



Caterina Padoa Schioppa

MAPS AND DIAGRAMS AS GENERATIVE DEVICES

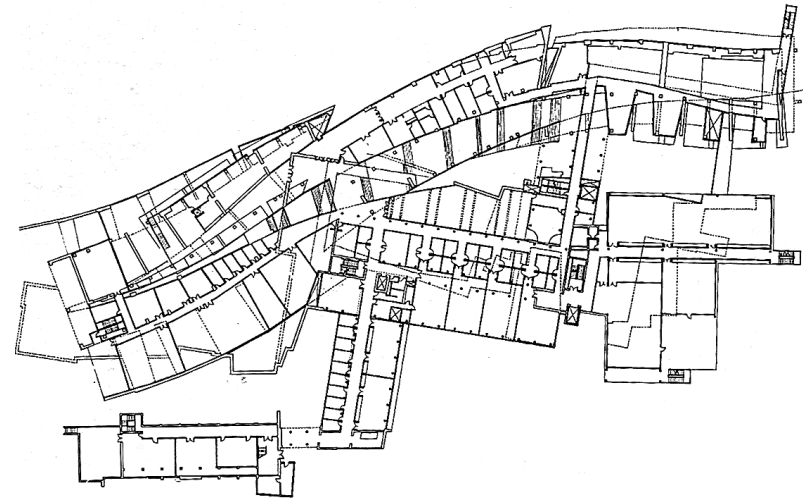
PREMISES: STRATEGY & FORM

A Pattern Language

Towns · Buildings · Construction



Christopher Alexander
Sara Ishikawa · Murray Silverstein
WITH
Max Jacobson · Ingrid Fiksdahl-King
Shlomo Angel



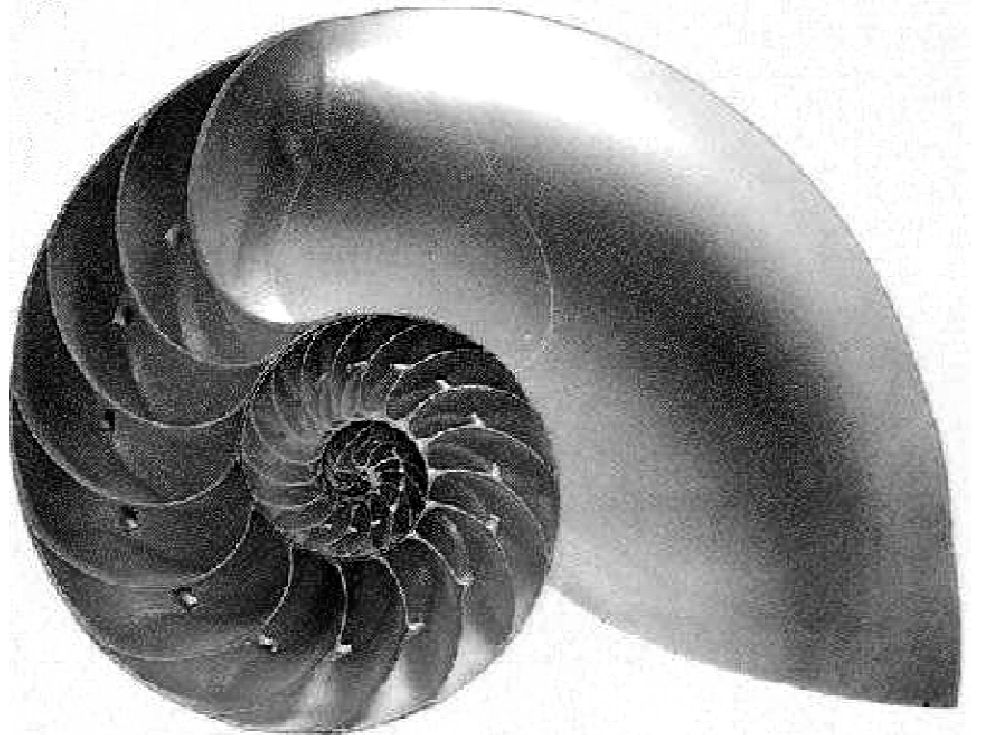
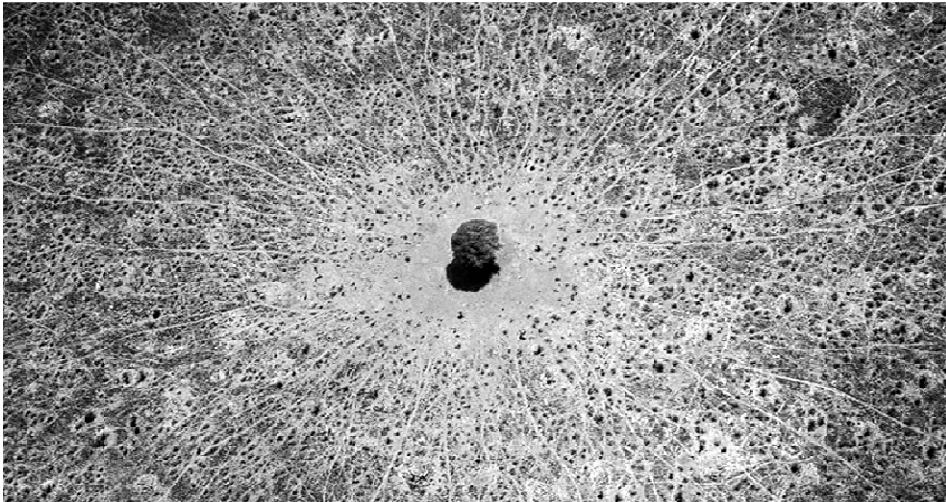
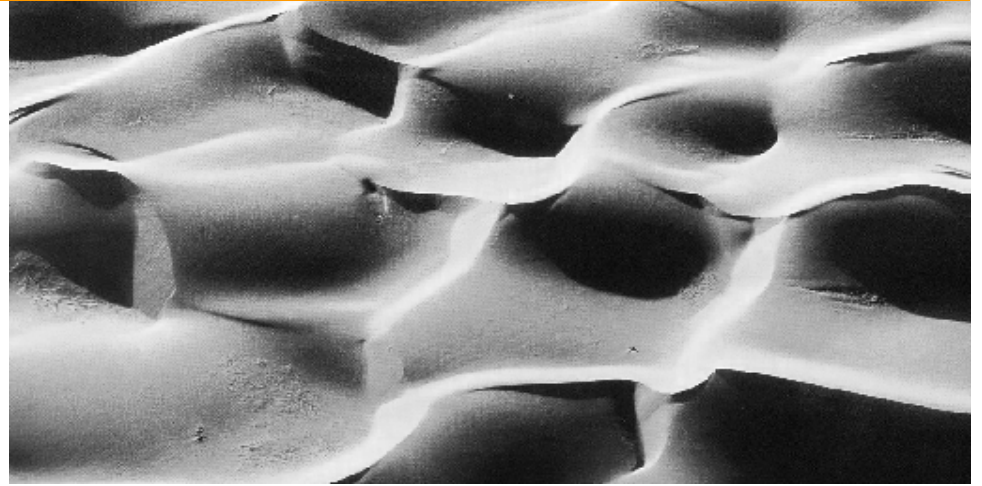
ALEXANDER'S SOCIAL FUNCTION/EISENMAN'S SYMBOLIC FUNCTION

Giorgio Vasari, La Battaglia di Lepanto (1573)



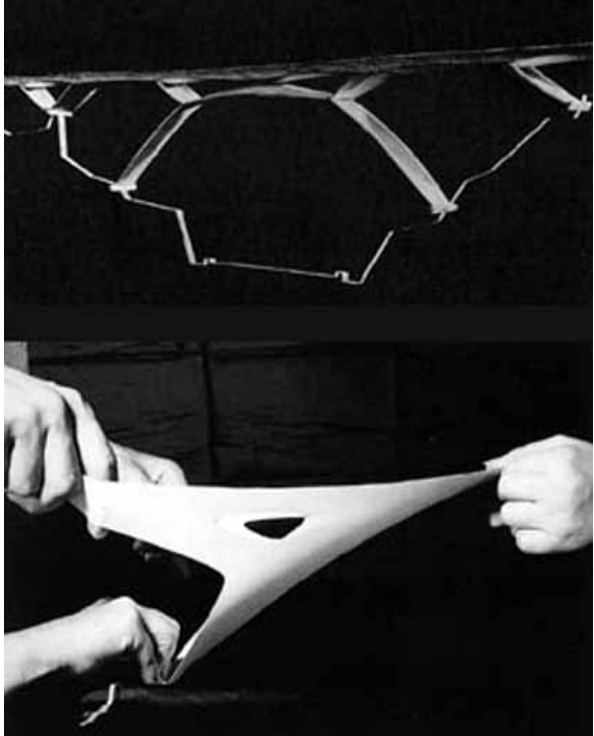
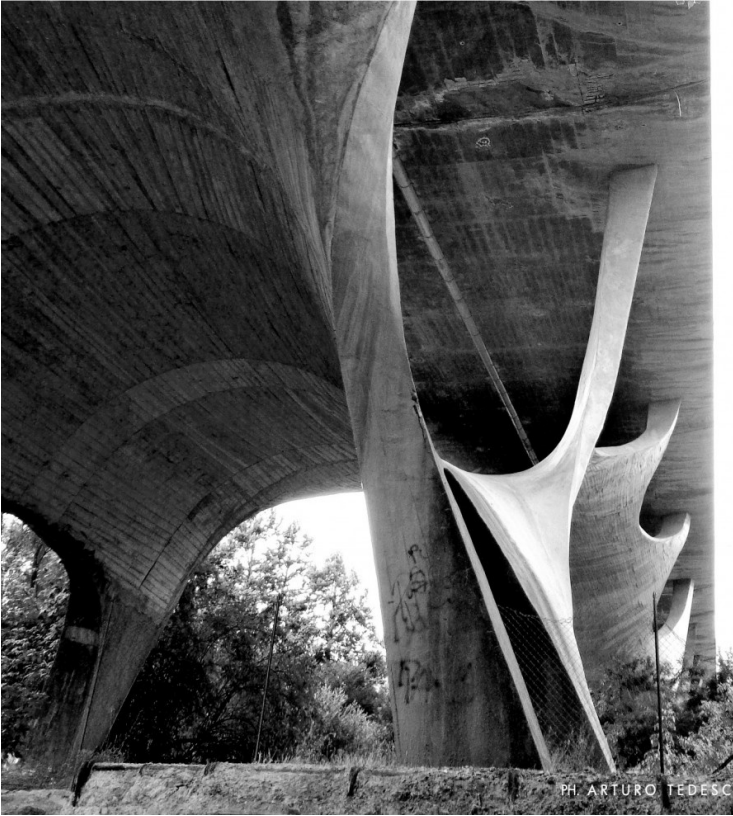
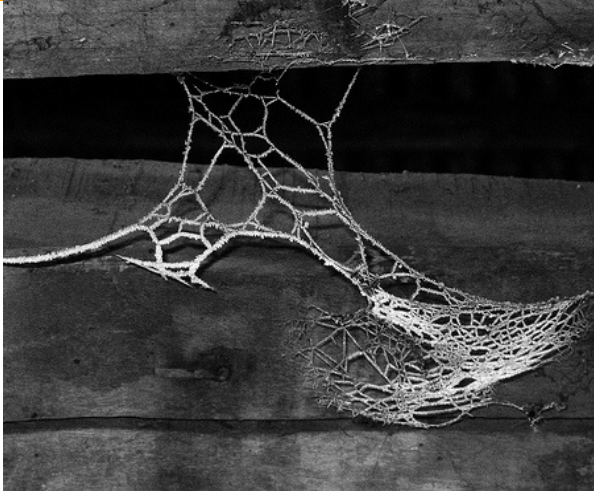
MILITARY STRATEGY AS ACCELERATOR

