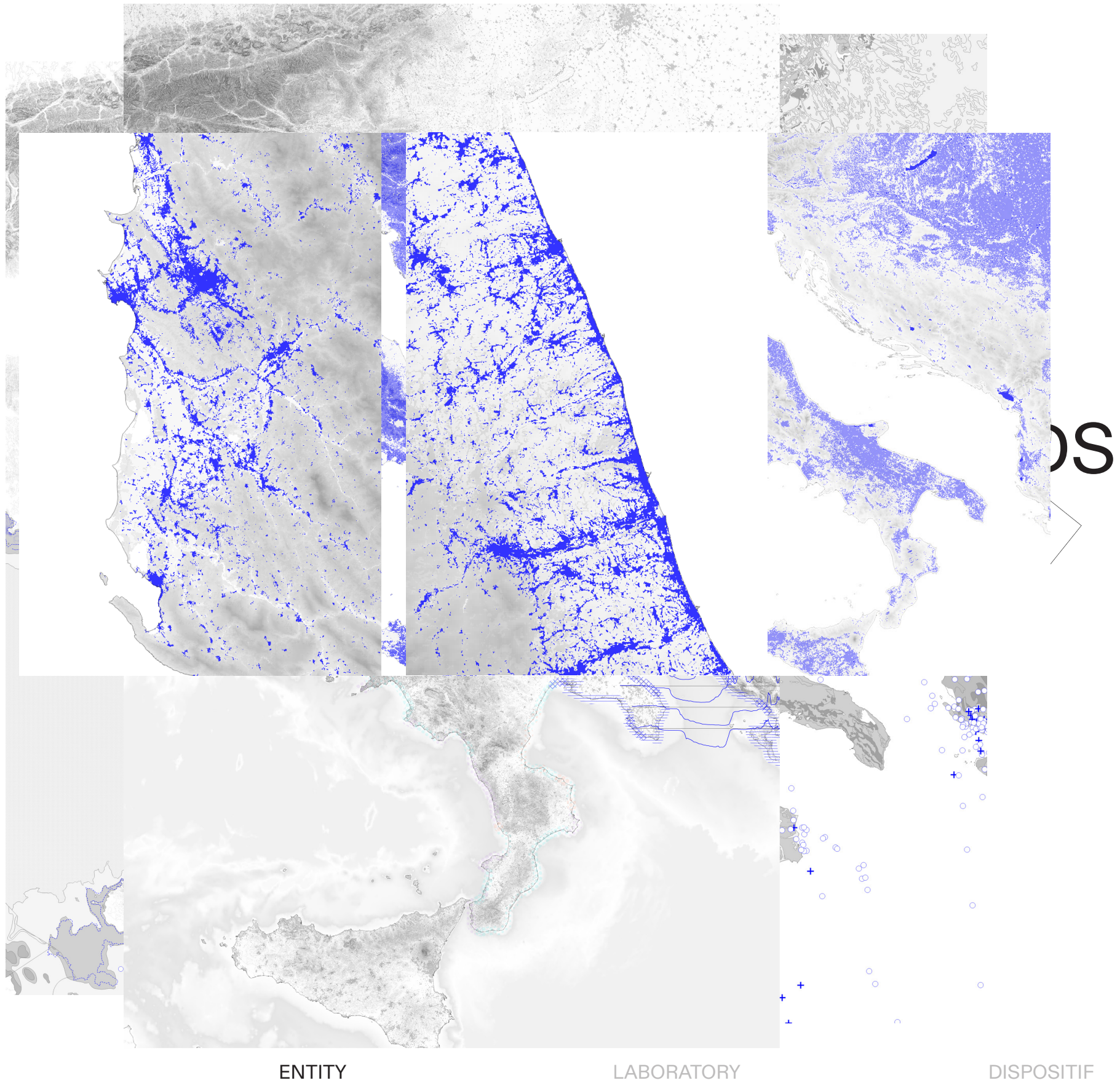


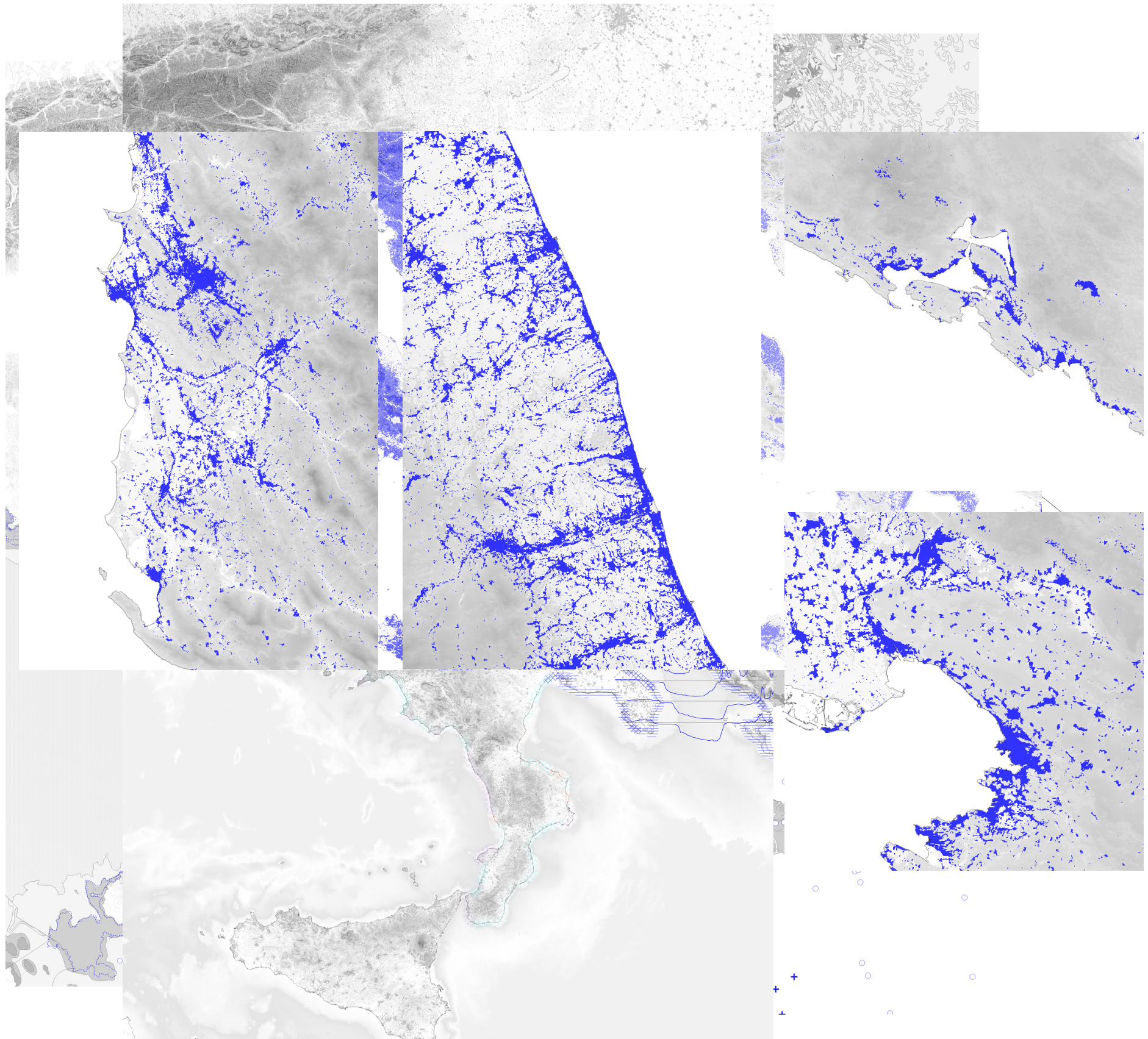


ENTITY

LABORATORY

DISPOSITIF

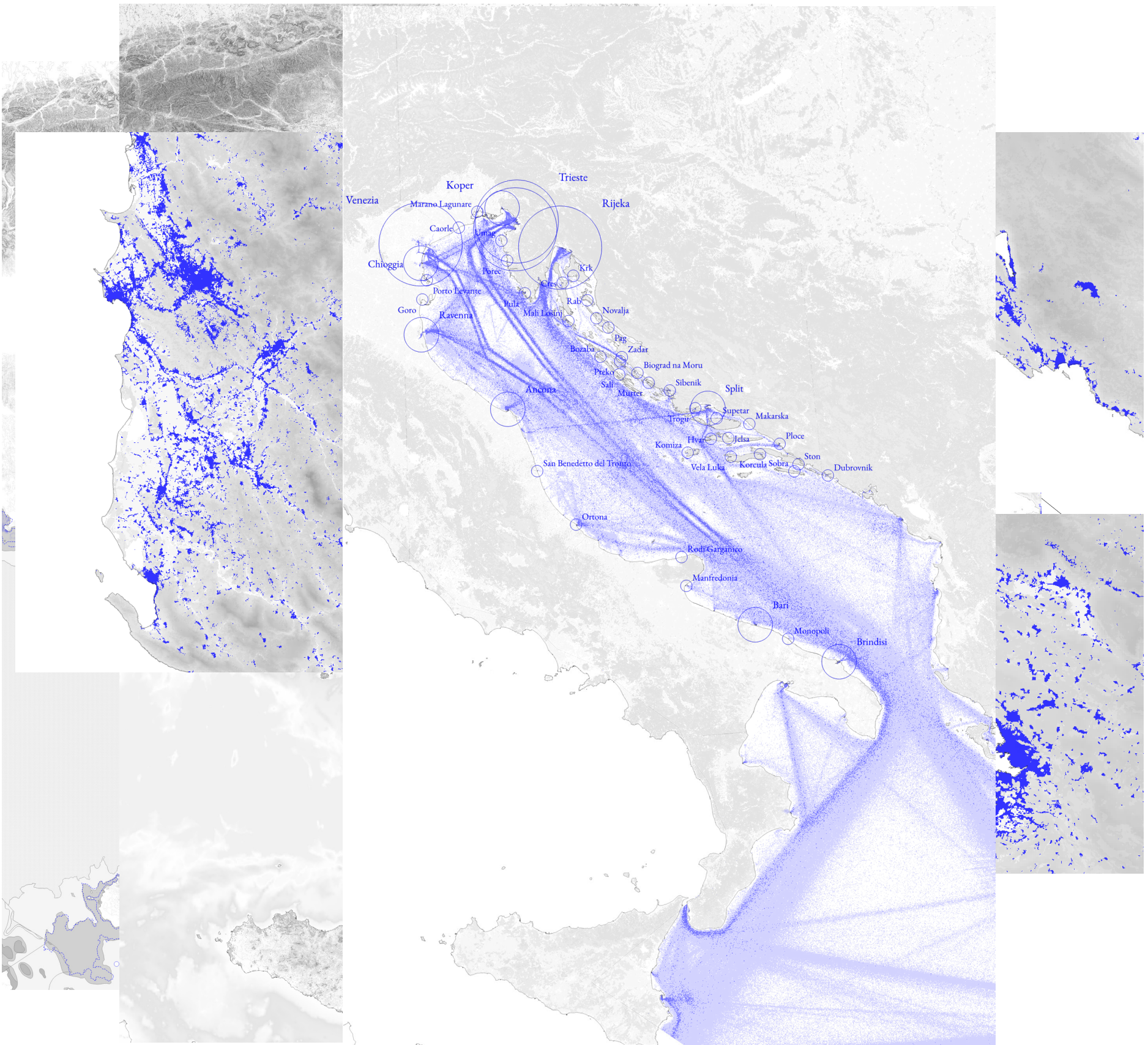




ENTITY

LABORATORY

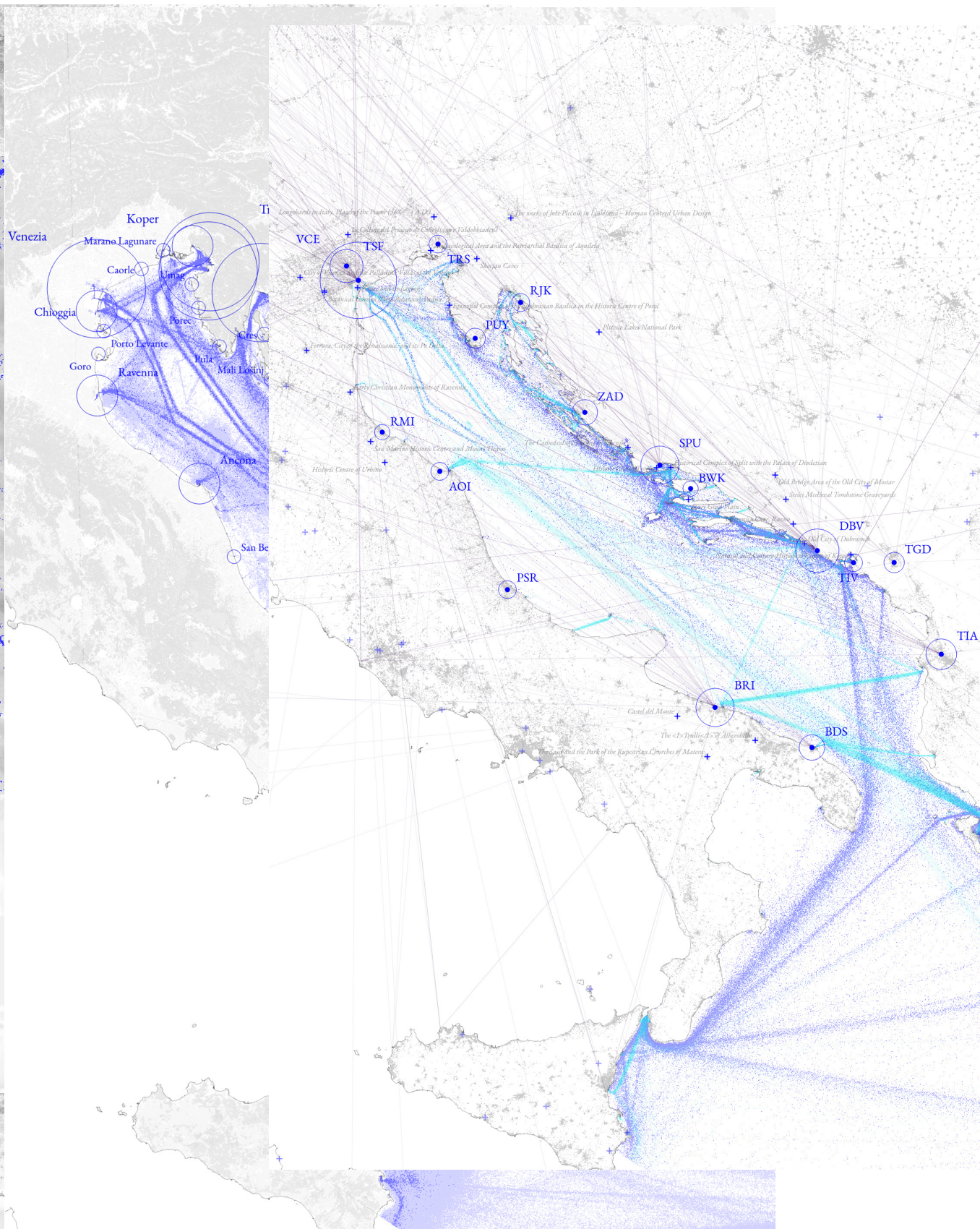
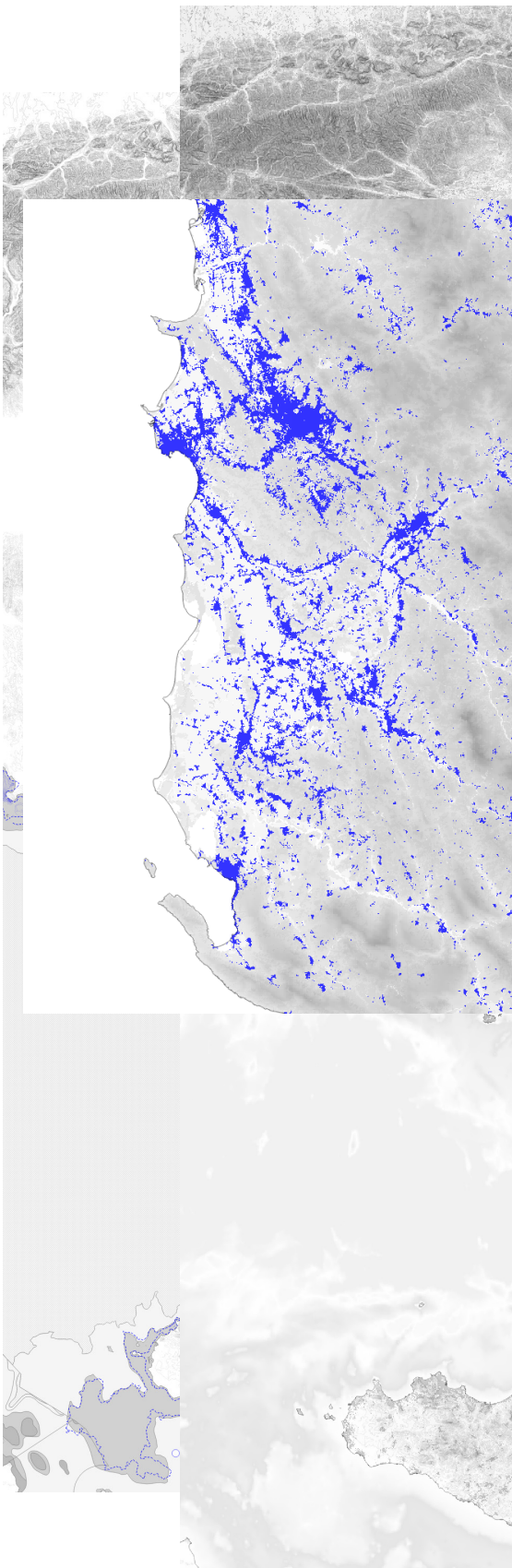
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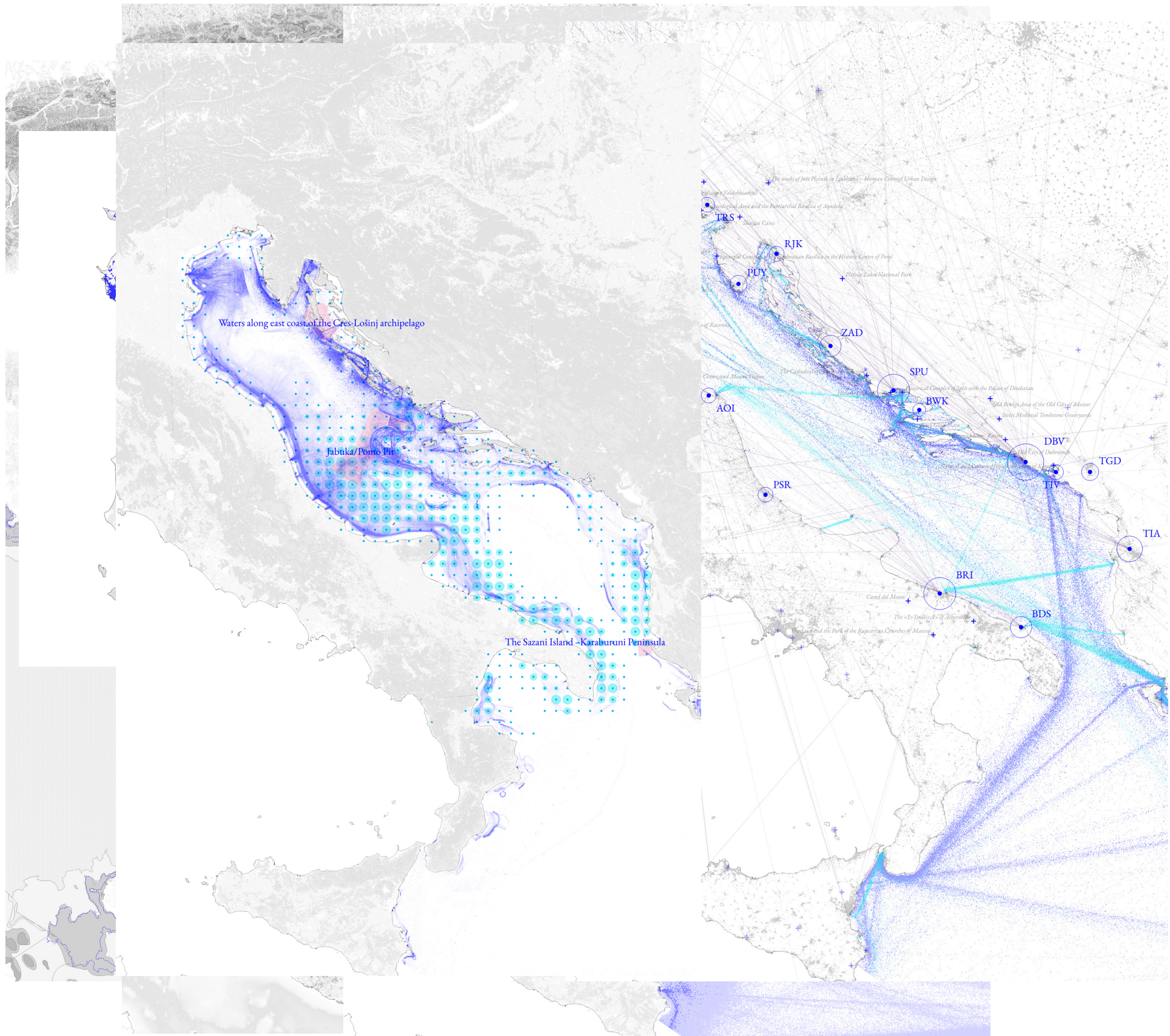


ENTITY

LABORATORY

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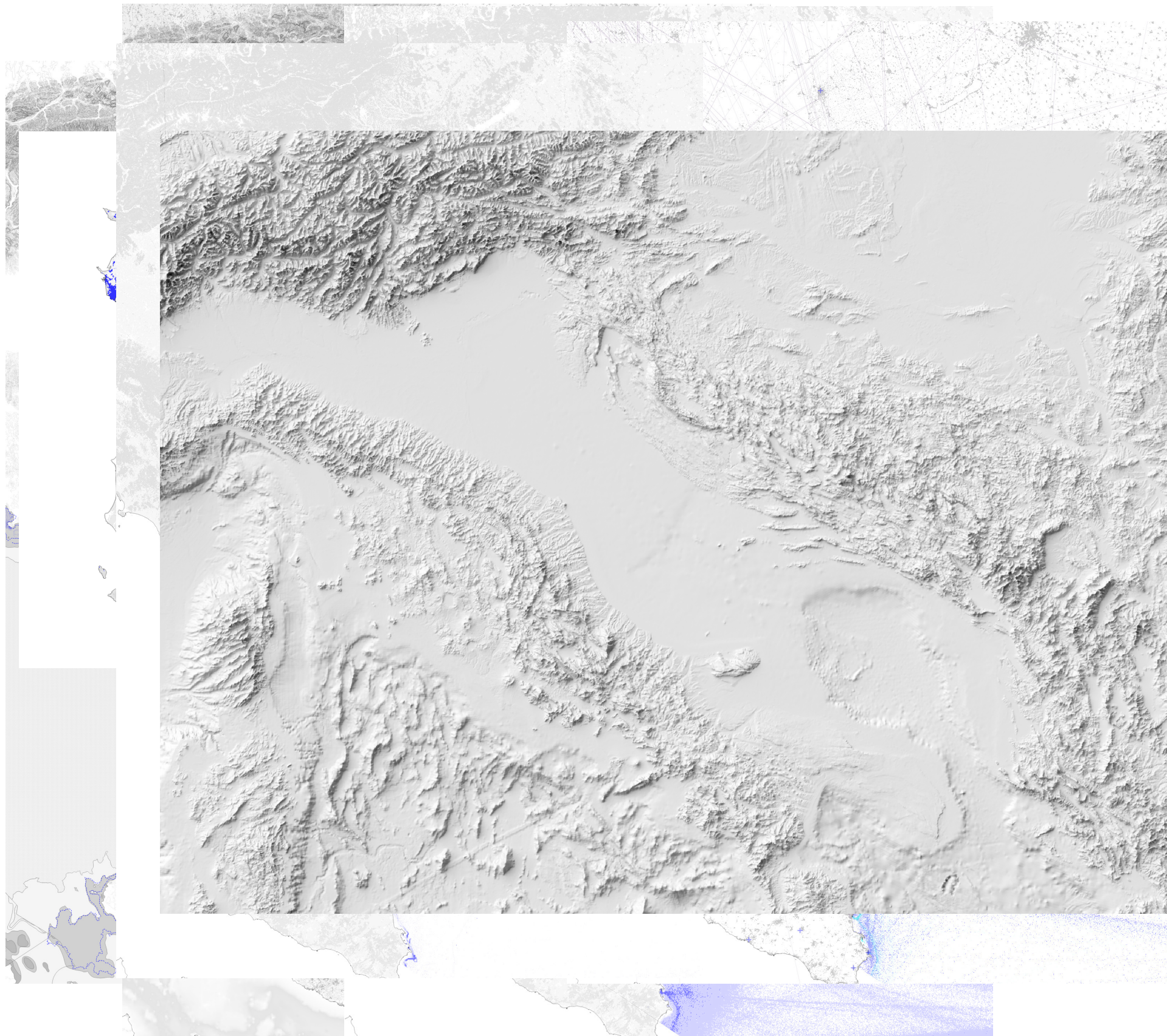




