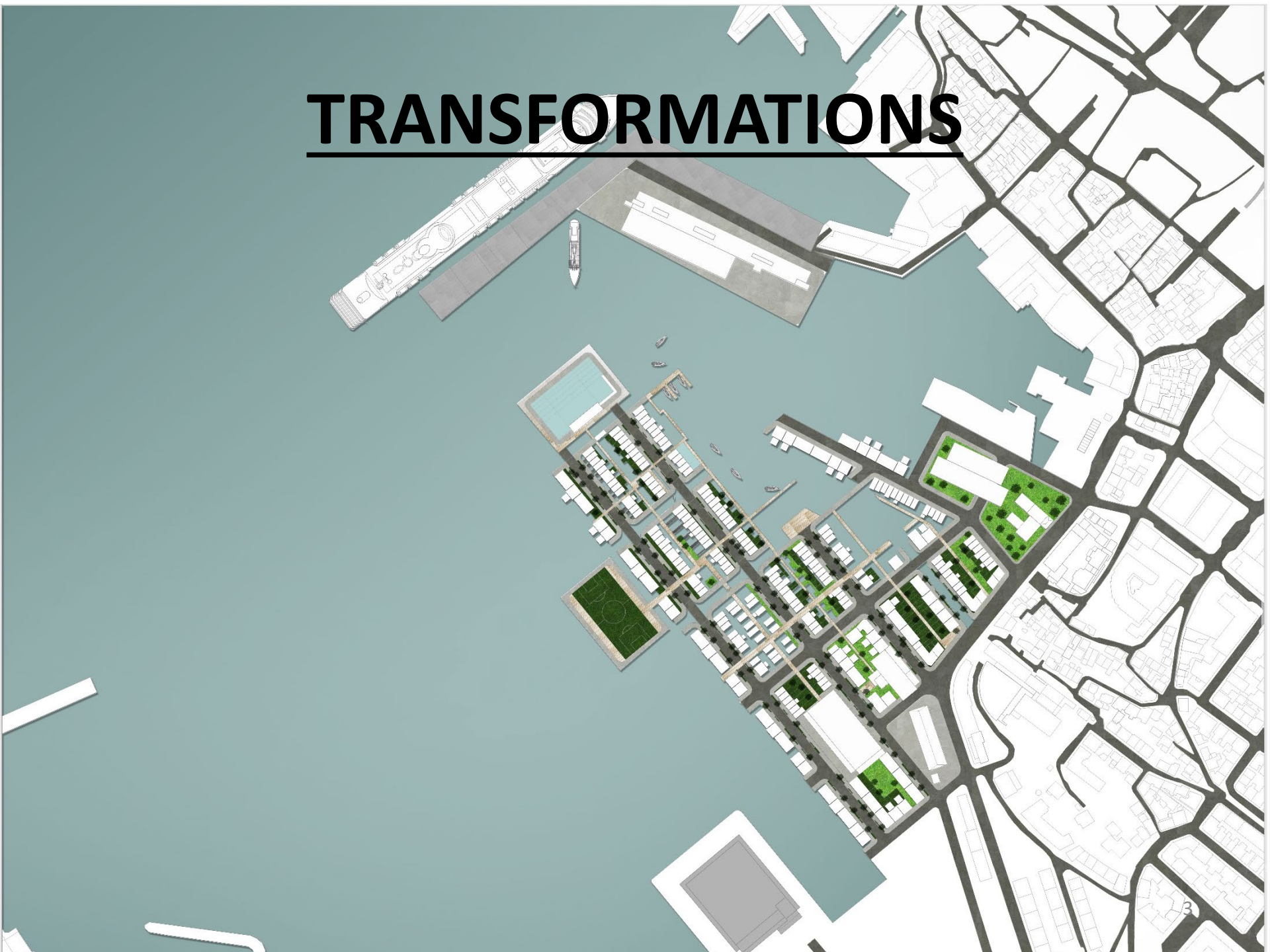
ADAPTABLE URBAN FABRICS

Urban Design in waterfront areas with high climatic and urbanization variability, in Bergen, Norway