Medina, Sand Dunes, Animal Footprints, Spiral Shell

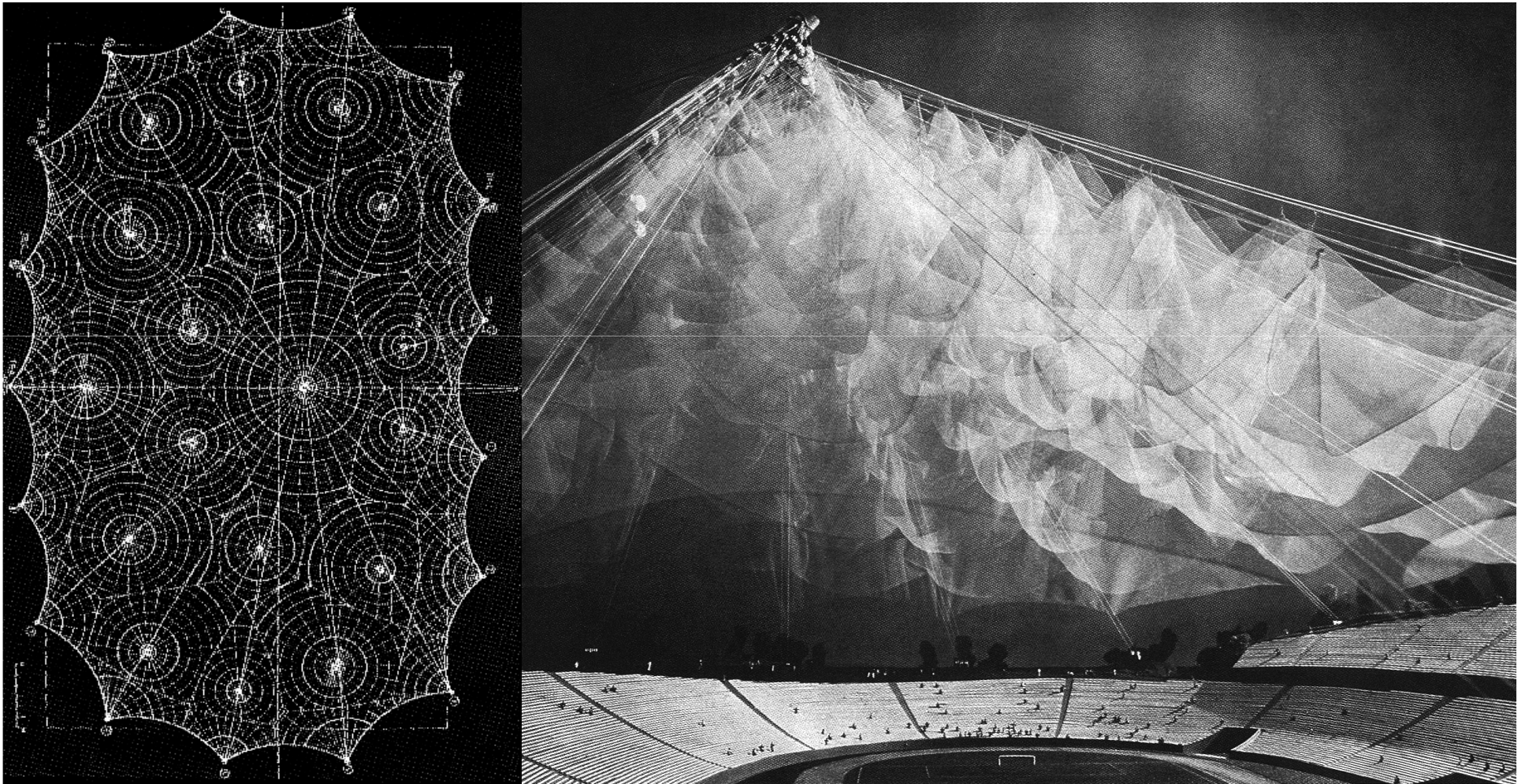


ANEXACT GEOMETRIES

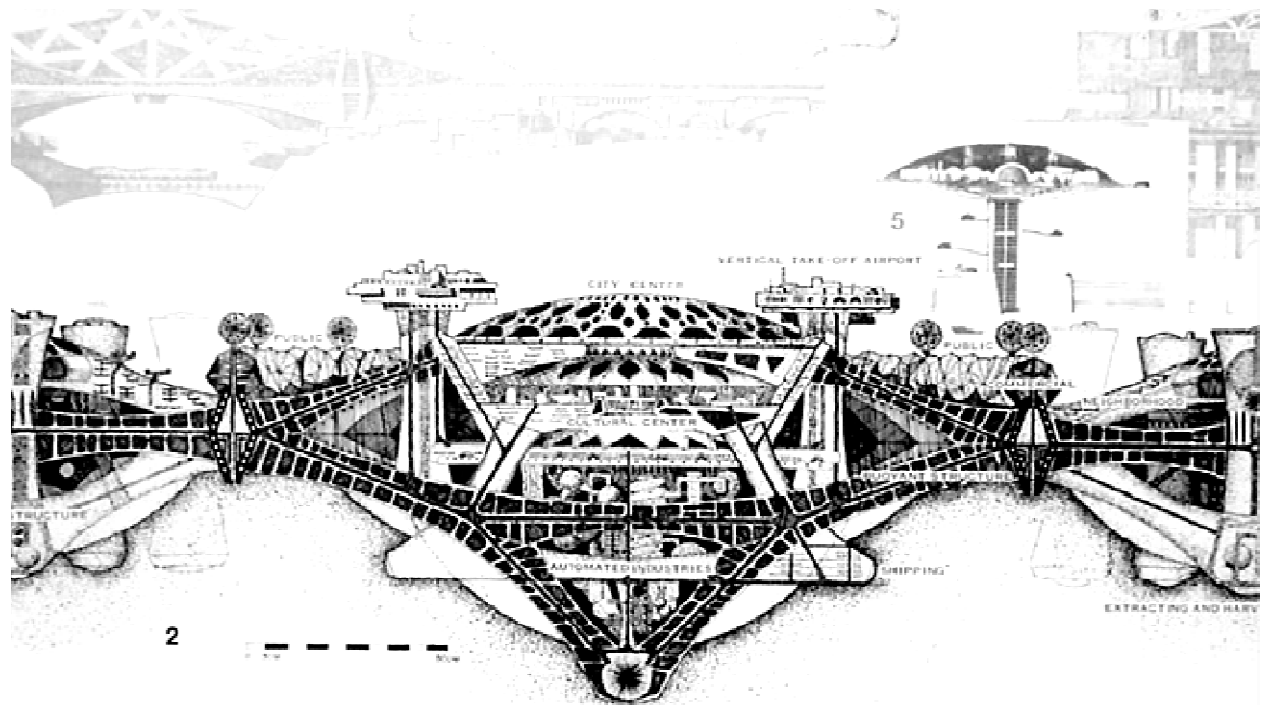
Sergio Musmeci, Ponte sul Basento (1960s)



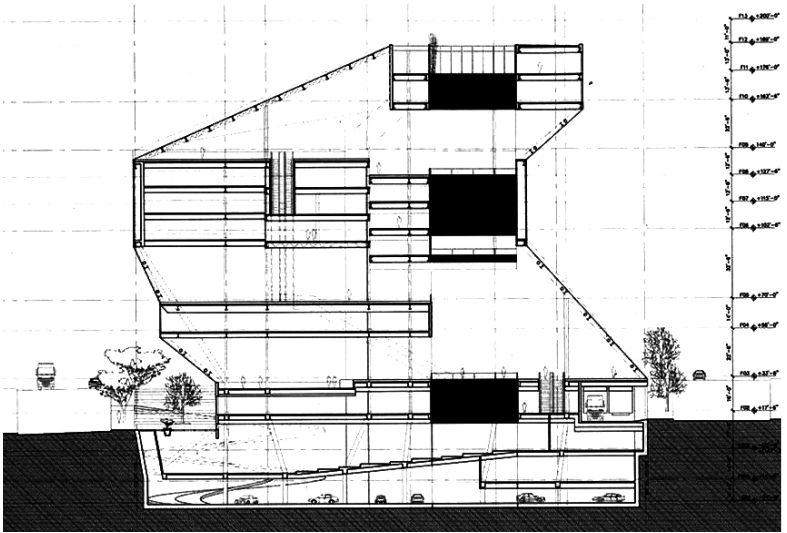
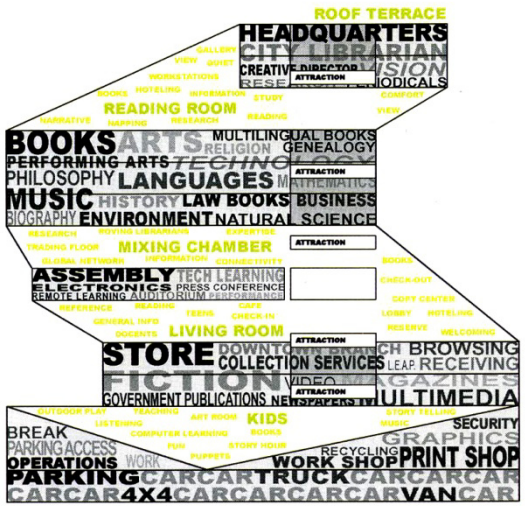
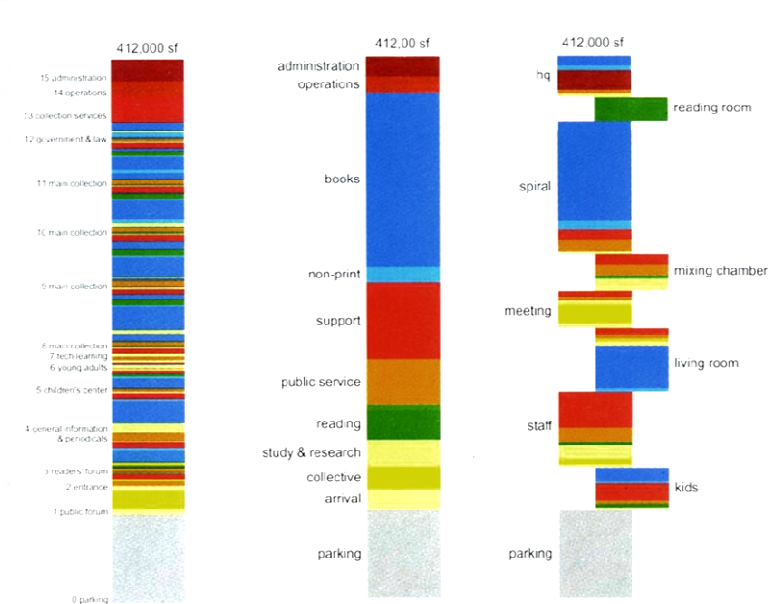
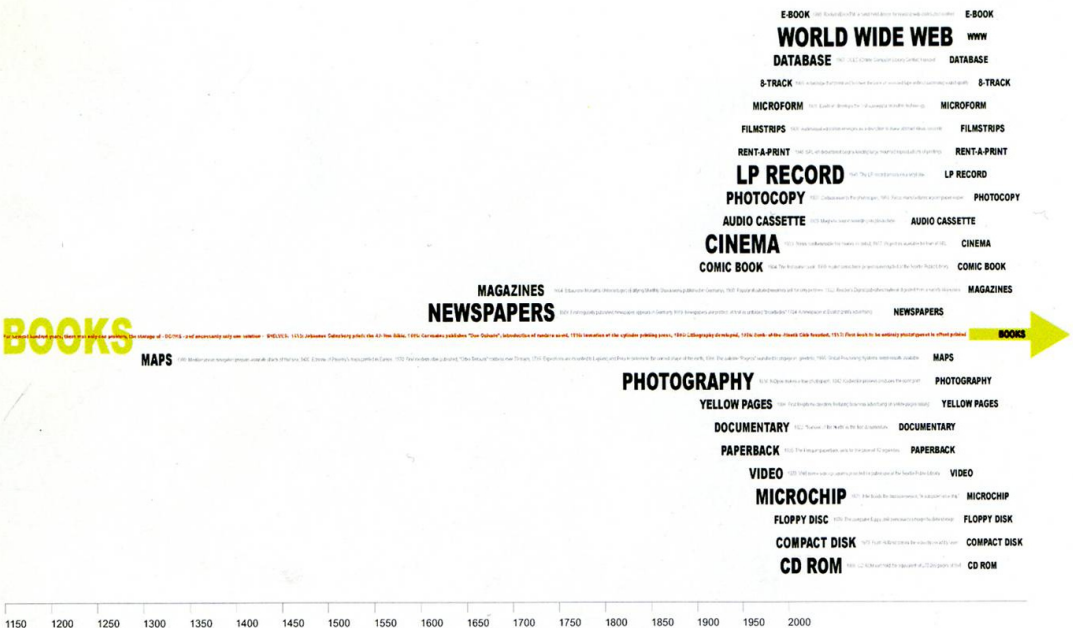
“FORM FINDING” EXPERIMENTS



