



PLA BERMAN / MONA EL-KHAFIF

URBANbuild local global

007_INTRODUCTION

010_WATER CITY, EVENT CITY, DENSE CITY

022_CITY DATASCAPES

038_FIELDS NETWORKS TOPOGRAPHIES

054_URBAN CARTOGRAPHY

FABRIC
RHYTHM
EROSION
INFRASTRUCTURE
LANDSCAPE
GREENSCAPE

106_URBAN STRATEGIES

FIELDS
NETWORKS
ARTERIES
MEGAFORMS
TOPOGRAPHIES

160_MEGABLOCK HOUSING+

MAT
BOX
AGGREGATE
CANTILEVER
TOPOGRAPHY
INSERTION
FIELD

182_URBANBUILD EXHIBITION

186_PORTABLE+MOBILE INFILL

188_MOBILE URBAN DEVICES

UNFOLD
OPEN
PROGRAM WRAP
PLUG-IN SURFACE

202_PORTABLE DWELLING UNITS

FLATE INFILL
SHIFT/EXPAND
STADANTOLO
PREFAB ASSEMBLY

216_PROTOTYPE INVENTORY

MICROBUILD PROTOTYPES 1-4
PROTOTYPES A-P

238_MICROBUILD

240_FILMIC ARCHIVE

DESIGNBUILD 1: 1199 DUMAINE
DESIGNBUILD 2: 2854 OFFICES
DESIGNBUILD 3: 1129 SEVENTH
DESIGNBUILD 4: 1100 SEVENTH

332_APPENDIX

AUTHORS / FACULTY
PARTICIPANTS / CREDITS
RESEARCH DATA SOURCES
PARTNERS / SUPPORT

CONTENTS_URBANbuild LOCAL

REGIONAL LANDSCAPES

URBAN CARTOGRAPHY

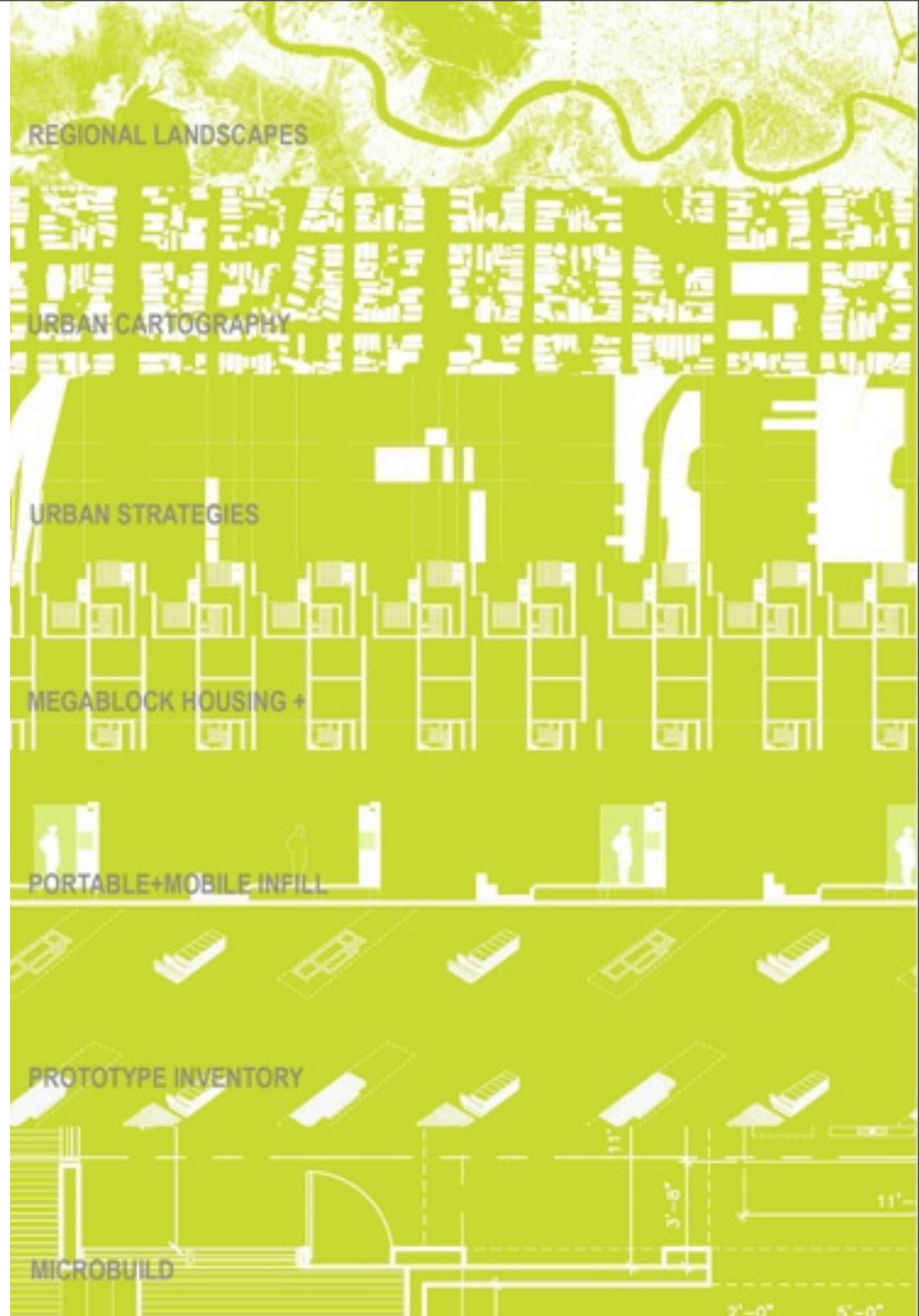
URBAN STRATEGIES

MEGABLOCK HOUSING +

PORTABLE+MOBILE INFILL

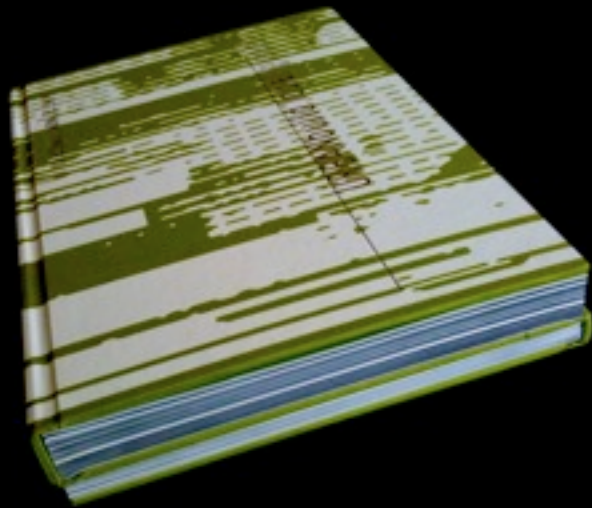
PROTOTYPE INVENTORY

MICROBUILD

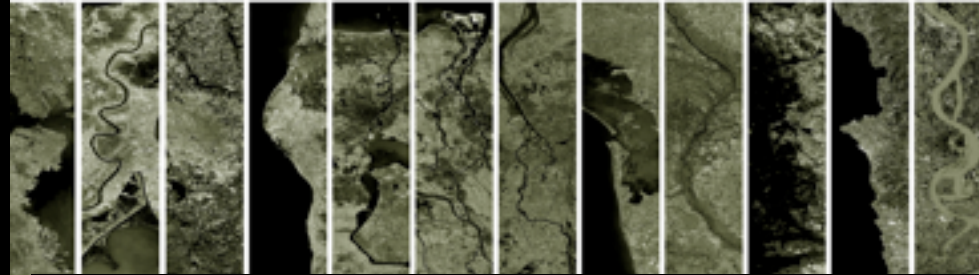


URBANbuild

local



global

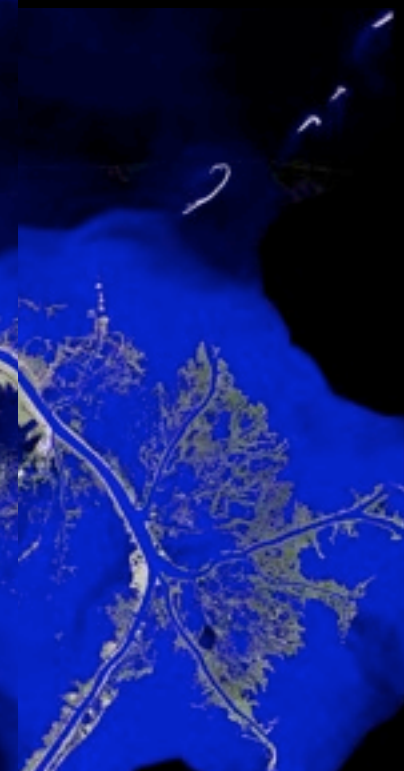
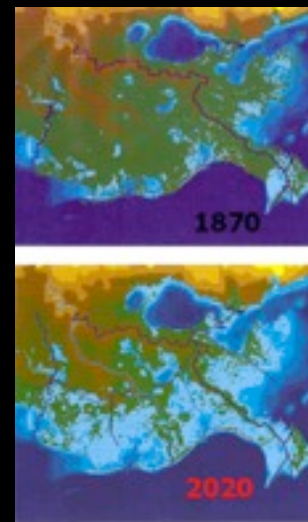


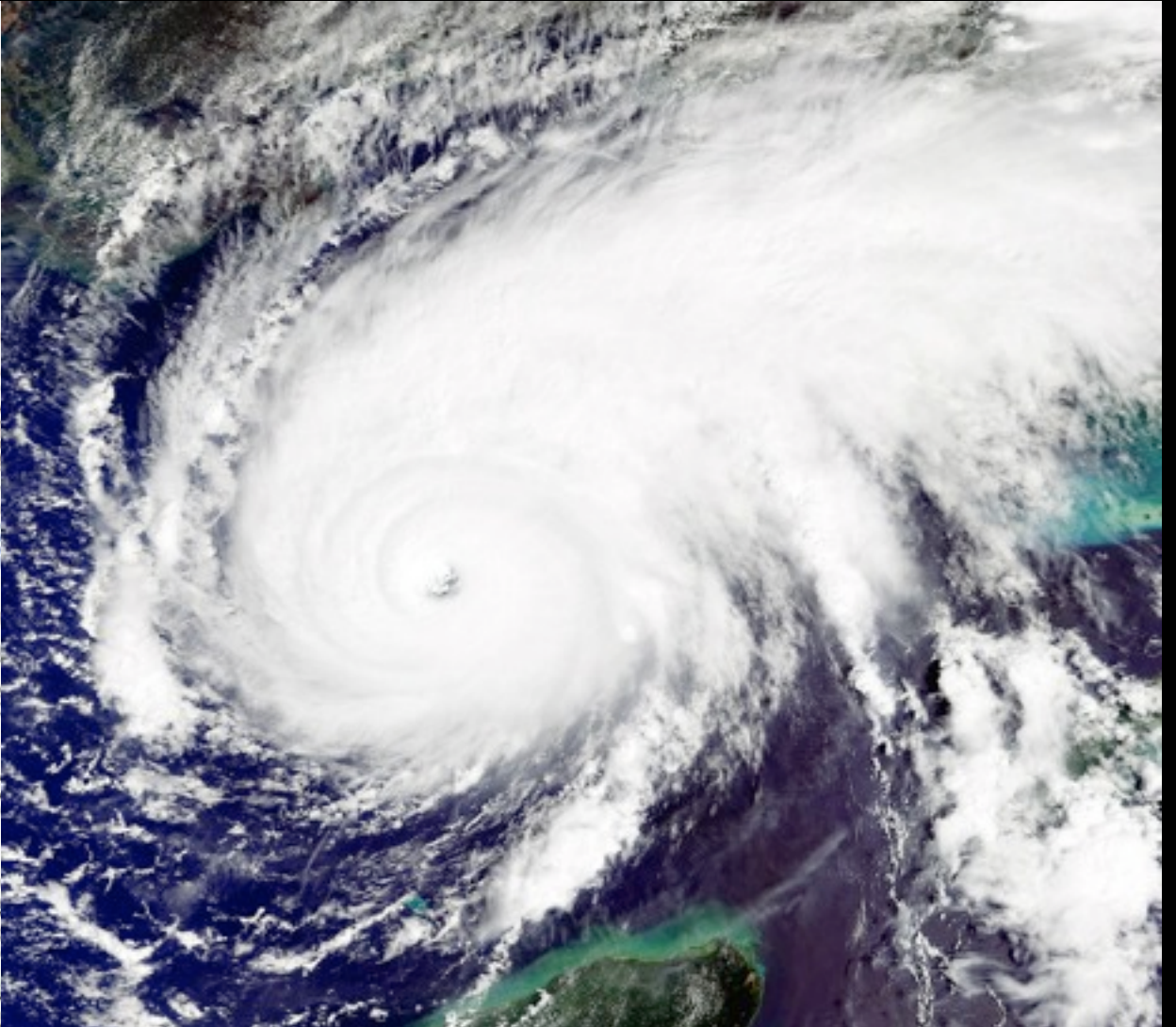
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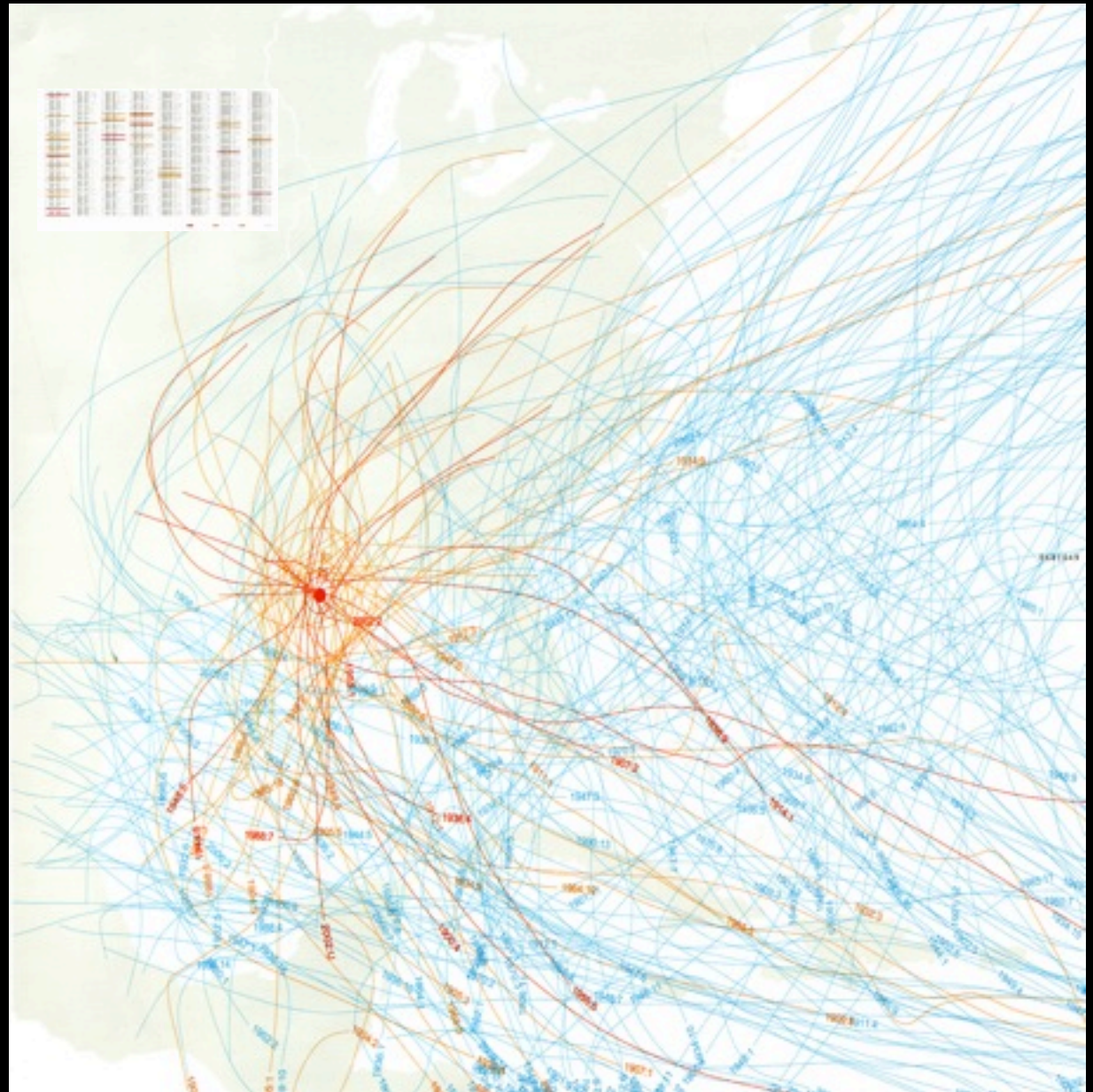
Regional Landscape