WATERFRONT

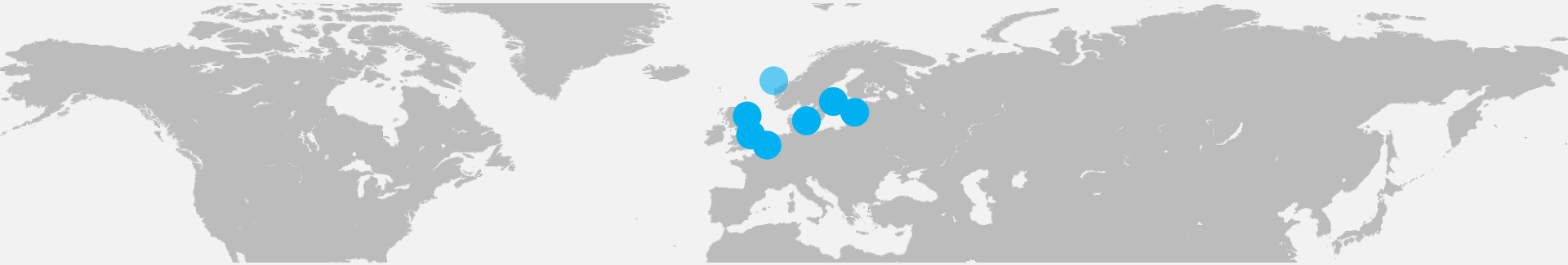
TRANSFORMATIONS



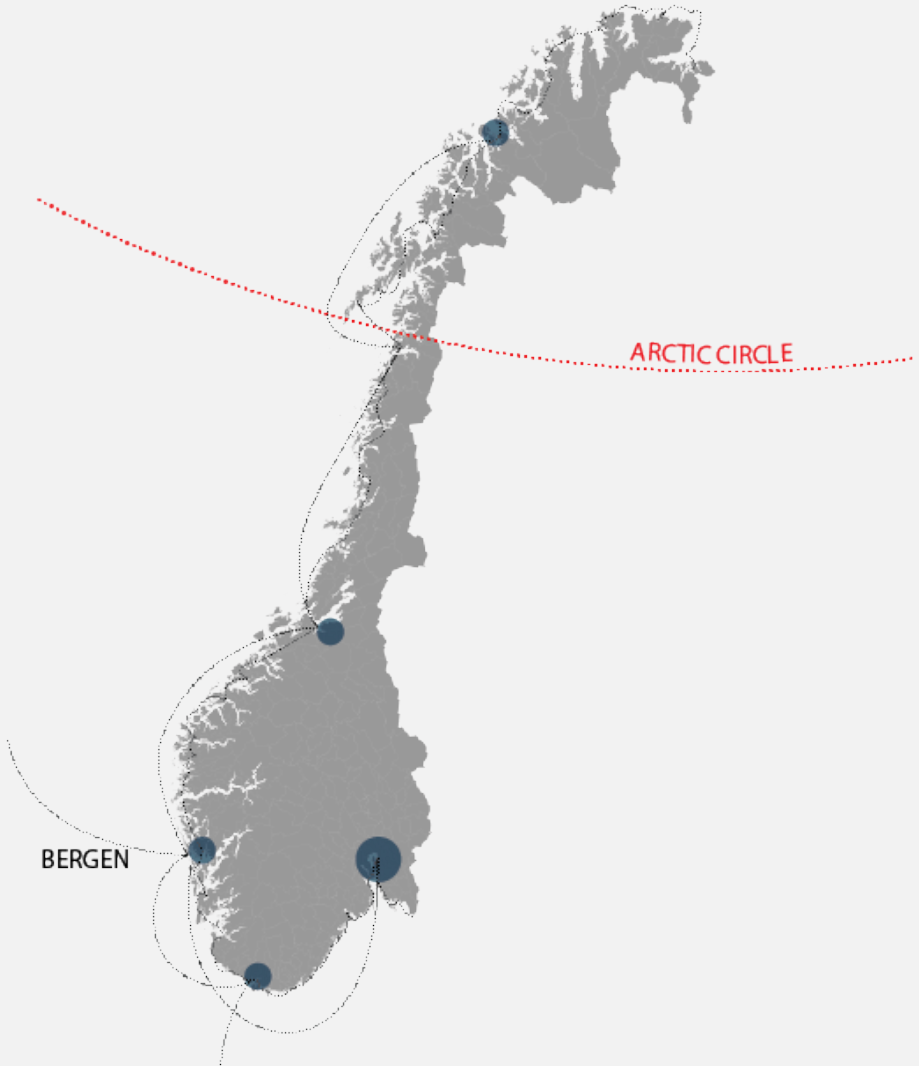
URBAN QUALITIES

A DESIGN OF ADAPTATION

NORTHERN HEMISPHERE



NORWAY



BERGEN

CITY CENTER

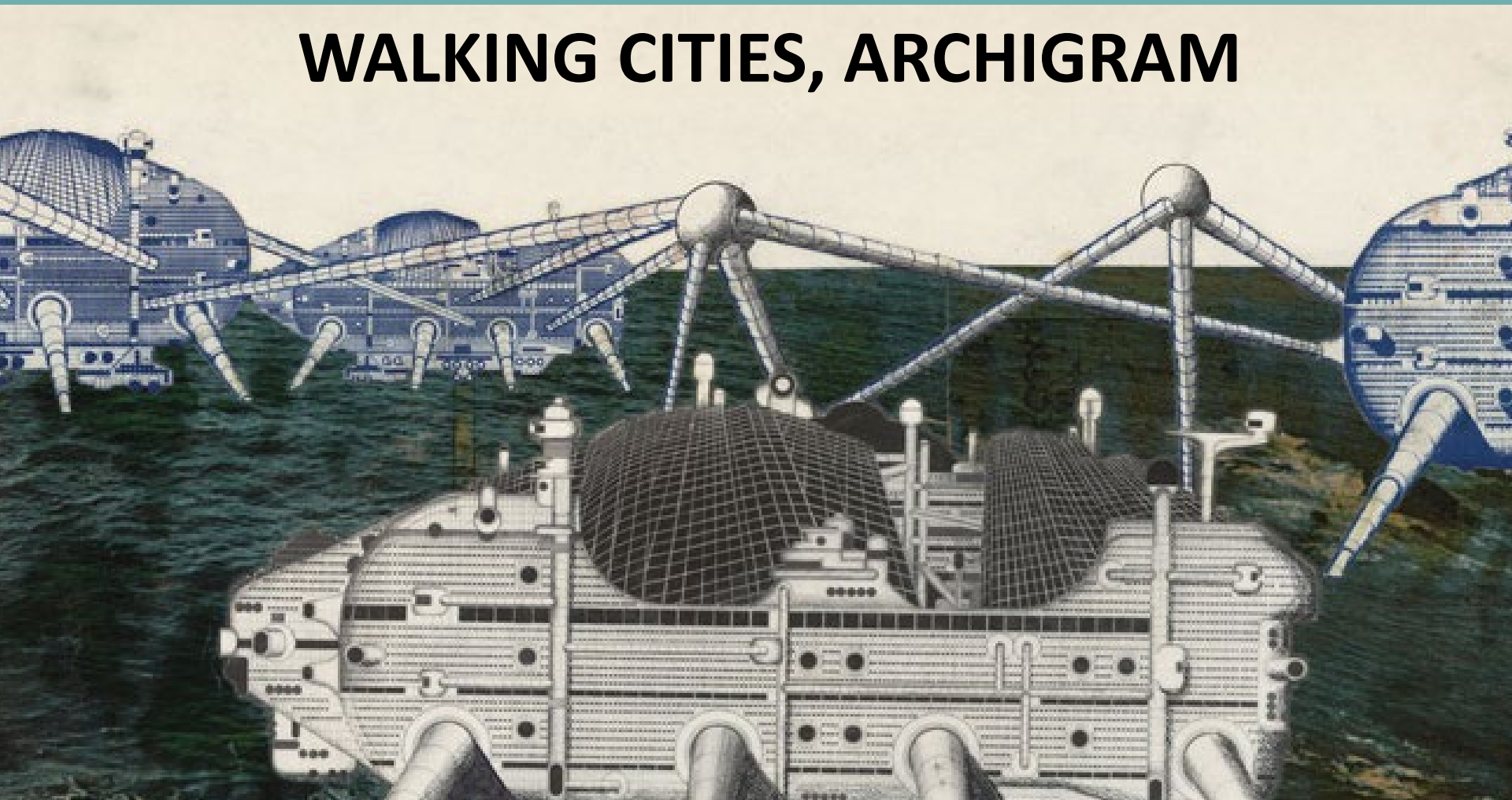
CLIMATE VARIABILITY

SPRAWL, NEED OF HOUSING

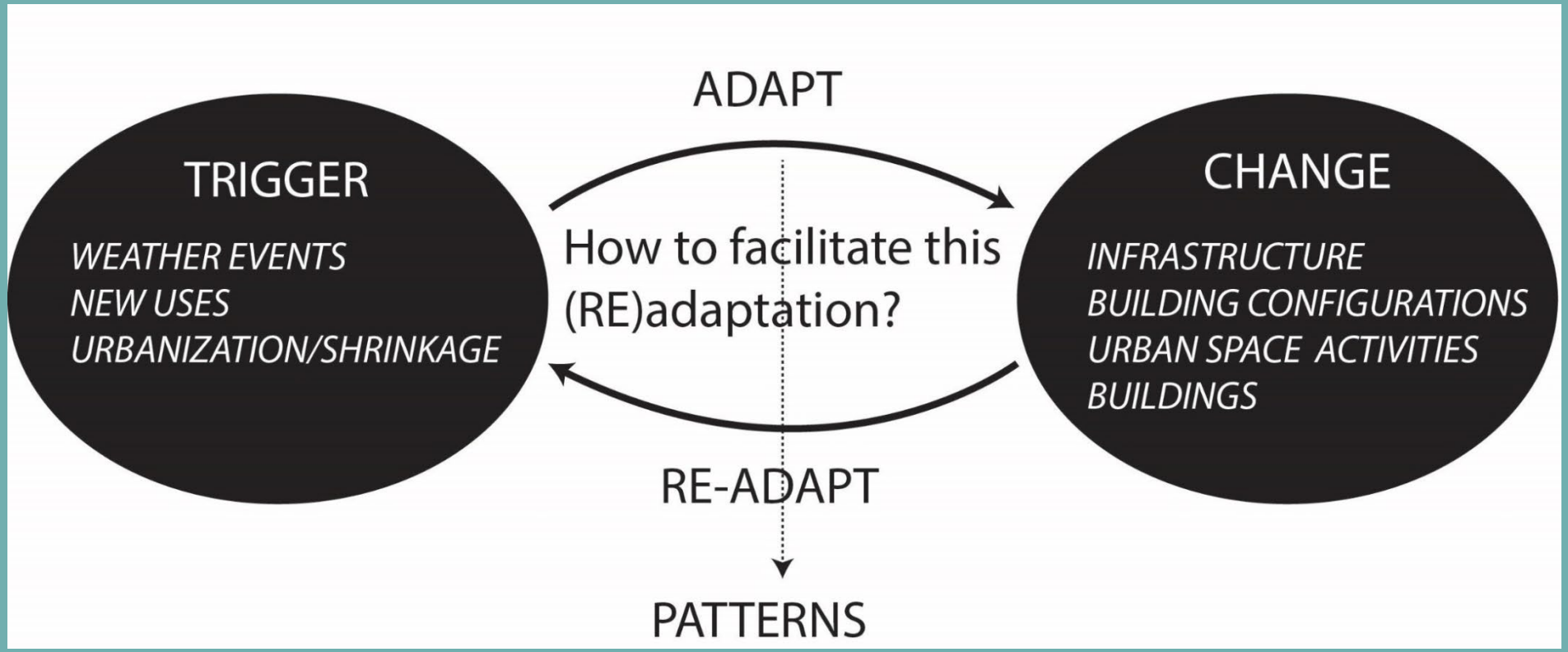
WATERFRONT CHANGES OF USE

VARIABILITY AS OPPORTUNITY

WALKING CITIES, ARCHIGRAM



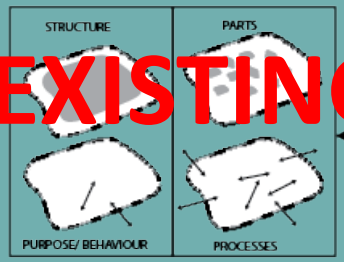
The problem of current waterfront developments in Bergen, Norway is inability TO PLAN FOR CLIMATE CHANGE, USE AND URBANIZATION CHANGES in a more adaptable and flexible way from a PHYSICAL AND TEMPORAL POINT OF VIEW in order to have usable urban spaces.


ADAPT
TRIGGER
WEATHER EVENTS
NEW USES
URBANIZATION/SHRINKAGE
How to facilitate this
(RE)adaptation?
CHANGE
INFRASTRUCTURE
BUILDING CONFIGURATIONS
URBAN SPACE ACTIVITIES
BUILDINGS
RE-ADAPT
PATTERNS

PREPARE FOR CONSTANT CHANGE

HOW TO DESIGN?