INTRINSIC MATERIAL CREATIVITY



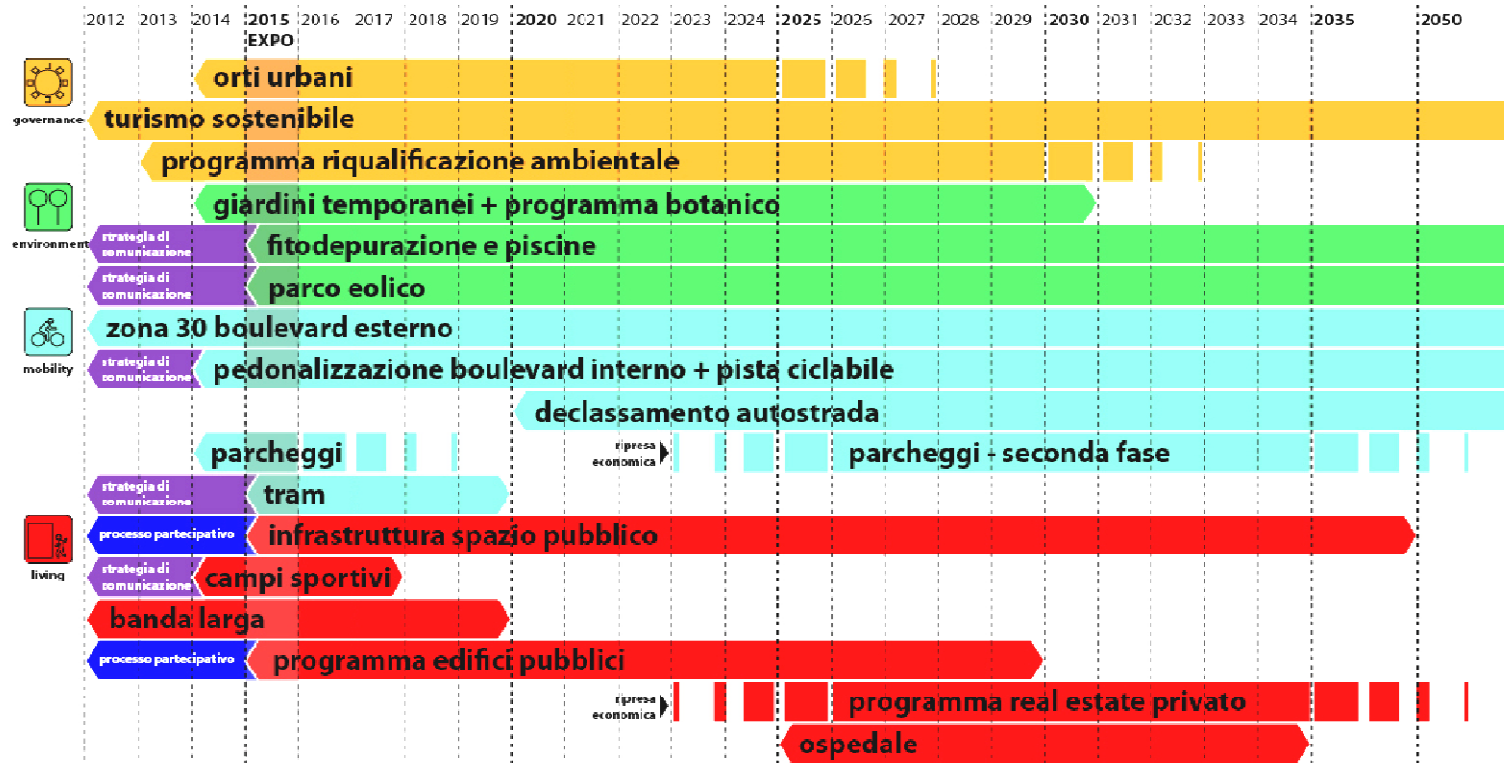
NATURAL STRUCTURES AND SPONTANEOUS ARCHITECTURES