ENTITY

LABORATORY

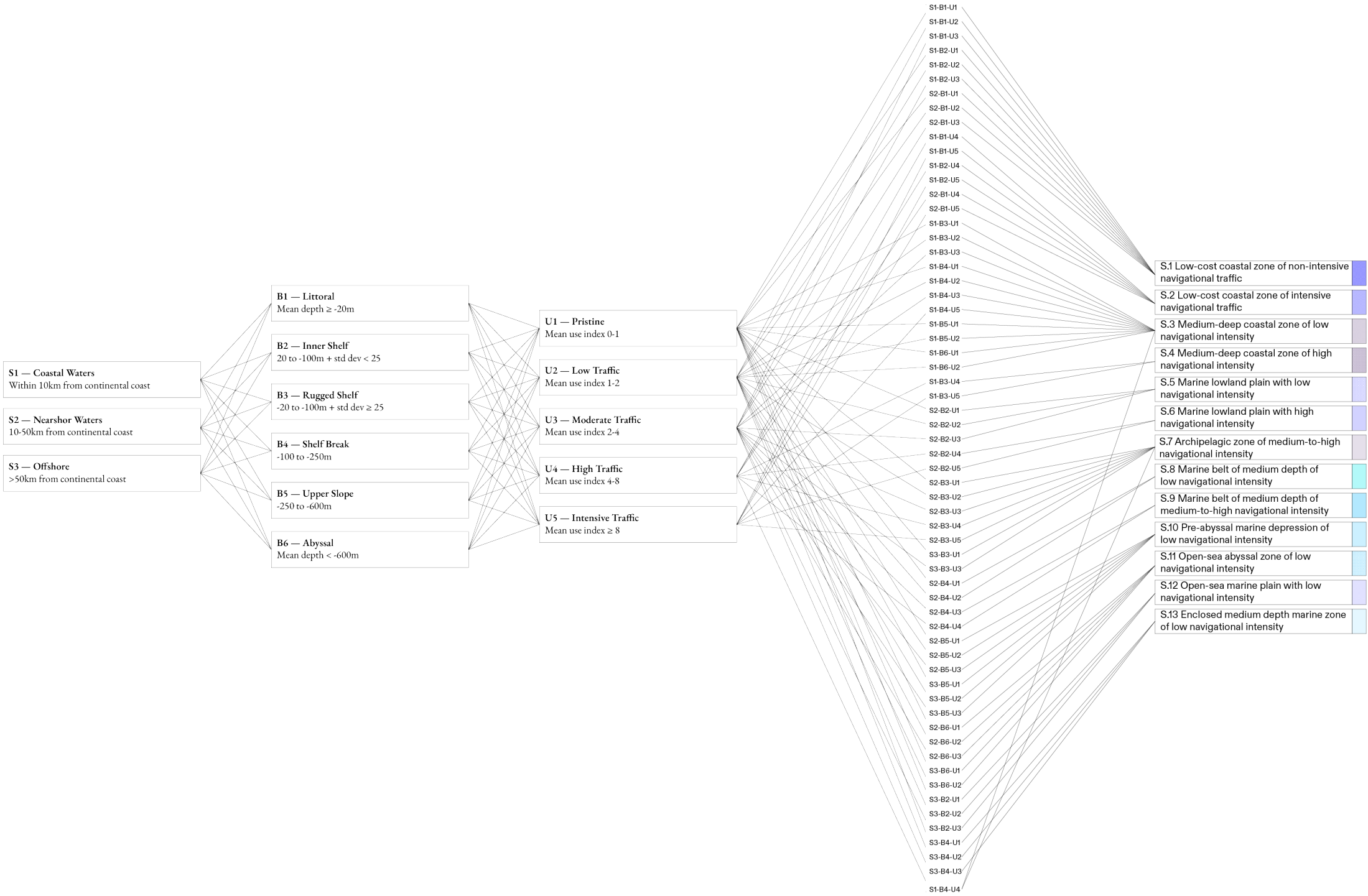
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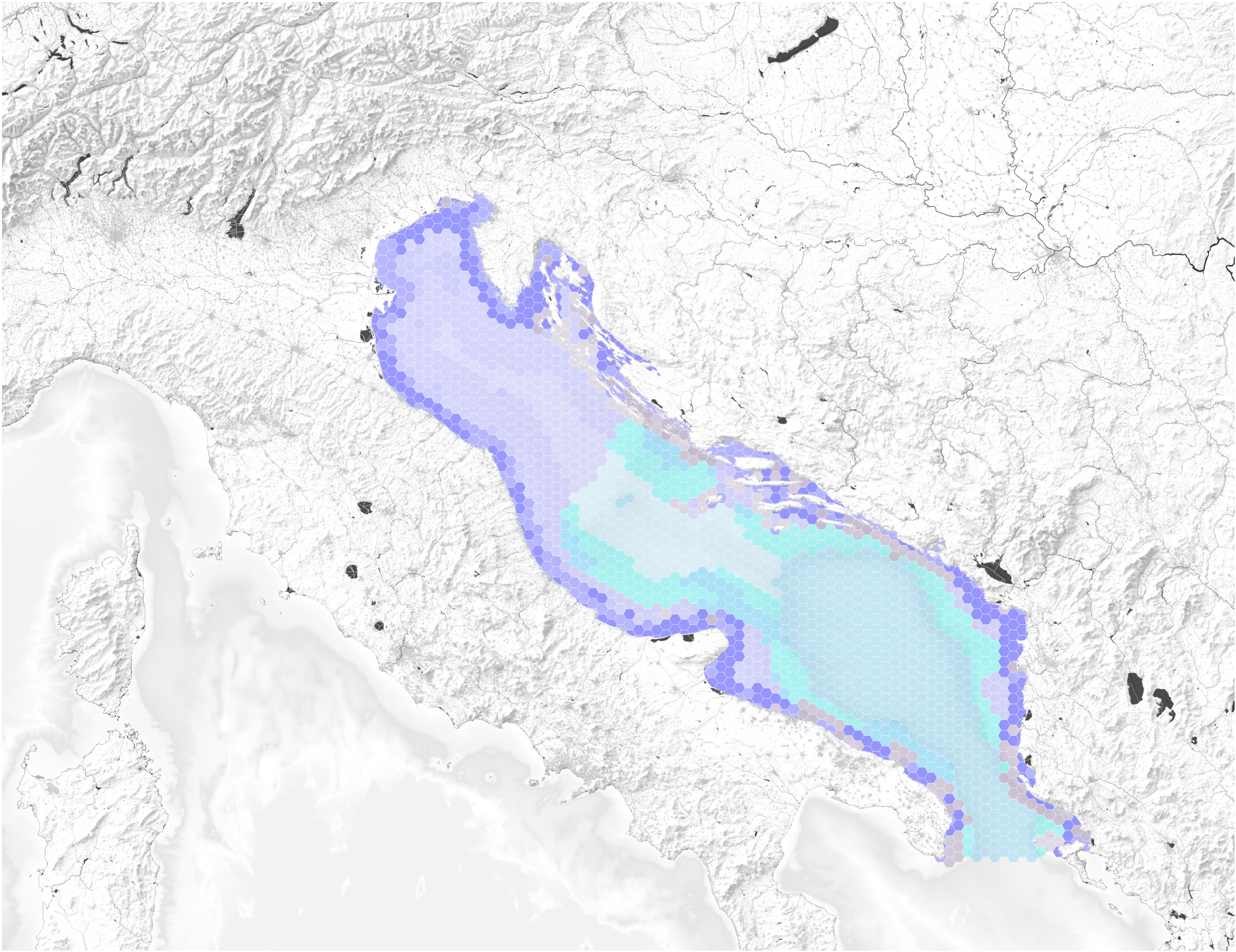


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LABORATORY

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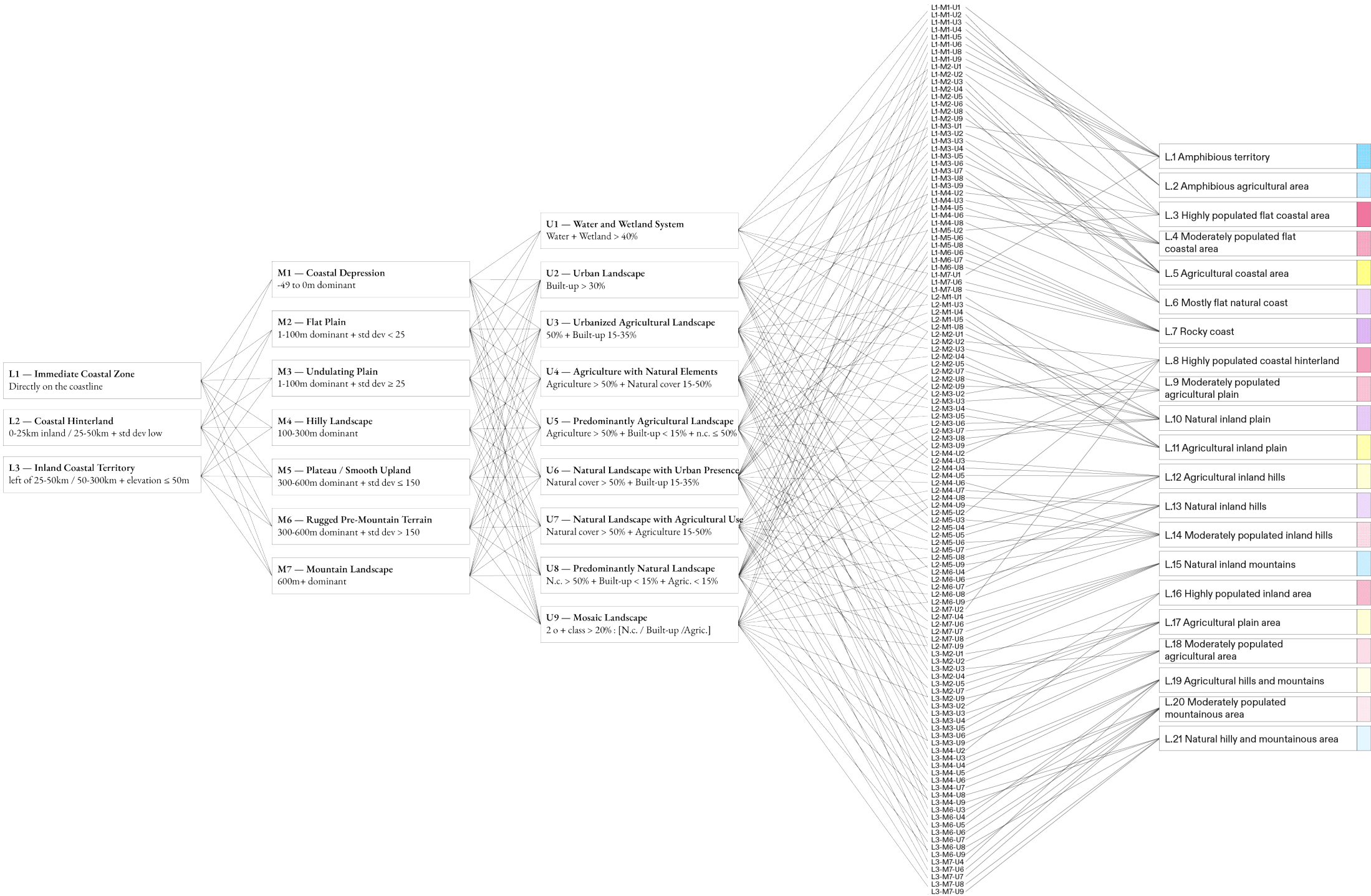


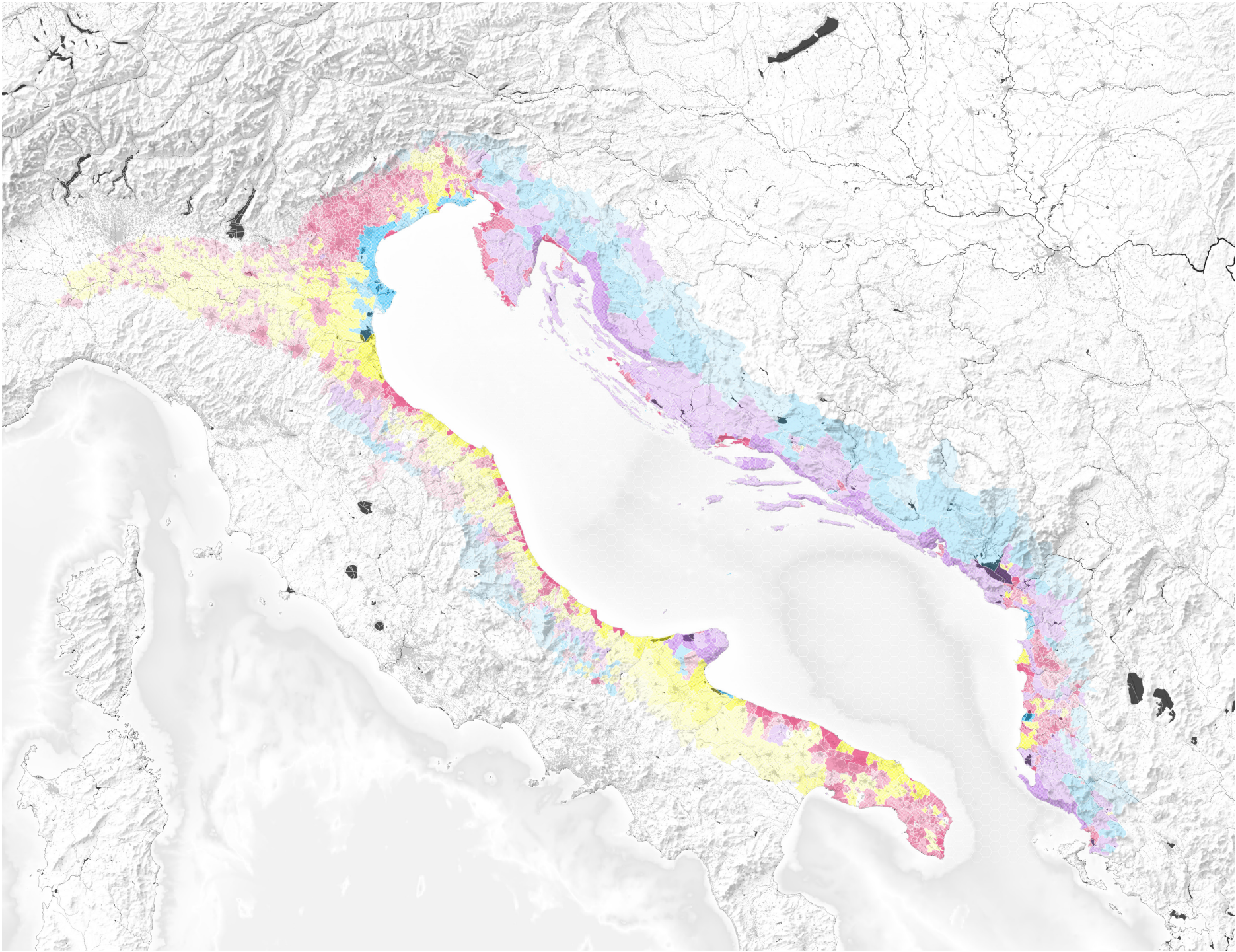


ENTITY

LABORATORY

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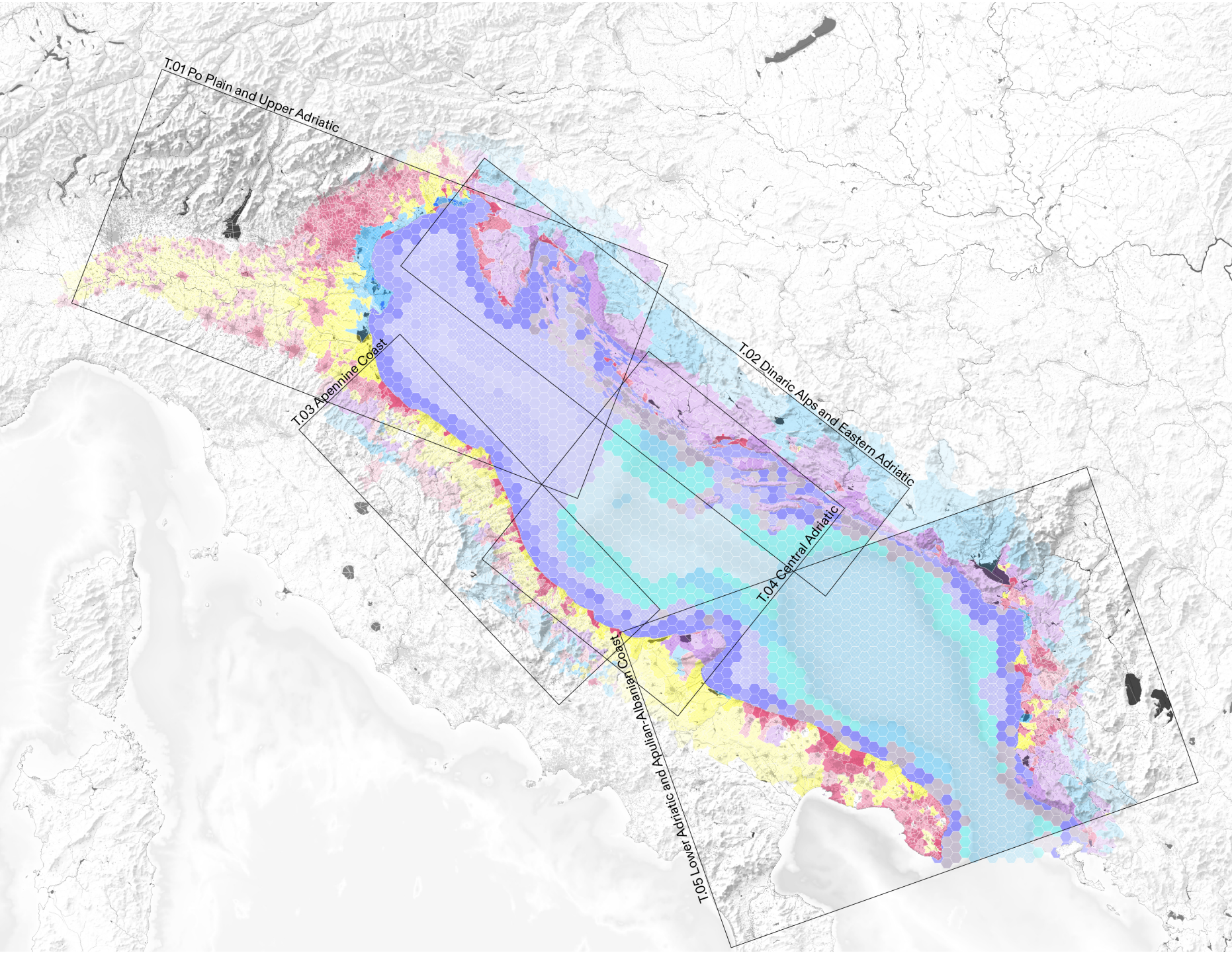




ENTITY

LABORATORY

DISPOSITIF

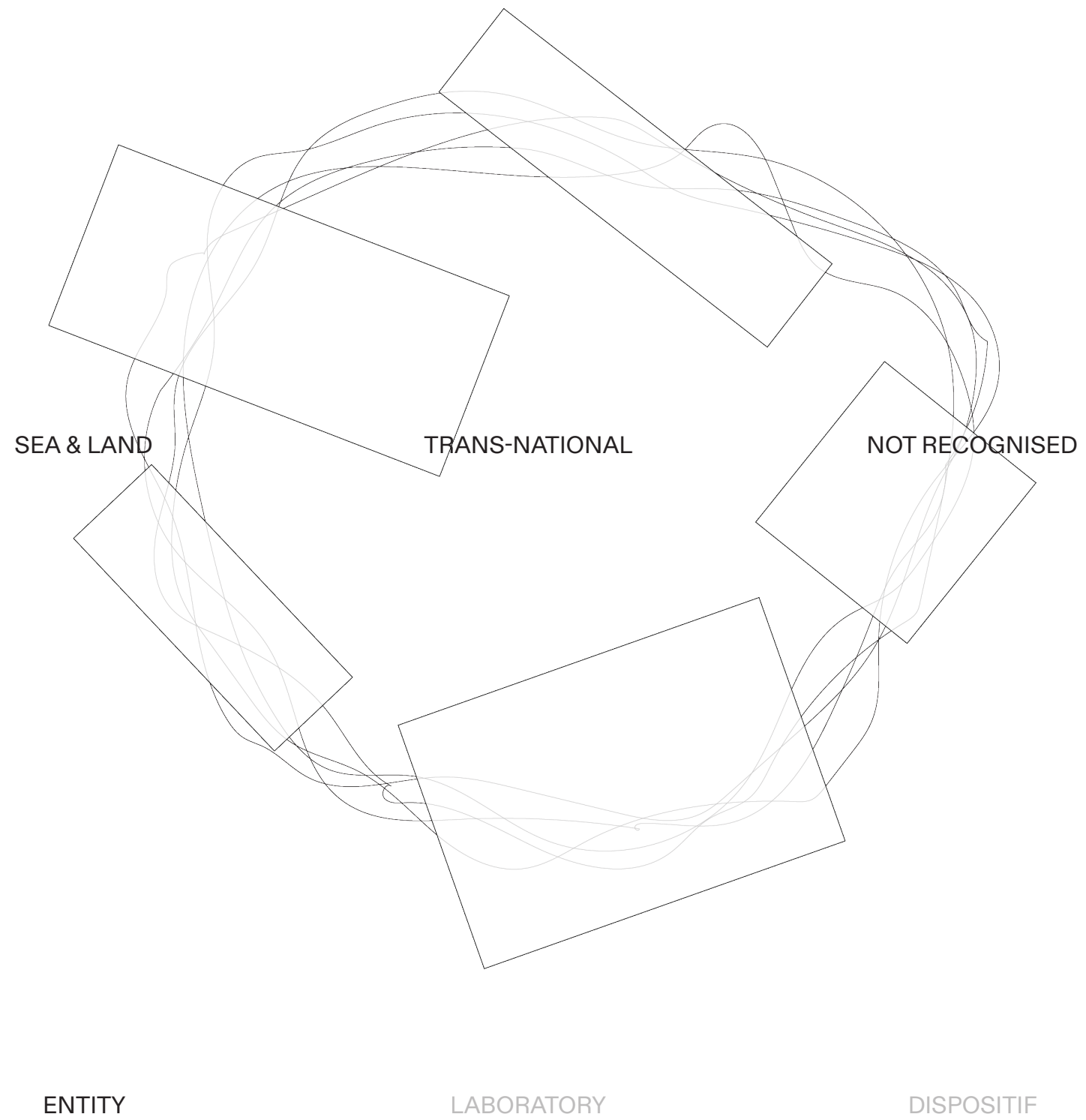


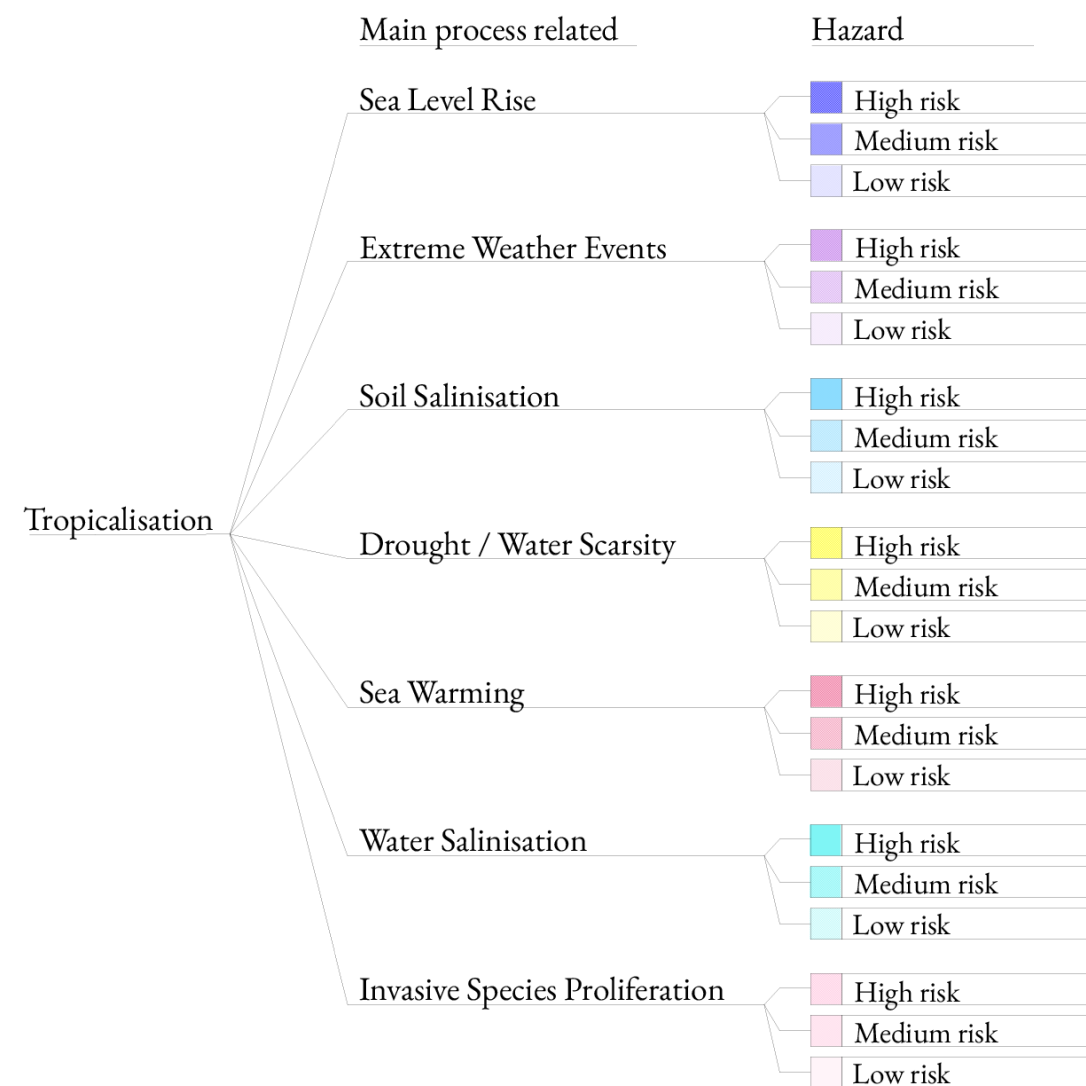
Transects/BASTARDS

ENTITY

LABORATORY

DISPOSITIF

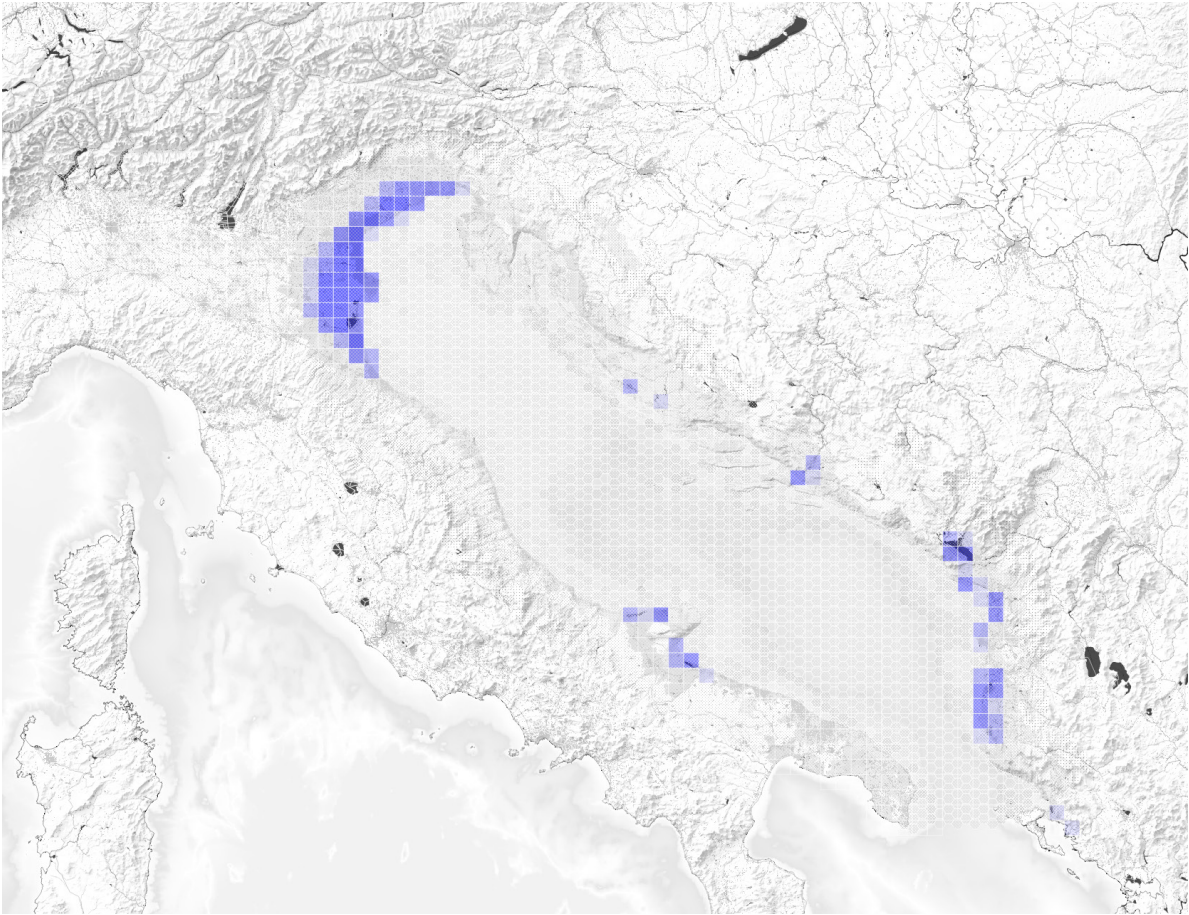
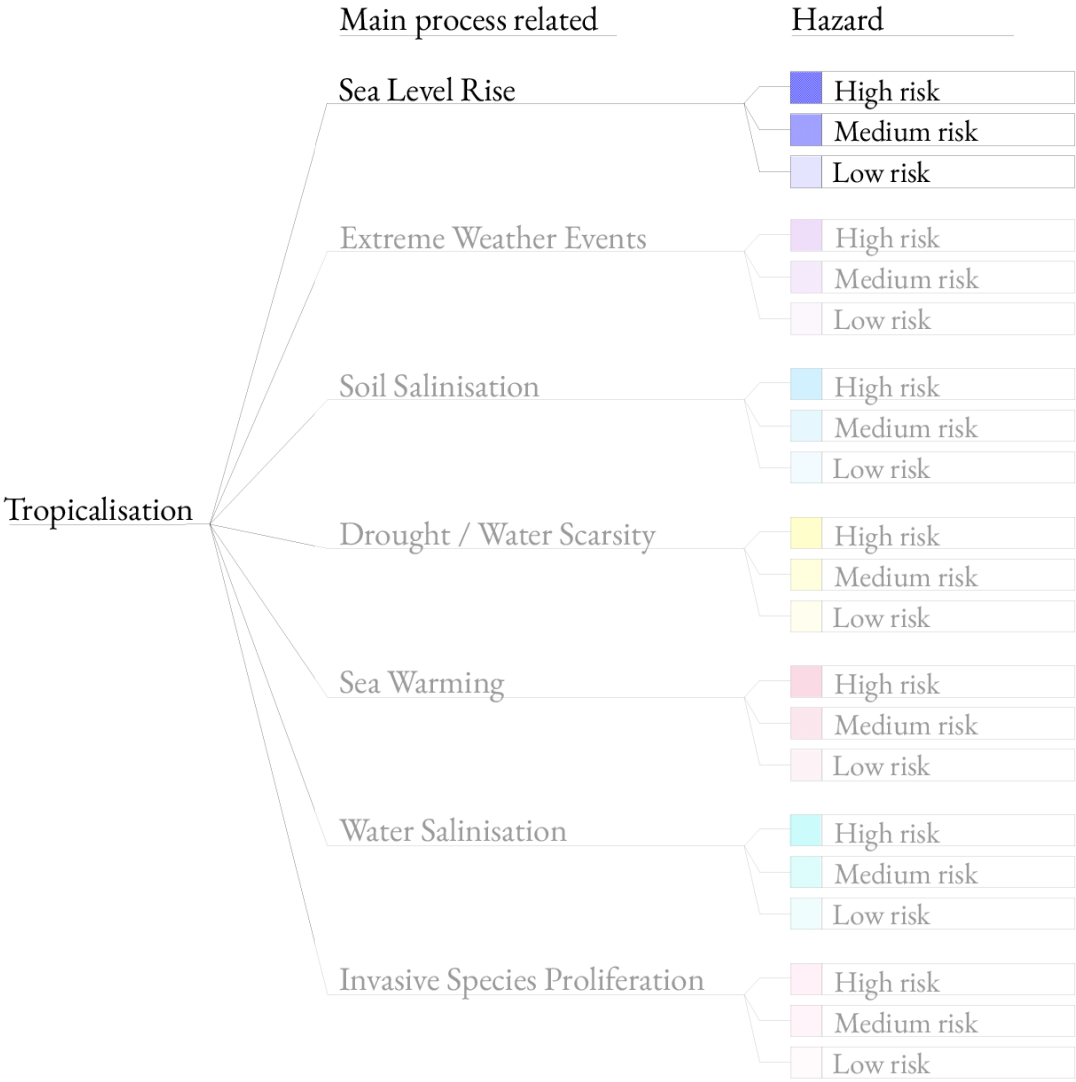