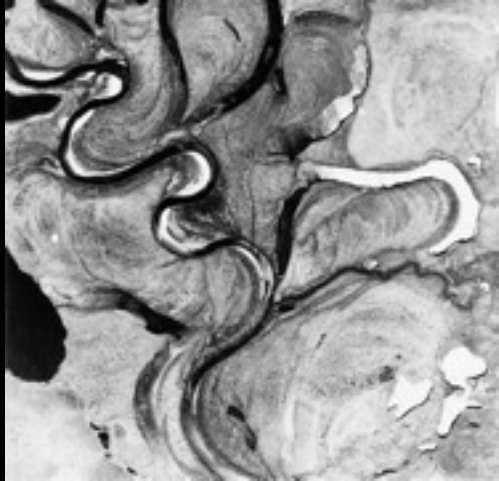




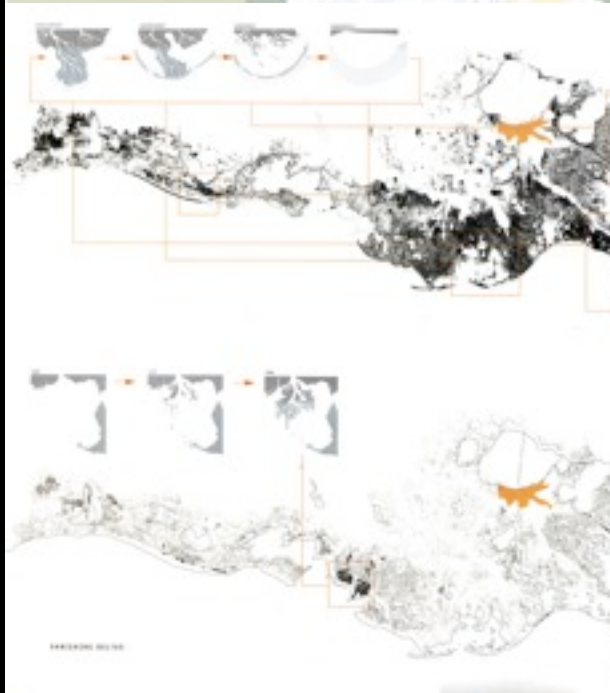
WEATHER / WATER



HURRICANE MAPPING



MISSISSIPPI RIVER AERIAL PHOTOGRAPH AND MAPPINGS



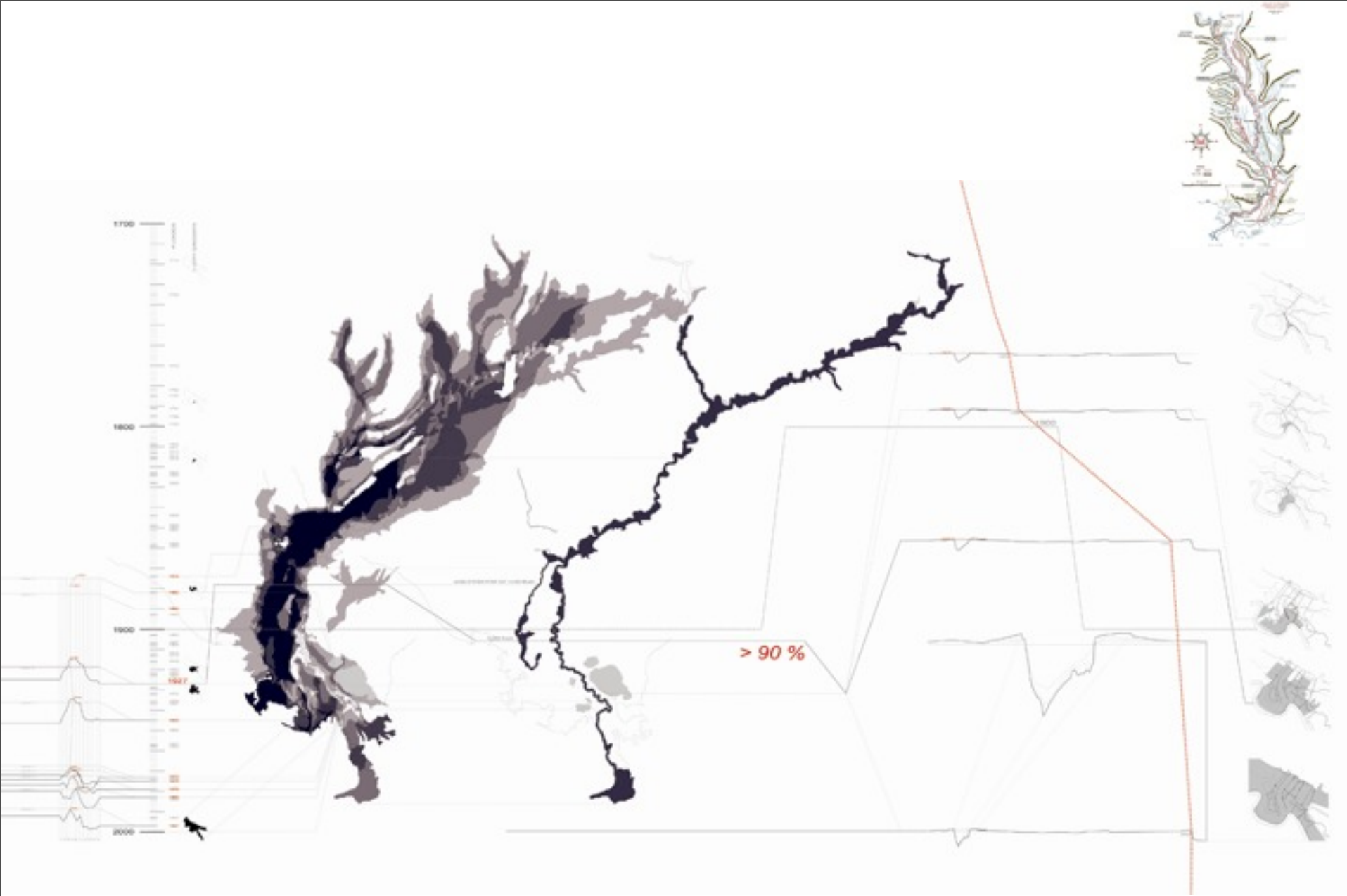
SEDIMENT DEPOSITION AND DELTA DEVELOPMENT: A City Emerging from the Water