IDEOGRAMS AND THE THINKING MACHINE



THE URBAN CONTAINER



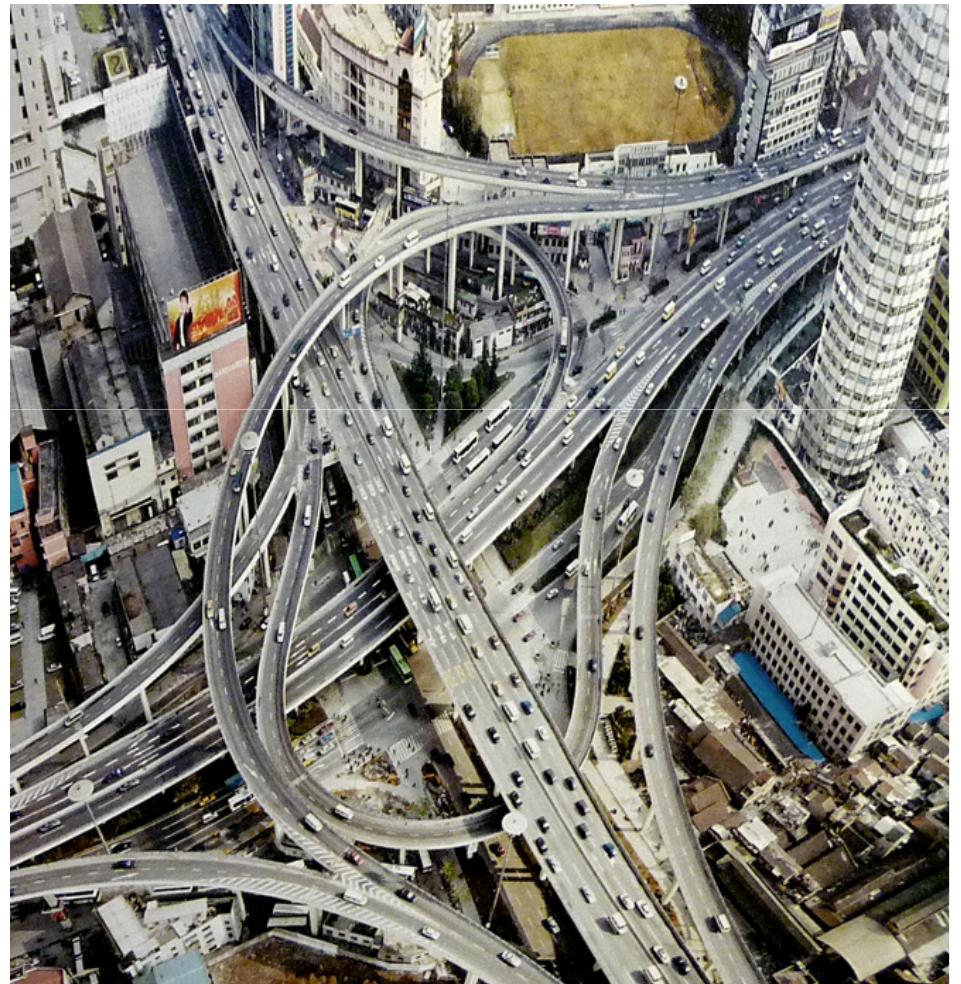
EVOLUTIONARY PROCESSES



COMPLEX THEORY/ DIGITAL REVOLUTION



EMERGENCY

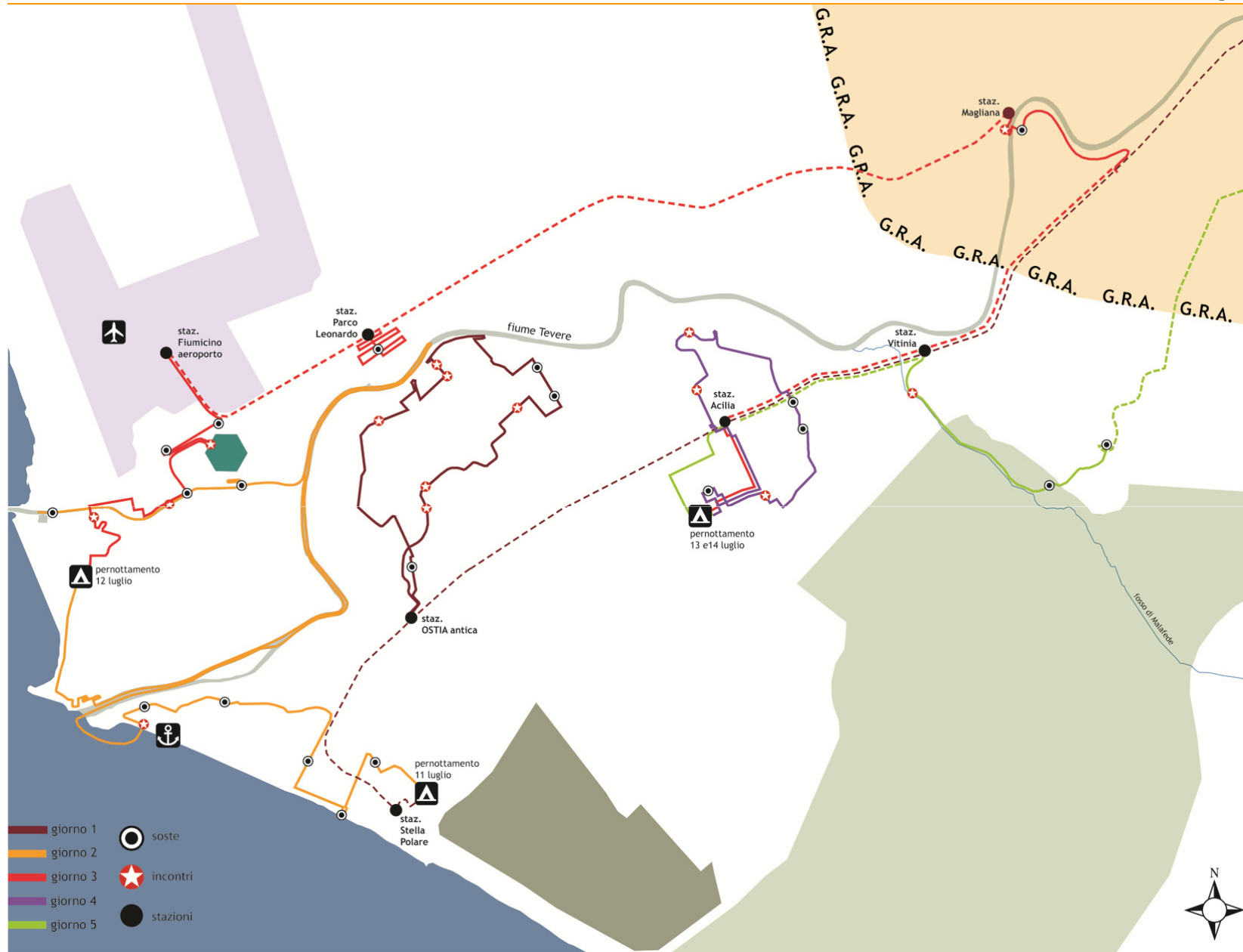


INTERSCALARITY – SYSTEM OF RELATIONSHIPS

MAPPING THE TERRITORY



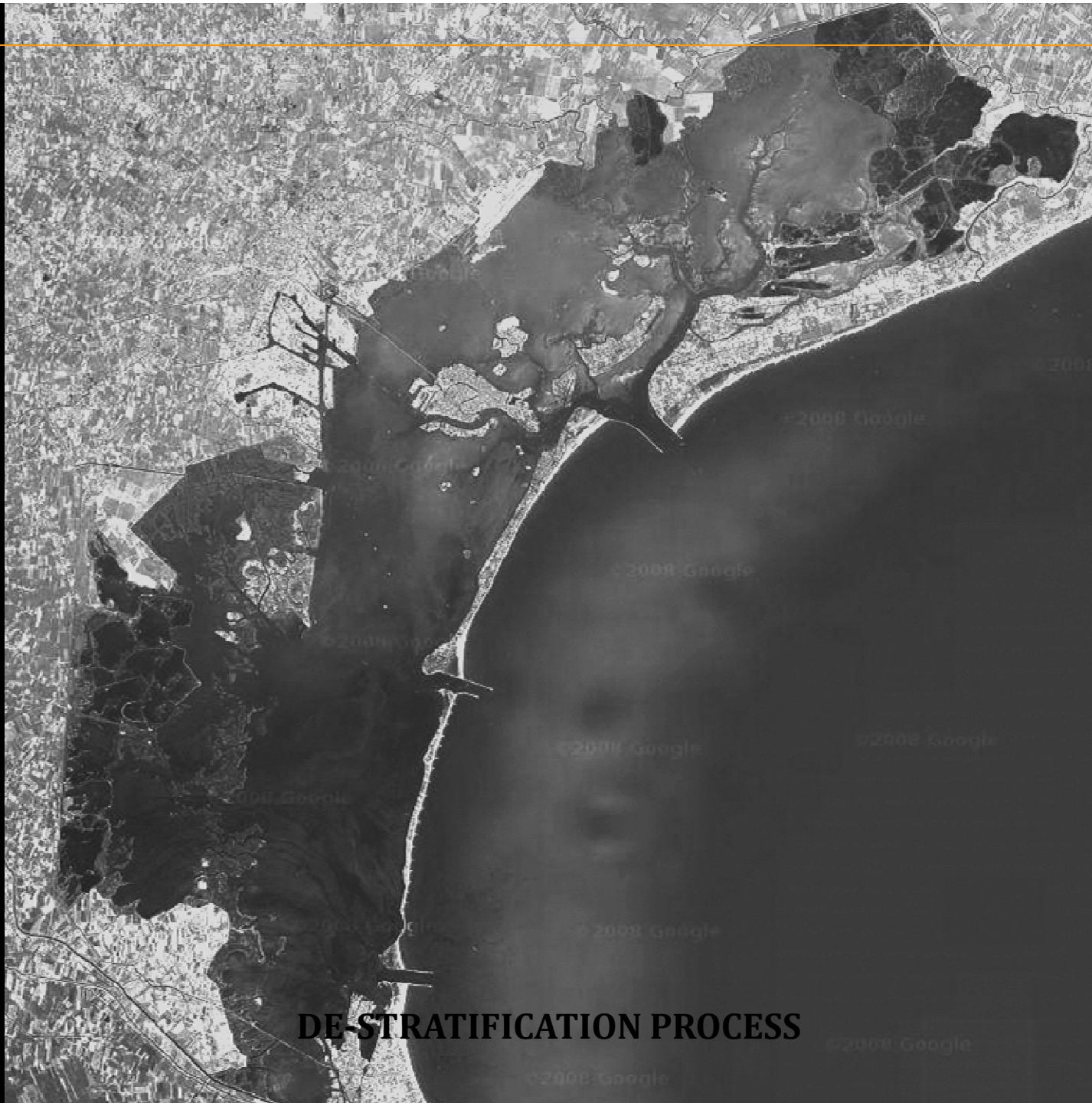
DIVERSITIES



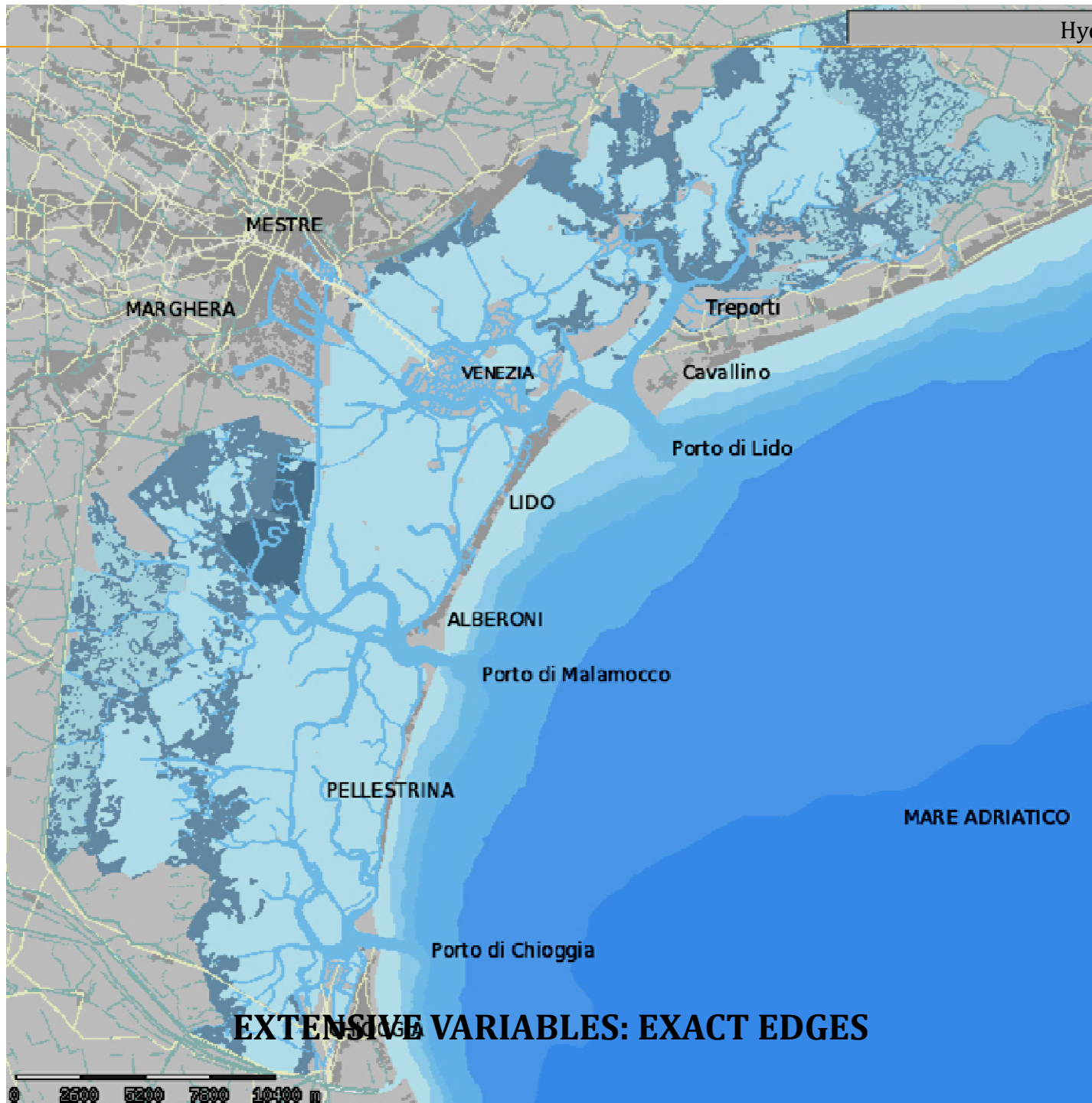
MEMORANDUM OF A LIVED EXPERIENCE



SELECTING « EMERGENTE » MATERIAL



DE-STRATIFICATION PROCESS

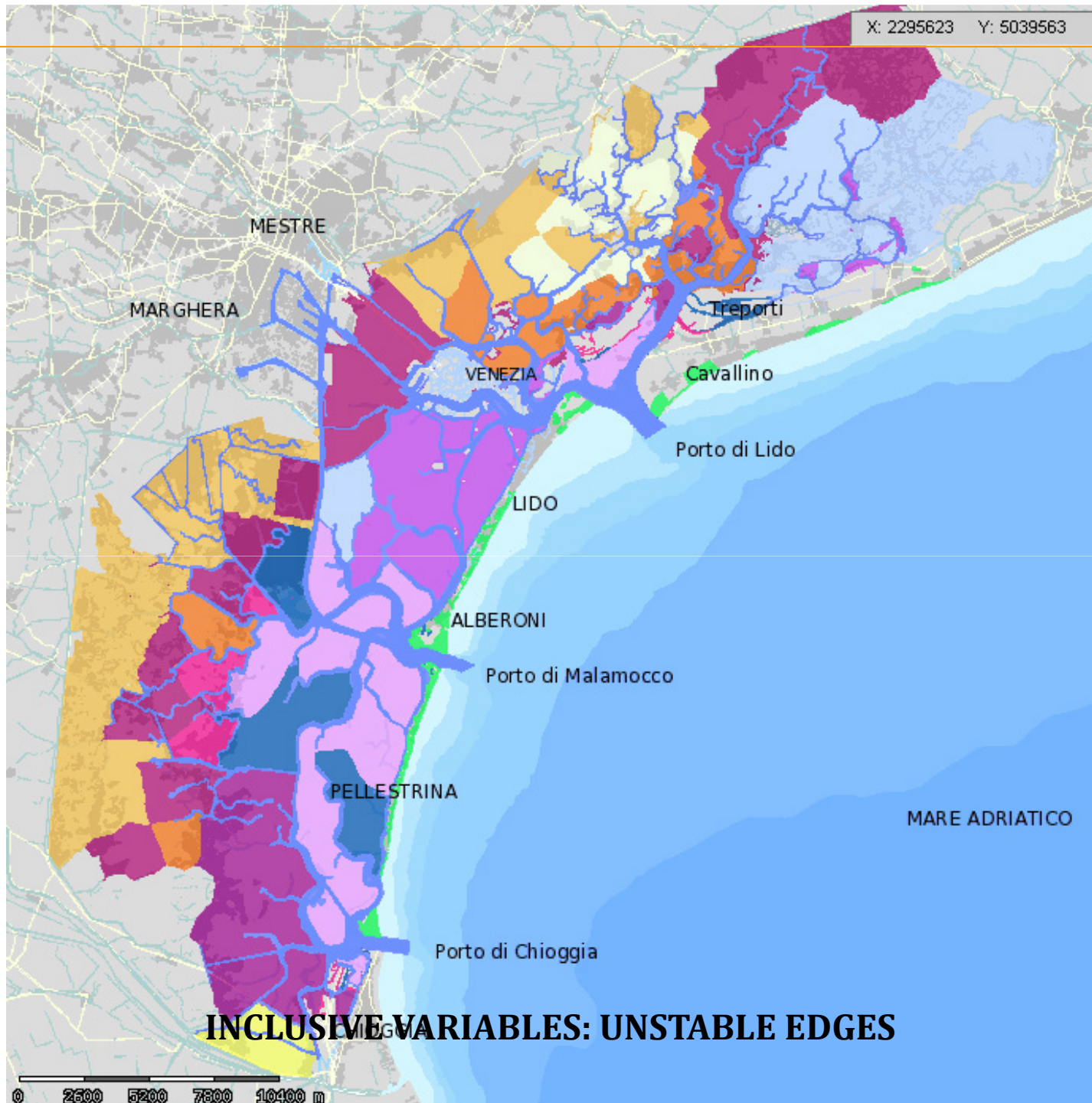


EXTENSIVE VARIABLES: EXACT EDGES

0 2500 5000 7500 10000 m

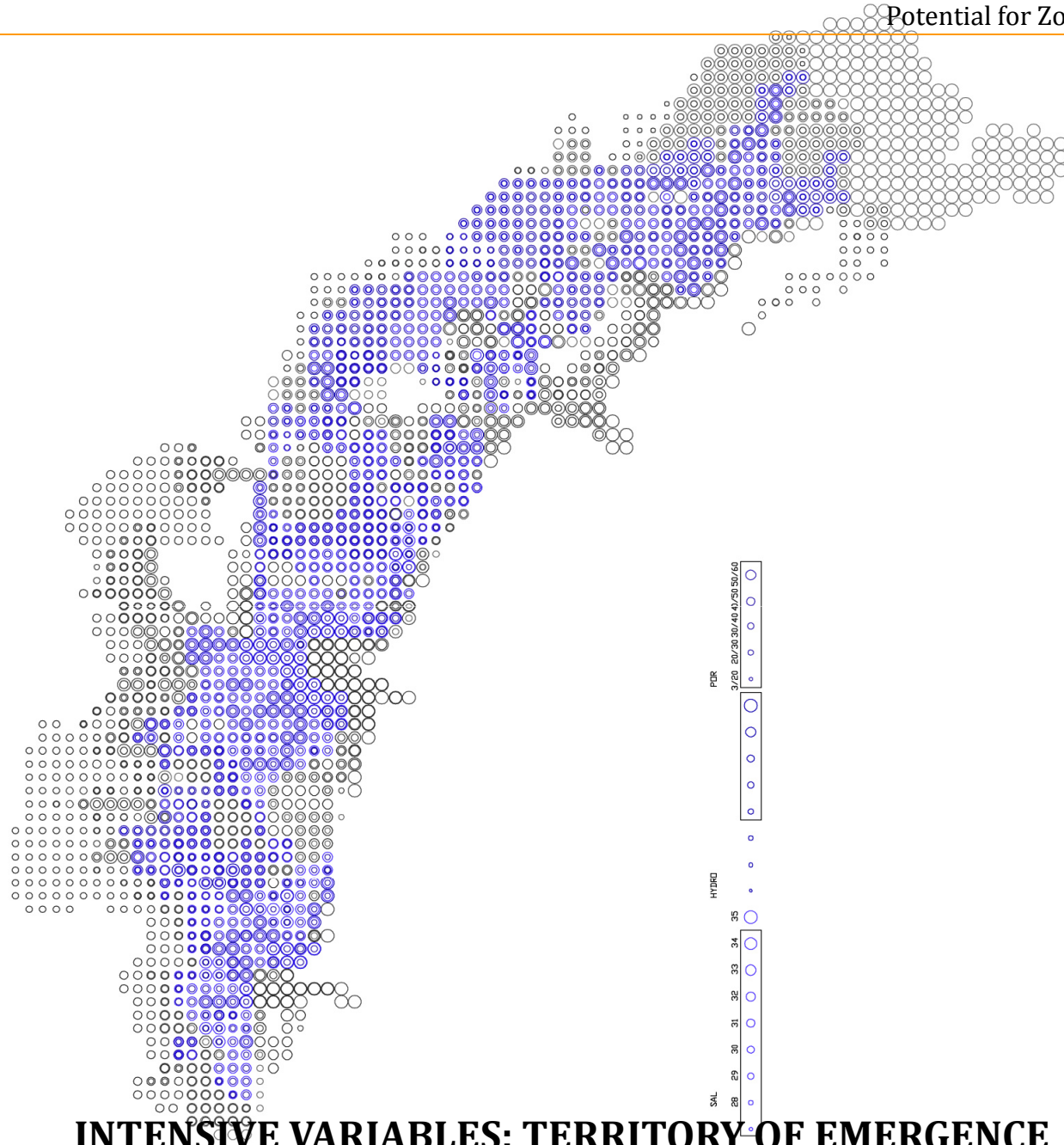
X: 2295623 Y: 5039563

Landscape unit

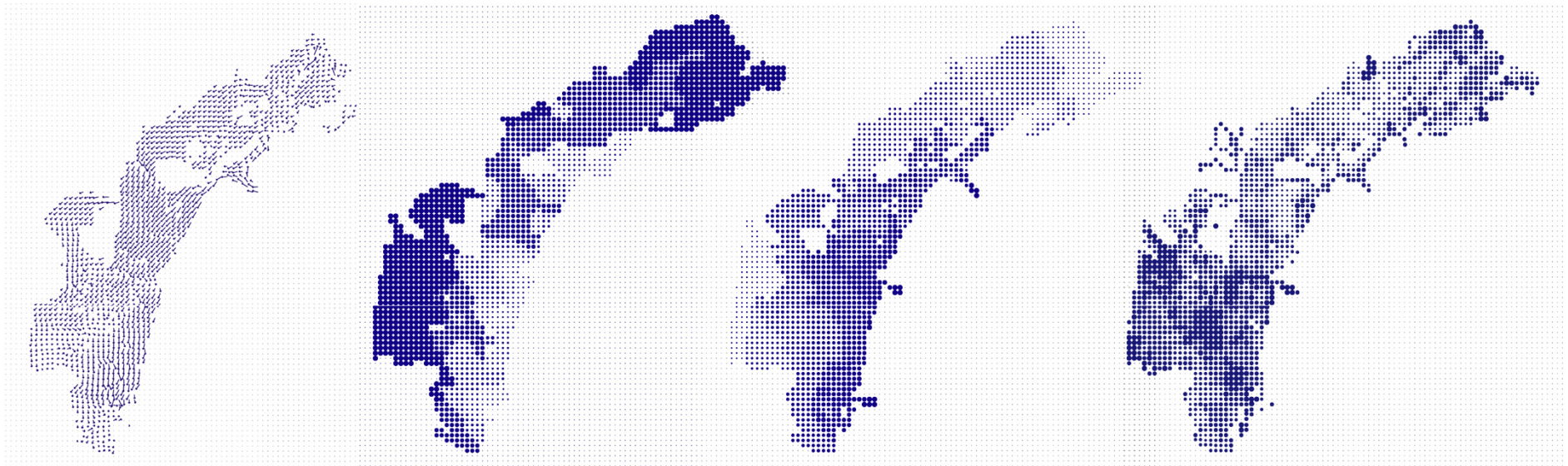


INCLUSIVE VARIABLES: UNSTABLE EDGES

0 2600 5200 7800 10400 m



INTENSIVE VARIABLES: TERRITORY OF EMERGENCE



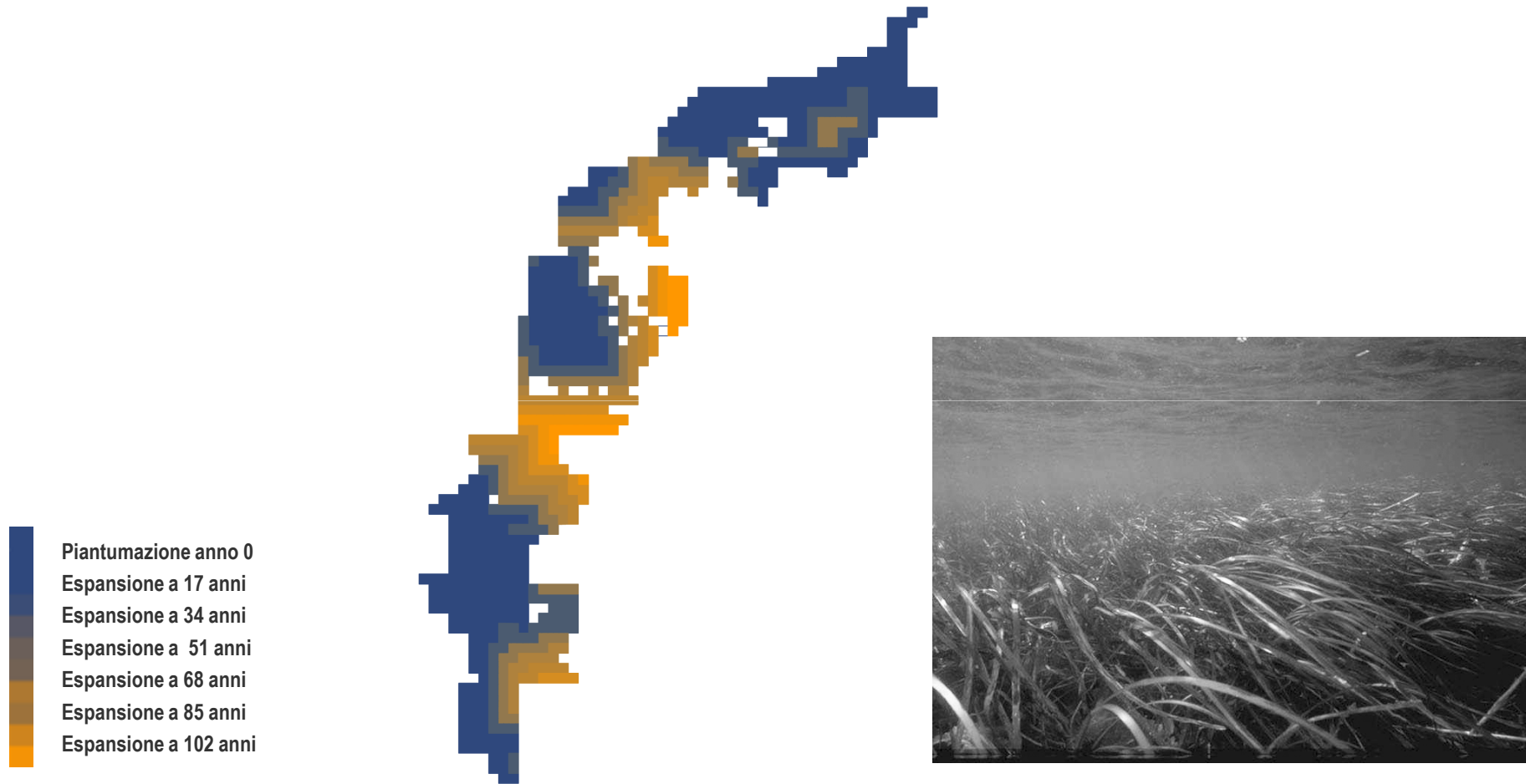
CURRENTS
prodotte dal vento