RESEARCH EXISTING



DEFINITION & ANALYSIS

EXISTING

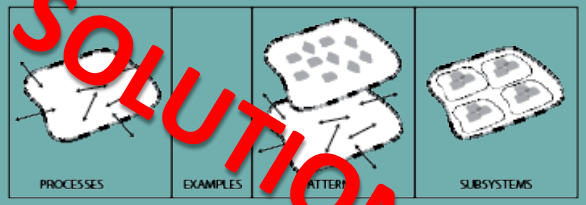
DESIGN & RESEARCH

OUTPUT

CONCLUSIONS

VISUALIZE

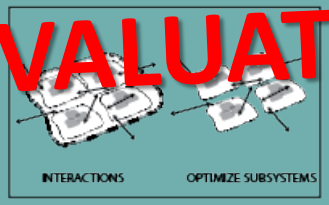
RESEARCH



SOLUTIONS

SOLUTIONS

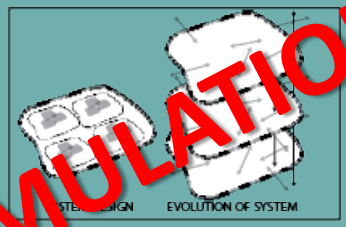
RESEARCH & DESIGN



EVALUATE

EVALUATE & OPTIMIZE

DESIGN

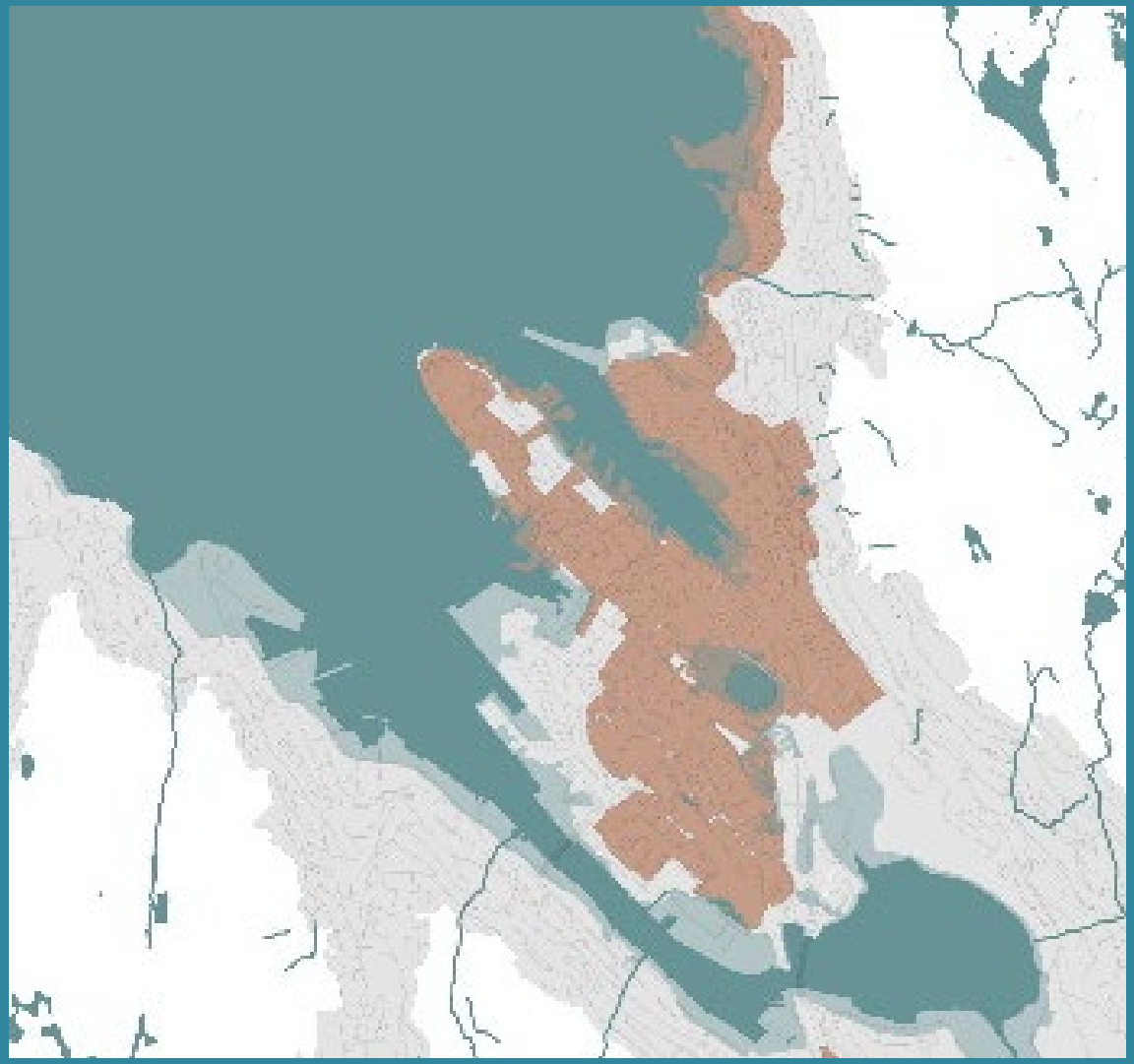