KATRINA destruction: Levee Break



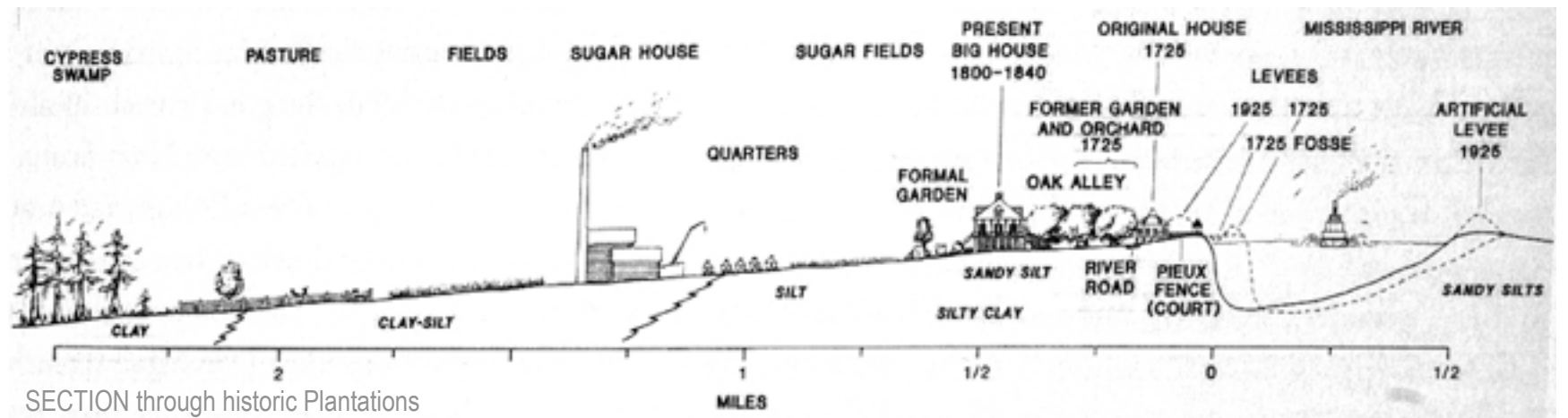
Unstable Ground: Deltaic Formation
Mouth of the Mississippi River



CONTAINMENT: From Flood Plain to River 'channel'—The Engineering of the Mississippi River

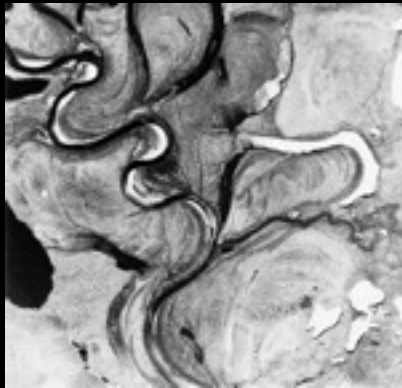


FRAGMENTATION: Plantation Lot Distribution



LANDSCAPE + GEOMETRY = Existing Urban Grain

The urban grid/grain of New Orleans resulted from negotiations between bottom-up emergent geographies and top-down geometries