POROSITY
limo – argilla - sabbia

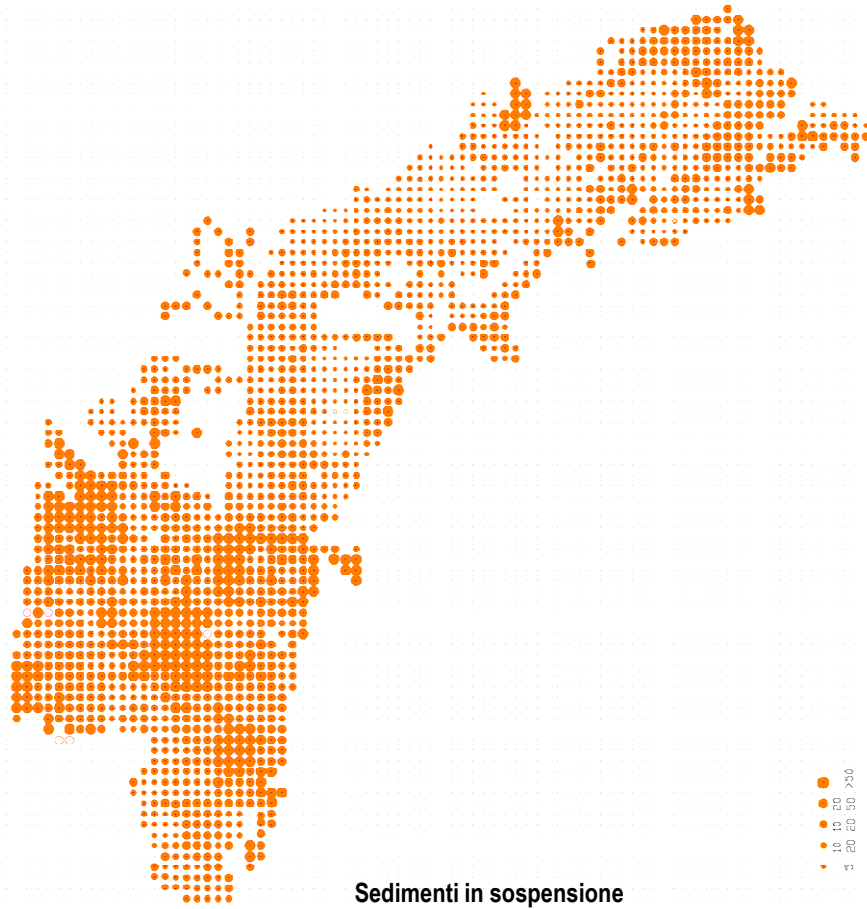
SALINITY
dolce - salata

SUSPENDED SEDIMENTS
prodotti dal moto dell'acqua

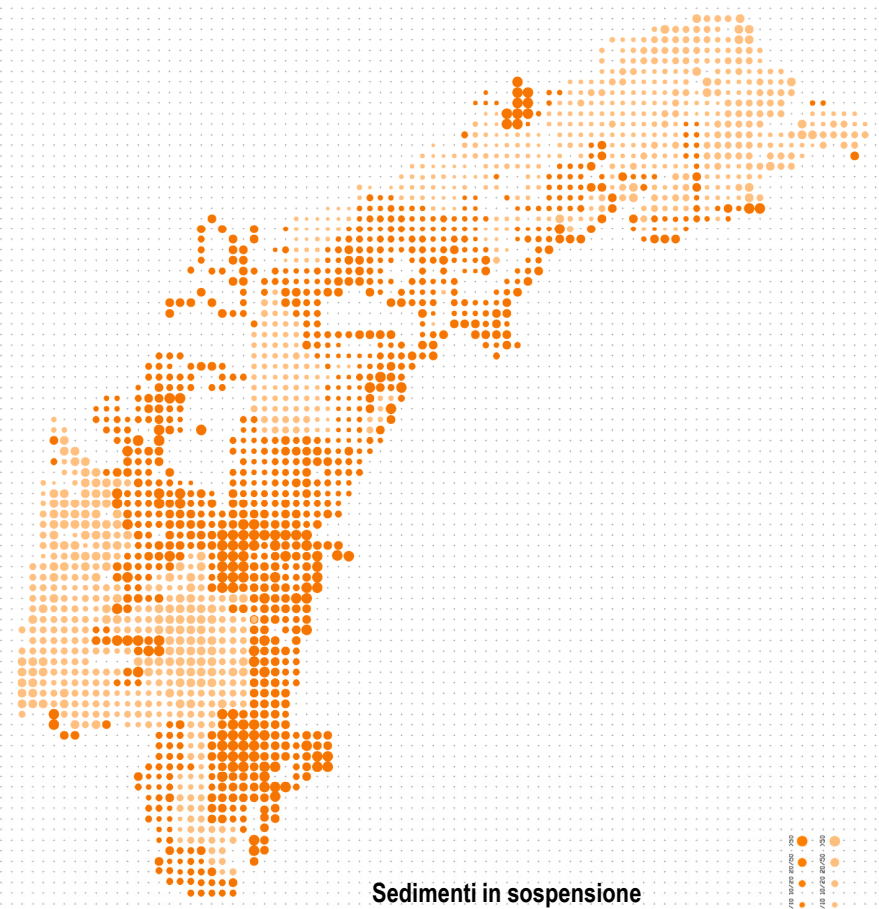
VARIABLES



SIMULATION



Sedimenti in sospensione
condizioni iniziali



Sedimenti in sospensione
dopo la proliferazione di zoster marina

ACTUAL / FUTURE SCENARIO

MODELS

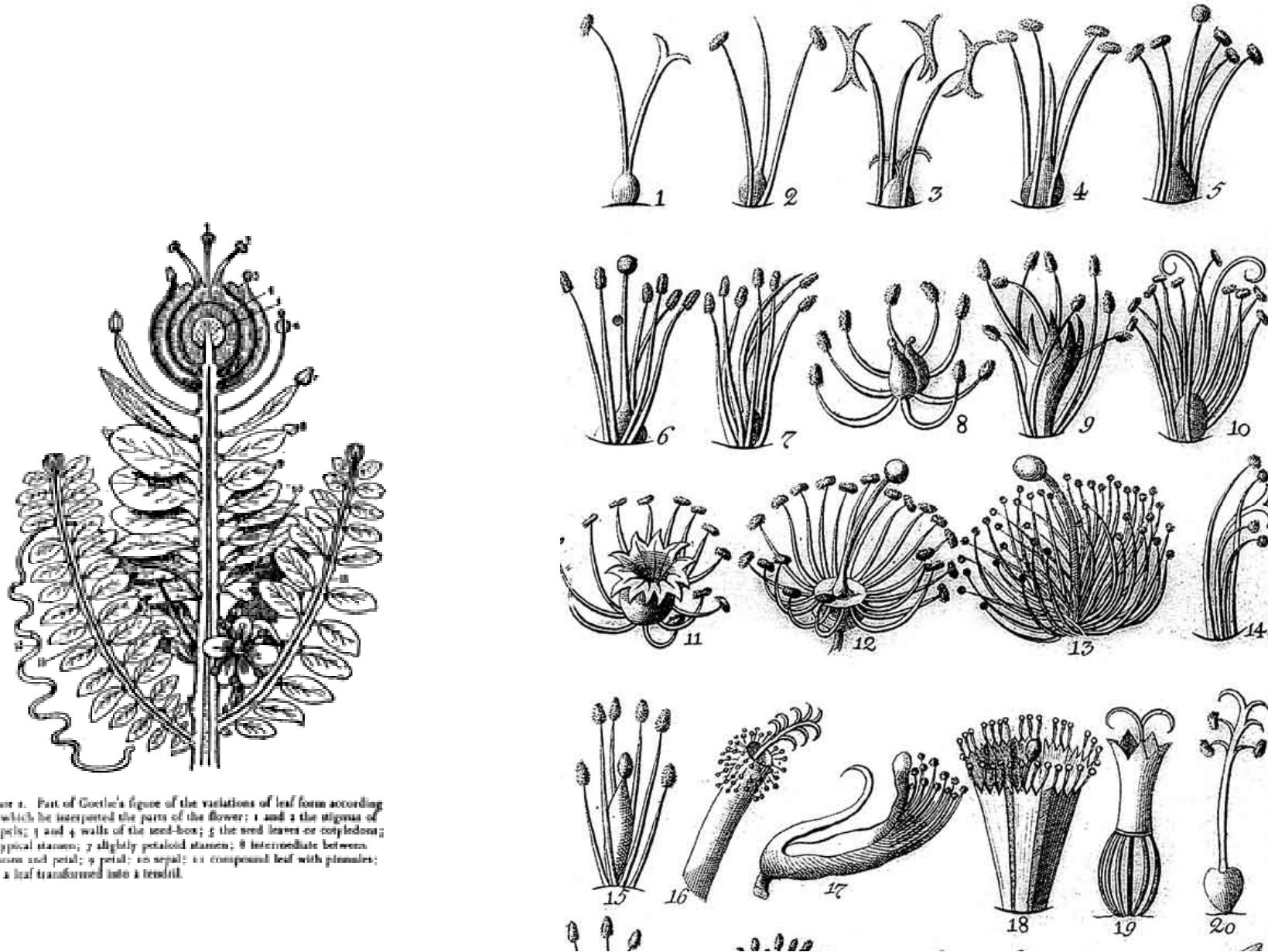
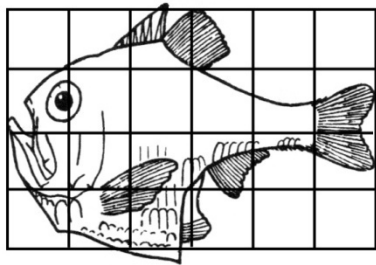
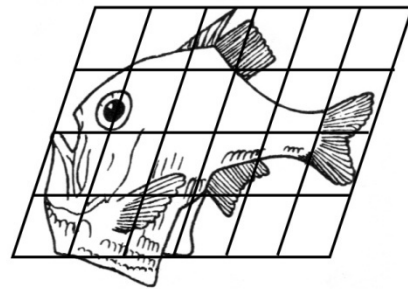


Figure 1. Part of Goethe's figure of the variations of leaf form according to which he interpreted the parts of the flower: 1 and 2 the stigmas of carpels; 3 and 4 walls of the seed-box; 5 the seed leaves or cotyledons; 6 typical stamens; 7 slightly petaloid stamens; 8 intermediate between anther and petal; 9 petal; 10 compound leaf with plumules; 11 a leaf transformed into a bract.