SIMULATIONS

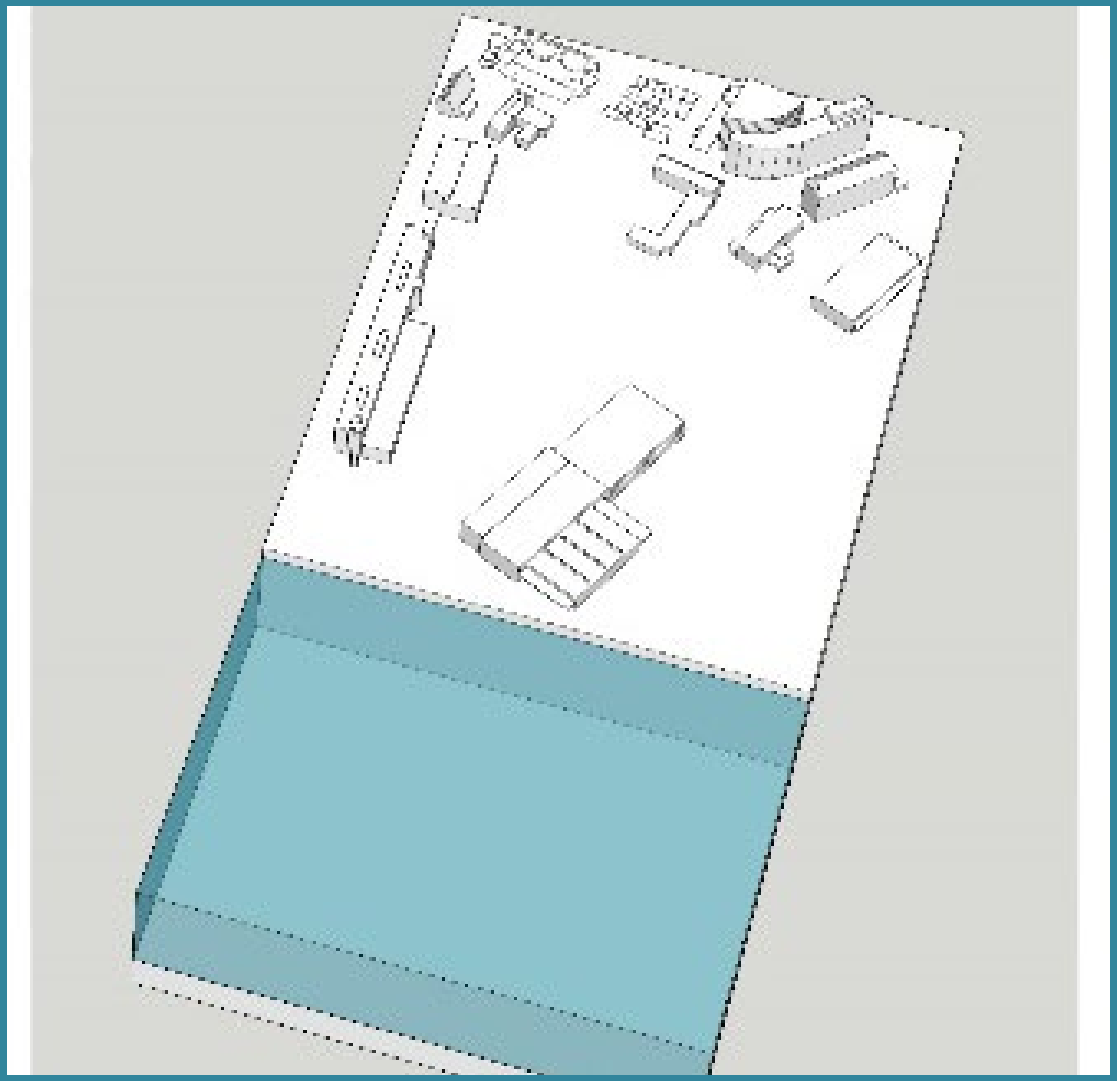
SOLUTIONS & SIMULATION

WATERFRONT BERGEN

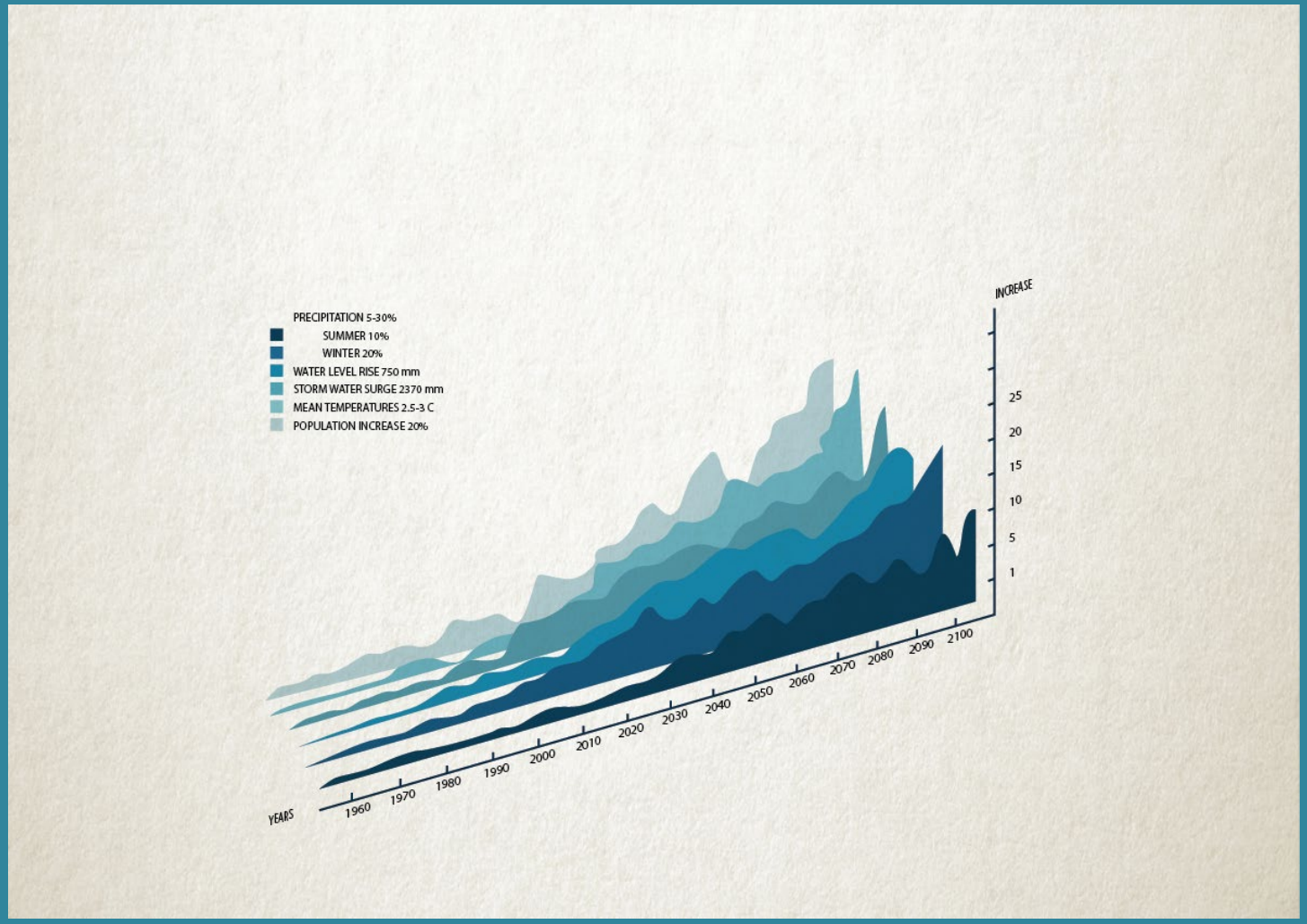
POSIBILITY OF CHANGE



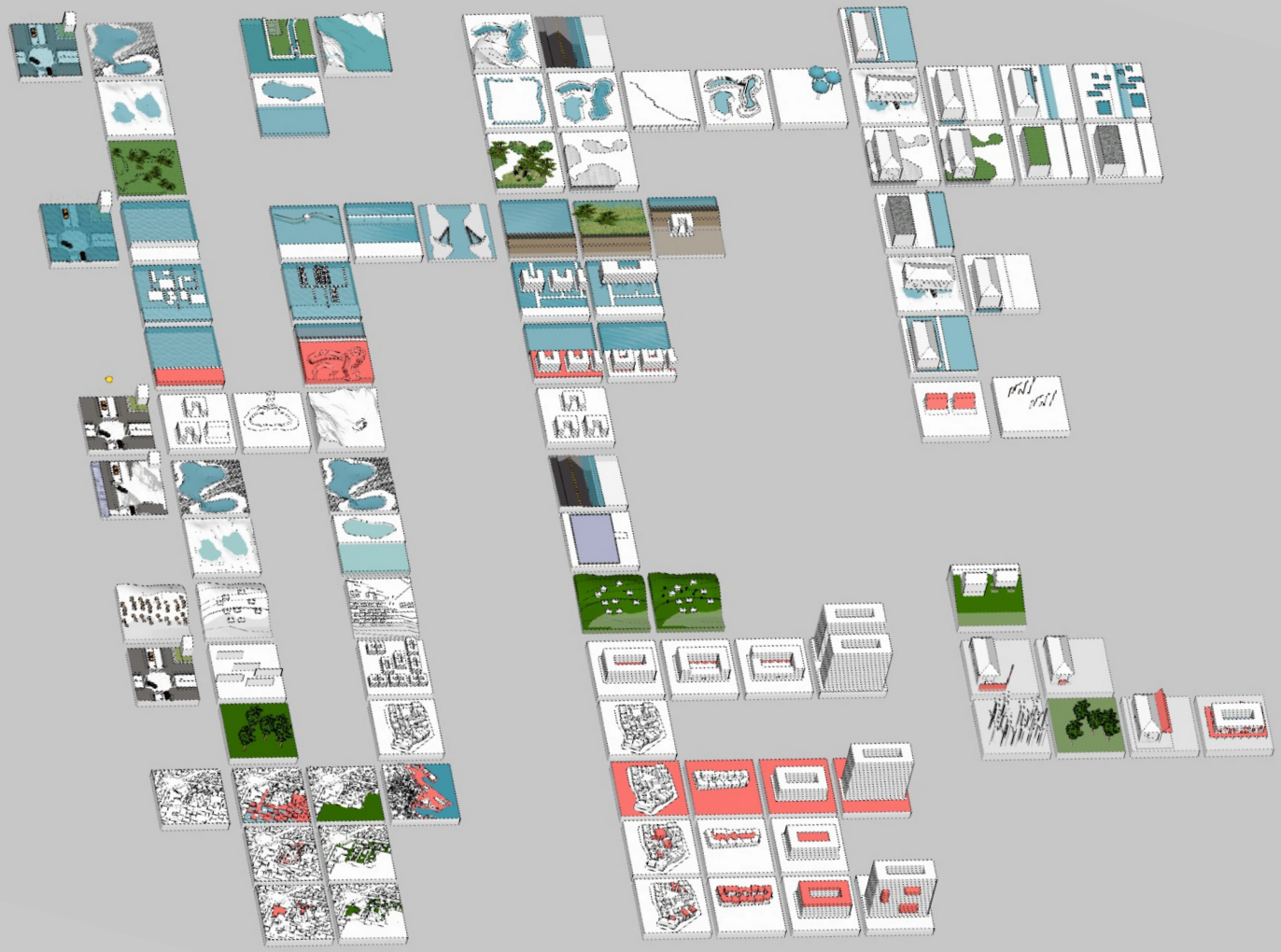
HIGHEST CHANGE



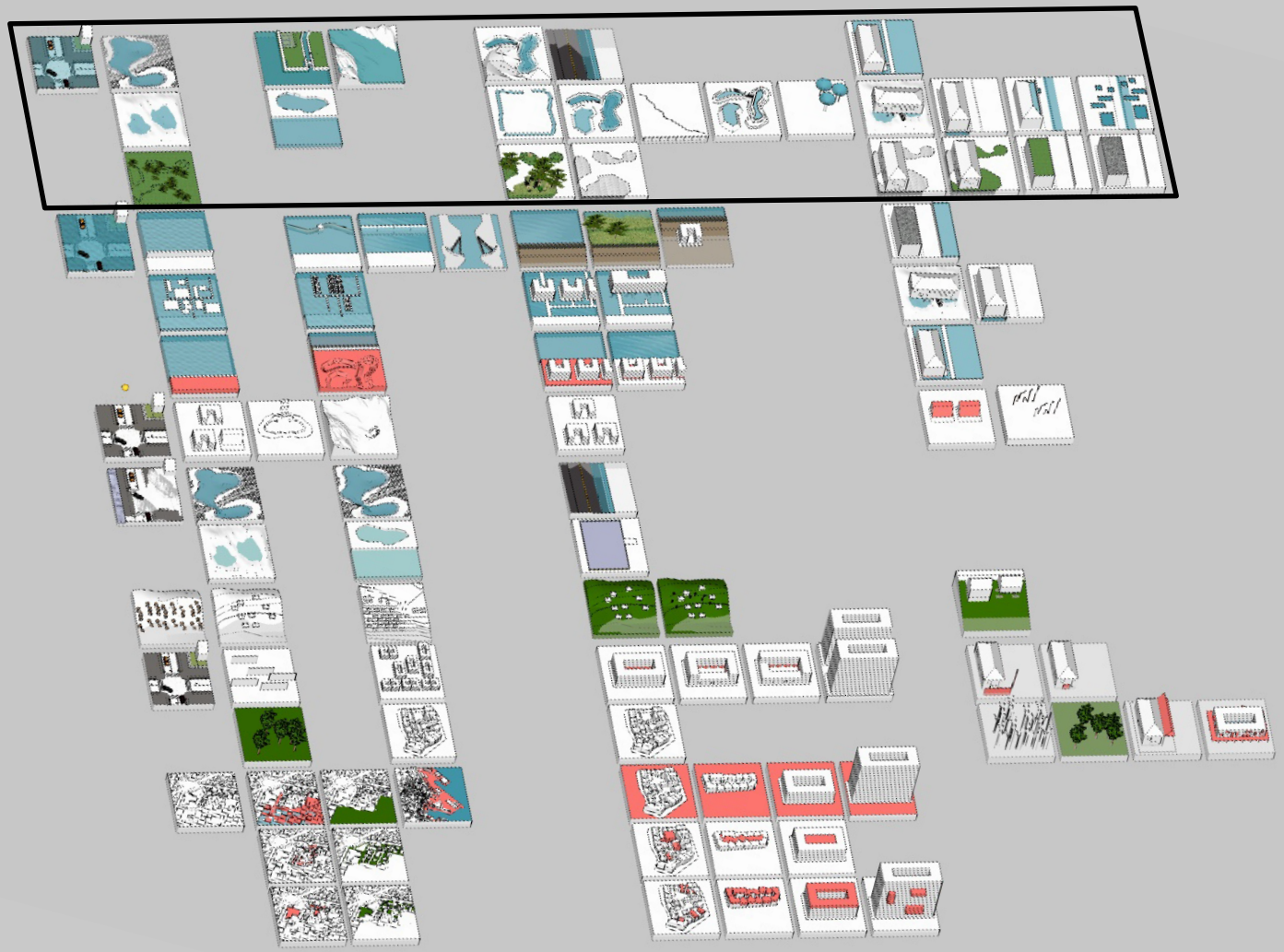
TIMELINE OF CHANGE



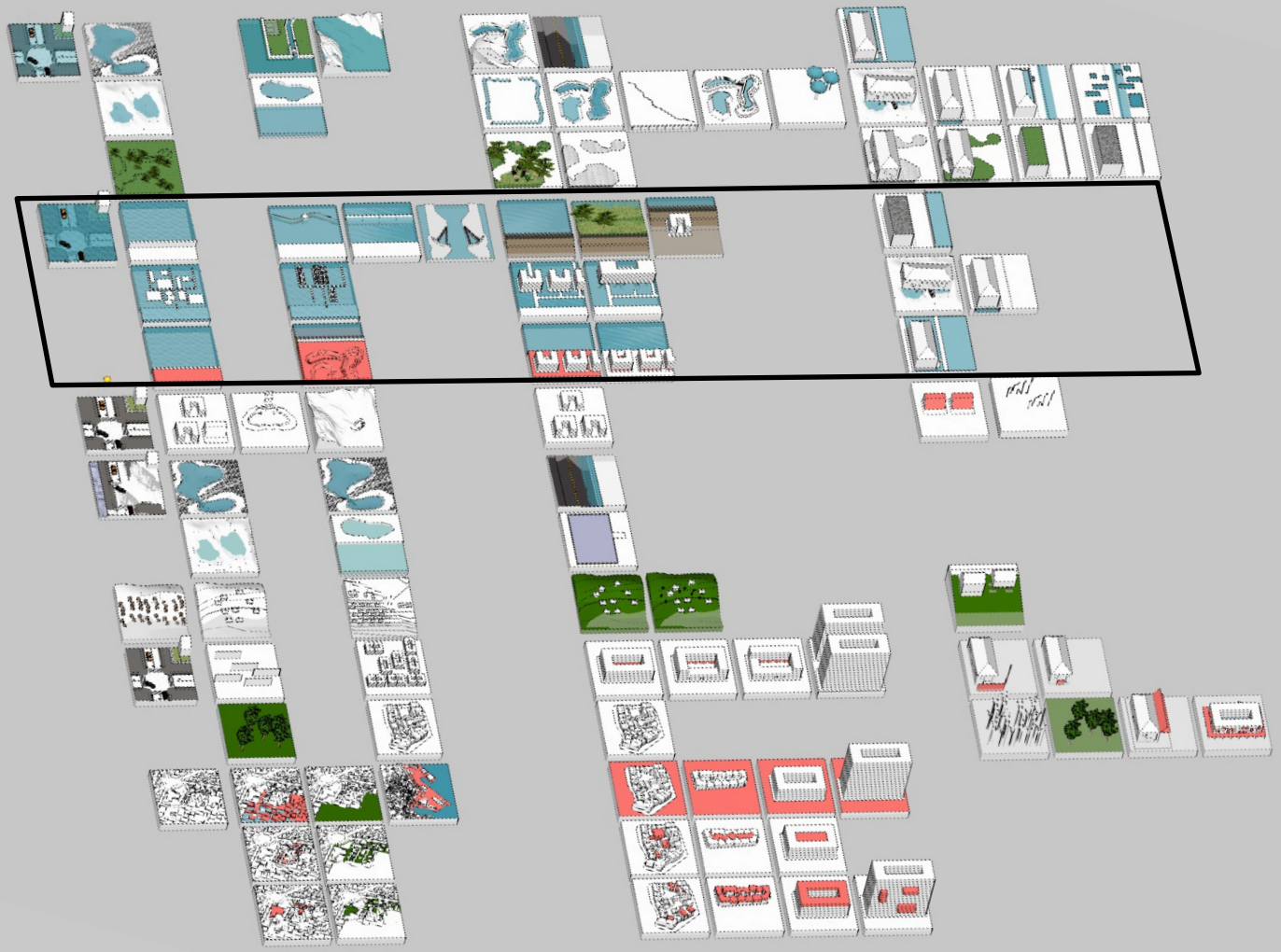
PATTERNS