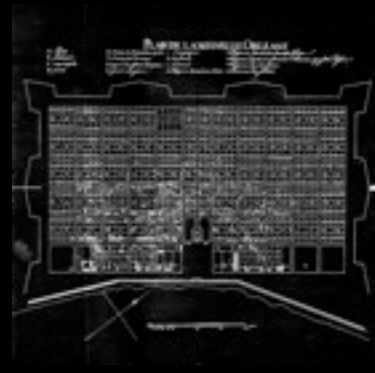
River Geography

>



Plantation Division

+

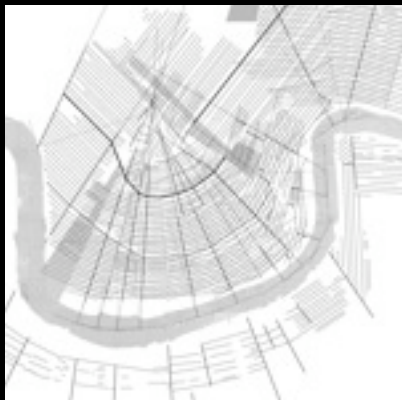


French Quarter Grid

=



Urban Fabric

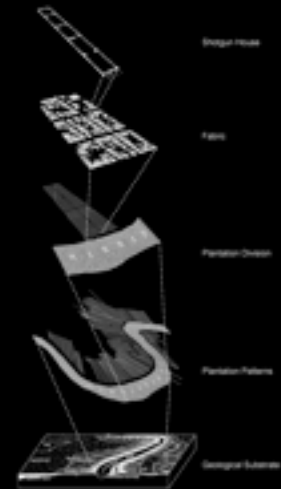


Ground

Plantation

Urbanization

City Fabric



Design Model

Plantation

Plantation Division

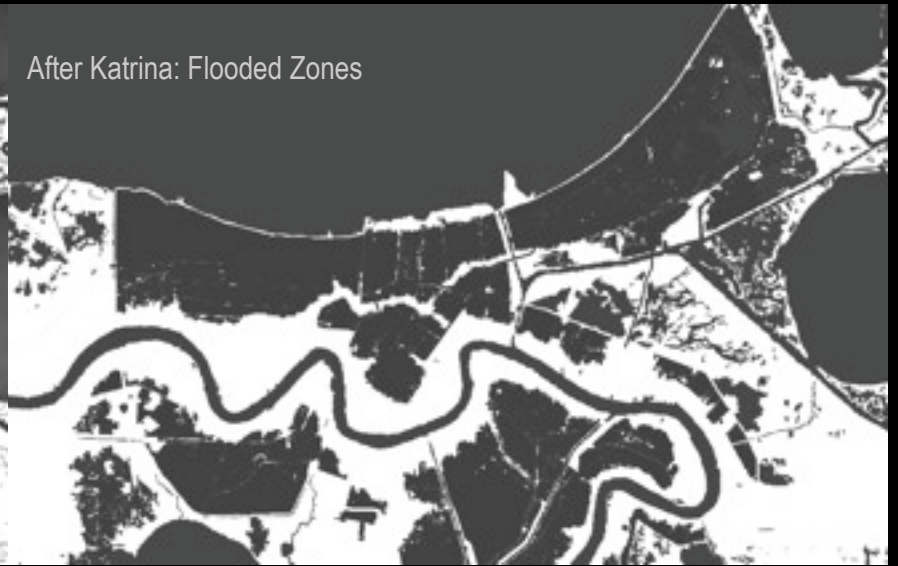
Plantation Pattern

Geographic Substrate

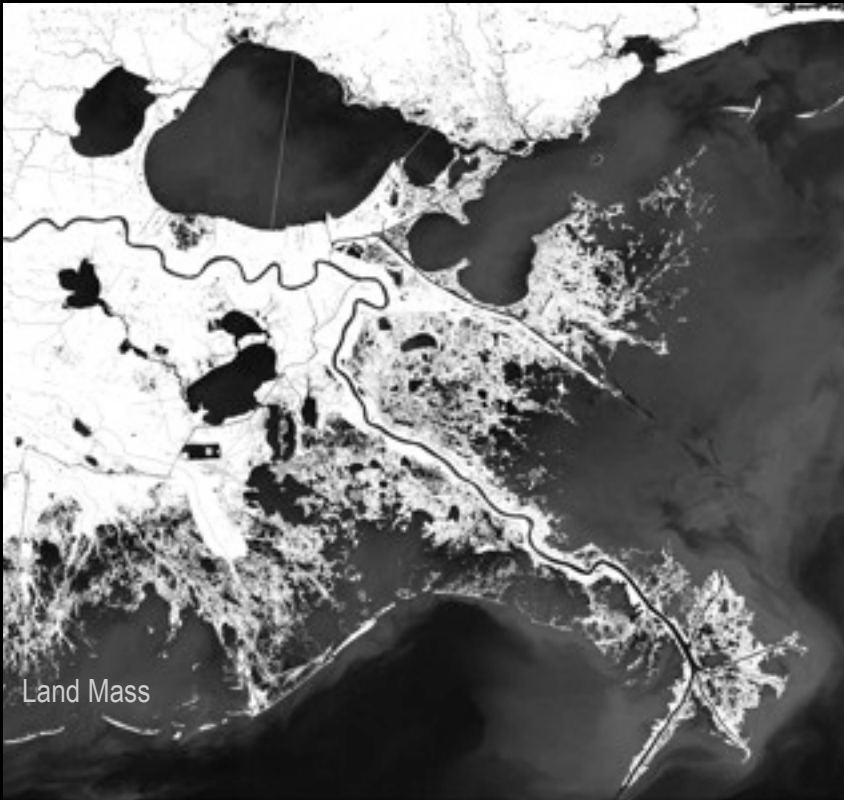
Before Katrina



After Katrina: Flooded Zones