ENTITY

LABORATORY

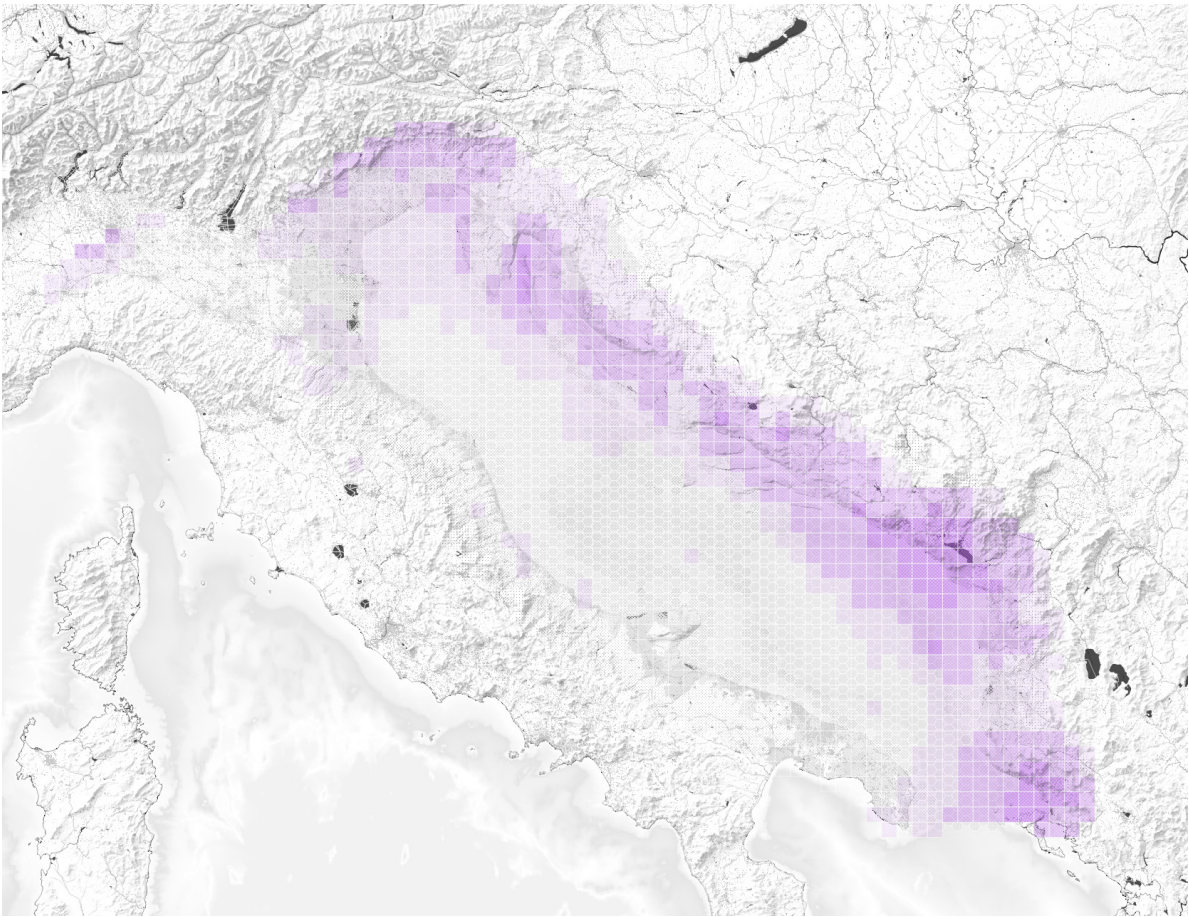
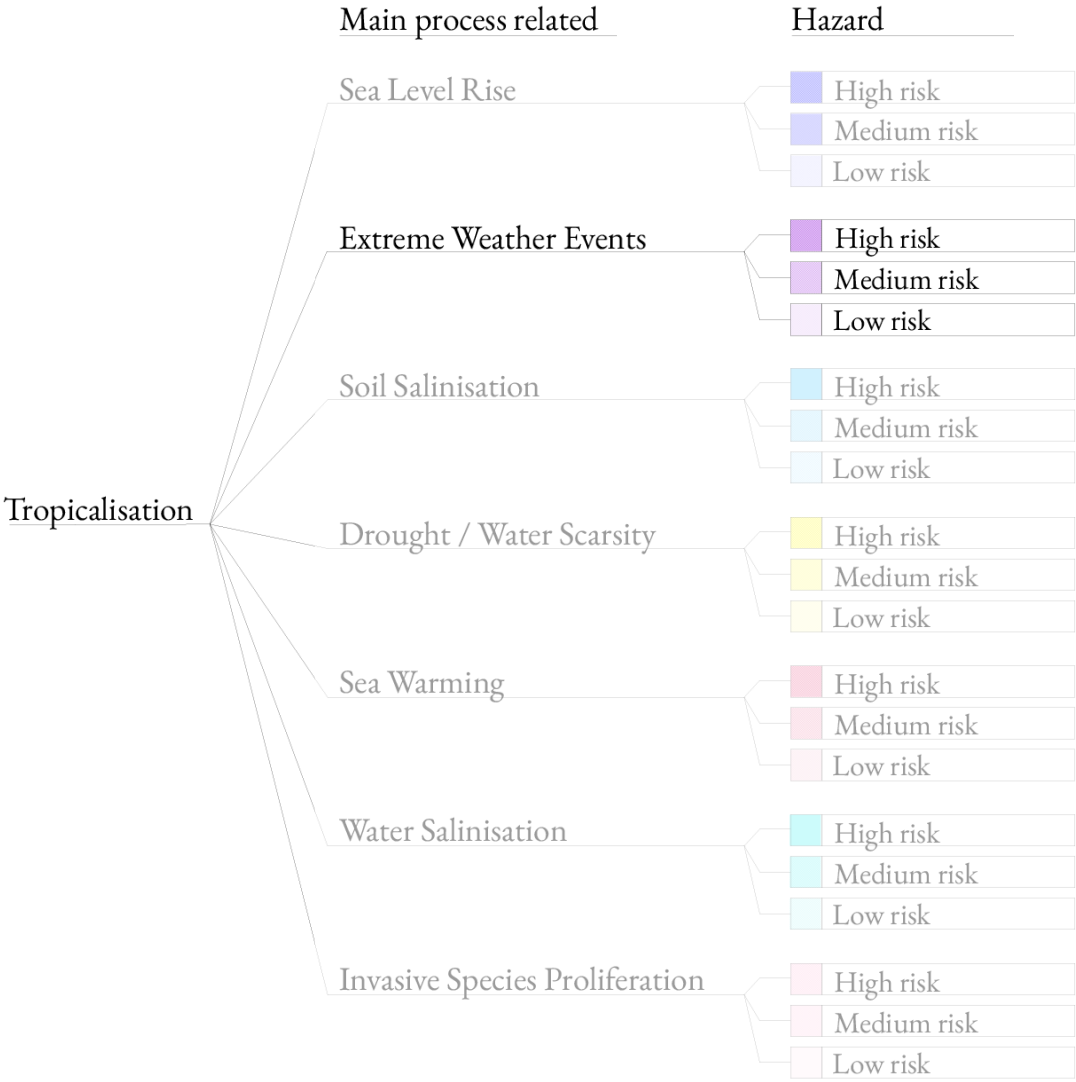
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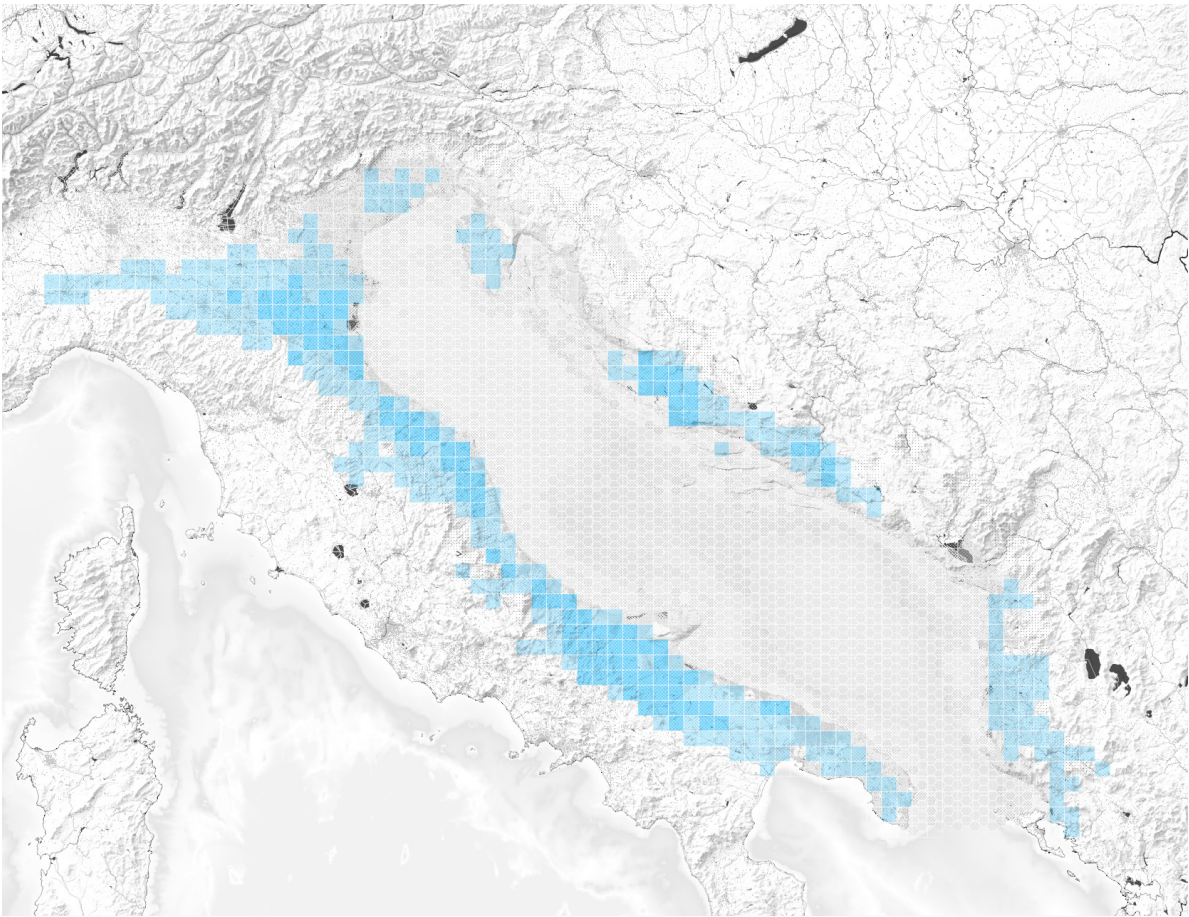
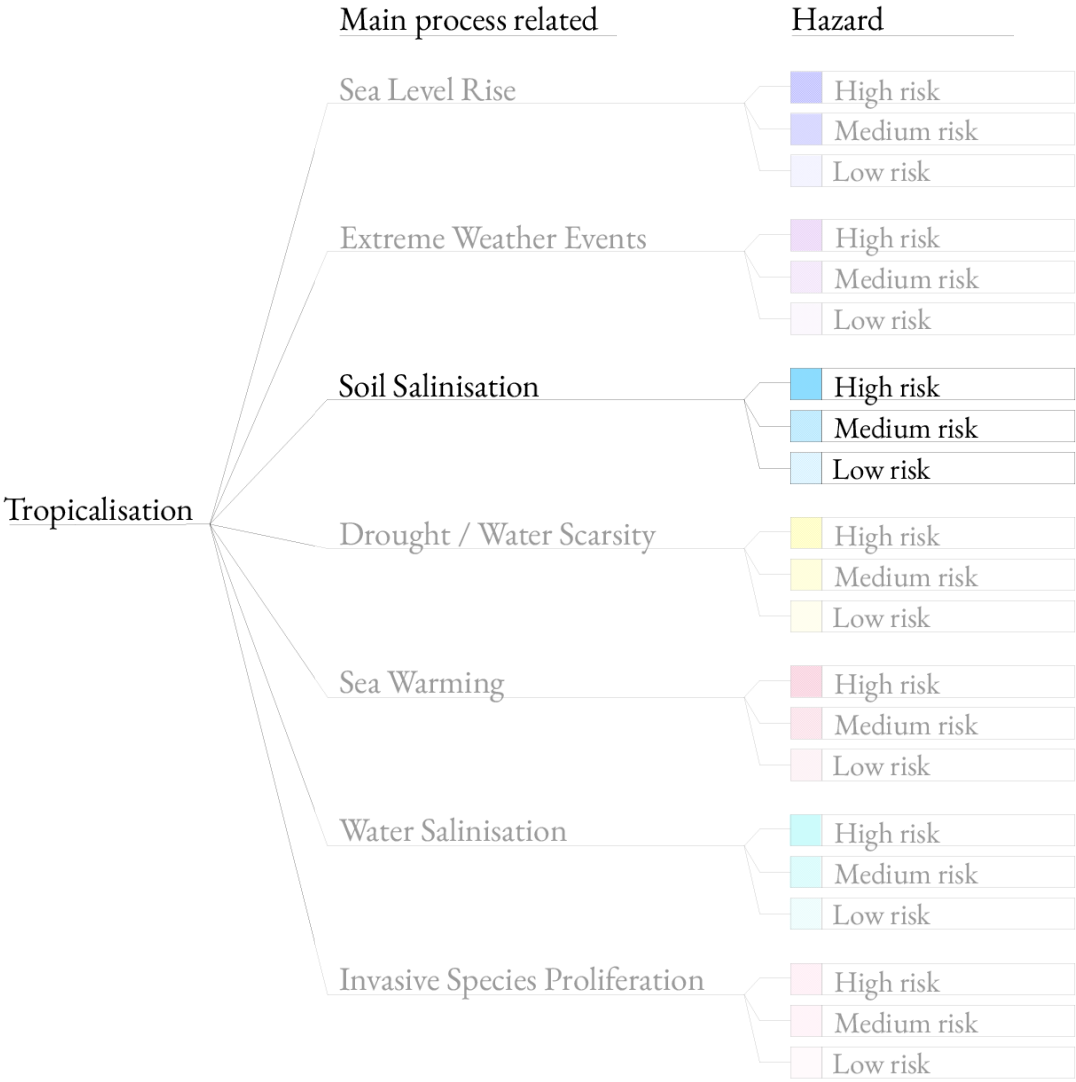


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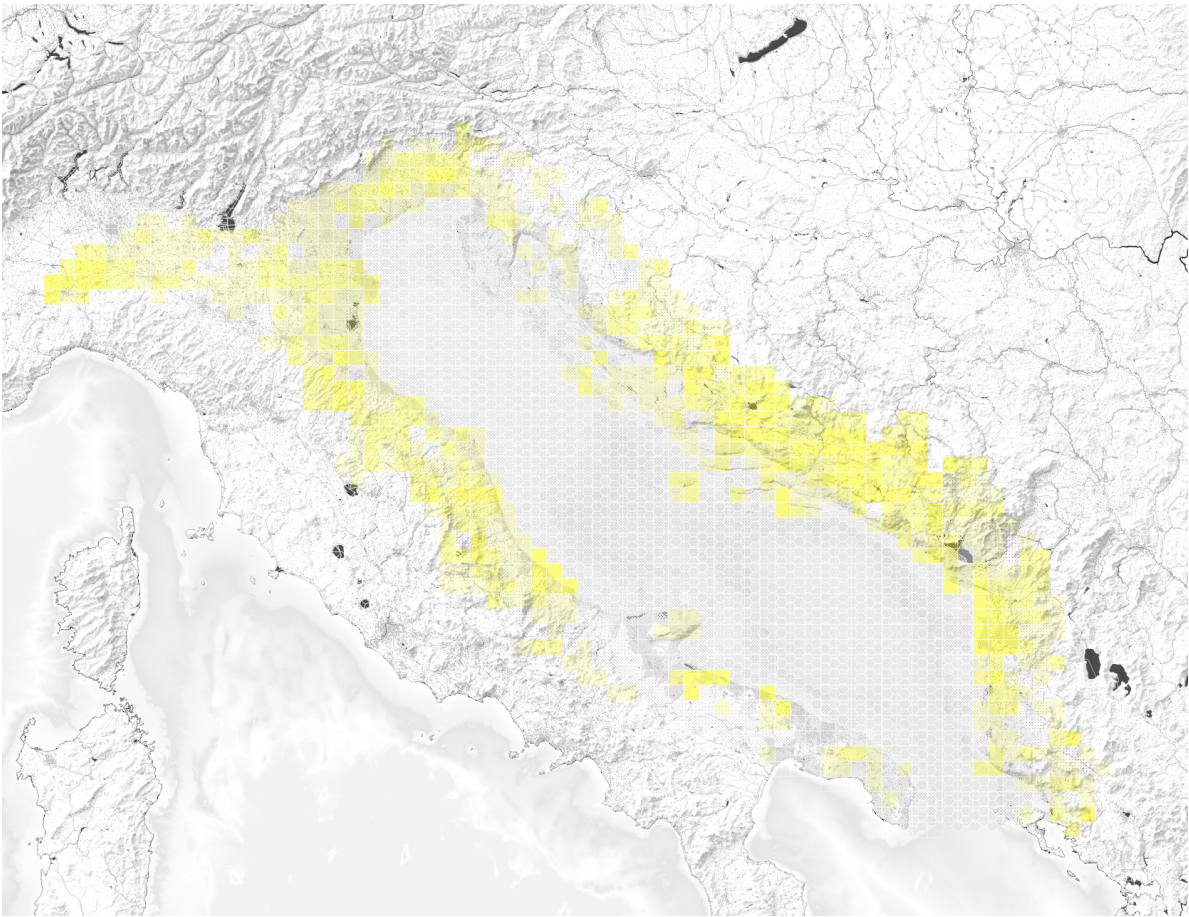
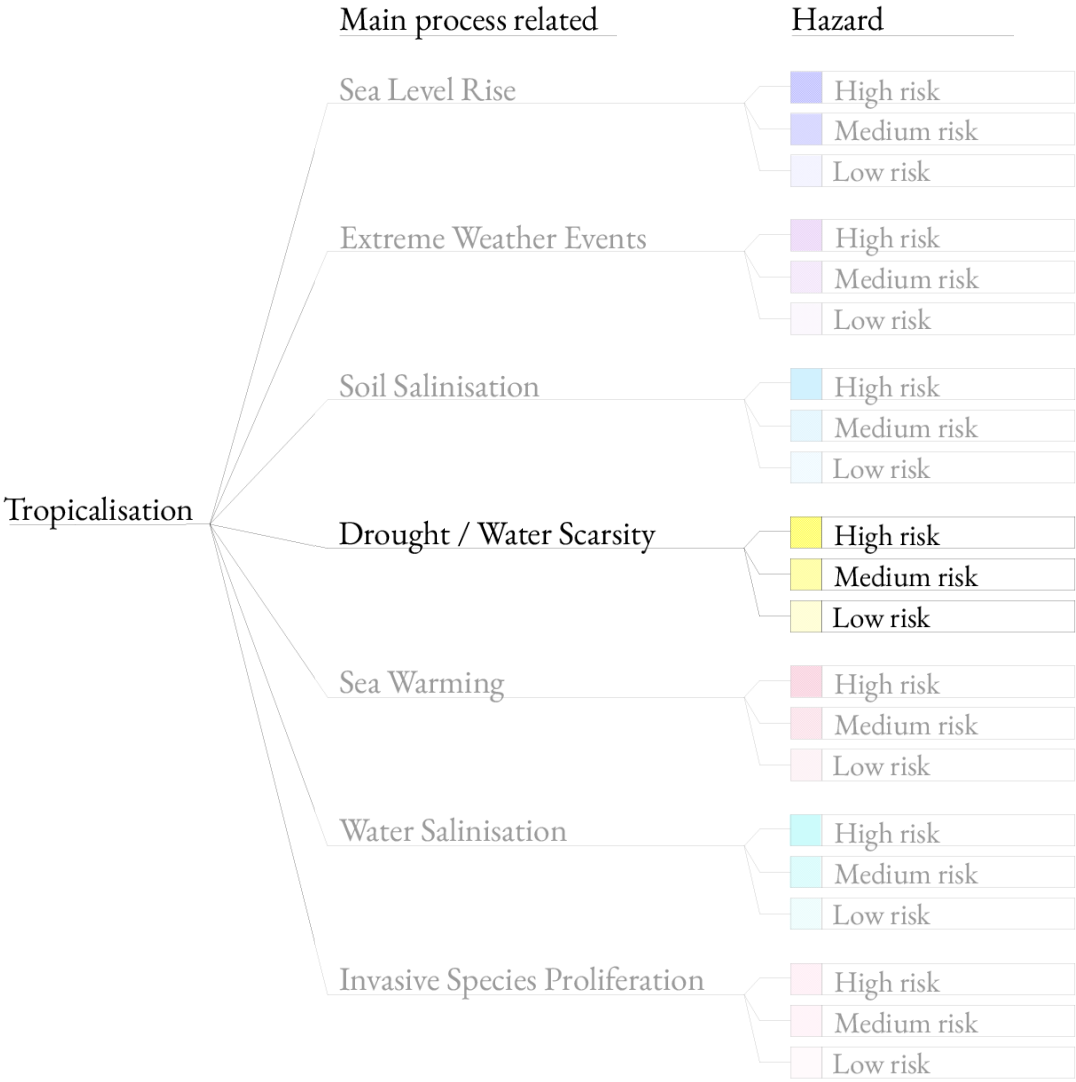


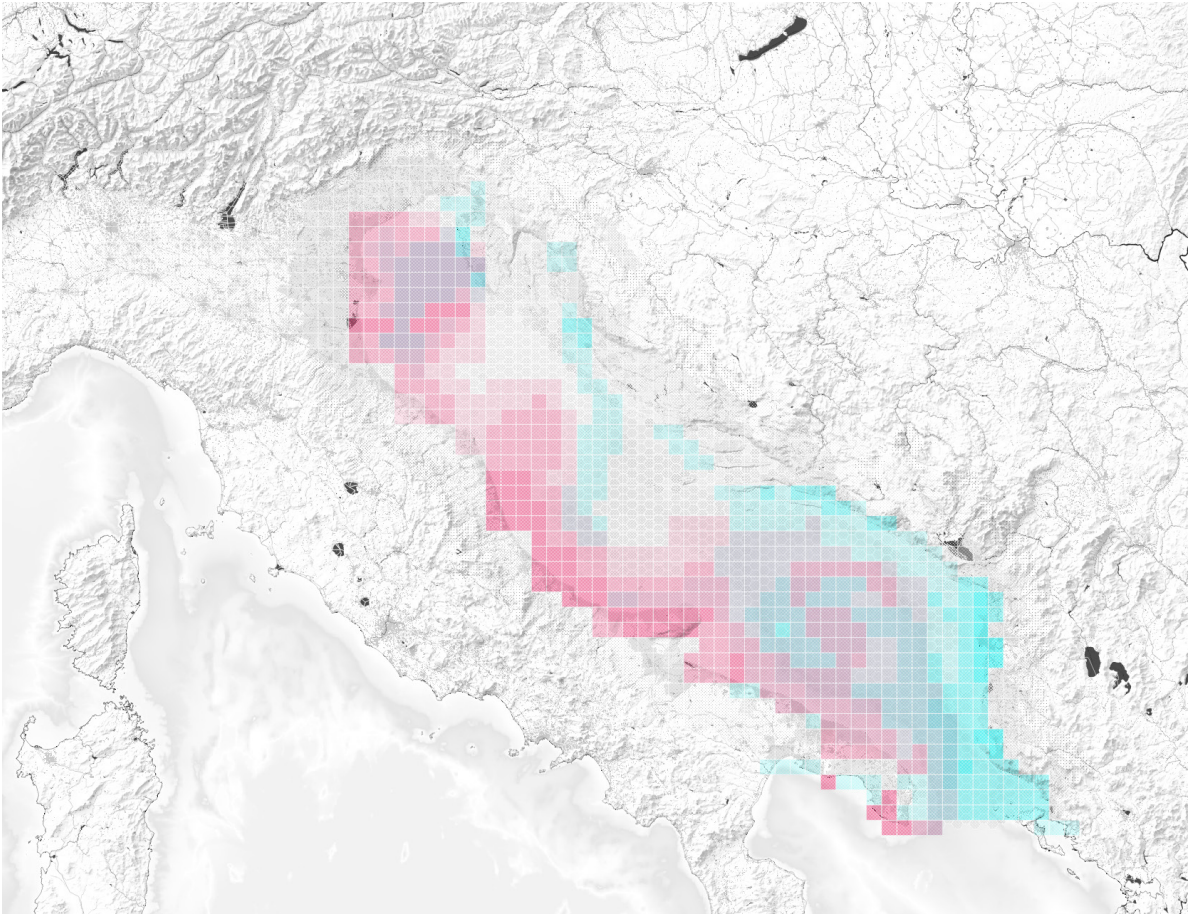
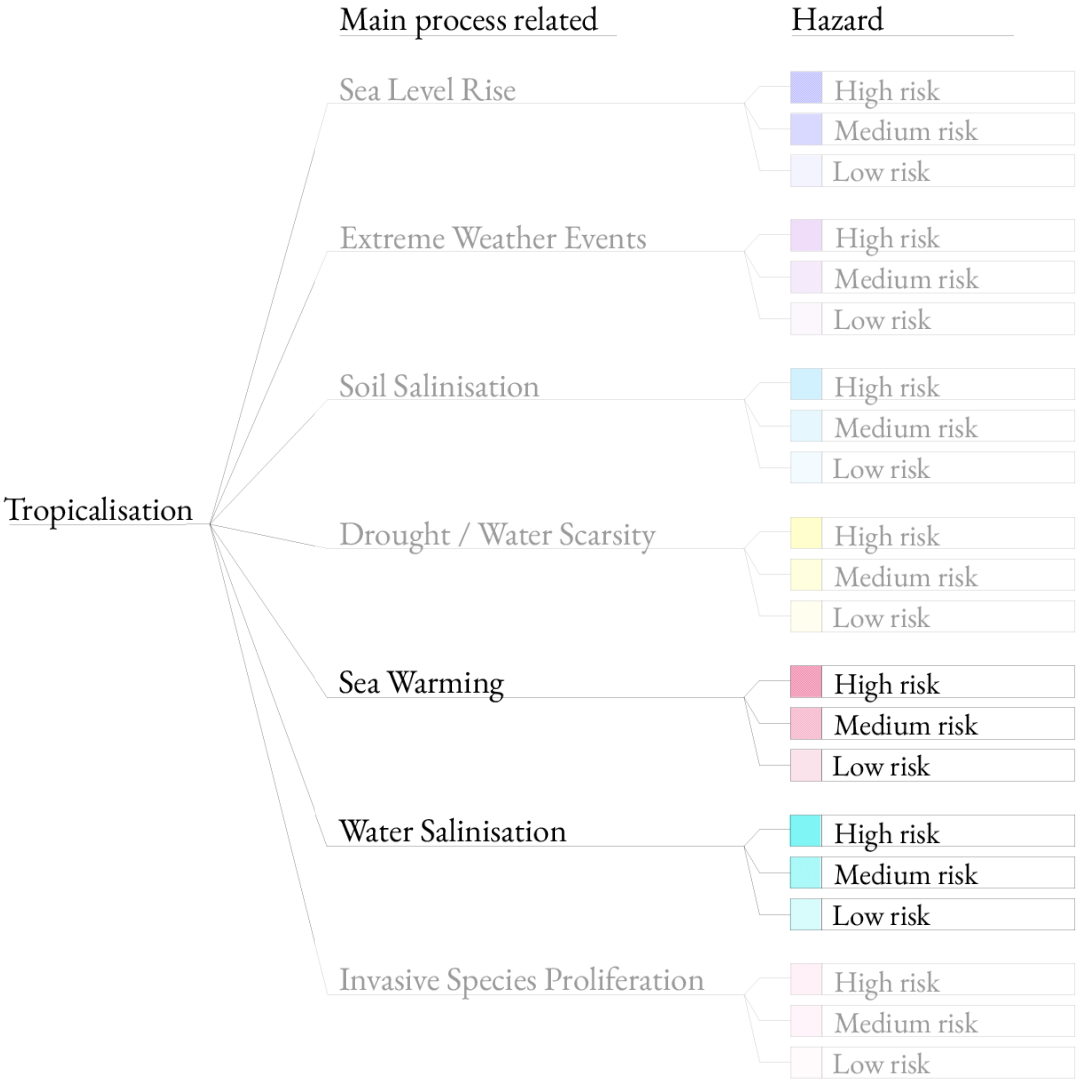