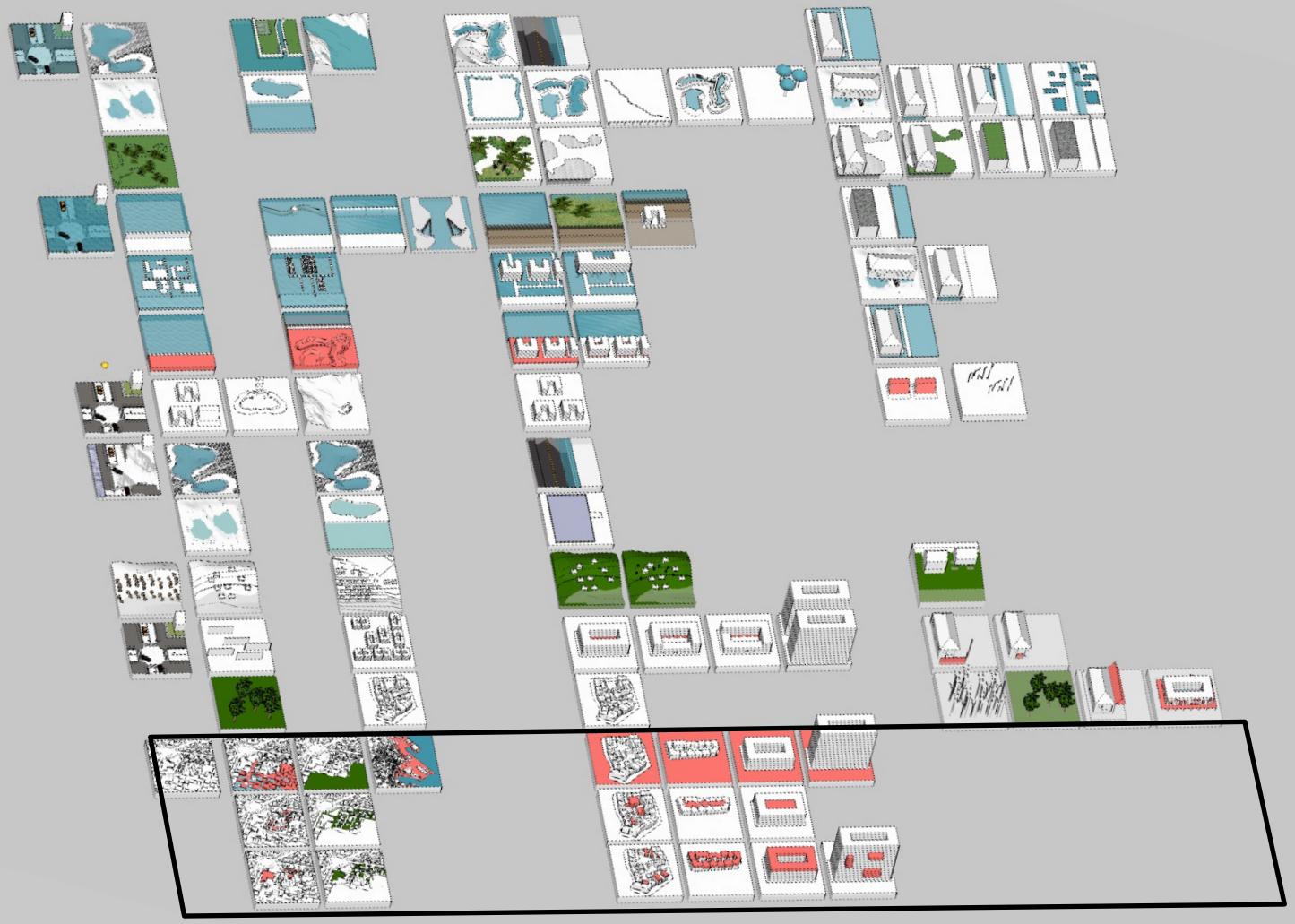
PATTERNS- PRECIPITATIONS



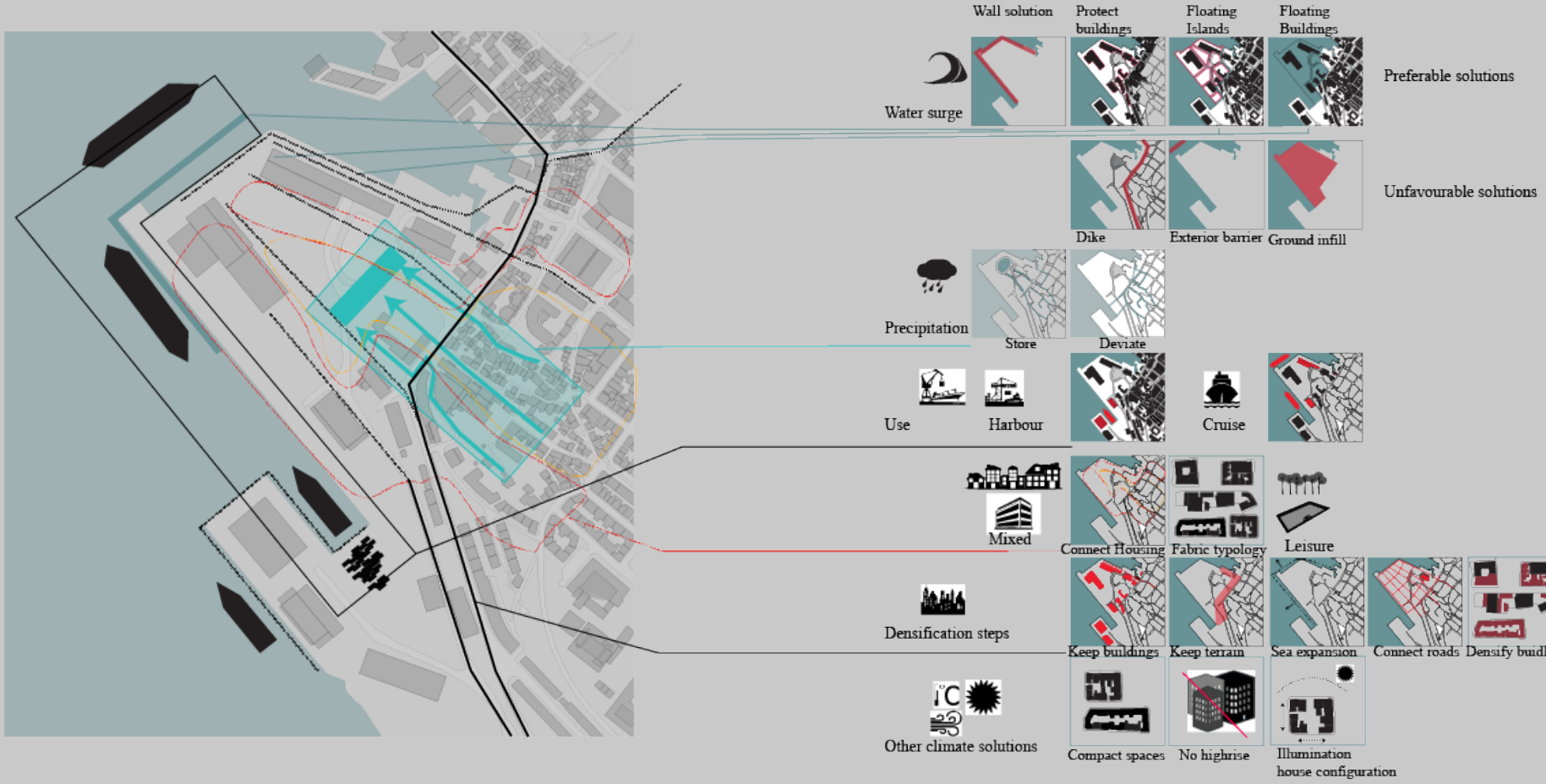
PATTERNS - WATER SURGE



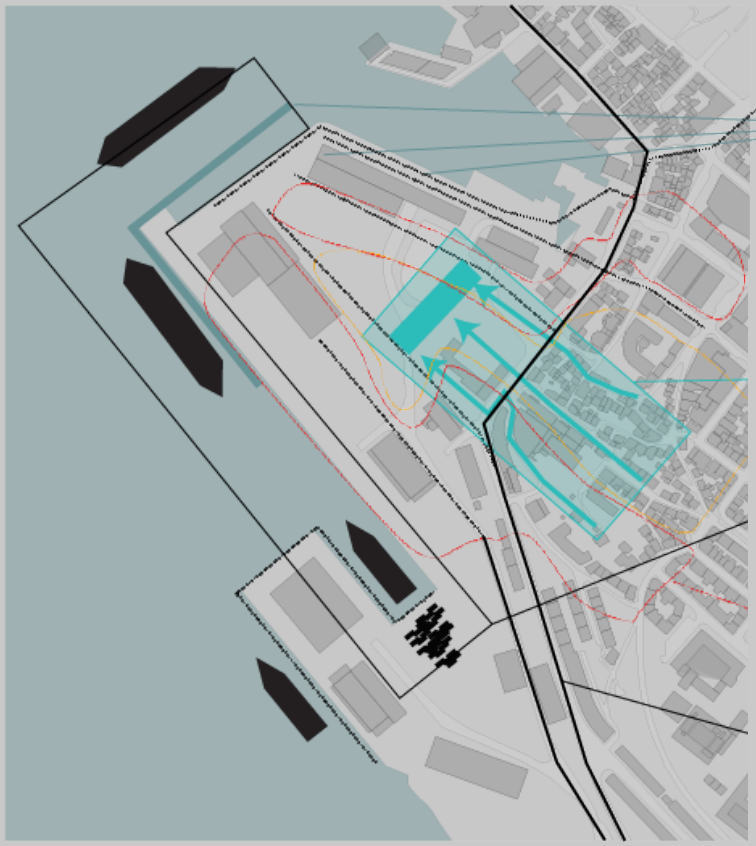
PATTERNS - URBANISATION

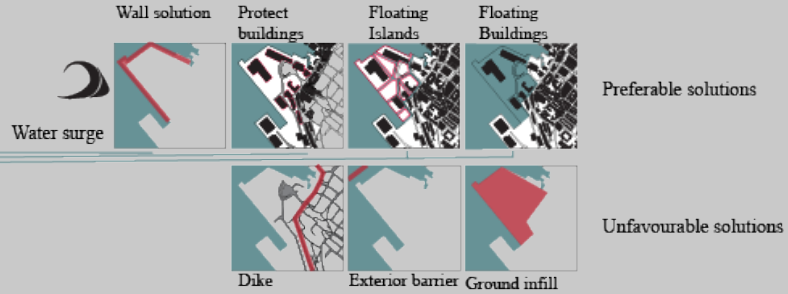


STRATEGY

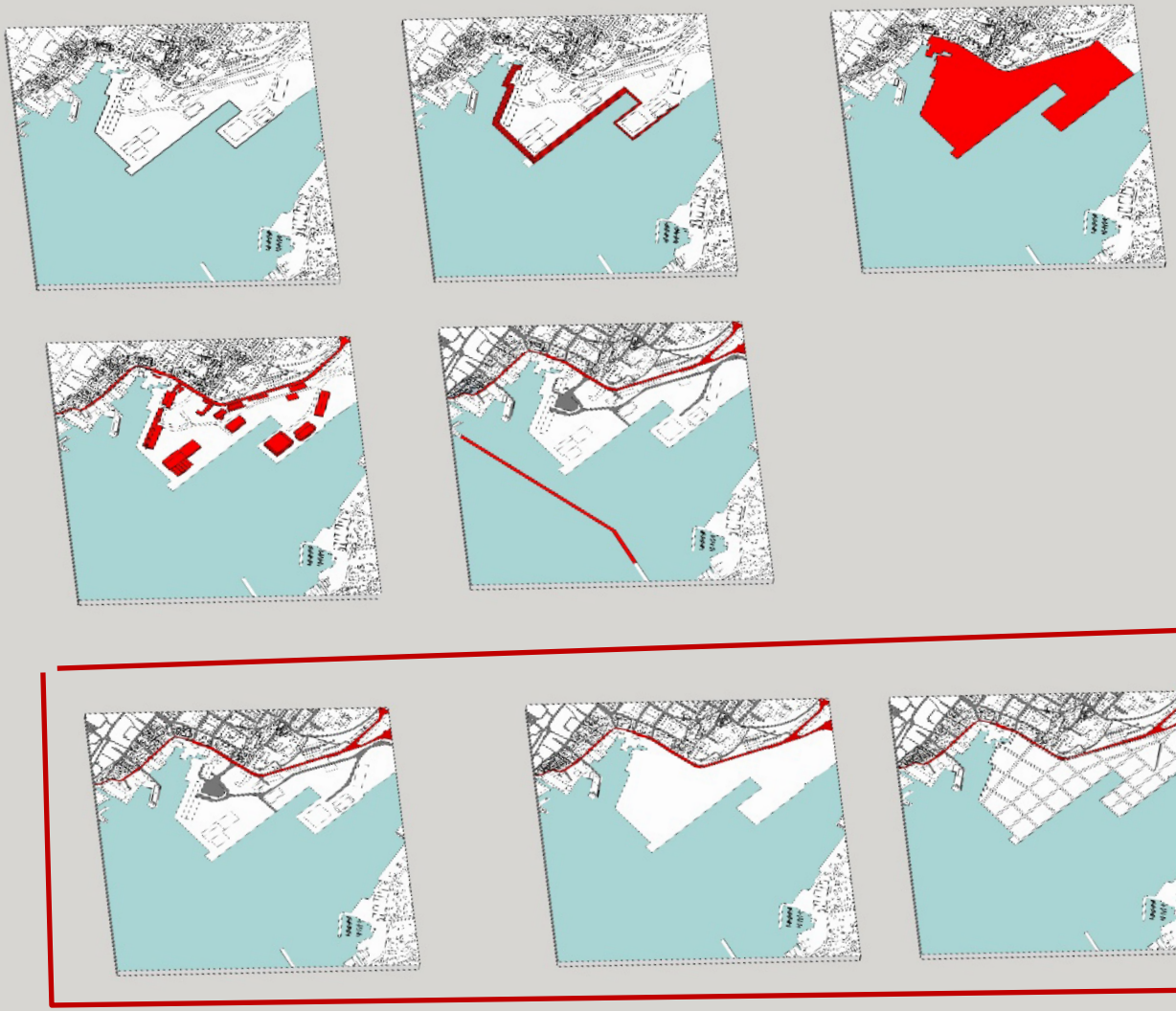

Wall solution
Protect buildings
Floating Islands
Floating Buildings
Water surge
Preferable solutions
Unfavourable solutions
Dike
Exterior barrier
Ground infill
Precipitation
Store
Deviate
Use
Harbour
Cruise
Mixed
Connect Housing
Fabric typology
Leisure
Densification steps
Keep buildings
Keep terrain
Sea expansion
Connect roads
Densify buildi
Other climate solutions
Compact spaces
No highrise
Illumination
house configuration