Land Mass



Urban Infrastructure: stable ground





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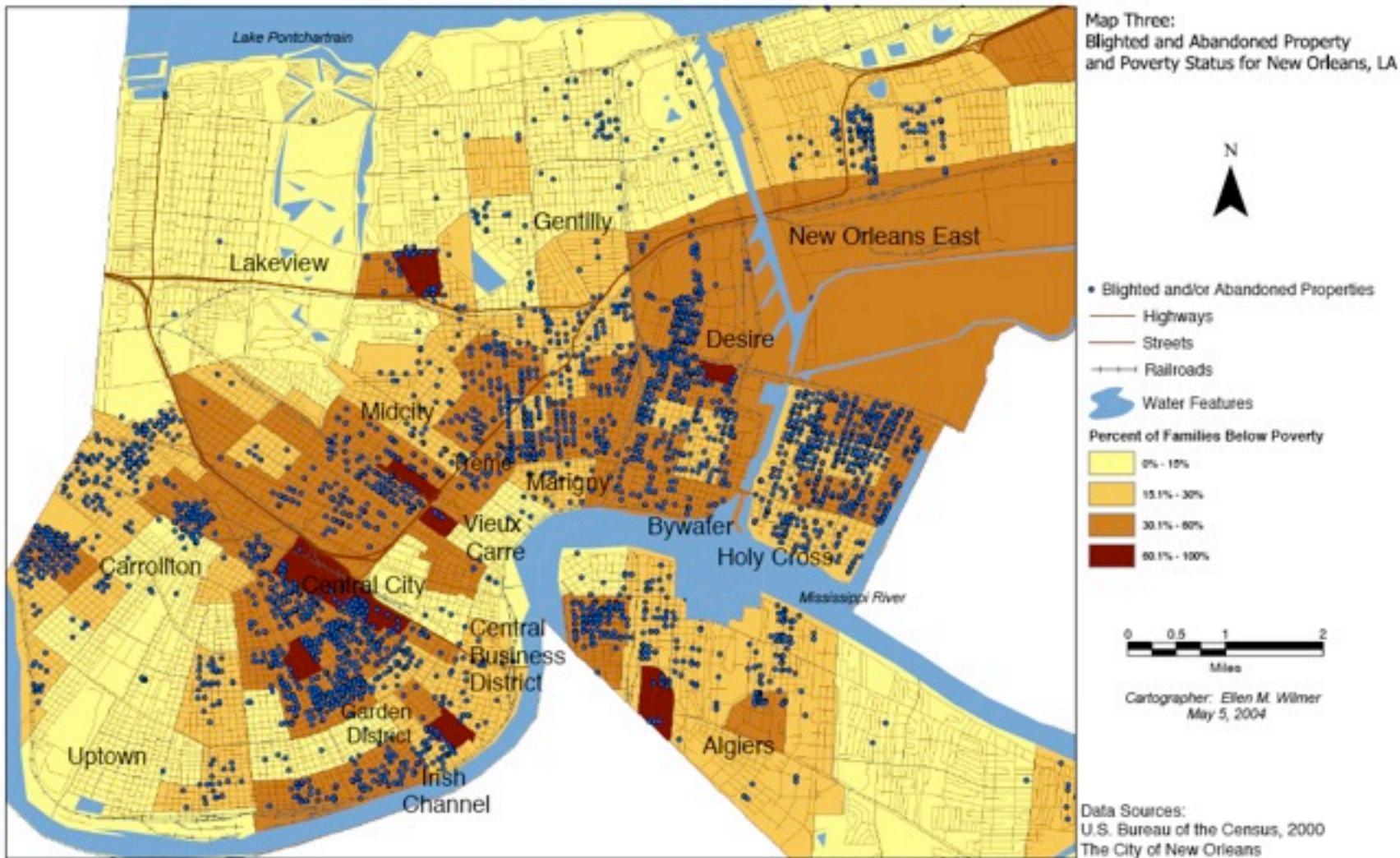
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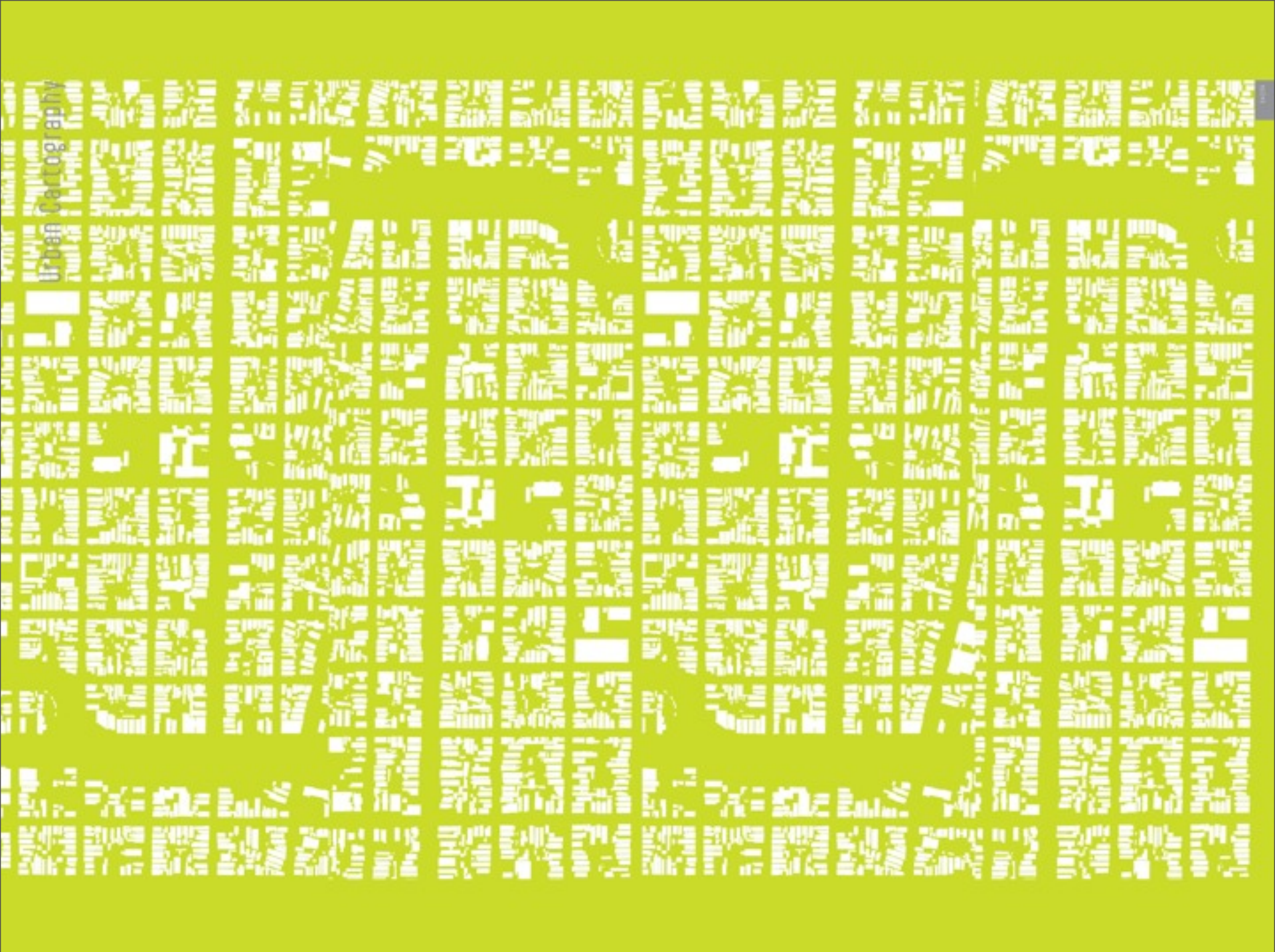
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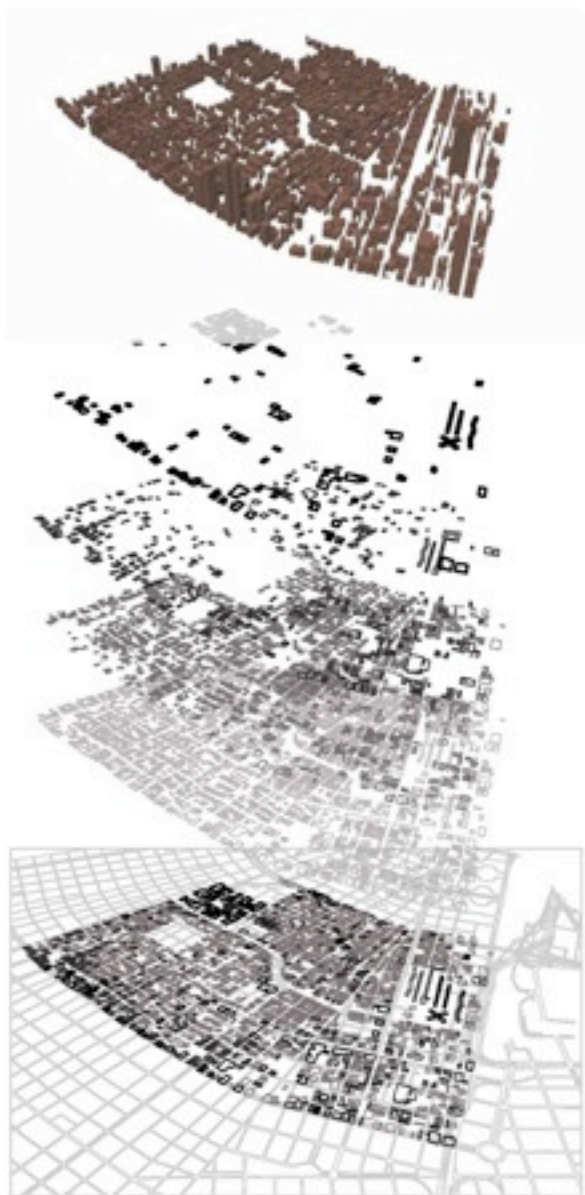
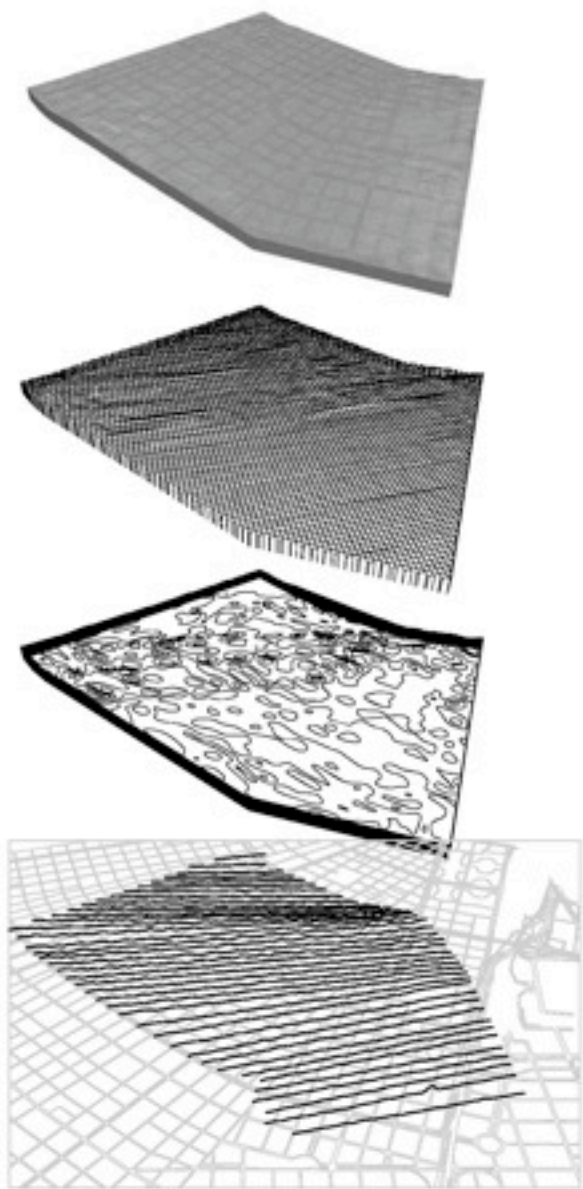
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BLIGHTED AND ABANDONED PROPERTIES IN CORE AREAS OF NEW ORLEANS