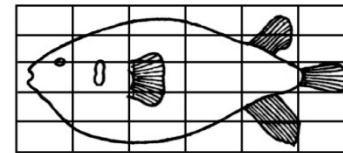
DESTRATIFICATION COGNITIVE DEVICE



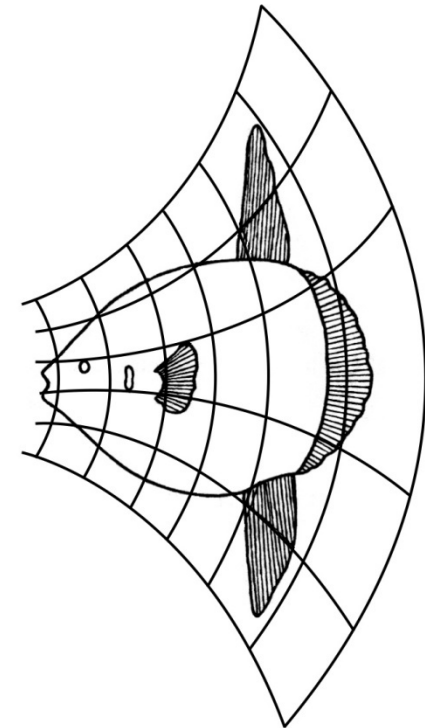
Argyroplecus



Sternoptyx

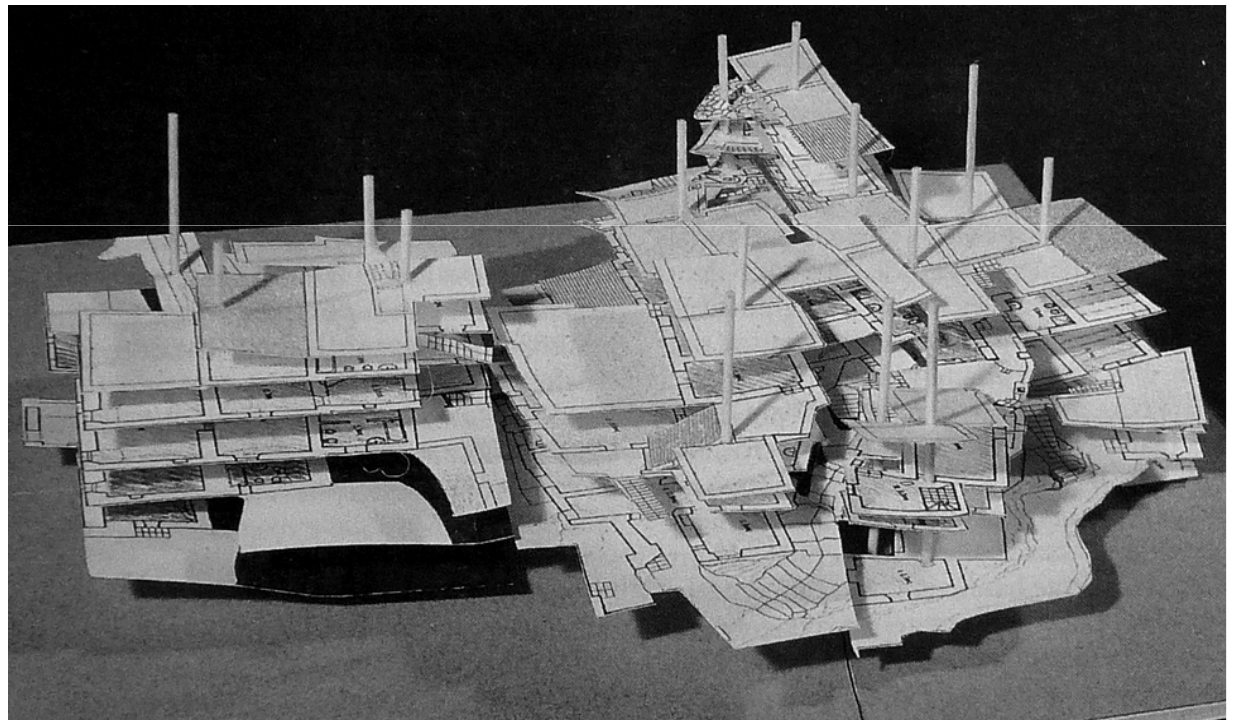
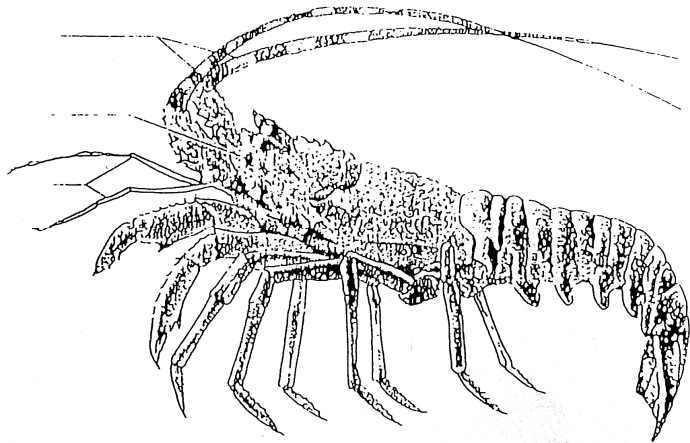
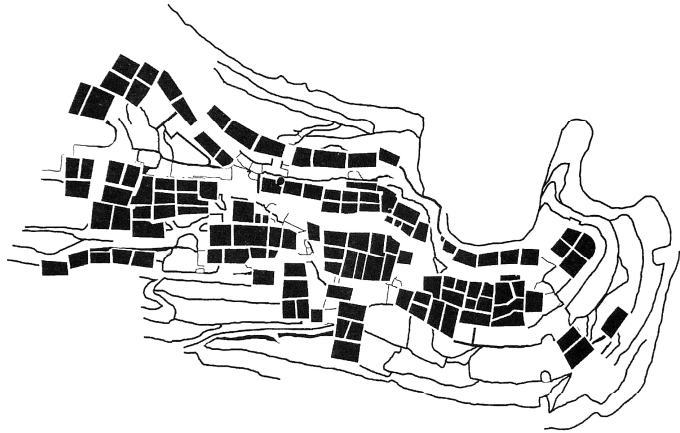


Diodon

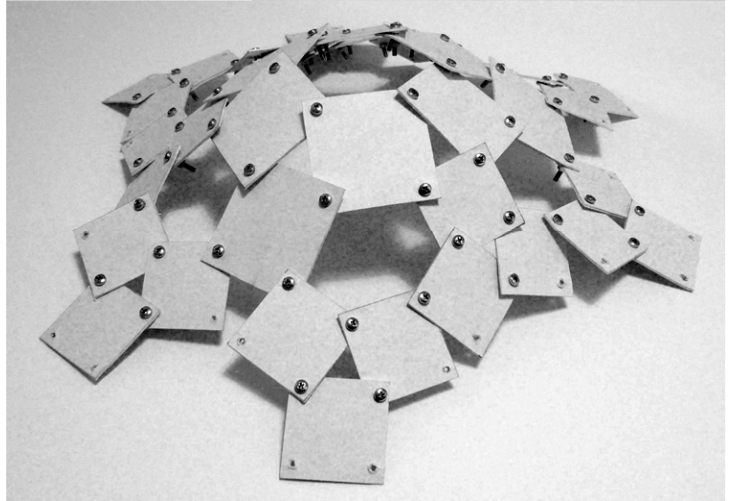
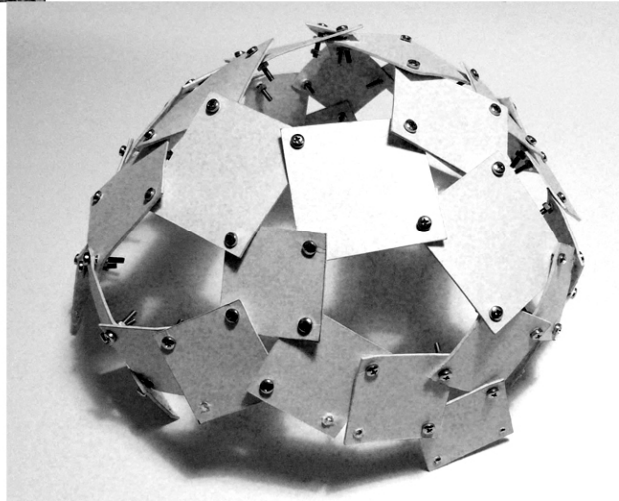
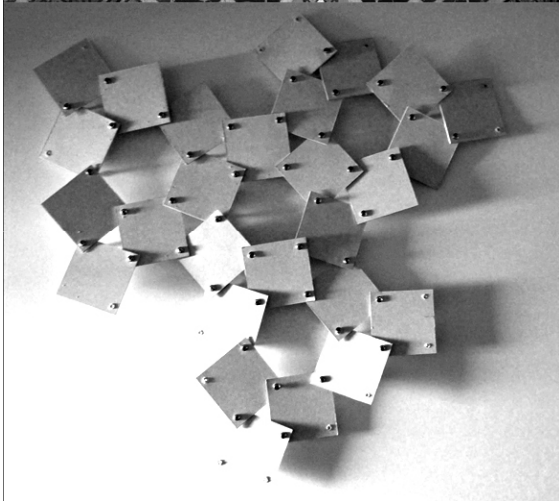
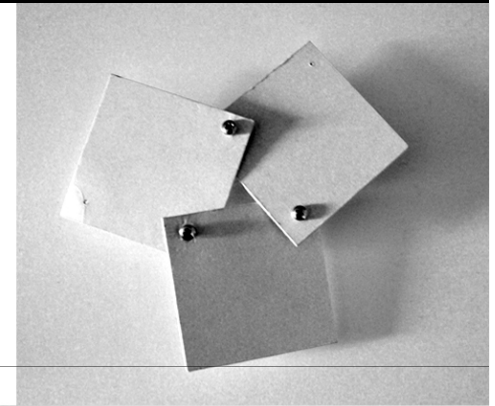
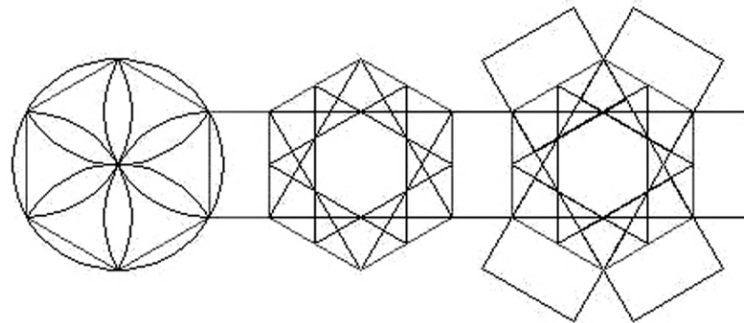
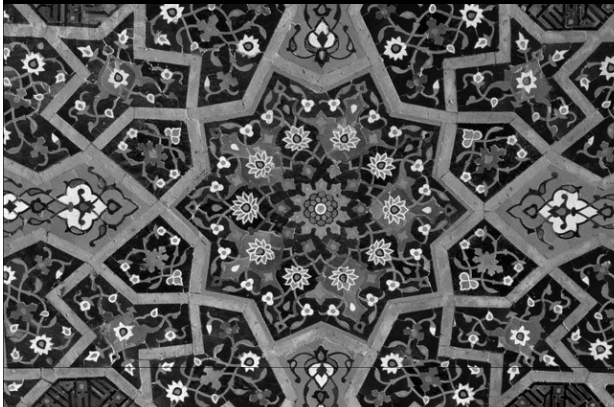