STRATEGY WATER SURGE

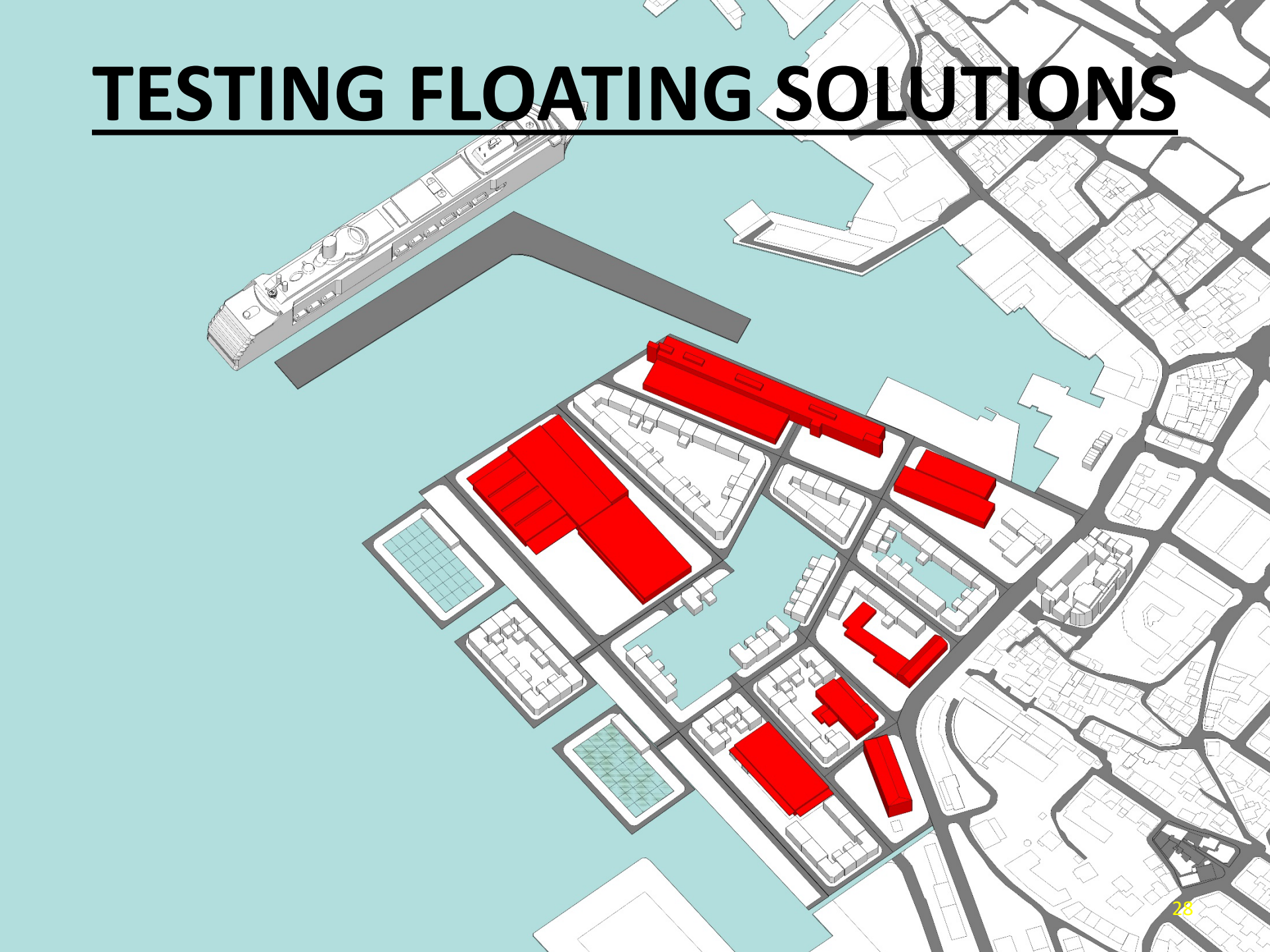




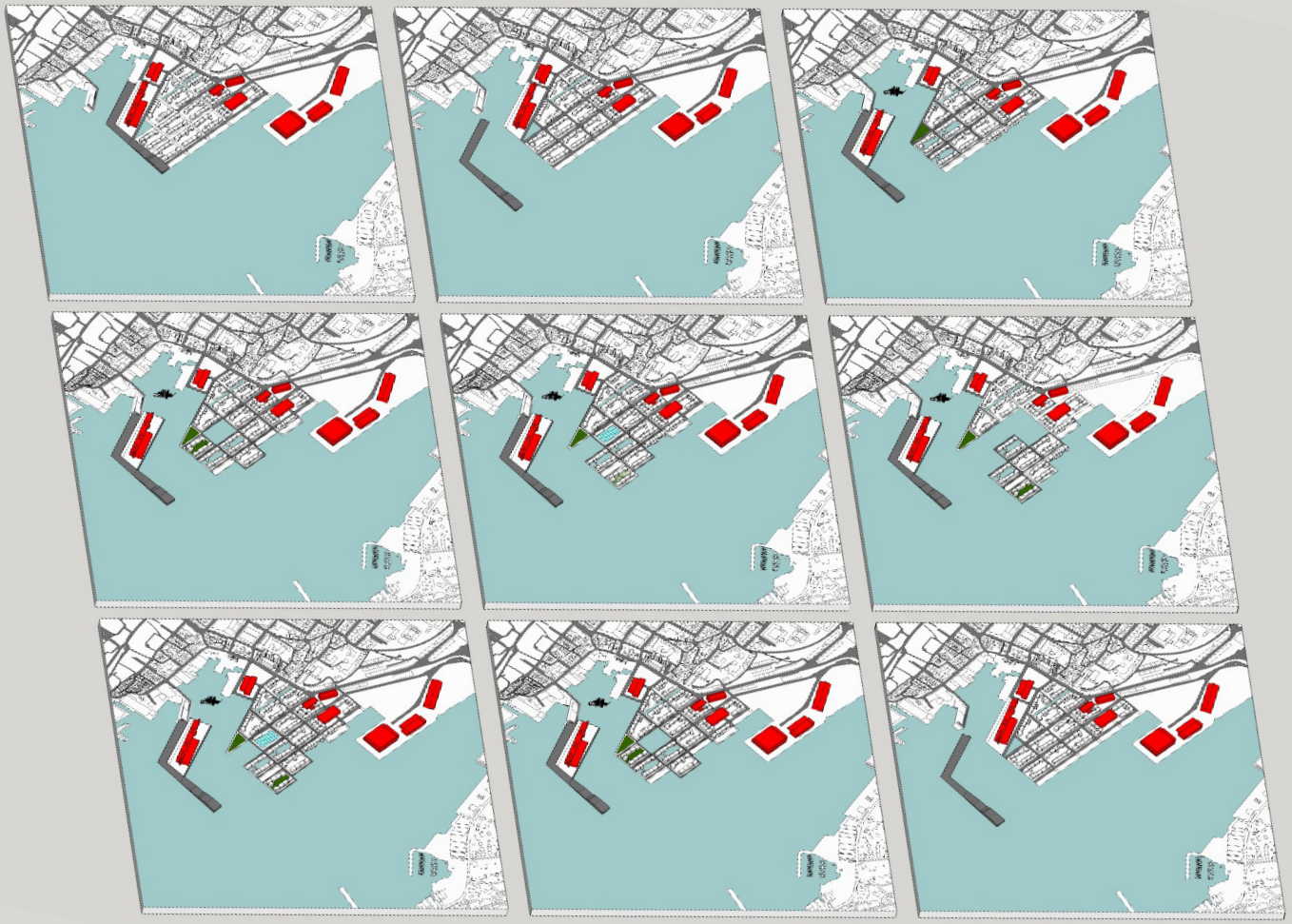
TEST SOLUTIONS



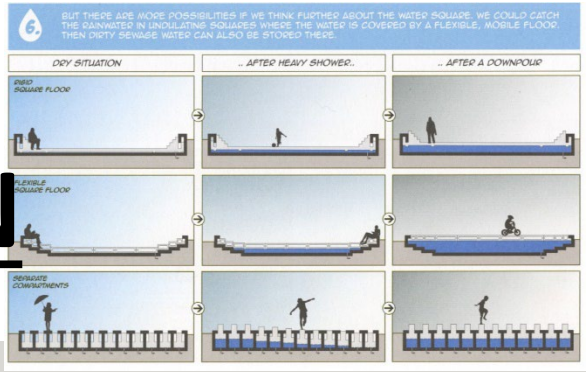
TESTING FLOATING SOLUTIONS

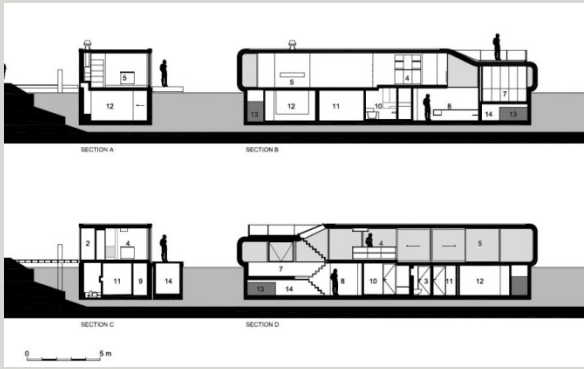


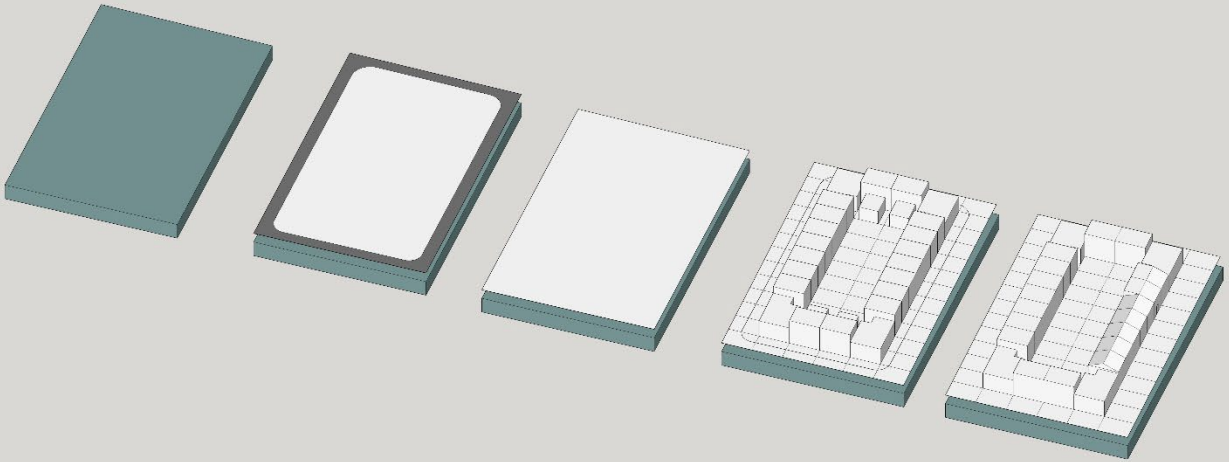