Urban Cartography



CENTRAL CITY: URBAN CARTOGRAPHIES



PARCELIZATION

A parcel, or plot of land, determines the rhythm of the built space on a block. Parcels in Central City are typically 30' wide and 90' to 120' long and predominantly face one street direction. Absence of parcels on the Central City map indicates anomalous or non-residential blocks.

SOLID AND VOID

A series of figure and ground mappings describe the relationship of built space to open space. In the map to the left, all built space is rendered solid. Solid and void bar codes specifically show the rhythm of the built space at the street edge and at the corner of the block. Each set of 3 bar codes forms a complete block. Street rhythm mappings describe the rhythm of unbuilt space at the street edge.

GRID GRAIN

The orientation a building on a block is linked to the direction of the street grids. In Central City, radial streets, running from St. Charles to Gabome, and circumferential streets, running from Louisiana to the Expressway. Multiple buildings oriented with the grid begin to form a directional grain. A majority of buildings oriented in one direction indicates a dominant street. Buildings that do not orient themselves with the grid may have been placed within the existing fabric or may indicate a specific non-residential function.

BUILDING SIZE

The fabric of Central City is predominately made up of single-family or small multi-family houses, punctuated by large institutional or industrial buildings. Average building size increases on major commercial corridors, such as St. Charles and D.C. Hiley.