Orthogoriscus

MANIPULATIONS

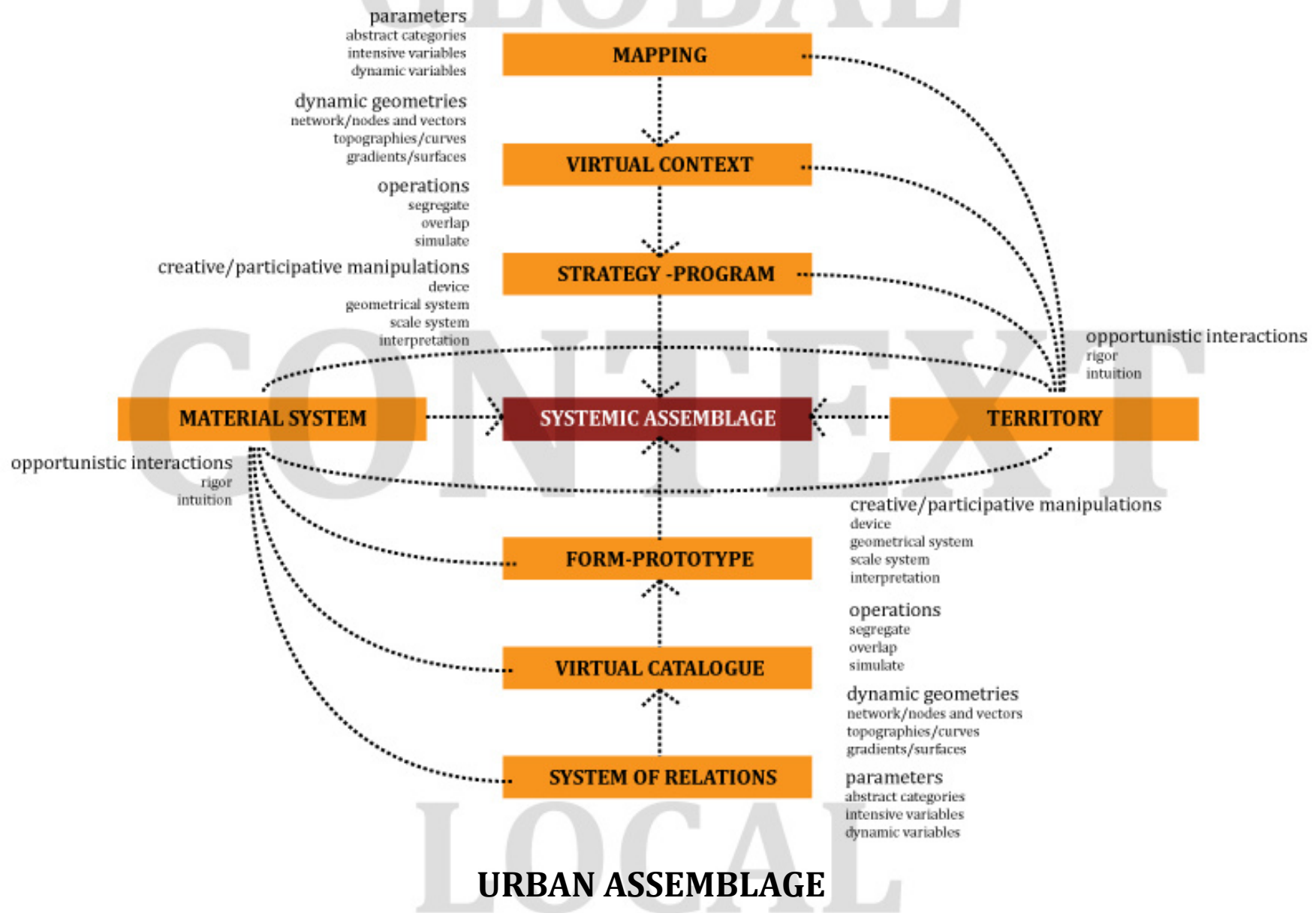


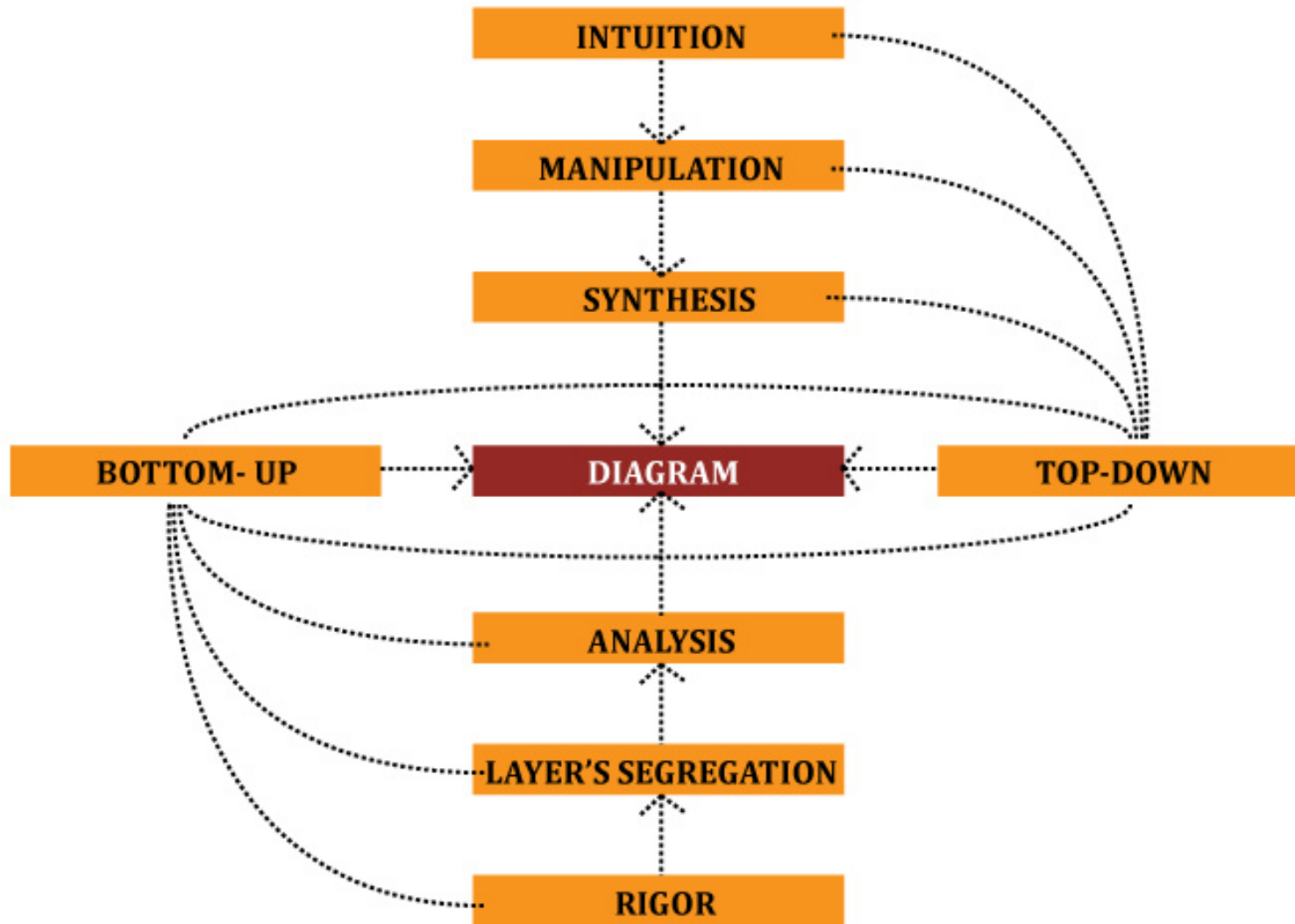
URBAN ORGANIZATION



GEOMETRICAL MANIPULATION

GLOBAL



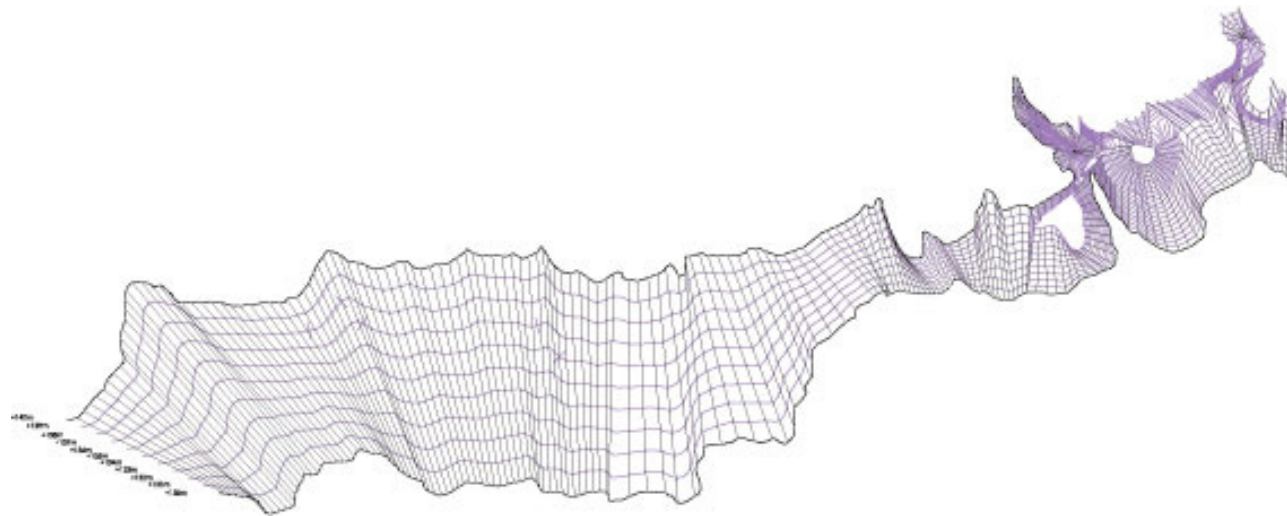


THE GENERATIVE PROCESS

GENERATIVE MAPPING



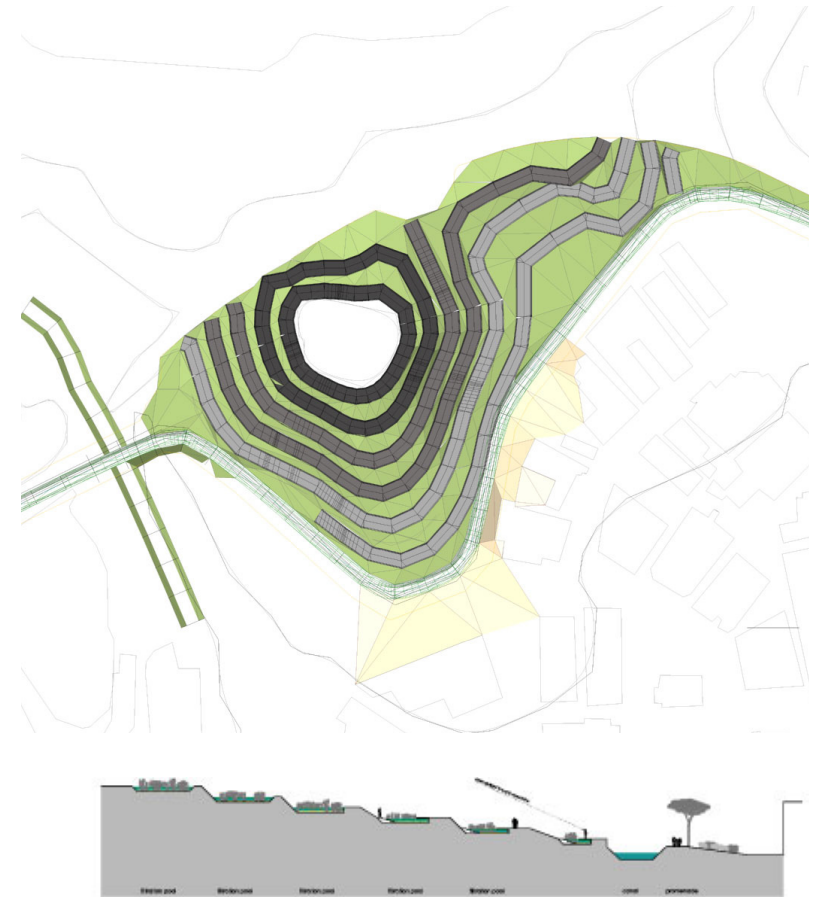
REAL CONTEXT



VIRTUAL CONTEXT: TOPOGRAPHIC FIELD



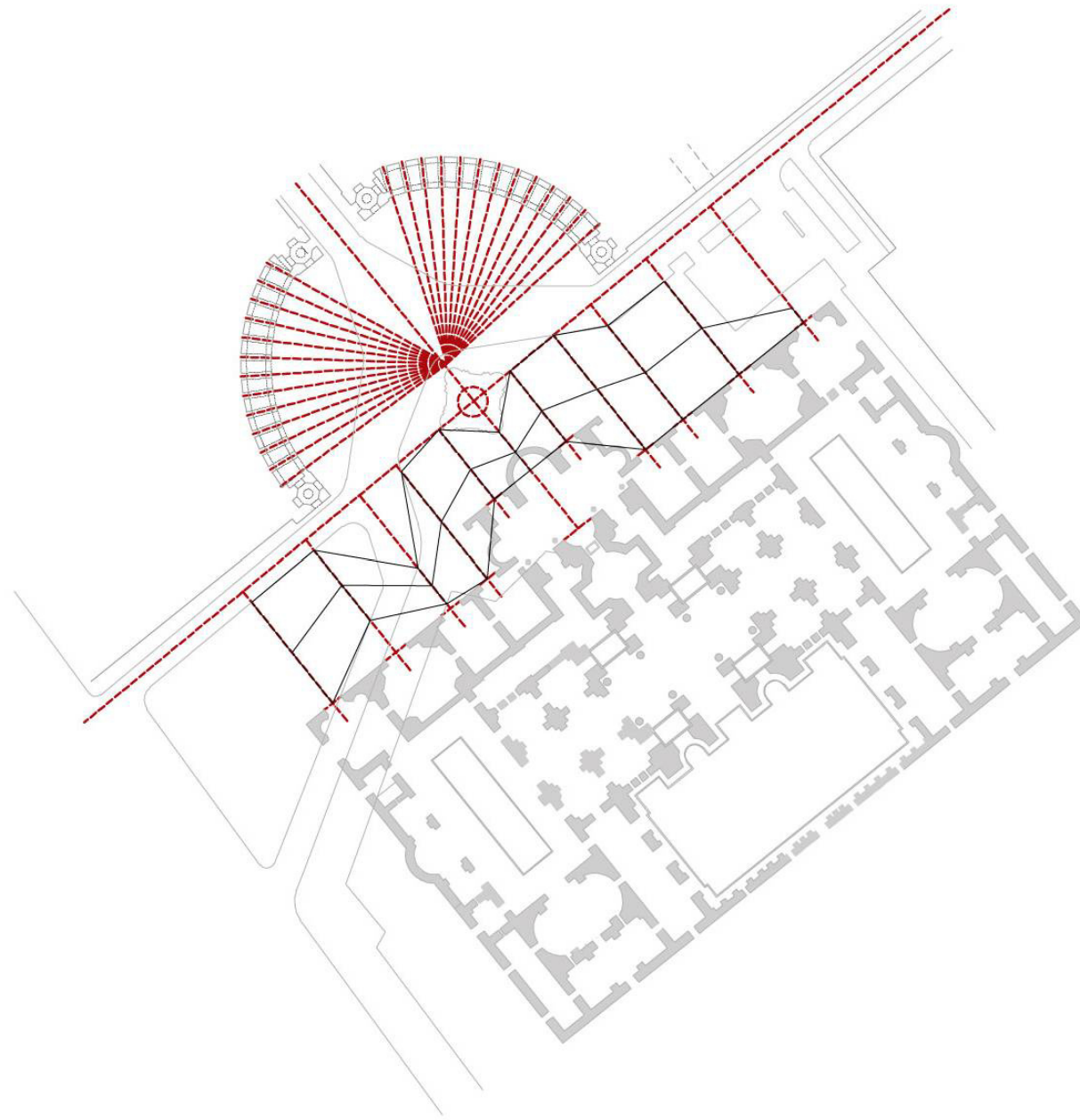