TRANSFORMATION



OPTIMIZATION

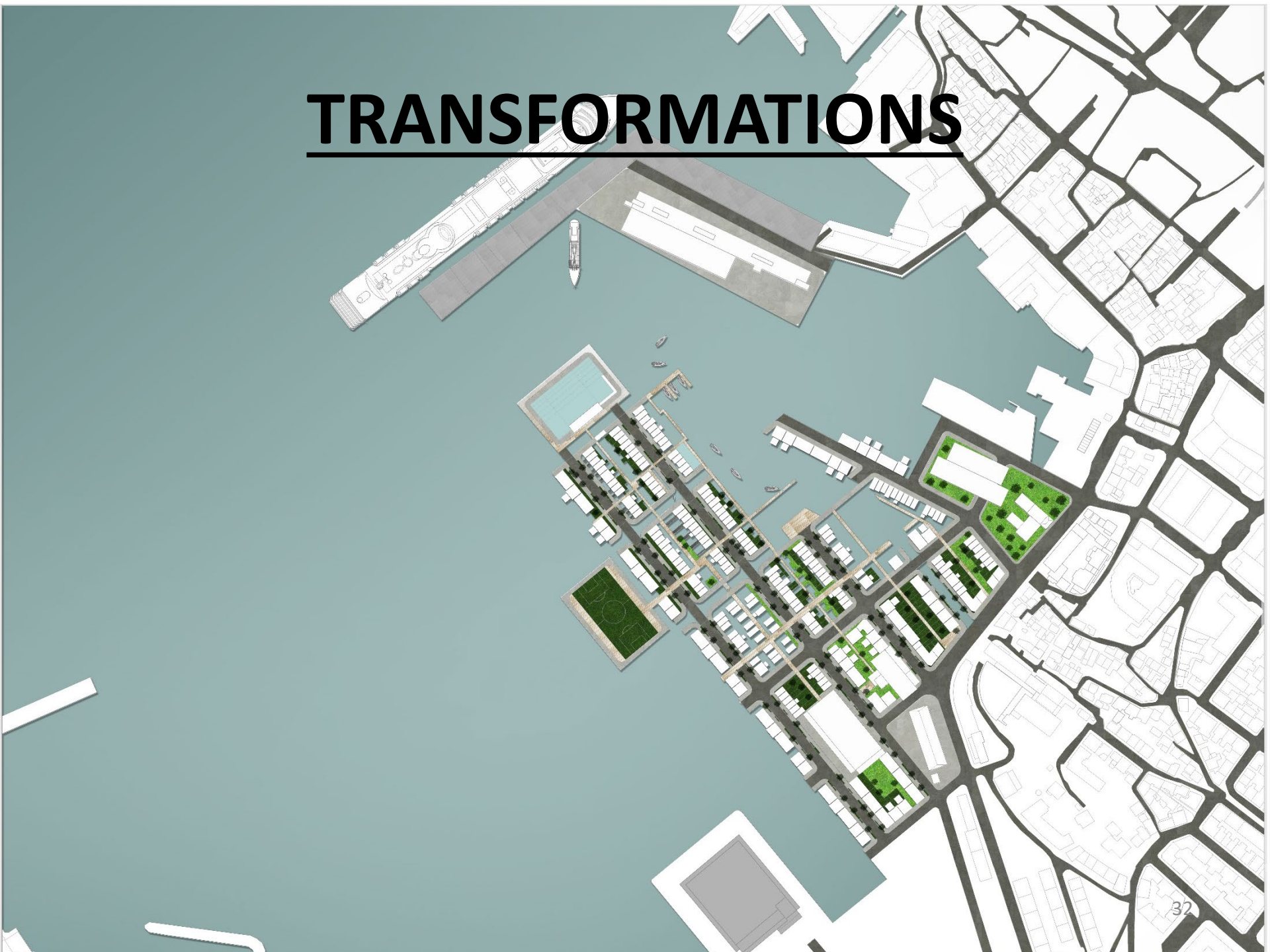






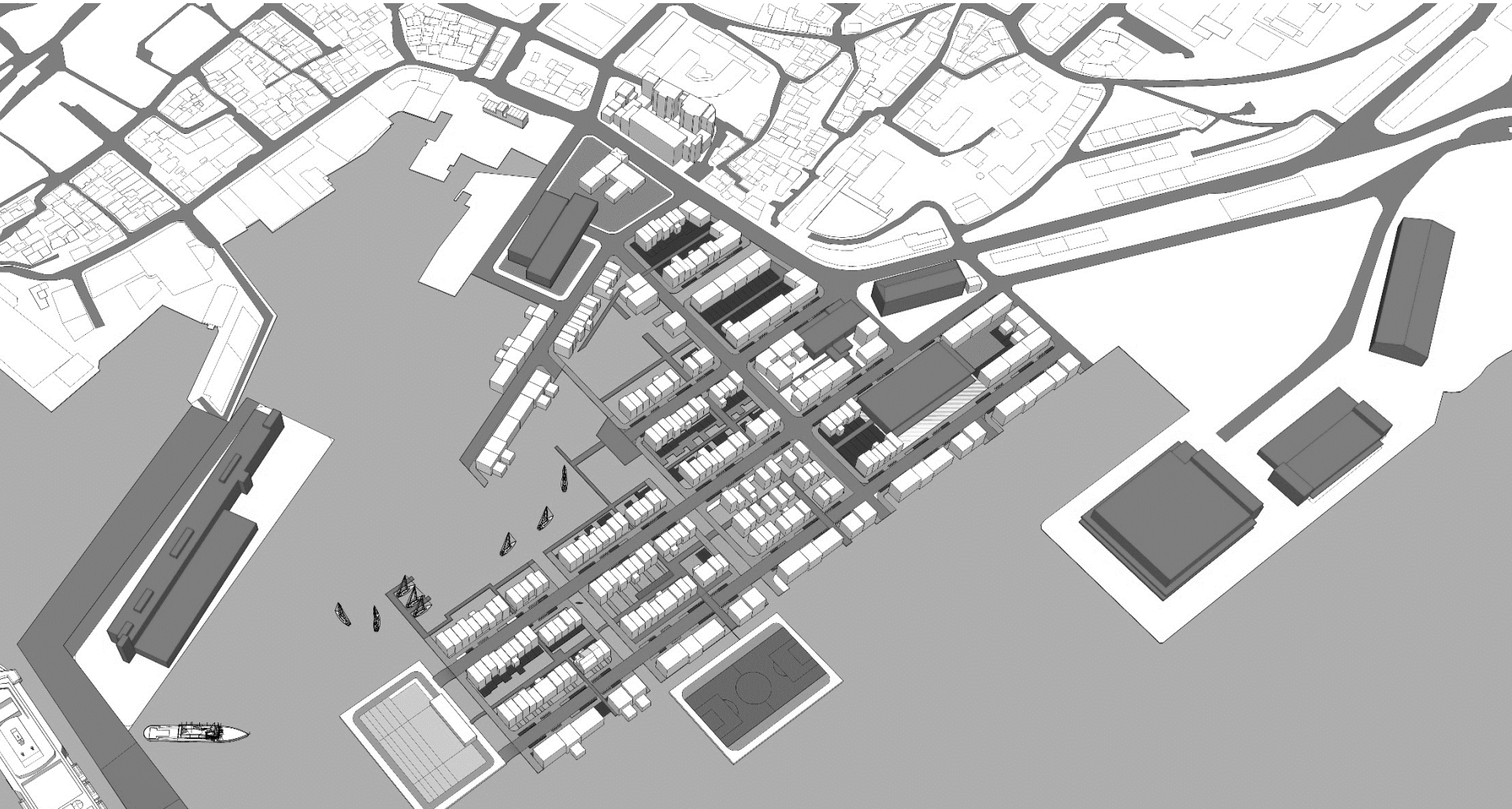
WATERFRONT

TRANSFORMATIONS



URBAN QUALITIES

DISTINCTIVE VS CONTEXT SENSITIVE



DEFINED VS UNDEFINED SPACES

WATER VISTAS

COMPLEXITY

CONCLUSIONS