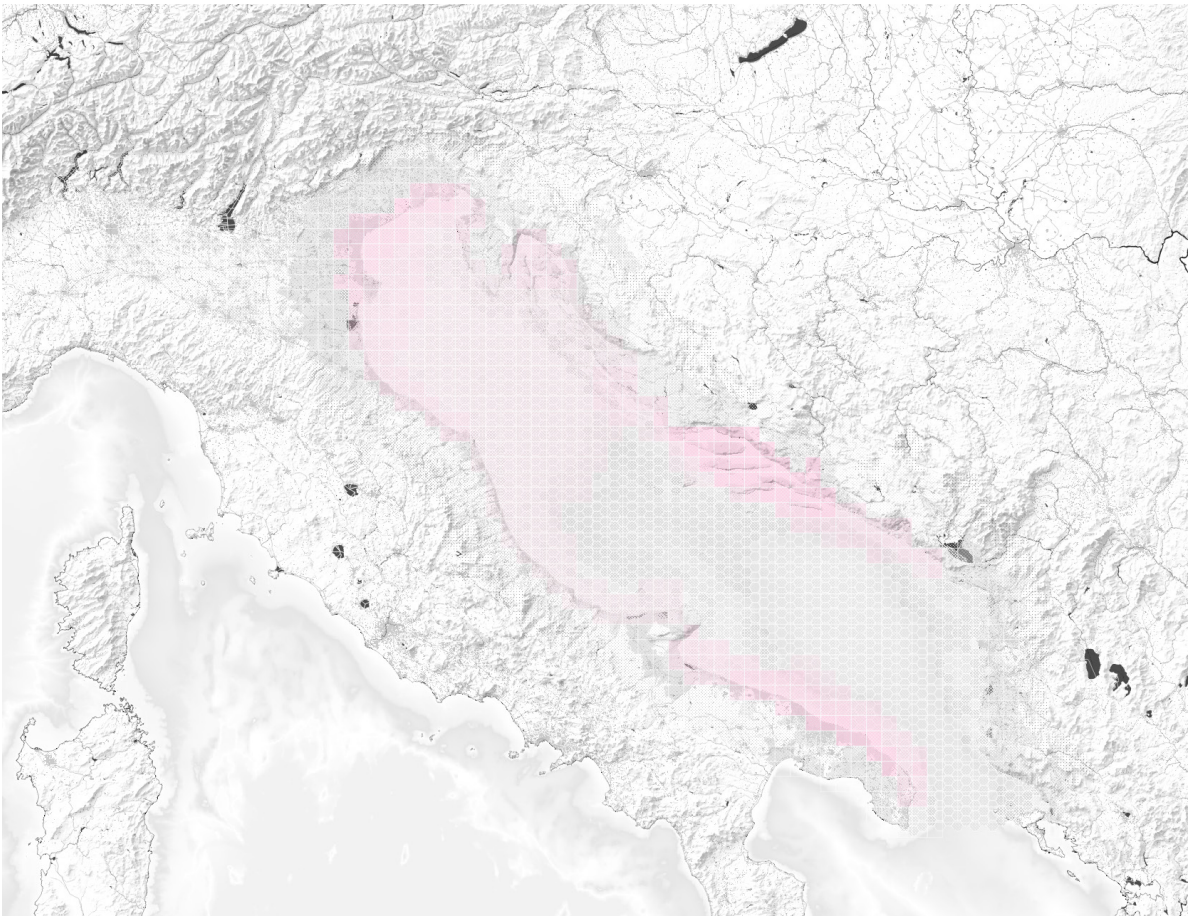
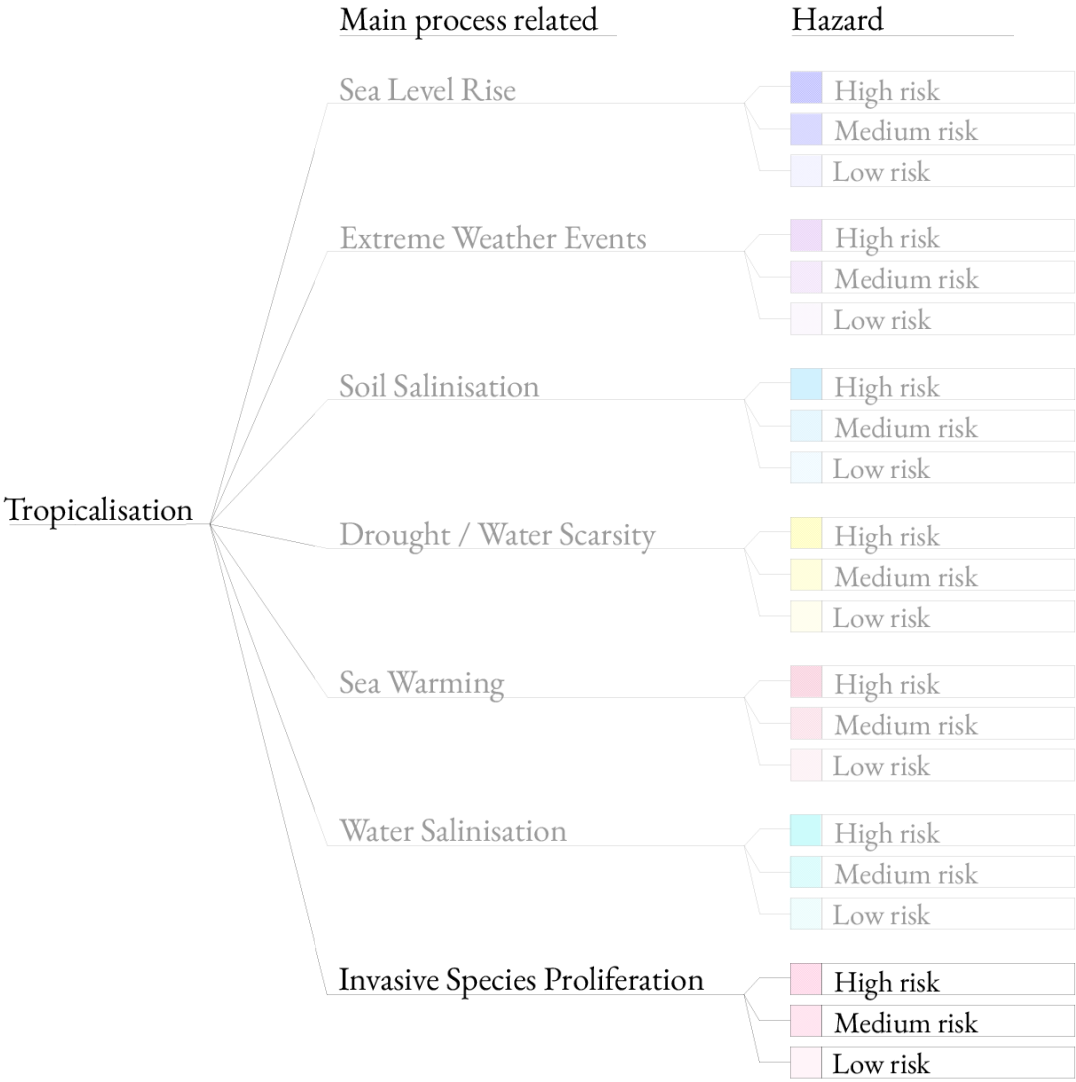
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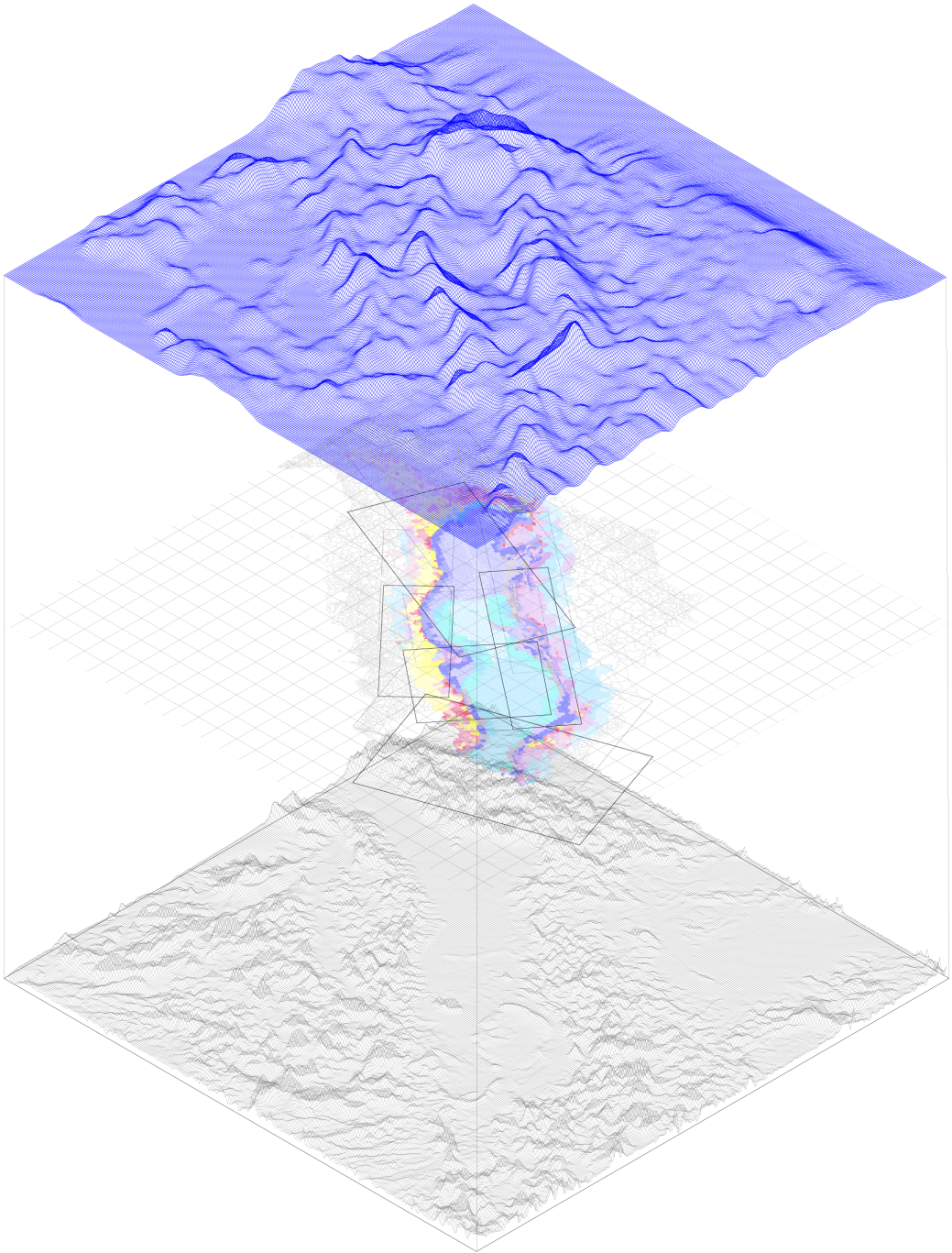
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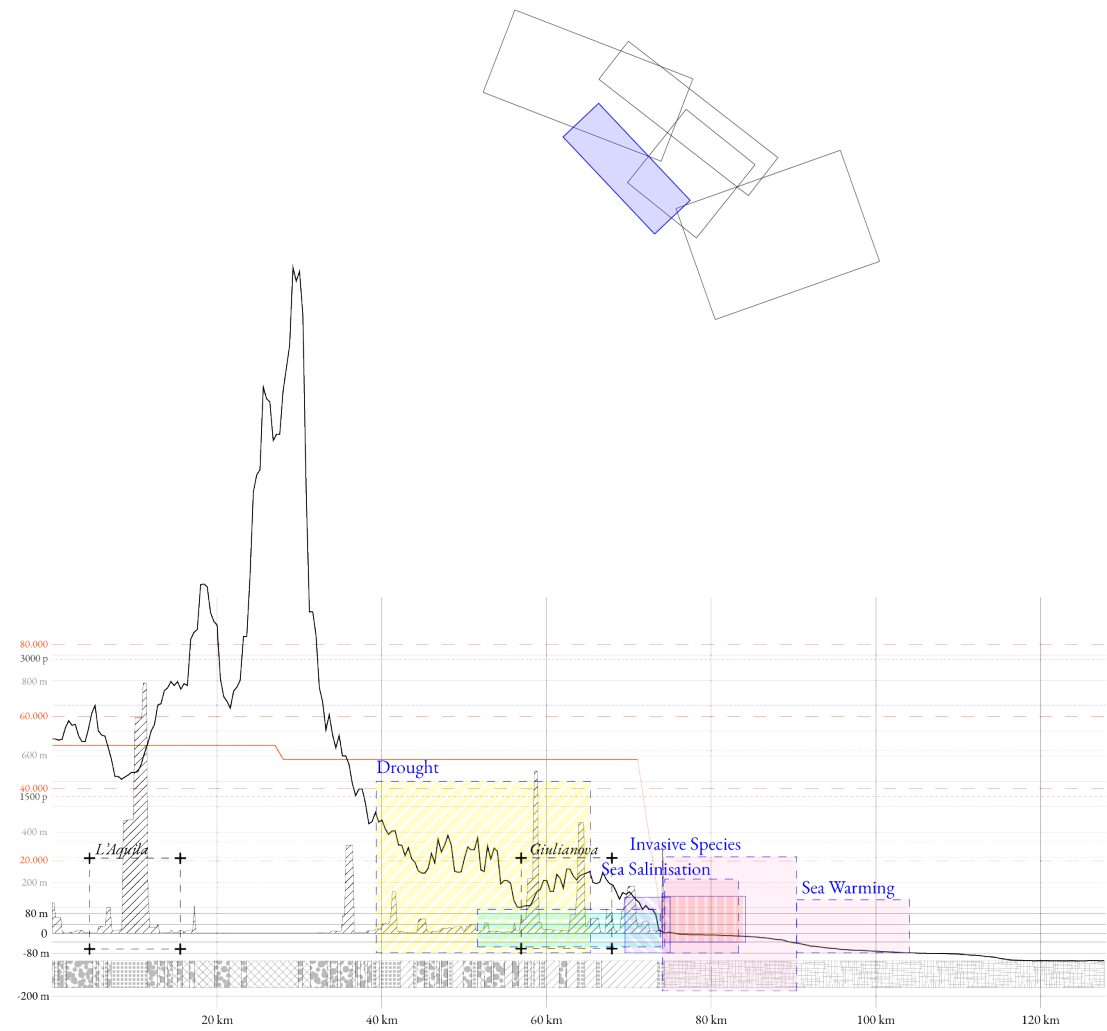




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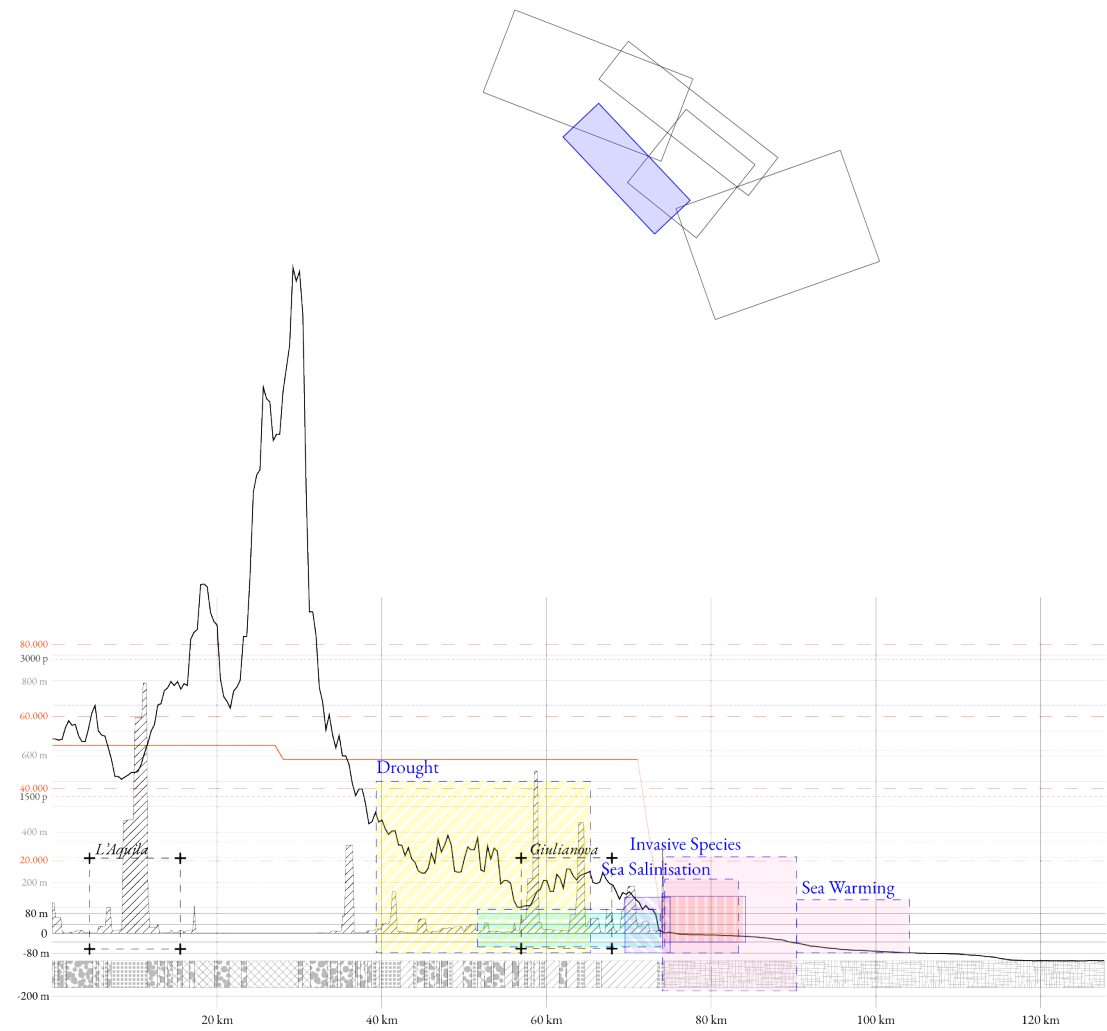
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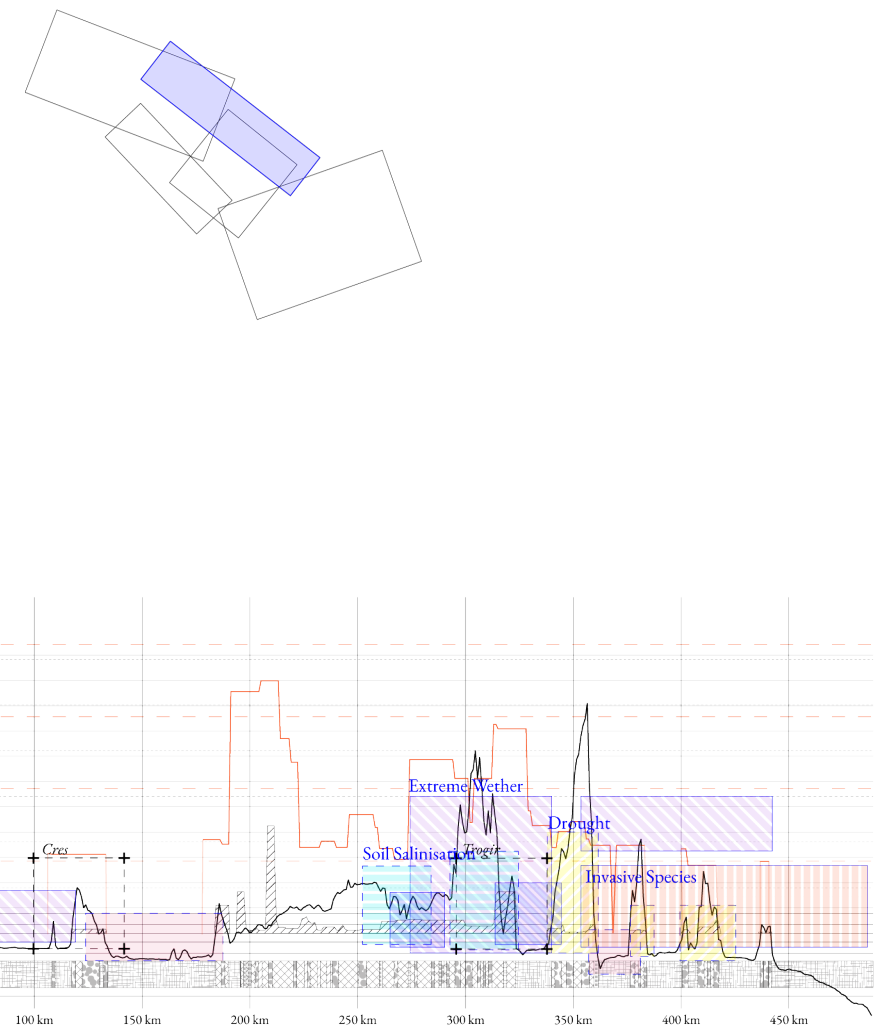
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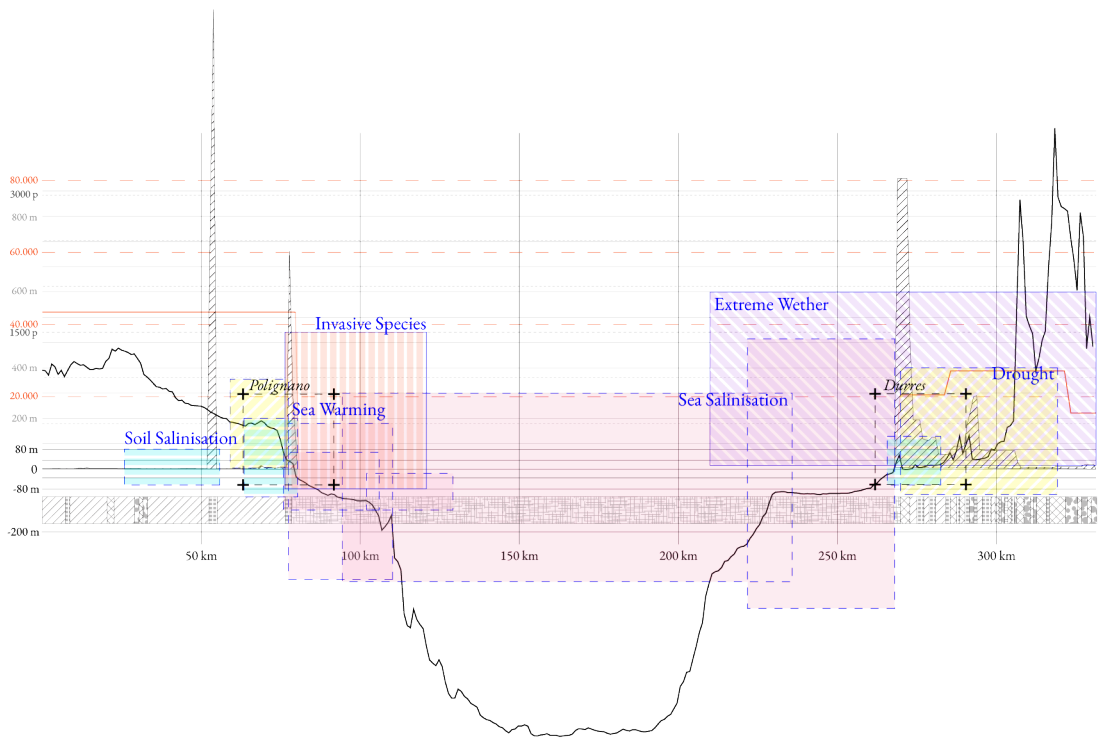
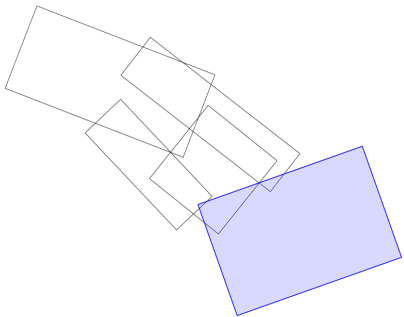