PROGRAM DISTRIBUTION IN RELATION TO TOPOGRAPHY



COLONIZATIONS: A WATER MANAGEMENT PARK



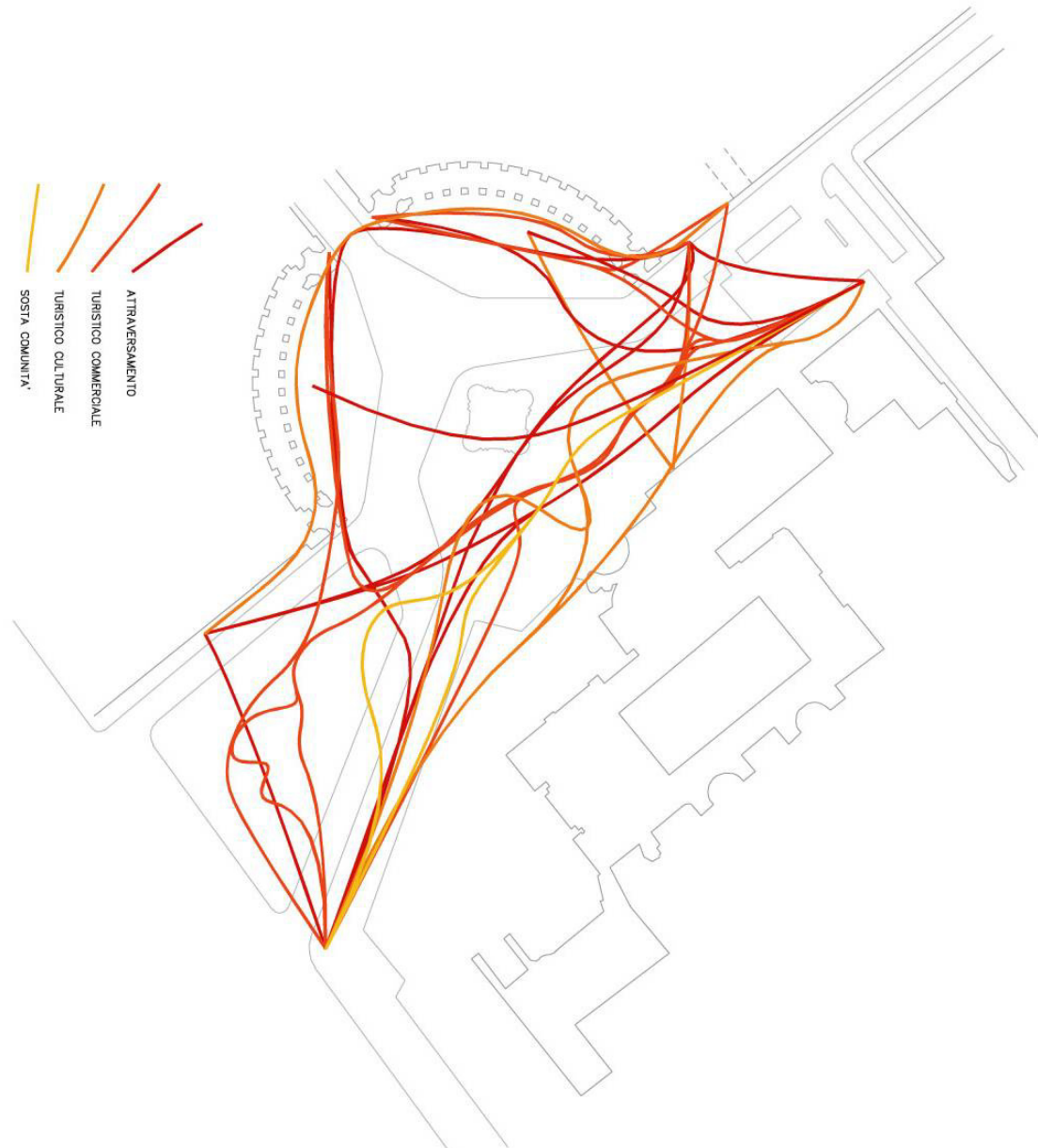
REAL CONTEXT



GRID



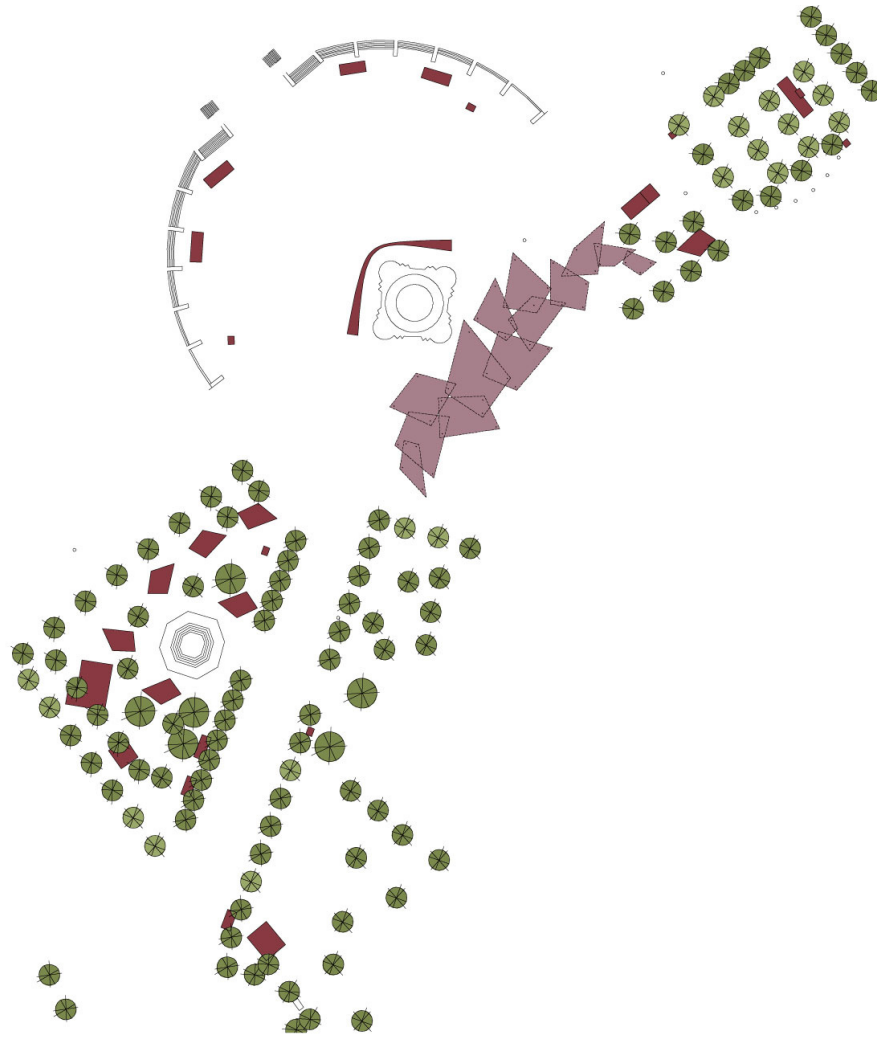
NODES IN RELATION TO ACTIVITIES



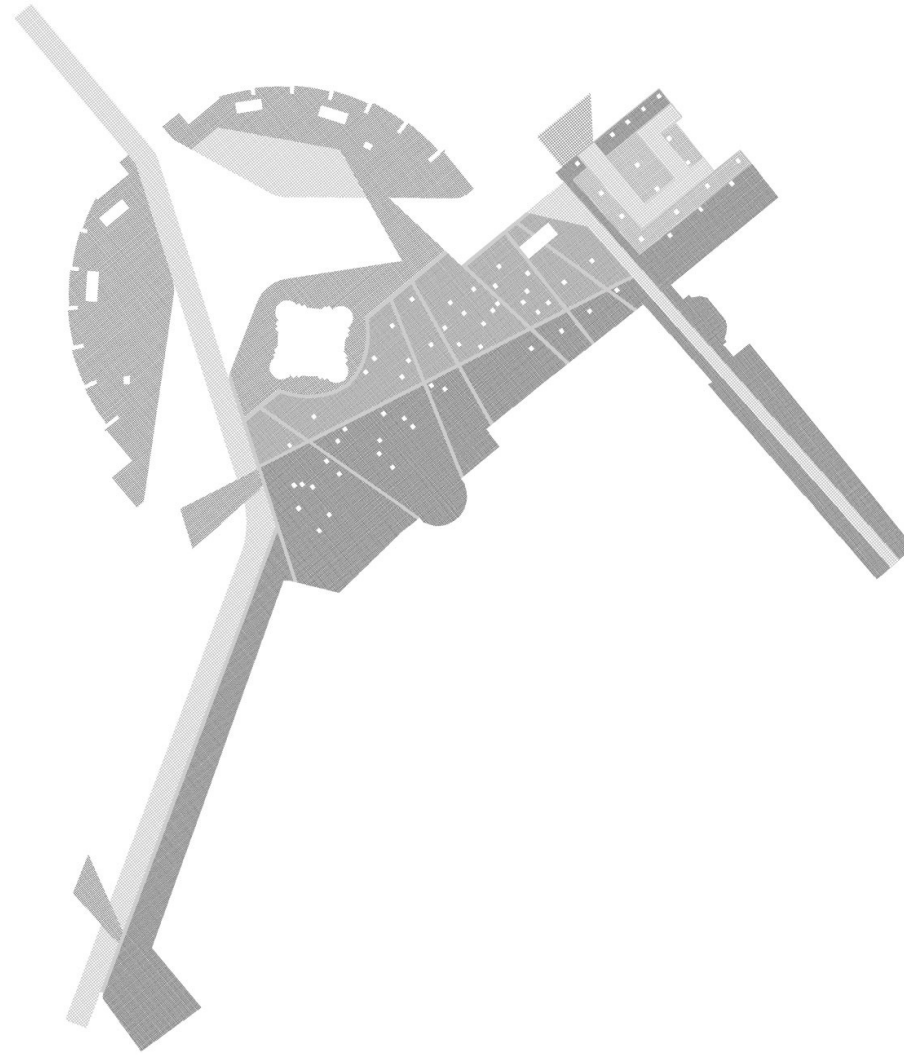
PEDESTRIAN FLOWS IN RELATION TO PROGRAM



PEDESTRIAN FLOWS IN RELATION TO TIME



NEW SYSTEM OF TREE PLANTATION AND KIOSKS



SYSTEM OF PAVING



RIGHT & LEFT HAND