SOLID VOID



BLOCK SIZE



BLOCK FOOTPRINT CONVENTIONAL



PARCELIZATION



BLOCK SIZE



BLOCK FOOTPRINT ANOMALOUS



BLOCK ORIENTATION



BLOCK SIZE



BLOCK FOOTPRINT ANOMALOUS



STREET RHYTHM



BLOCK SIZE



BLOCK FOOTPRINT CONVENTIONAL



URBAN FOOTPRINT



BLOCK SIZE



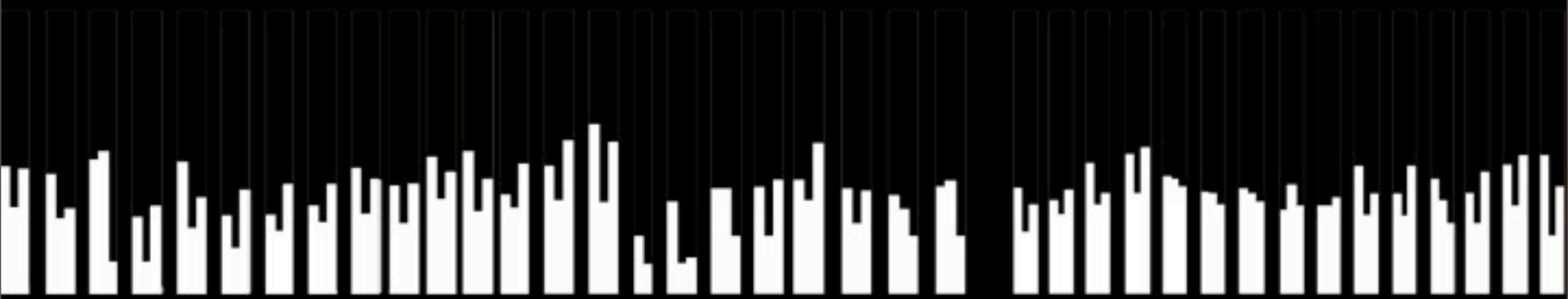
BLOCK FOOTPRINT ANOMALOUS

The rhythm of the street is a complex interplay of architectural elements and human activity. It is a dynamic environment where the verticality of buildings and the horizontal flow of traffic create a sense of movement and energy. The street is a stage where the urban landscape performs its daily drama.

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URBAN STREET RHYTHM



URBAN STREET DENSITY



URBAN RHYTHMS



PHOTOGRAPH BY [unreadable]

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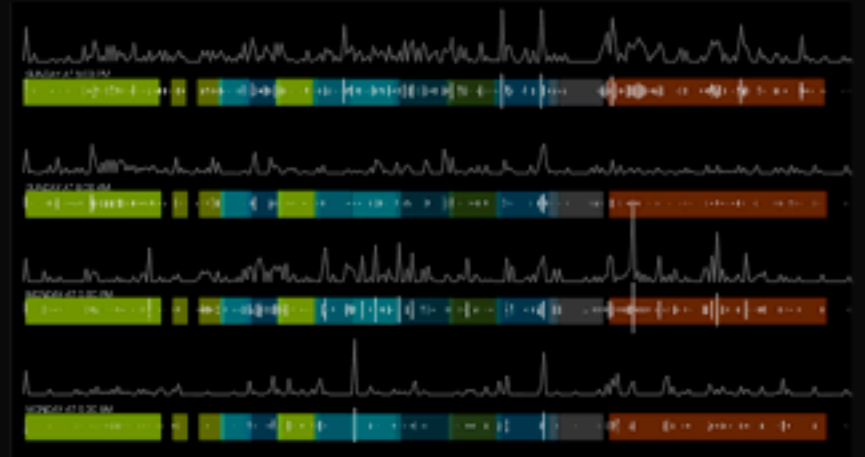
BUS ROUTES TIMETABLE

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ACME	THROWING A FOOTBALL	WALKING THE DOG	BLITZING A HOUSE	ACME
	DANCING AT A BIRTHDAY	WALKING TO WORK OR SCHOOL	REPAIRING INFRASTRUCTURE	
SEDA	TALKING TO THE NEIGHBOR	GOING TO CHURCH	BUYING GROCERIES	PROCUING
	HANGING OUT BY THE GROCERY STORE	WAITING FOR THE BUS		
PARADE	SITTING ON THE STOOP			PARADE

TYPE OF ACTIVITY



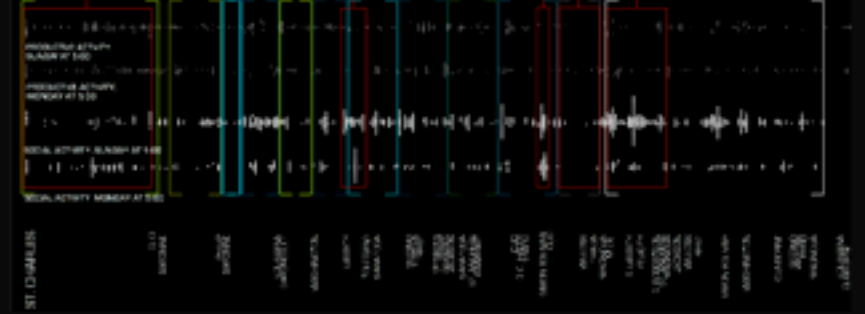
ST. CHARLES FROM LOUISIANA TO CLIO
 Businesses on the major cross streets attract more people in the afternoon. There is always a steady stream of people waiting for the bus, walking, and jogging. Pedestrian activity is focused around commercial and shopping.

LIBERTY FROM WASHINGTON TO VOLAND
 On one side the grasspark, on the other a church and a row of houses. A large crowd gathers for Sunday morning church, and in the afternoons people gather in the streets. Pedestrian activity is based on gathering for recreation, worship.

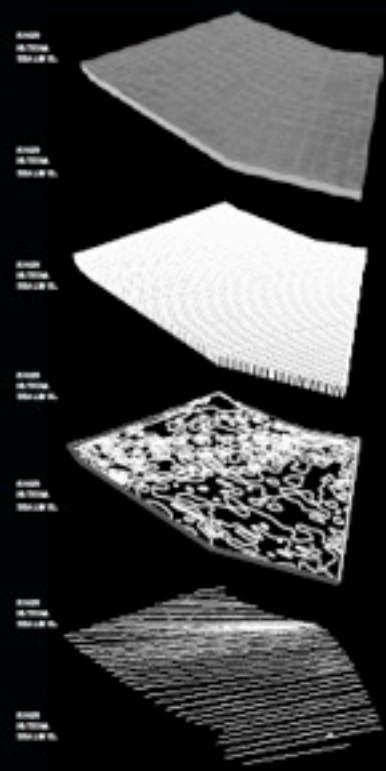
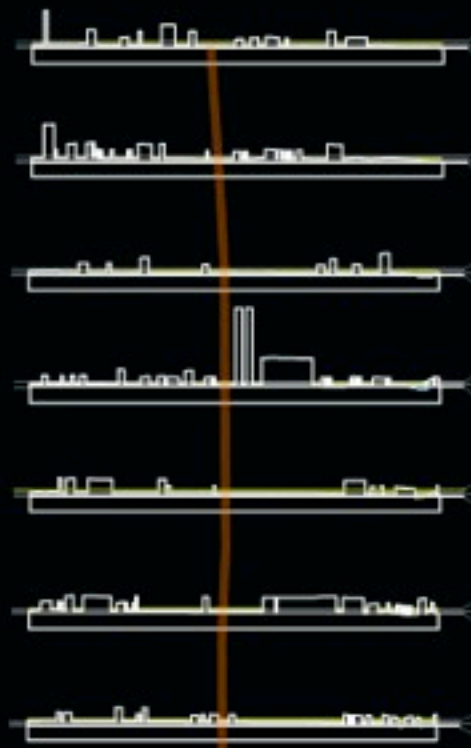
SIMON BOLIVAR FROM BRATO TO CLIO
 A shady neutral ground separates the Calloper housing project from a row of houses. In both morning and evening commuters wait for the bus and temporary workers wait for a job.