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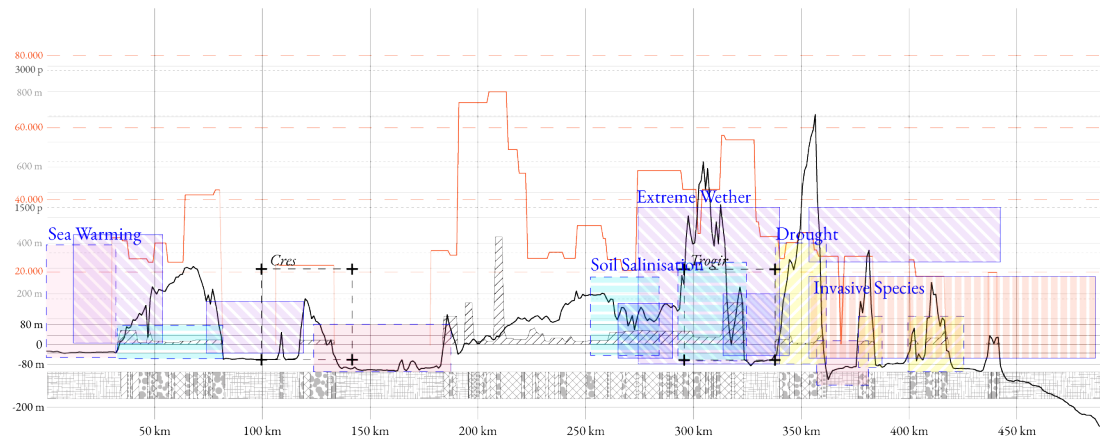
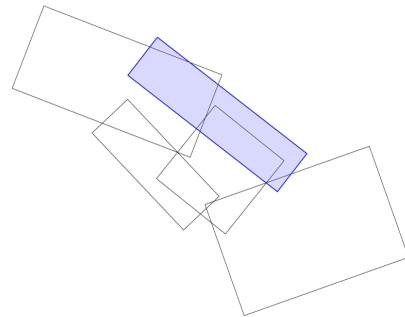
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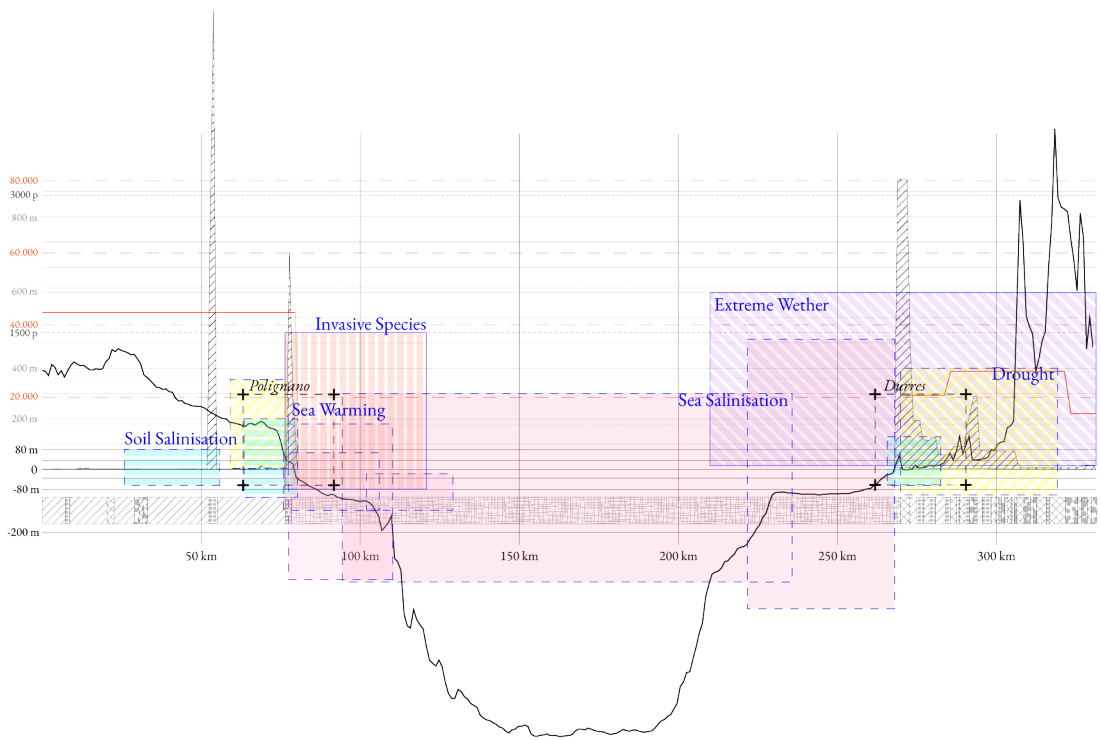
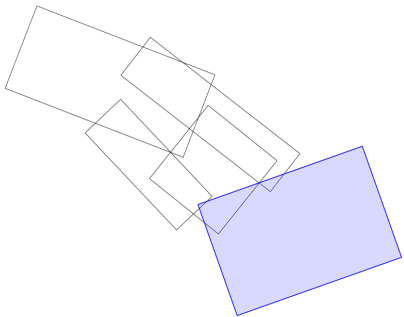


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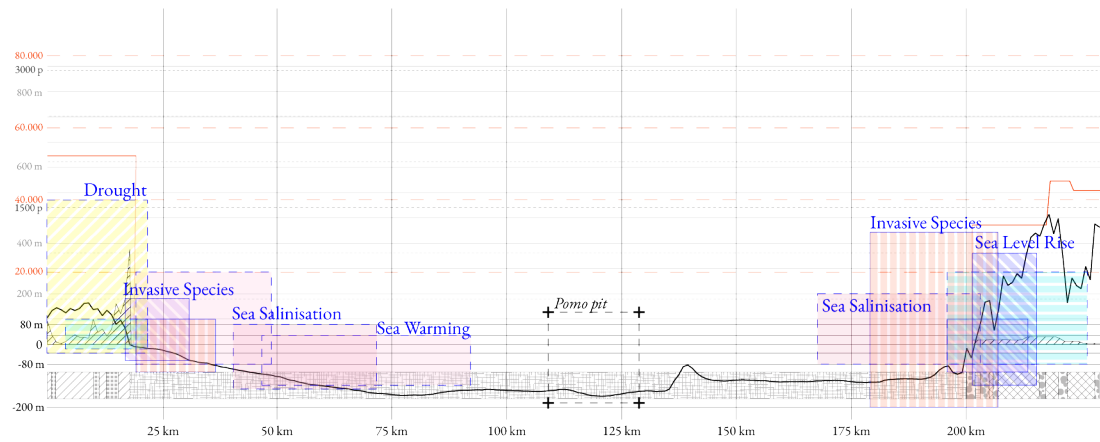
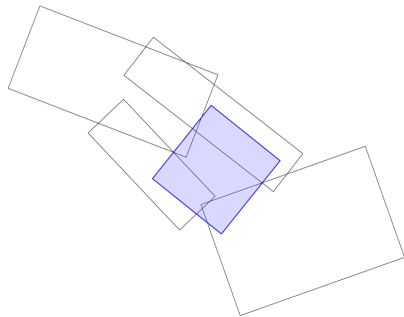


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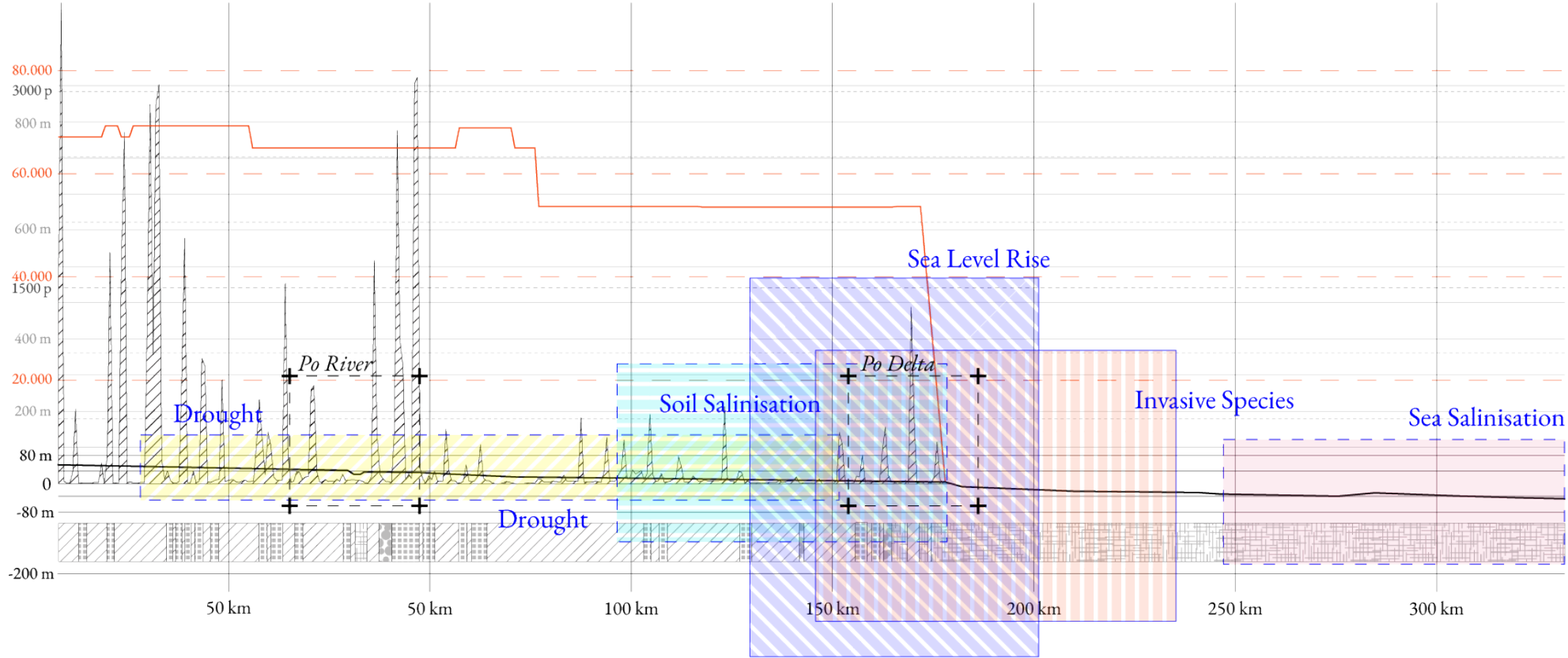
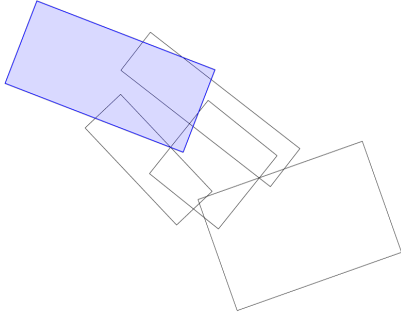


ENTITY



DISPOSITIF

LABORATORY



ENTITY

LABORATORY

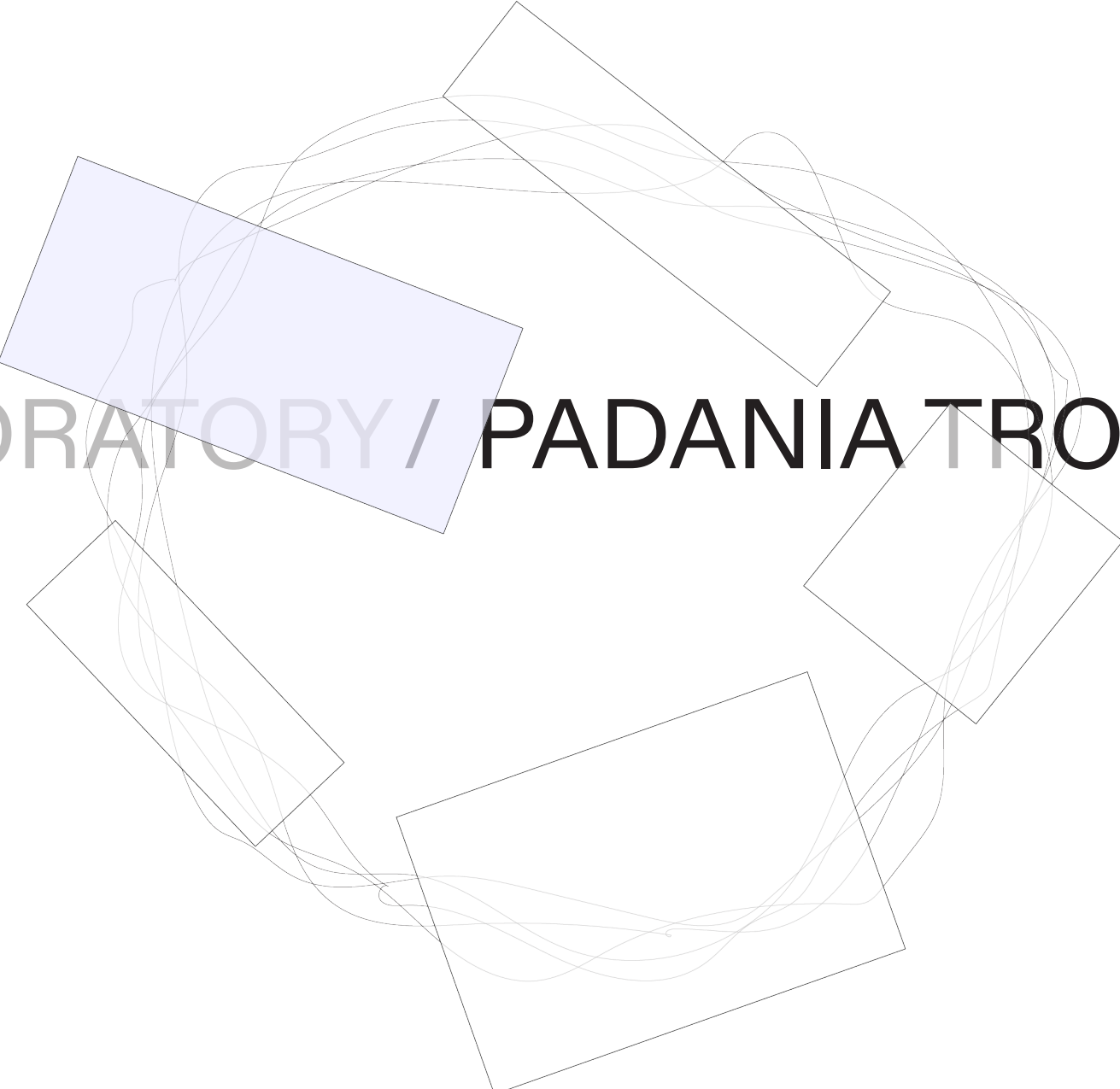
DISPOSITIF

2. LABORATORY / PADANIA TROPICALE

PATTERN ANALYSIS

CATALOGUE OF PRACTICES

STRATEGIC FRAMEWORK

An abstract geometric composition featuring several overlapping rectangles. One rectangle, located in the upper-left quadrant, is filled with a light purple color. The other rectangles are white with thin black outlines. A series of thin, light gray wavy lines are drawn across the composition, creating a sense of movement and complexity. The overall effect is a layered, architectural feel.

2. LABORATORY / PADANIA TROPICALE

ENTITY

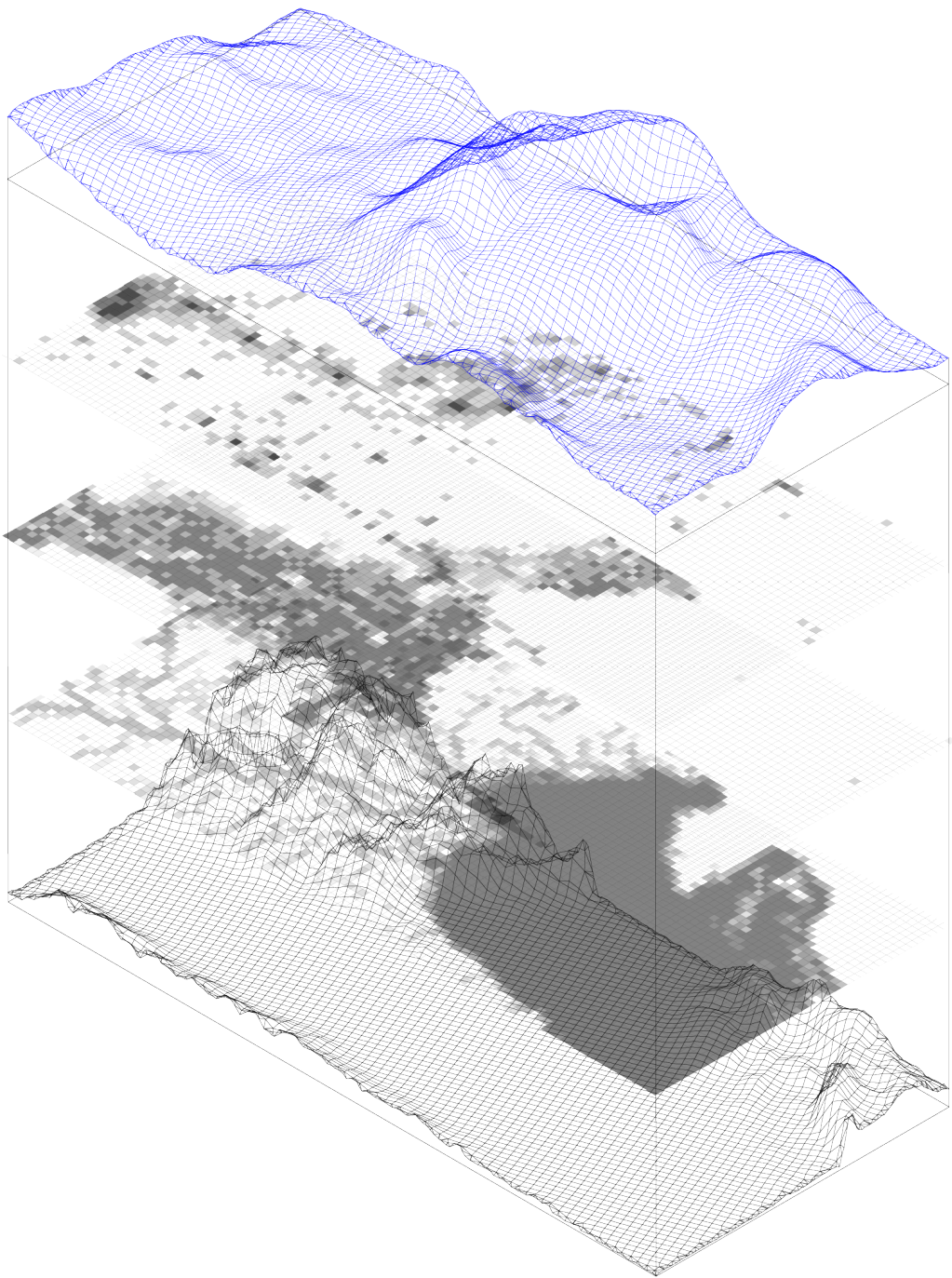
LABORATORY

DISPOSITIF

ENTITY

LABORATORY

DISPOSITIF



'Valli da Pesca' in Comacchio



ENTITY

LABORATORY

DISPOSITIF



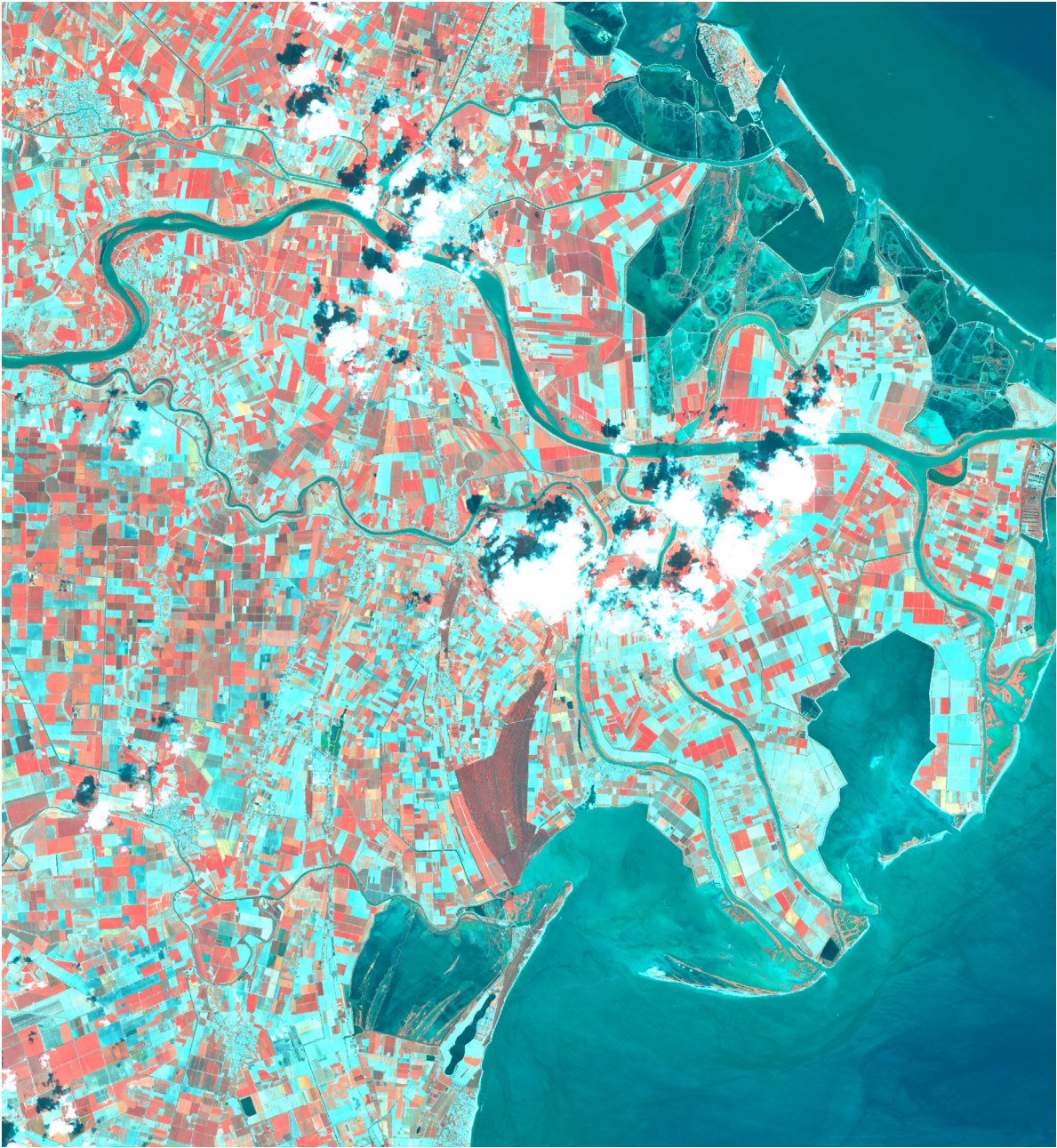
ENTITY



LABORATORY

DISPOSITIF

Agriculture on reclaimed land in the Po delta



ENTITY

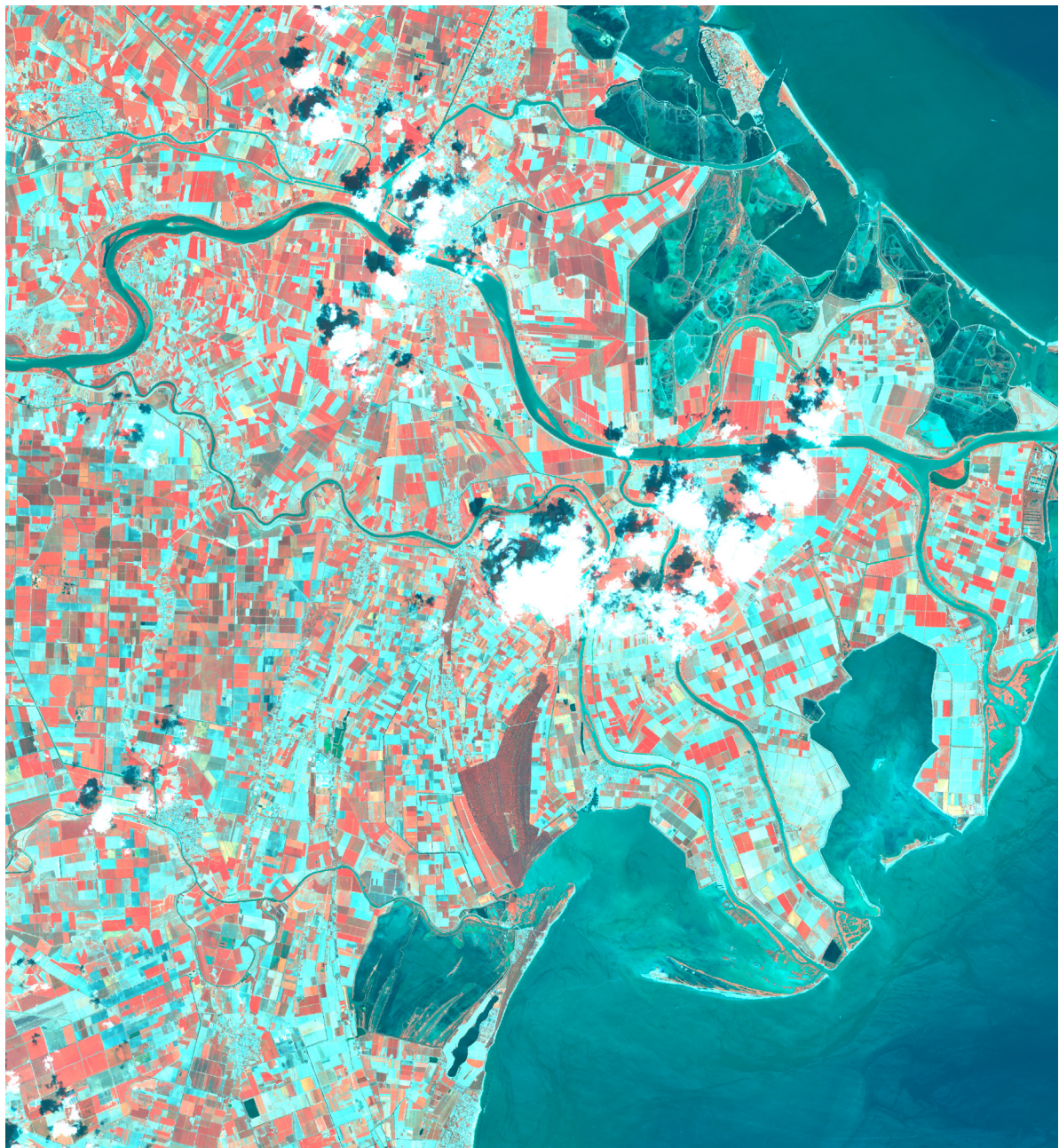


LABORATORY

DISPOSITIF



DISPOSITIF



LABORATORY

ENTITY

Coastal settlement of Lignano Sabbiadoro



ENTITY



LABORATORY

DISPOSITIF

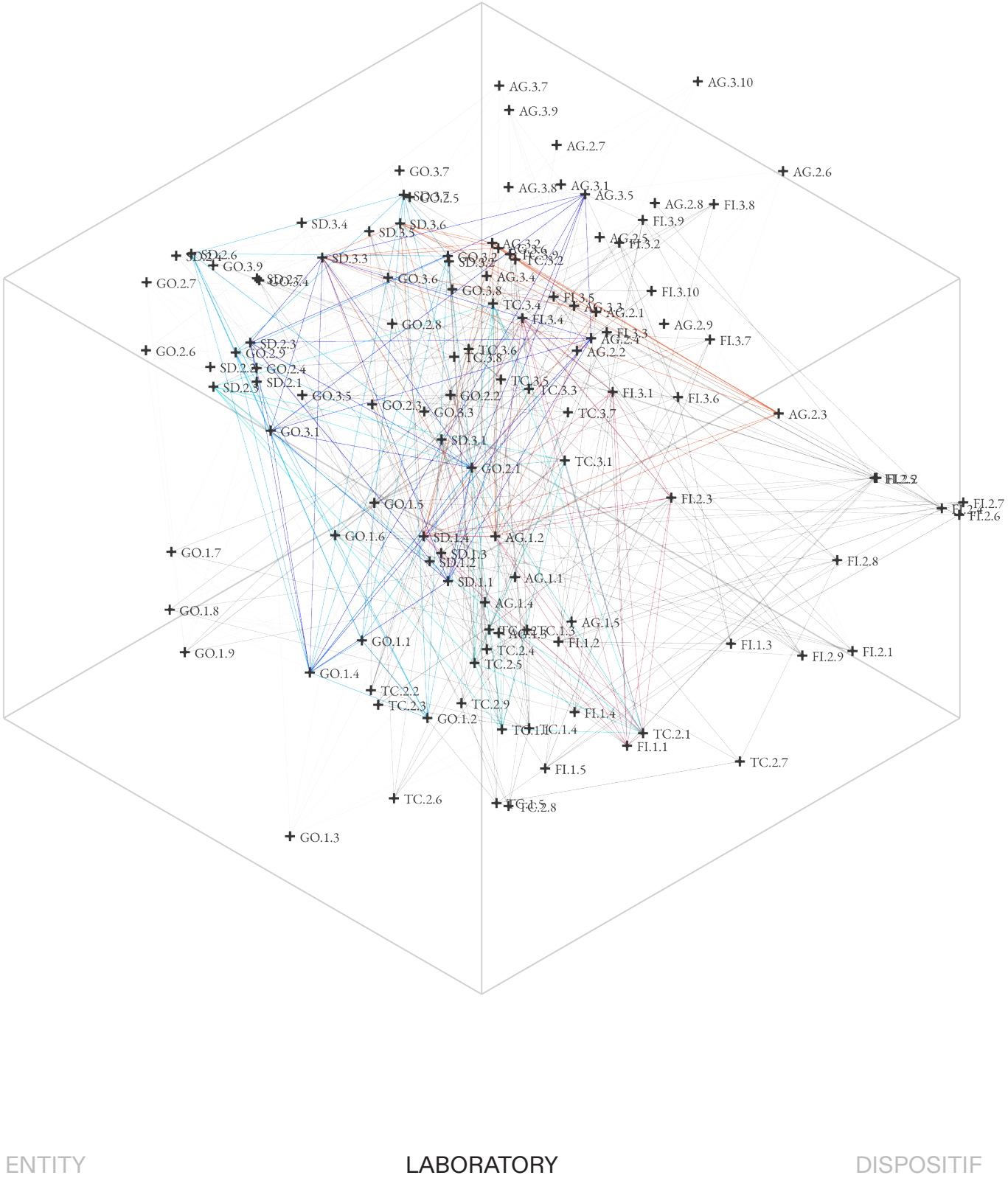
SD_1.1 Po River channelisation and levee system
SD_1.2 Anthropogenic subsidence (water + gas extraction)
SD_1.3 Sediment starvation (upstream dams)
SD_1.4 Adriatic eutrophication (Po nitrogen load)
SD_2.1 Soil impermeabilisation across Po plain
SD_2.2 Floodplain disconnection
SD_2.3 Saltwater intrusion into delta aquifers
SD_2.4 Reduction of freshwater discharge to Adriatic
SD_2.5 Loss of deltaic landmass (subsidence + erosion)
SD_2.6 Increased storm surge frequency and intensity
SD_2.7 Thermal stratification of N-Adriatic waters
SD_3.1 Coastline erosion acceleration
SD_3.2 Flood risk amplification
SD_3.3 Habitat fragmentation across the transect
SD_3.4 Nutrient cycle disruption (river to sea)
SD_3.5 Loss of coastal sediment budget
SD_3.6 Adriatic dead zones (anoxic events)
SD_3.7 Collapse of migratory species corridors
AG_1.1 Intensive monoculture (maize, soy, wheat)
AG_1.2 Nitrogen and phosphorus overuse
AG_1.3 Irrigation from over-extracted aquifers
AG_1.4 Misaligned CAP subsidies (incentivise wrong crops)
AG_1.5 Forced drainage of wetlands to recover farmland
AG_2.1 Passive abandonment of salinised soils
AG_2.2 Salt-resistant crop gap (no varieties, no markets)
AG_2.3 Deeper wells as drought response
AG_2.4 Soil compaction from heavy machinery
AG_2.5 Loss of crop rotation and polyculture traditions
AG_2.6 Agro-chemical runoff into drainage network
AG_2.7 Greenhouse horticulture in unsuitable zones
AG_2.8 No rice-aquaculture rotation on flooded fields
AG_2.9 Pesticide use on declining pollinator populations
AG_3.1 Salinisation creep into productive agricultural land
AG_3.2 Aquifer depletion feedback loop
AG_3.3 Rural depopulation from agricultural crisis
AG_3.4 Loss of traditional knowledge of deltaic farming
AG_3.5 Absence of short supply chains for emerging crops

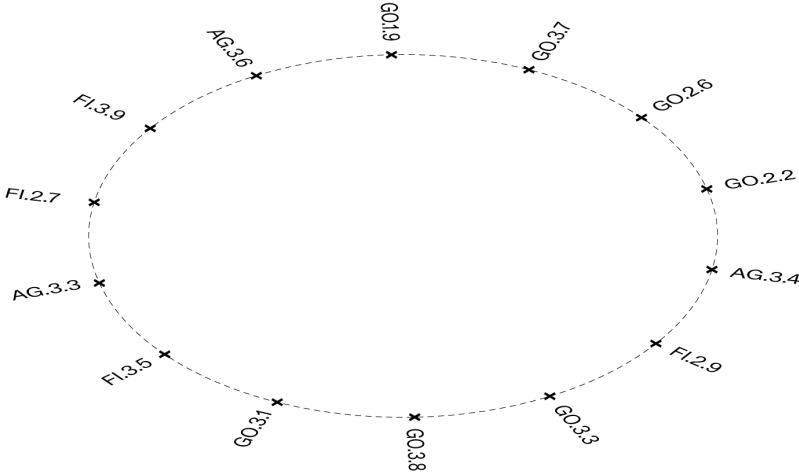
AG_3.6 Collapse of cooperative farming networks
AG_3.7 Climate insurance gap for smallholders
AG_3.8No market infrastructure for halophyte crops
FI_1.1 Bottom trawling on sandy Adriatic seabed
FI_1.2 Manila clam monoculture in Venice lagoon and delta
FI_1.3 Invasive species treated as threat to eradicate (not resource)
FI_1.4 Overfishing on thermally stressed and shifting stocks
FI_1.5 Dependence on introduced allochthonous species
FI_2.1 Intensive aquaculture with untreated effluent discharge
FI_2.2 Anoxia events destroying benthic communities
FI_2.3 Harmful algal blooms (mucilage) damaging nets and stock
FI_2.4 Fishing fleet capital investment in declining species
FI_2.5 No integrated multi-species aquaculture systems
FI_2.6 Absence of oyster and flat shellfish restoration programs
FI_2.7 Mussel longline systems in eutrophic water without monitoring
FI_2.8 Lagoon sediment disturbance from mechanical clam harvesting
FI_2.9 Loss of traditional valley fishing (valli da pesca)
FI_3.1 Collapse of fish stock diversity (trophic simplification)
FI_3.2 New thermophilic species without commercial infrastructure
FI_3.3 Loss of nursery habitat (seagrass, benthic structure)
FI_3.4 No policy link between agricultural nitrogen and fishing loss
FI_3.5 Generational exit from fishing without knowledge transfer
FI_3.6 Absence of lessepsian species processing and export infrastructure
FI_3.7 No cooperative management of lagoon as shared commons
FI_3.8 Illegal fishing intensification as stocks decline
FI_3.9 Market dependence on single species (vongola verace)
TC_1.1 Beach nourishment as permanent cycle (cause ignored)
TC_1.2 Hard coastal armoring (groins, seawalls, revetments)
TC_1.3 Coastal cementification blocking natural inland migration
TC_1.4 Mass beach tourism as economic monoculture
TC_1.5 Cruise ship and large vessel traffic in lagoon system
TC_2.1 Fixed beach infrastructure in active erosion zones
TC_2.2 Short-season economic dependency (June–August)
TC_2.3 Jellyfish, algal blooms and warm water degrading bathing quality
TC_2.4 No managed coastal retreat planning
TC_2.5 Urban expansion into flood and erosion risk zones
TC_2.6 Loss of dune systems to stabilisation and development

TC_2.7 Acoustic and chemical pollution from motorised water traffic
TC_2.8 Overtourism concentration in Venice while hinterland depopula-
TC_2.9 tes
TC_3.1 Absence of slow or ecological tourism infrastructure in delta
TC_3.2 Accelerating erosion from combined subsidence and sea level rise
TC_3.3 Thermal discomfort reducing summer season viability
TC_3.4 Brand erosion (jellyfish, algae, heat) affecting destination image
TC_3.5 Economic lock-in preventing diversification from beach model
TC_3.6 No integration between tourism and ecosystem restoration
TC_3.7 Loss of lagoon fishermen culture as tourism spectacle replaces it
TC_3.8 Absence of blue economy framework linking tourism and aqua-
GO_1.1 culture
GO_1.2 No contingency planning for storm surge in tourist season
GO_1.3 Institutional fragmentation (river / lagoon / sea authorities)
GO_1.4 No single body governing the Po-to-Adriatic transect
GO_1.5 Emergency response culture replacing systemic adaptation
GO_1.6 Misaligned EU funding (CAP, cohesion, maritime policy)
GO_1.7 Absence of emergent value chains for new species and products
GO_1.8 Separation of nature protection from production policy
GO_1.9 No cooperative governance of lagoon as shared commons
GO_2.1 Absence of integrated coastal zone management
GO_2.2 Siloed scientific monitoring (agriculture / sea / hydrology separa-
GO_2.3 te)
GO_2.4 Planning inertia in flood and erosion risk zones
GO_2.5 Loss of amphibious knowledge (valli da pesca, colmata, bonifica)
GO_2.6 No public narrative of transformation (only loss framing)
GO_2.7 Absence of community-based resource management models
GO_2.8 Democratic deficit in large infrastructure decisions (MoSE, dams)
GO_2.9 Insurance and liability gap for climate-related losses
GO_3.1 Absence of participatory monitoring of lagoon and delta
GO_3.2 Regional competition preventing shared delta management
GO_3.3 No policy framework for managed de-intensification of agricul-
GO_3.4 ture
GO_3.5 Disconnection between university research and local governance
GO_3.6 Failure to connect climate migration with coastal land use
GO_3.7 Generational knowledge gap in traditional ecological practice
GO_3.8 Absence of cross-border Adriatic governance framework

SD_ Structural Drivers
AG_ Agriculture
FI_ Fishing
TC_ Coastal Tourism
GO_ Governance

The Pattern of Maladaptation

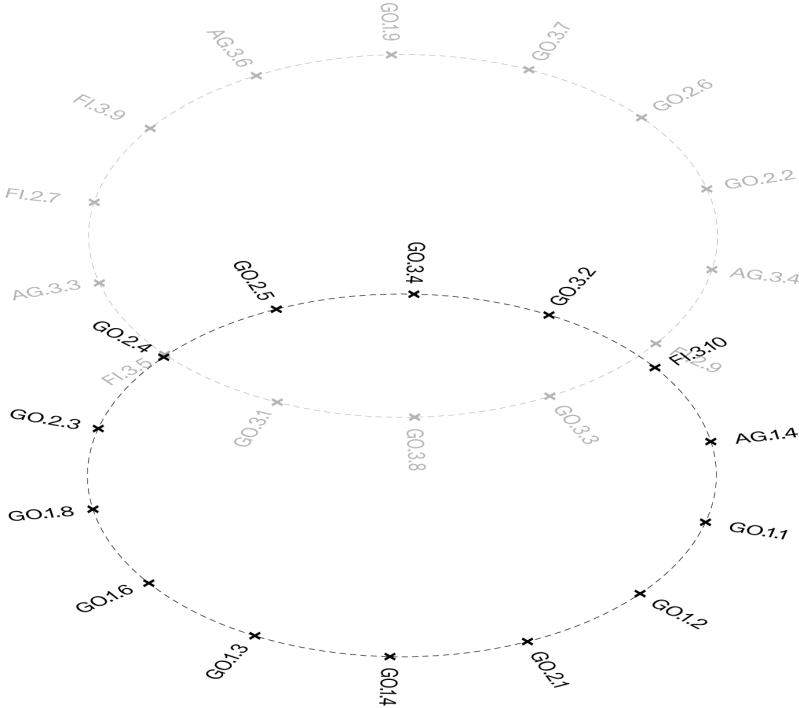


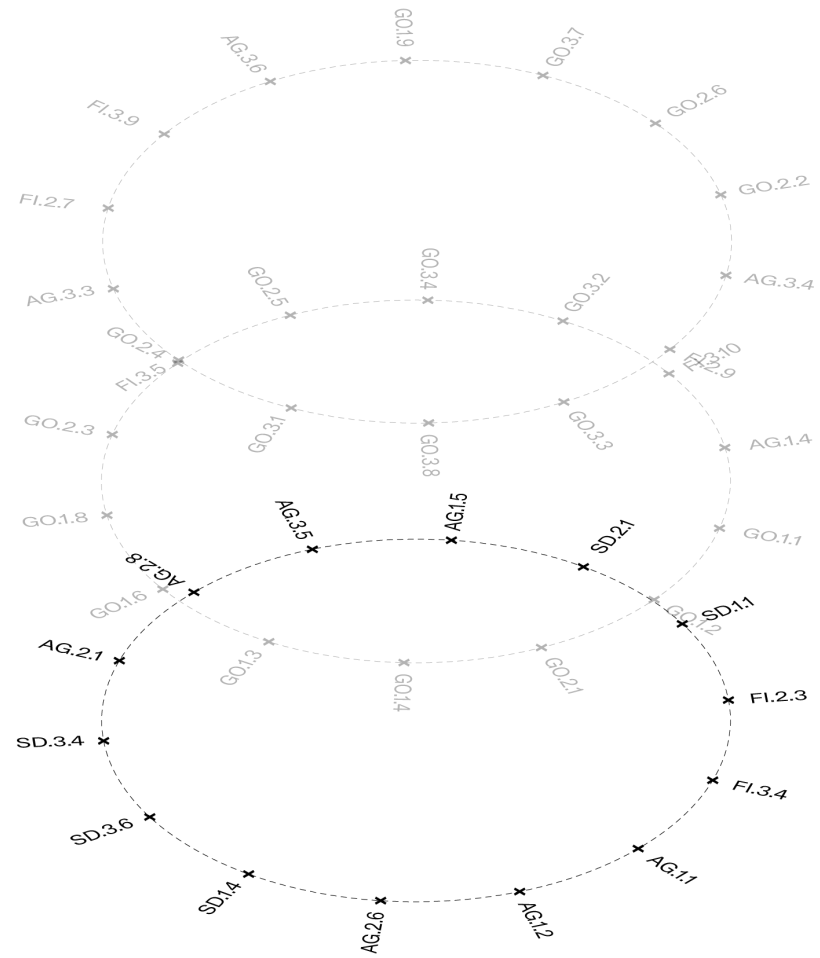


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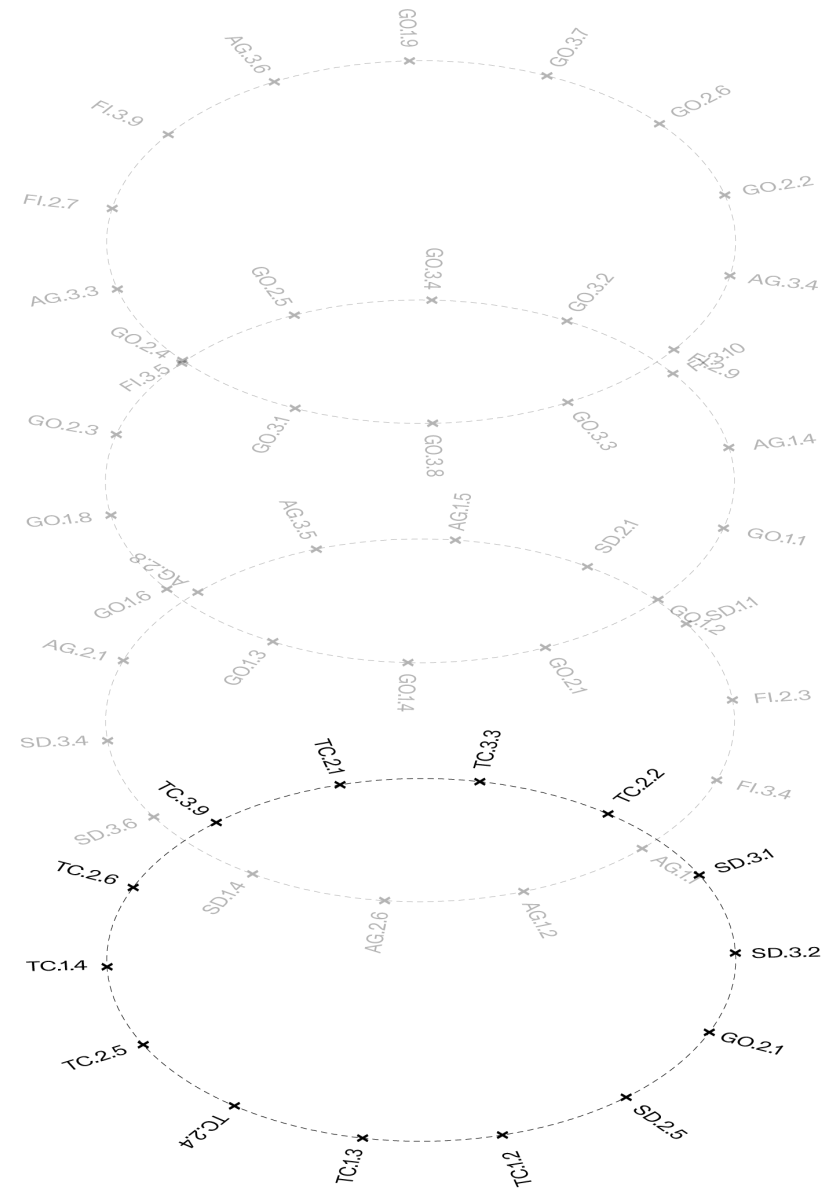
LABORATORY

DISPOSITIF





Lol 4: Tourism and coastal development



ENTITY

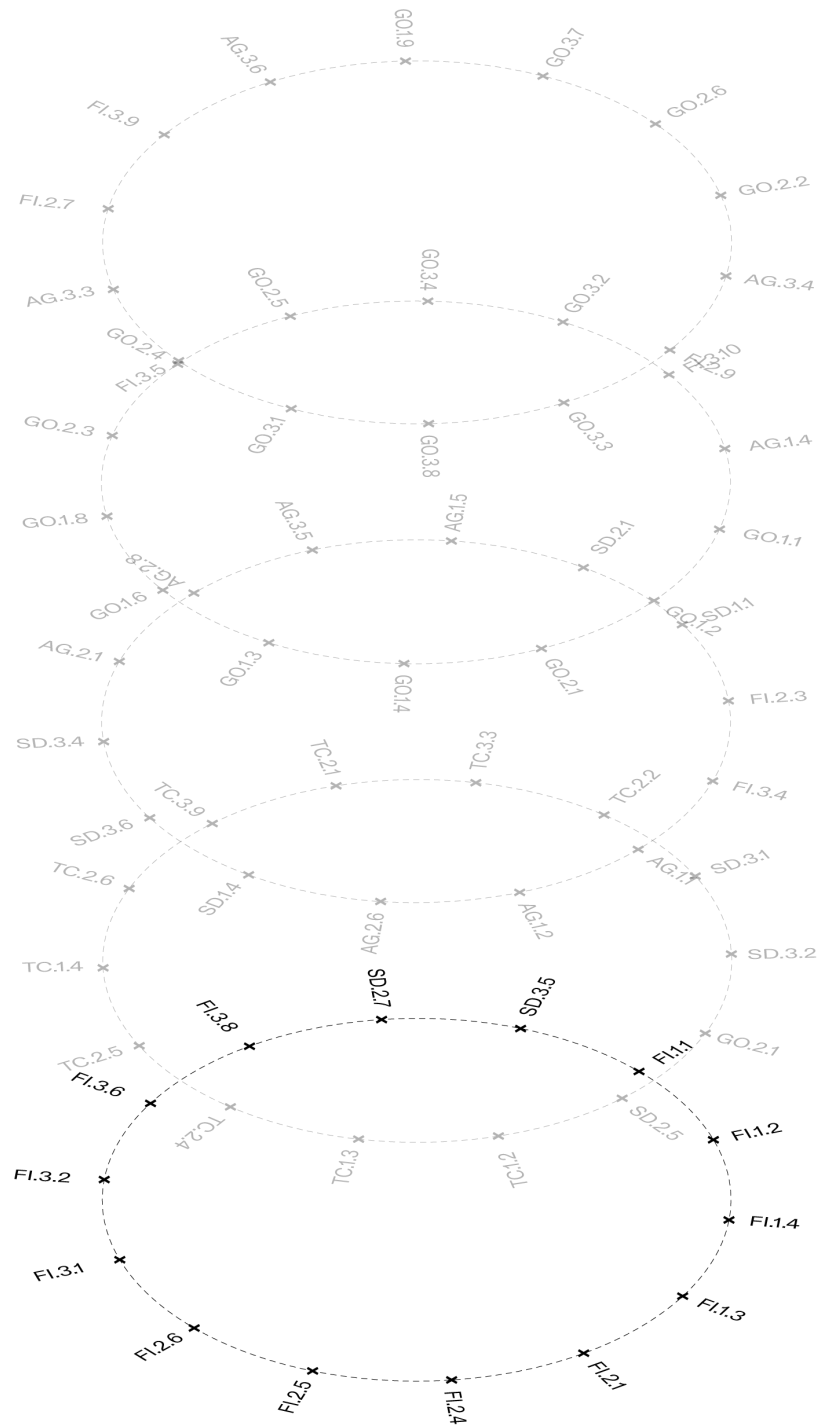
LABORATORY

DISPOSITIF

ENTITY

LABORATORY

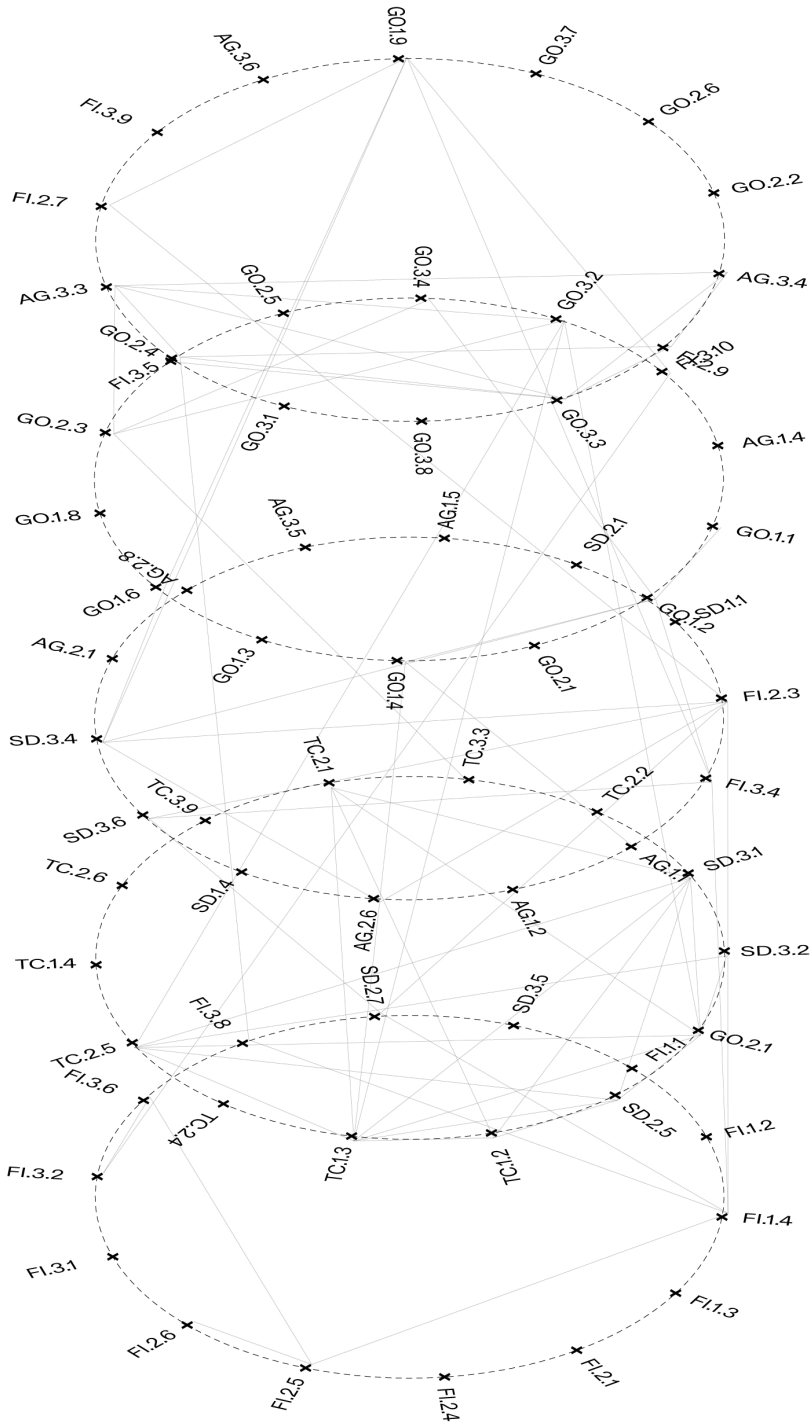
DISPOSITIF



ENTITY

LABORATORY

DISPOSITIF



- P.01 | Eating invasive species
- P.02 | Tropical crops on former vineyards
- P.03 | Shipwrecks as artificial reefs
- P.04 | Halophyte production on salinised soils
- P.05 | Oyster reef restoration
- P.06 | Rice / shrimp / fish rotation
- P.07 | Blue crab fishery and supply chain
- P.08 | Community-driven adaptive agriculture
- P.09 | Clam farming with blue crab protection
- P.10 | Regenerative shellfish aquaculture
- P.11 | Reef Line
- P.12 | Coral gardening
- P.13 | Mangrove reforestation as coastal shield
- P.14 | Coastal pine forest and agroforestry
- P.15 | Posidonia oceanica planting
- P.16 | No Big Ships civic movement
- P.17 | Room for the River
- P.18 | Consorzio Uomini Massenzatica
- P.19 | Stormwater treatment wetlands
- P.20 | Managed coastal retreat

ENTITY

LABORATORY

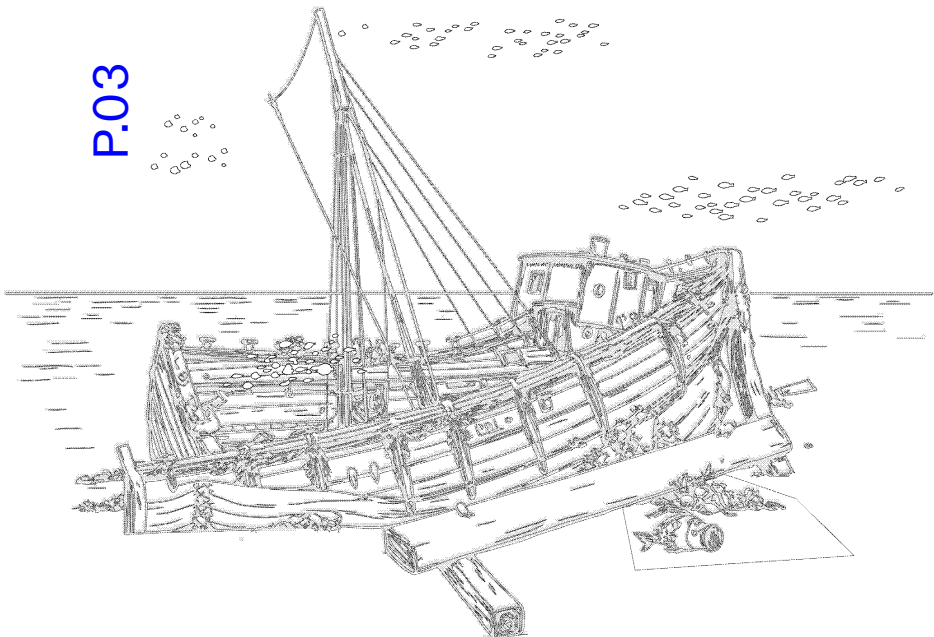
DISPOSITIF

P.04



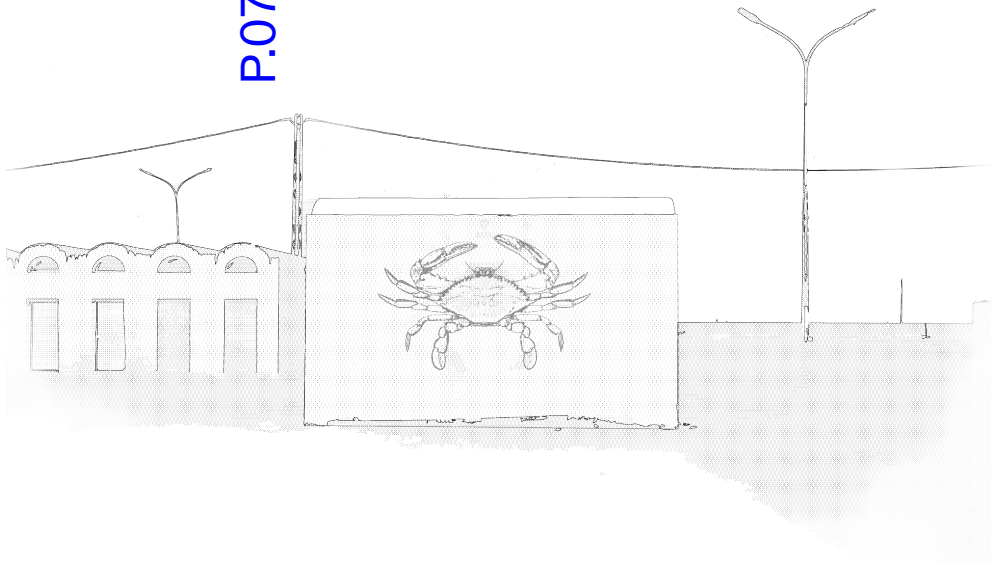
Halophyte production on salinised soils

P.03



Shipwrecks as artificial reefs

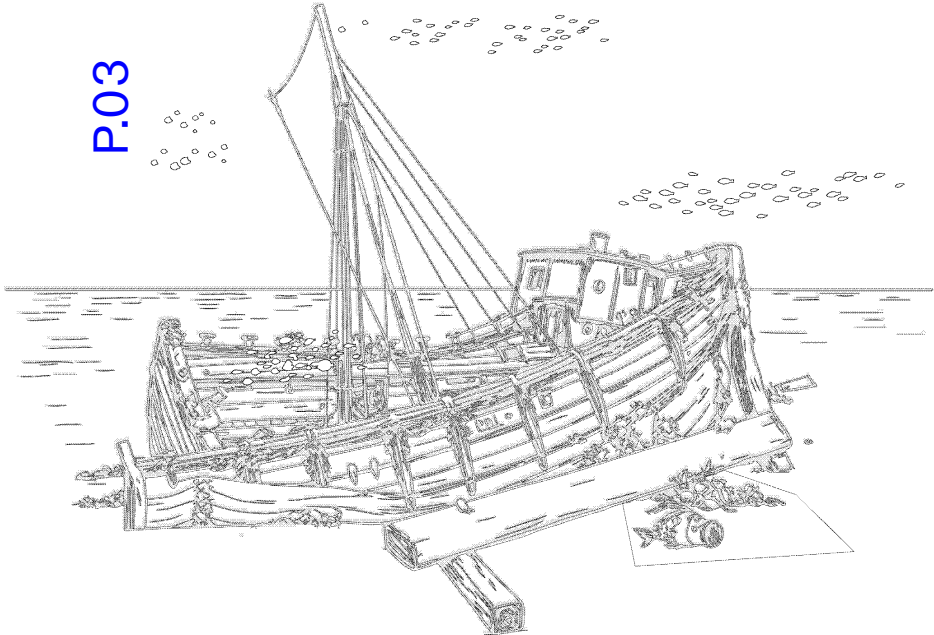
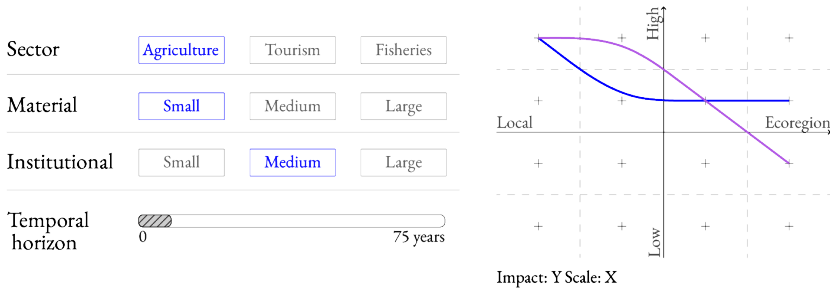
P.07



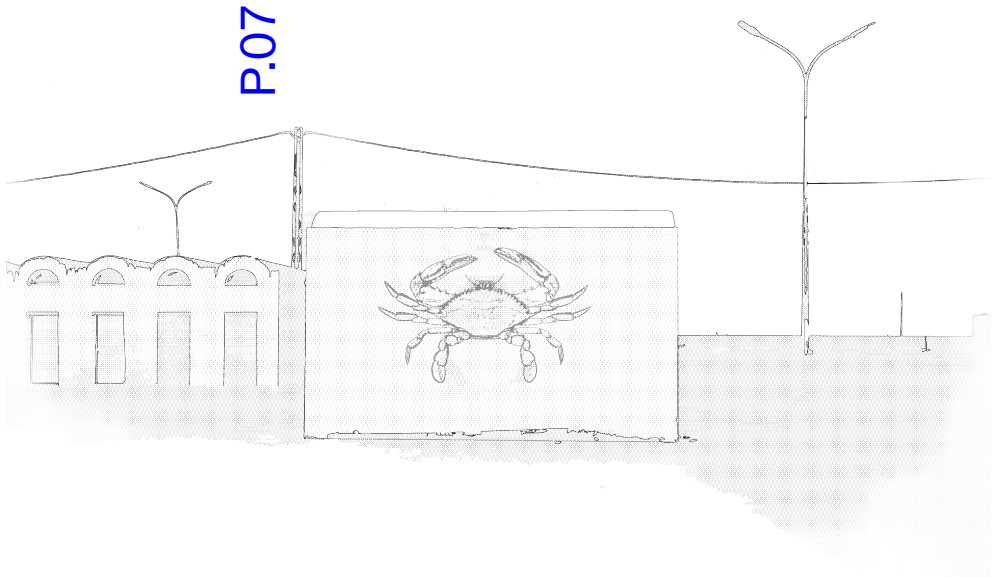
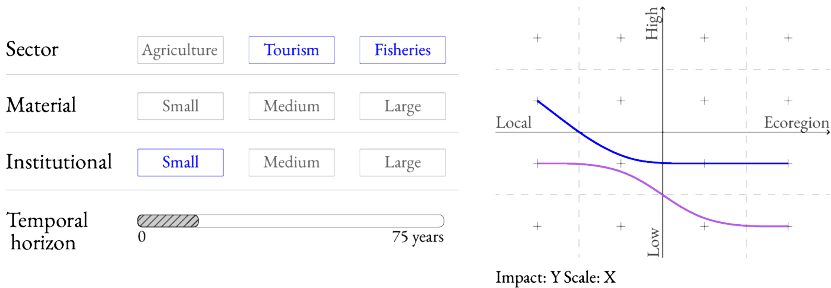
Blue crab fishery and supply chain



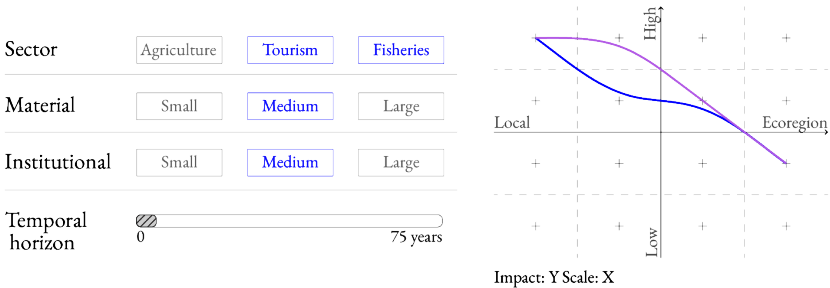
Halophyte production on salinised soils

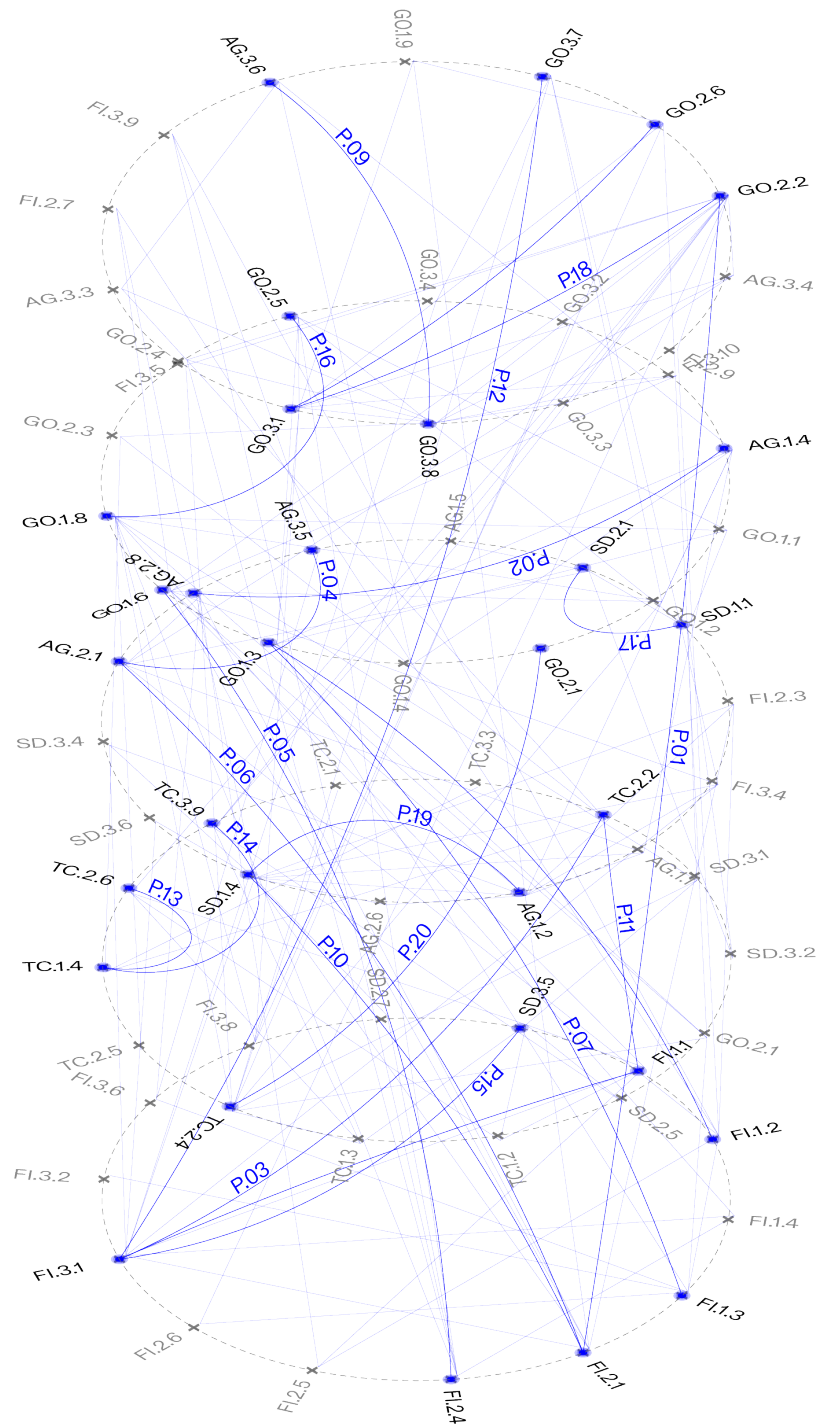


Shipwrecks as artificial reefs



Blue crab fishery and supply chain

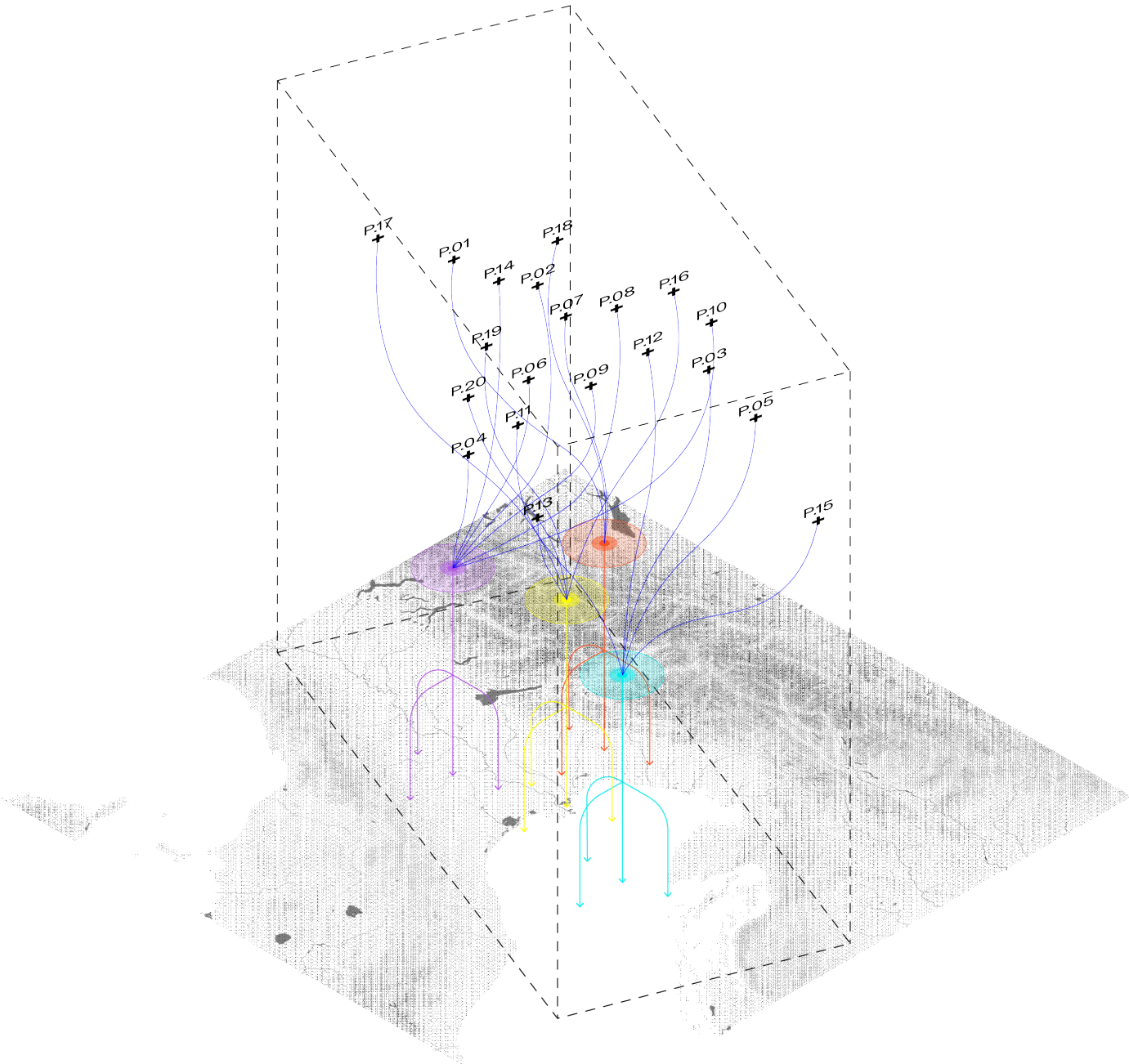




ENTITY

LABORATORY

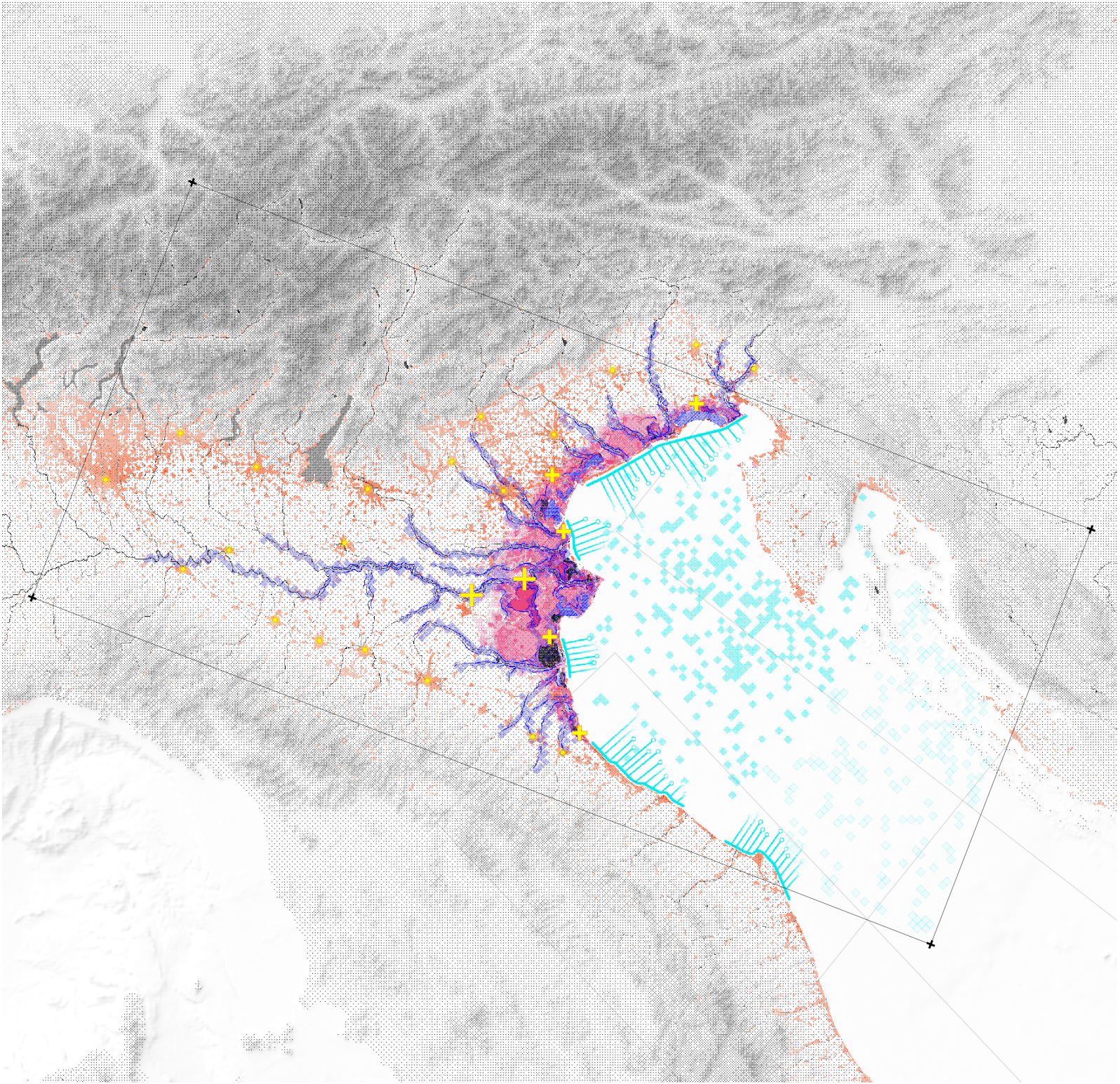
DISPOSITIF



ENTITY

LABORATORY

DISPOSITIF

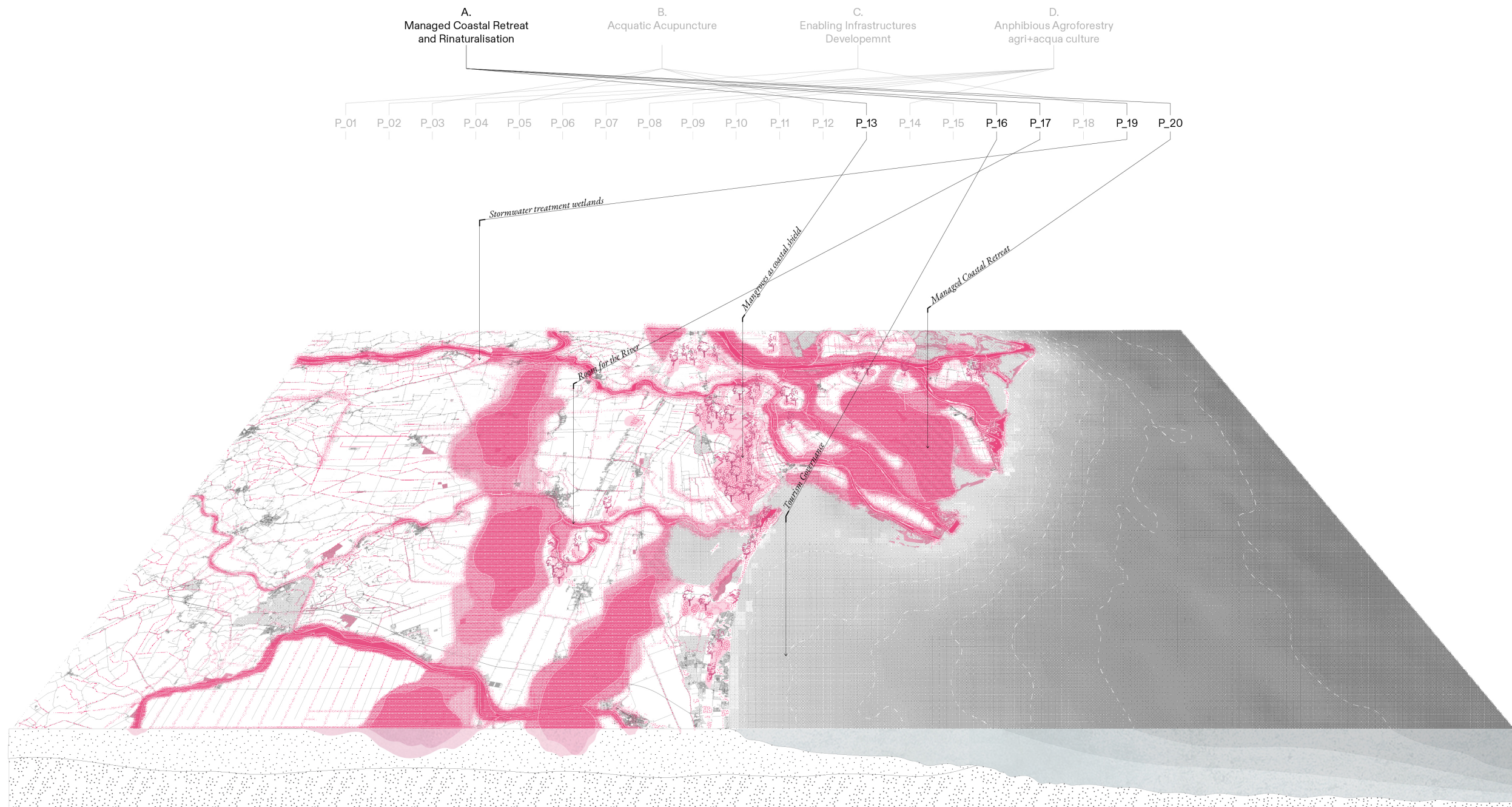


ENTITY

LABORATORY

DISPOSITIF

A | Managed coastal retreat and renaturalisation

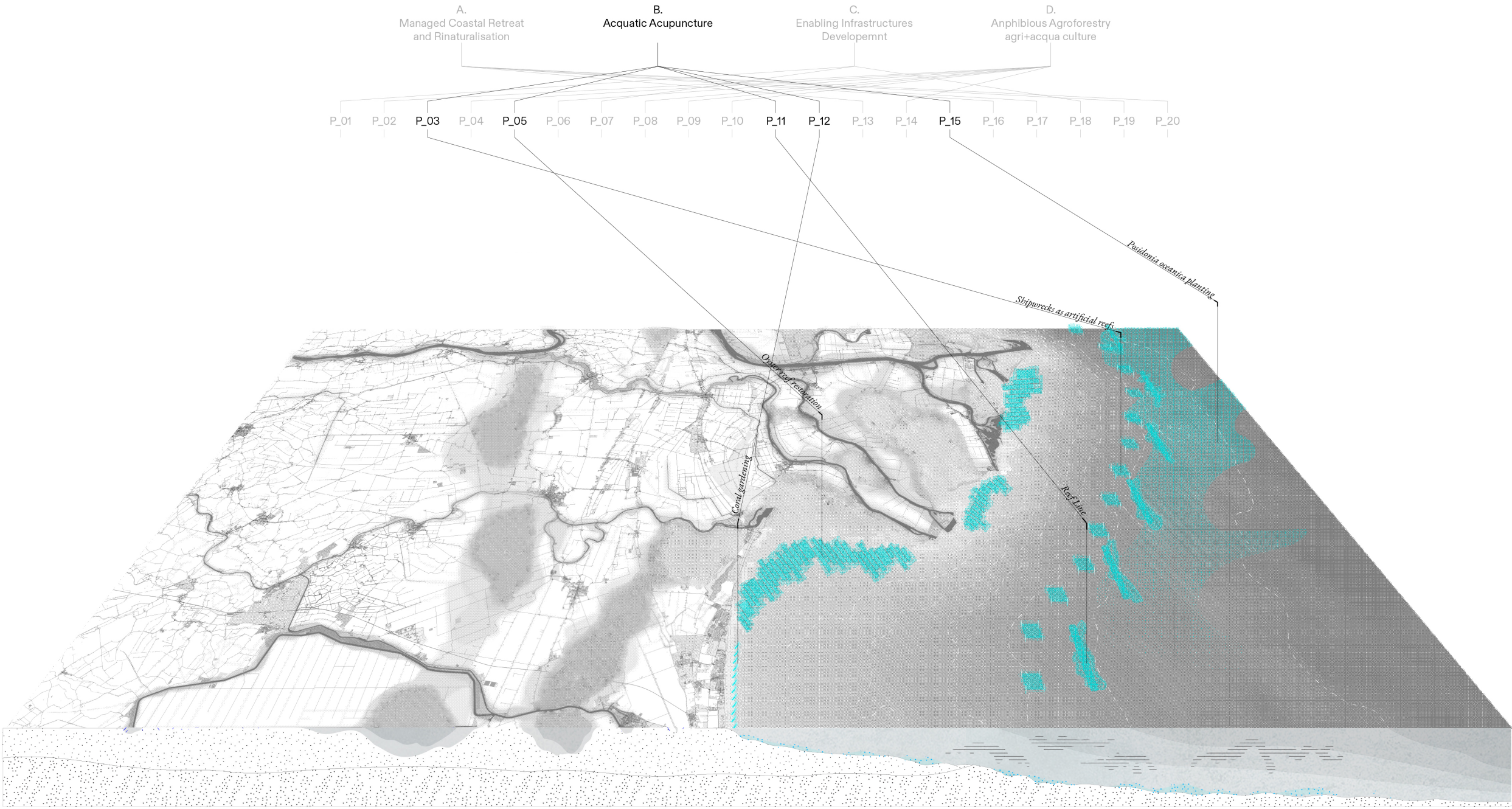


ENTITY

LABORATORY

DISPOSITIF

B | Aquatic Acupuncture

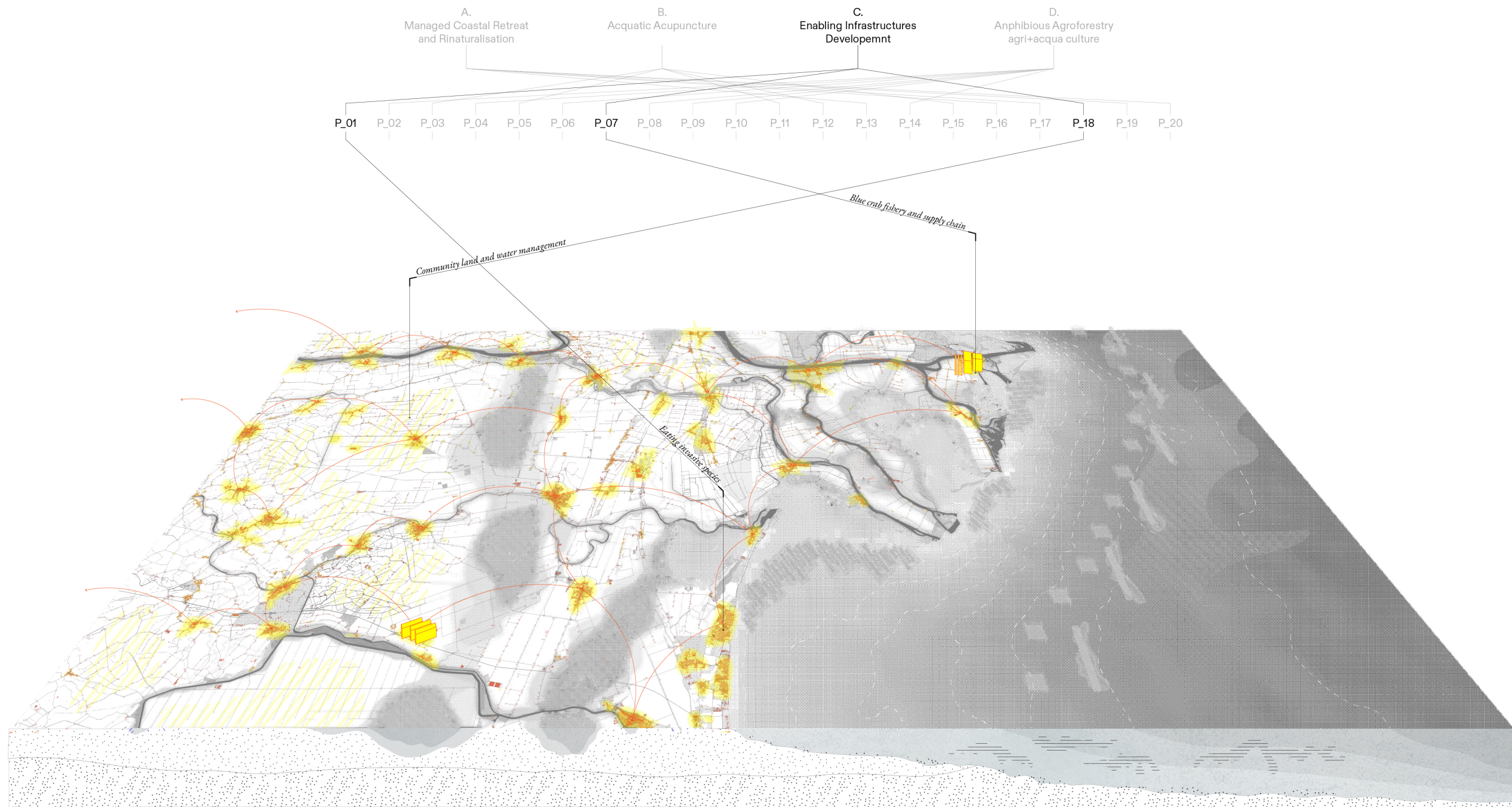


ENTITY

LABORATORY

DISPOSITIF

C - Transformative Infrastructures Development

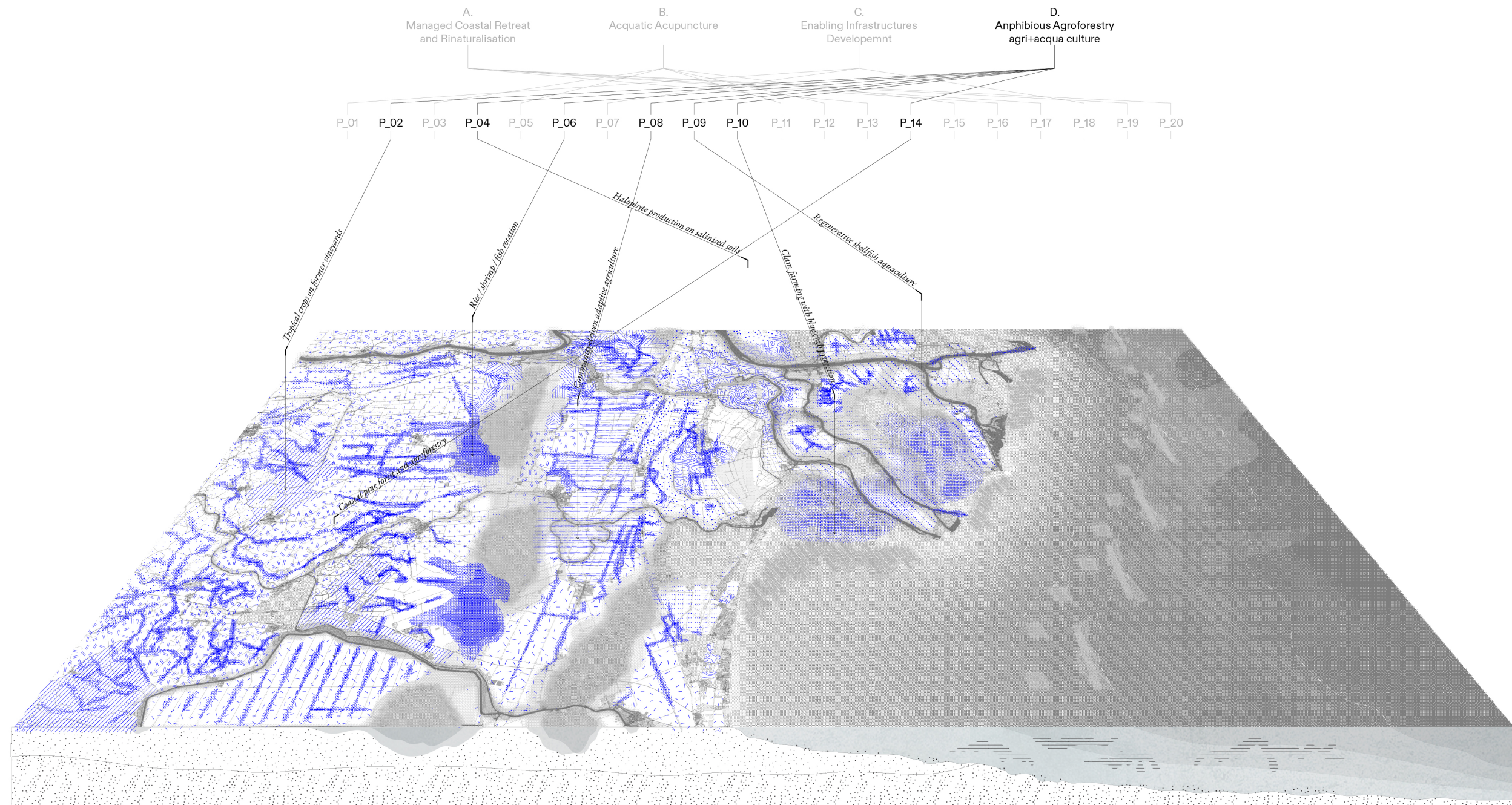


ENTITY

LABORATORY

DISPOSITIF

D | Amphibious Agroforestry

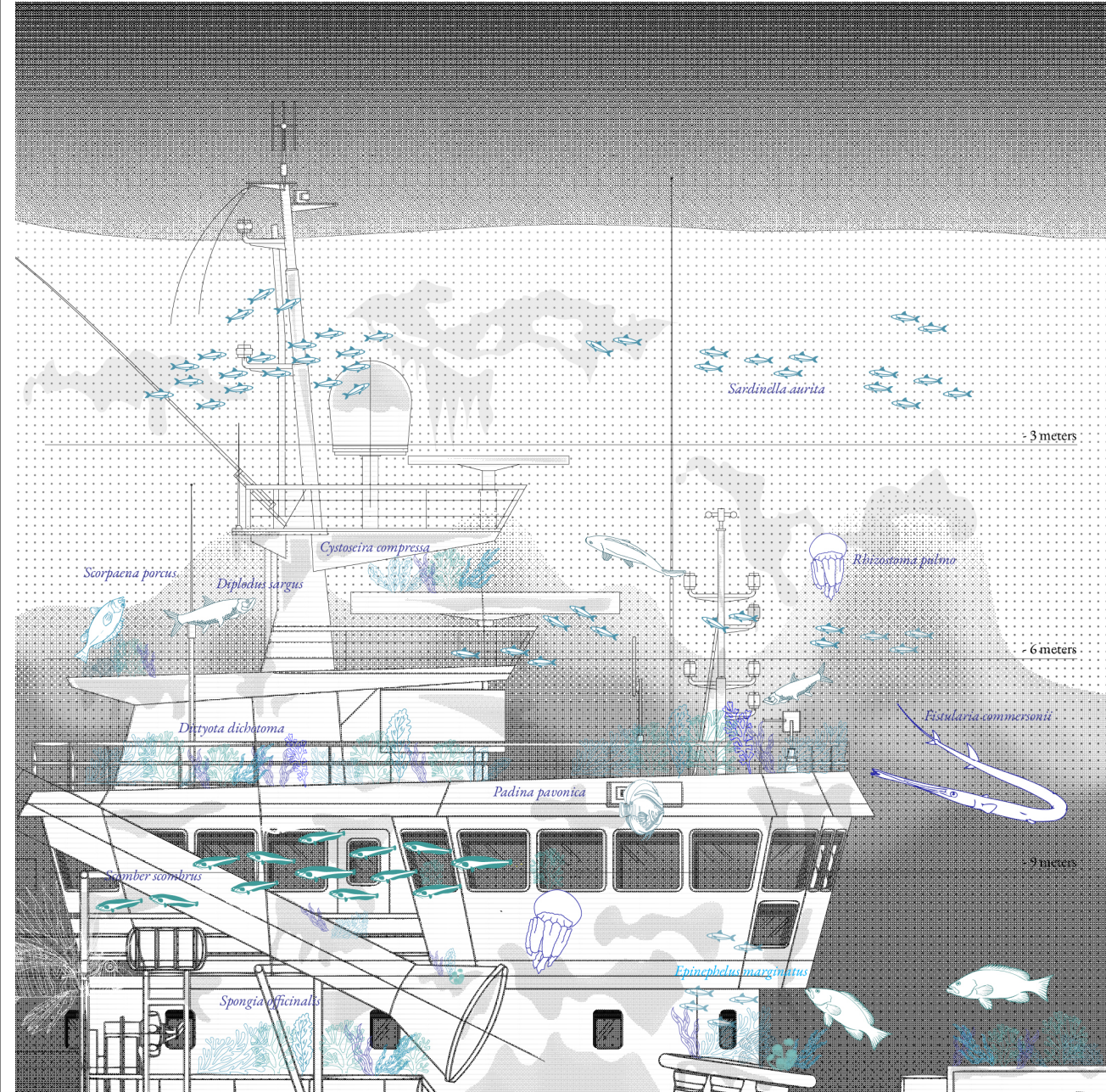


ENTITY

LABORATORY

DISPOSITIF

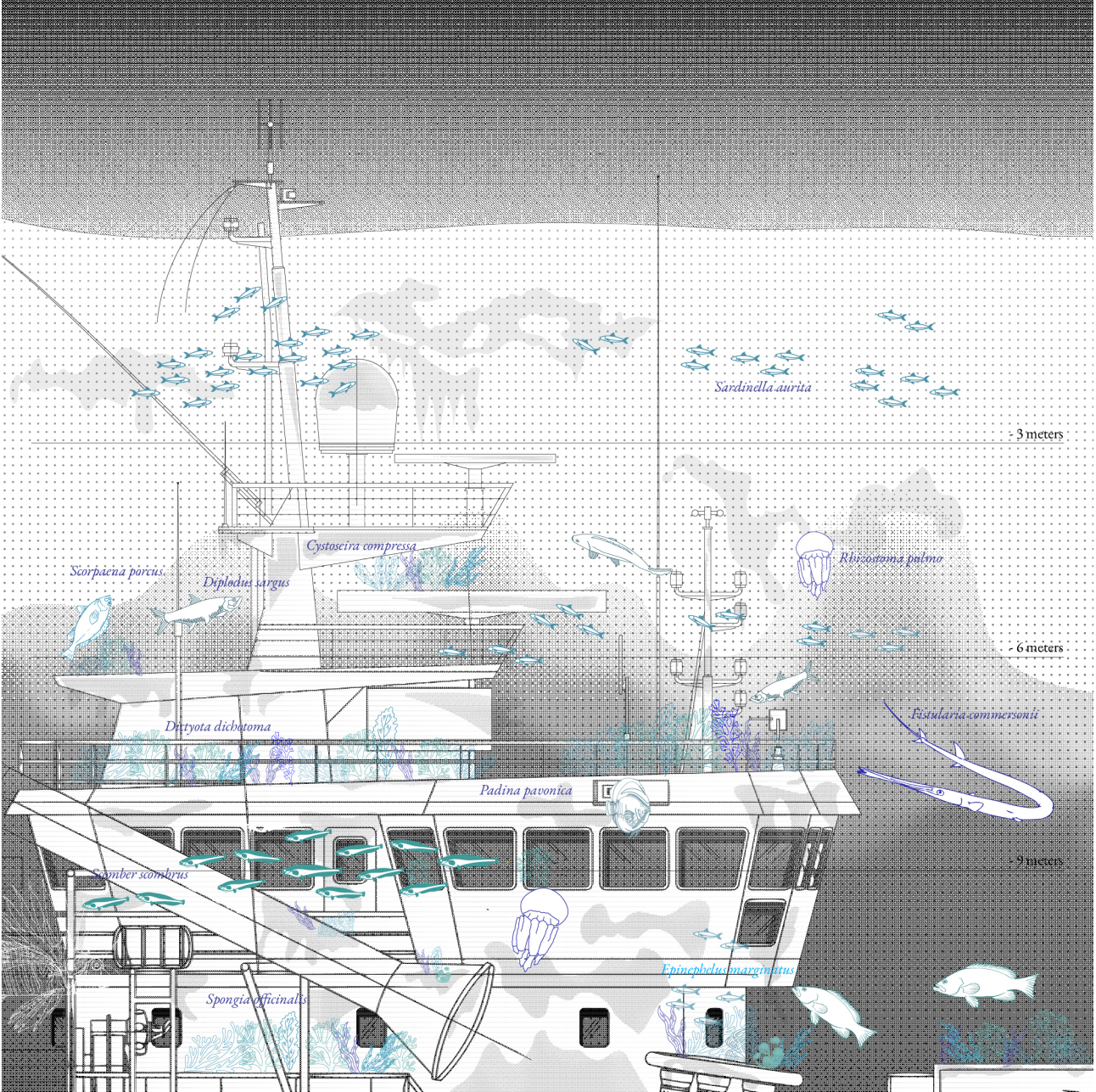




Spatial Bastard II - Shipwrecks as maritime biodiversity oasis



ENTITY

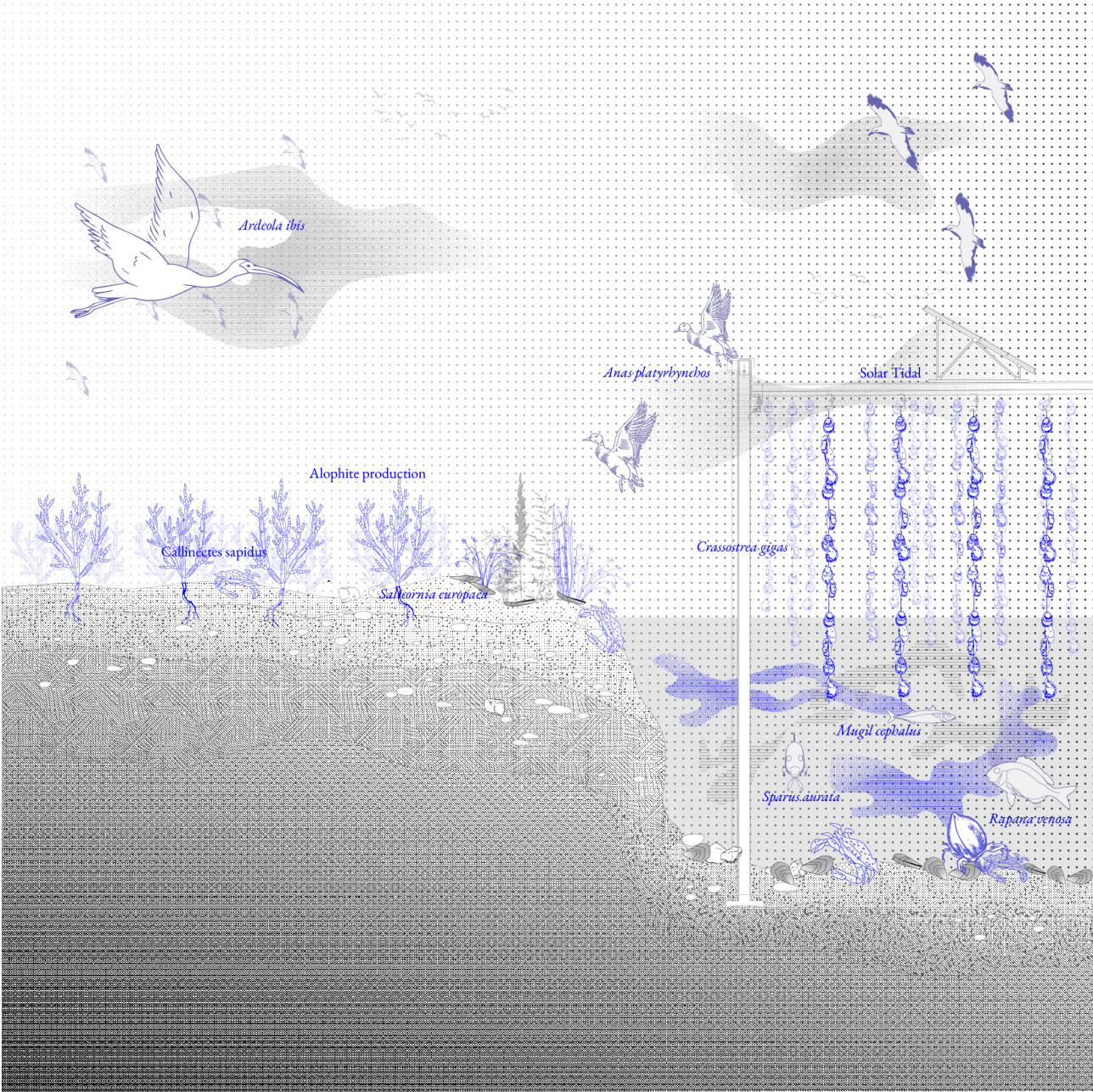


LABORATORY

DISPOSITIF



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LABORATORY

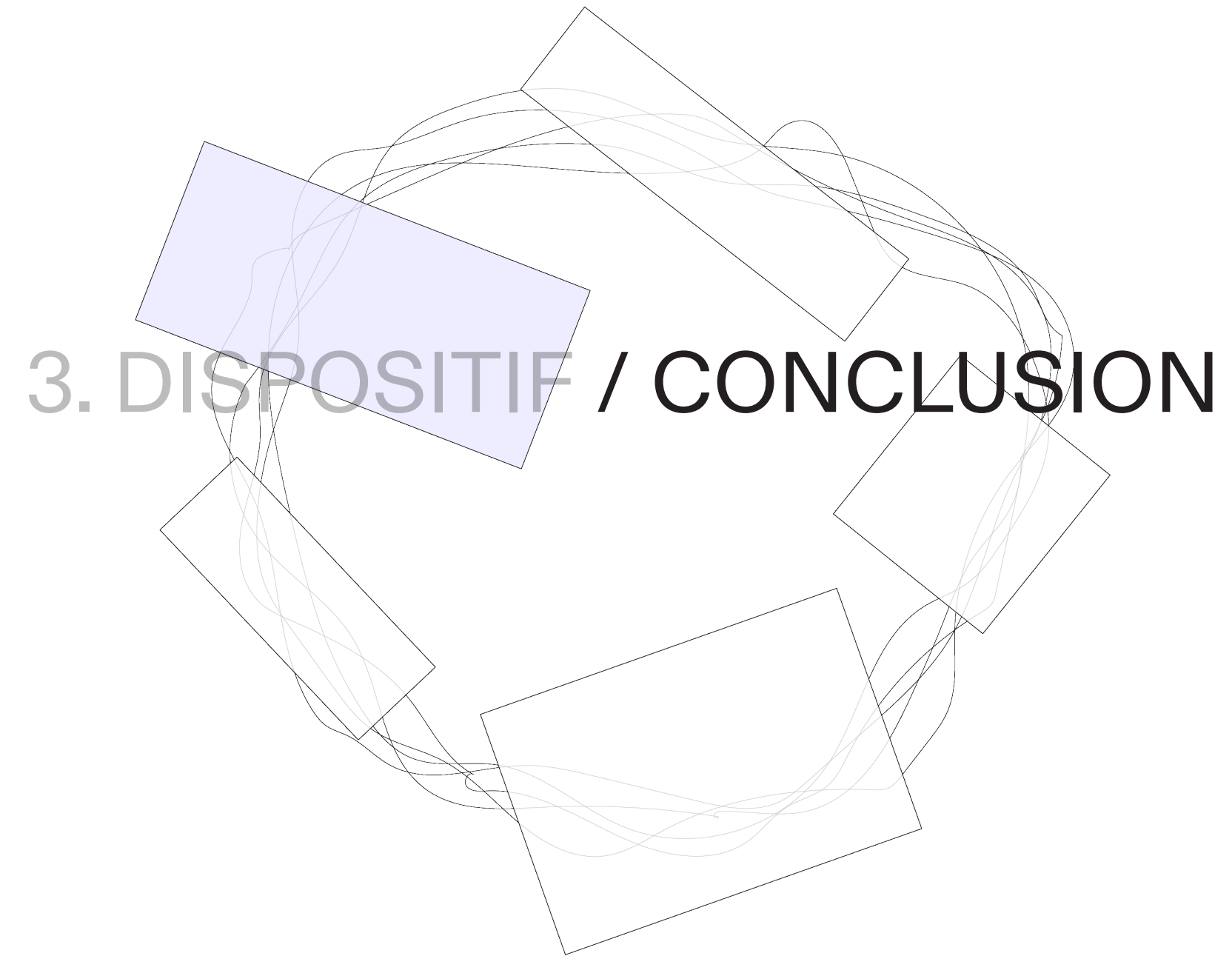
DISPOSITIF

3. DISPOSITIF / CONCLUSION

ADRIATIC MASTERPLAN

COVENANT OF CARE

REFLECTION

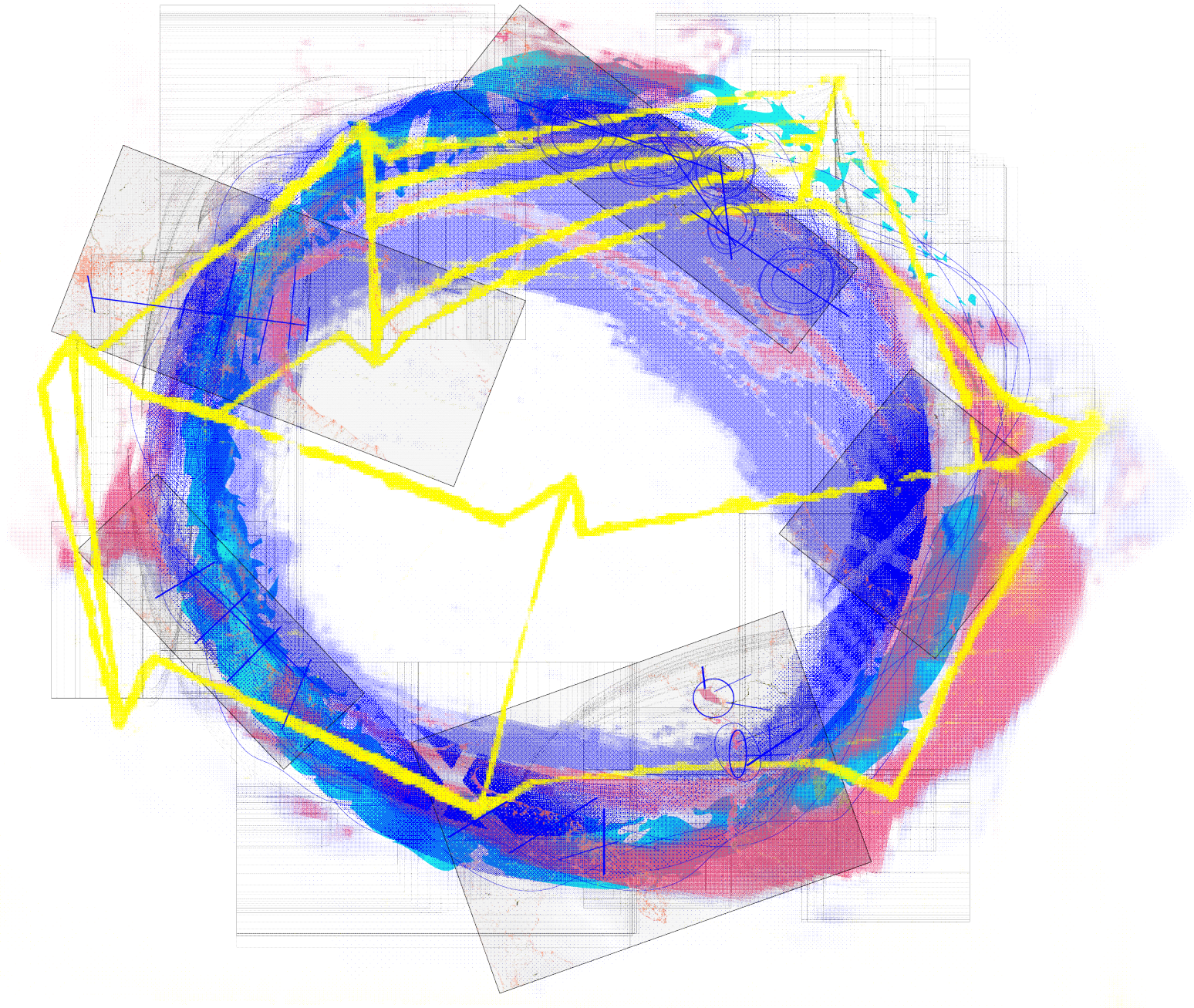


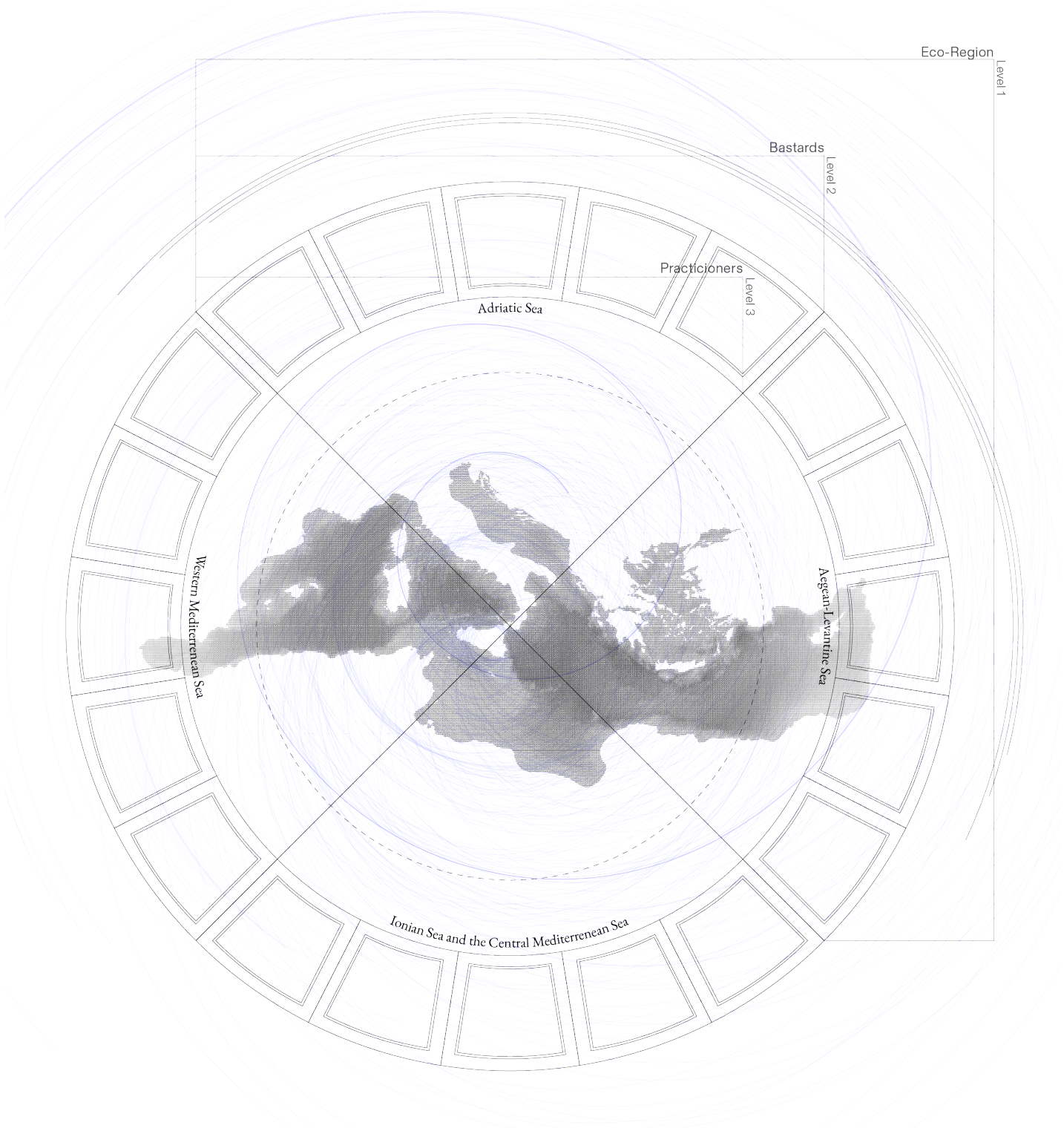
3. DISPOSITIF / CONCLUSION

ENTITY

LABORATORY

DISPOSITIF





'ECOLOGY AND CREATIVITY SPEAK NOT OF FIXED AND RIGID
REALITIES BUT OF MOVEMENT, PASSAGE, GENESIS, AND
AUTONOMY, OF PROPULSIVE LIFE UNFOLDING IN TIME'

J. Corner, 1997

The need of **BASTARD URBANISM**

ENTITY

LABORATORY

DISPOSITIF

The need of **BASTARD TOOLS**

SPATIAL BASTARDS

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DISPOSITIF

TO STAY AND TRASFORM WITH THE TROUBLE
THE MEDITERRENEAN TERRITORIES

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DISPOSITIF