CLIO TO THALIA ADJACENT TO THE INTERSTATE
 Pedestrians in this area are not permanent. One security guard monitors the area around a warehouse, otherwise it is empty no people, no buildings, only a few of the Homeless and Superdome.

MLK TO ST. ANDREW UPPER FROM CALLOPER HOUSING
 Martin Luther King is a social center for the inhabitants of the Calloper housing project and the surrounding neighborhood. A block party spontaneously erupts at the corner of St. Louis and Martin Luther King. The area is filled with people sitting on their steps, often alone in the mornings and together in the afternoon.



PEDESTRIAN ACTIVITY



NATURAL TOPOGRAPHY

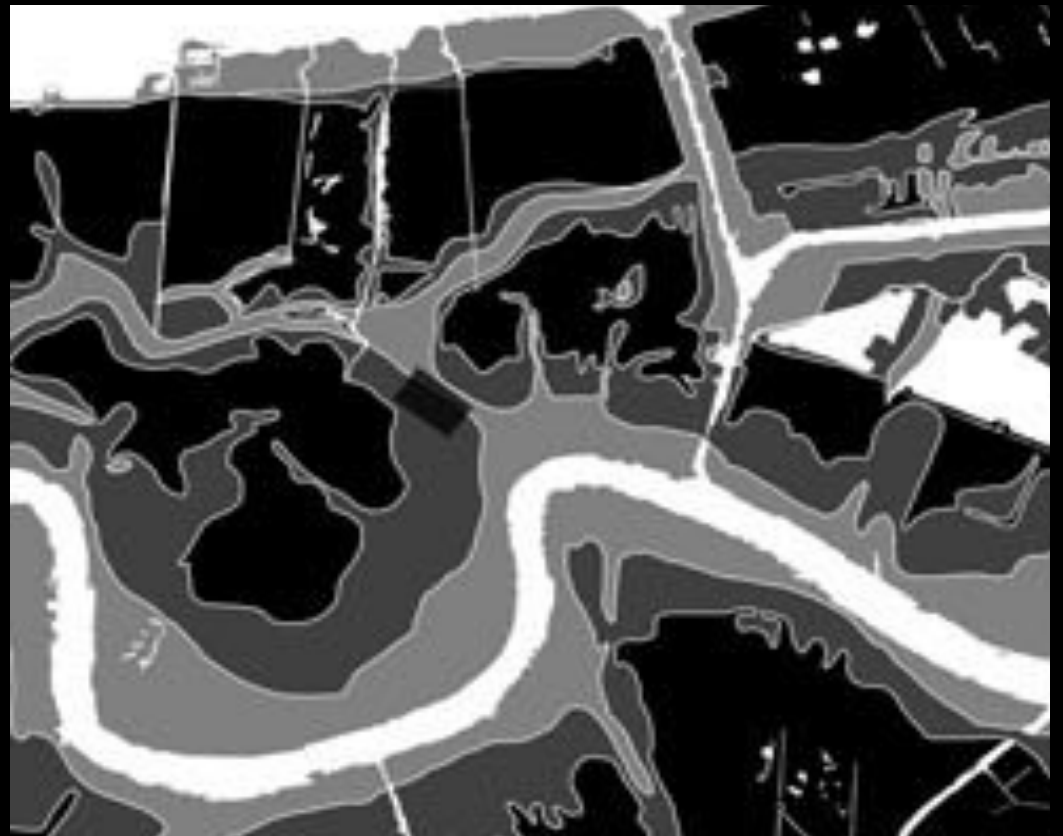
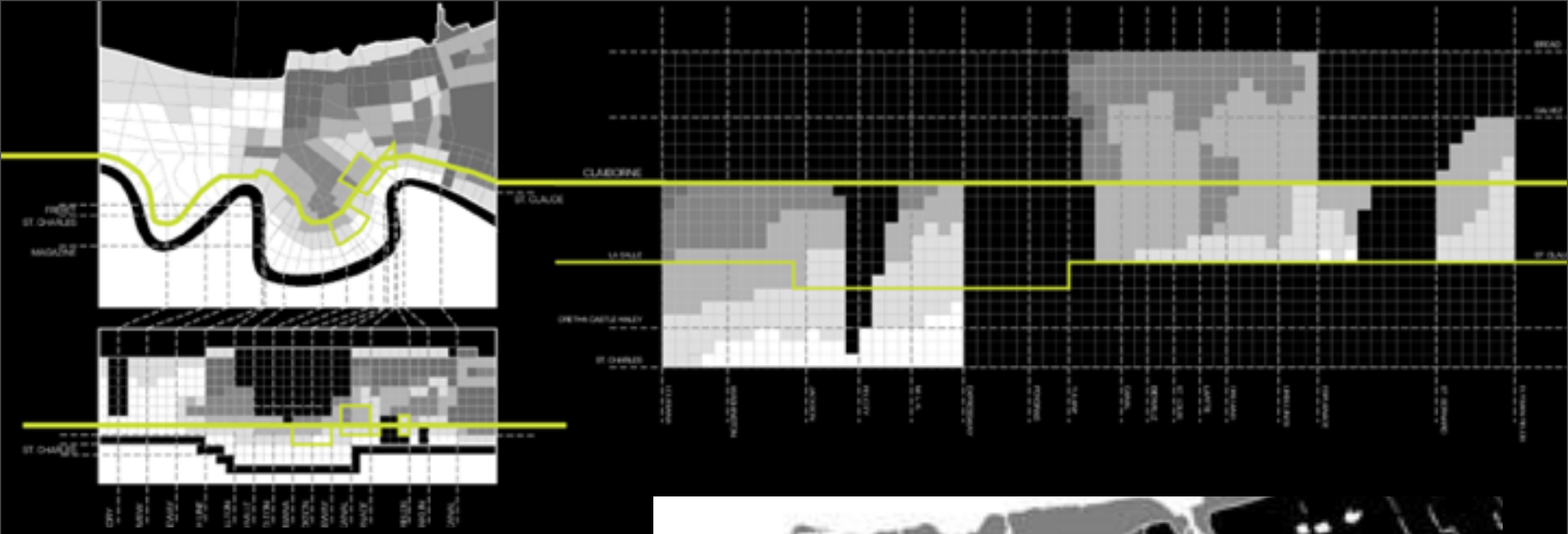


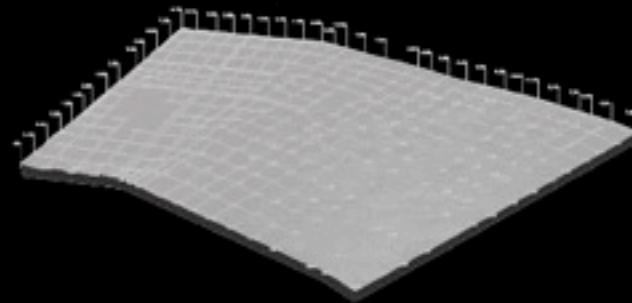
URBAN TOPOGRAPHY



GREEN TOPOGRAPHY

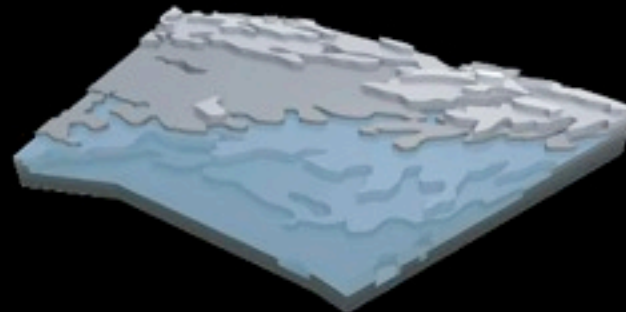






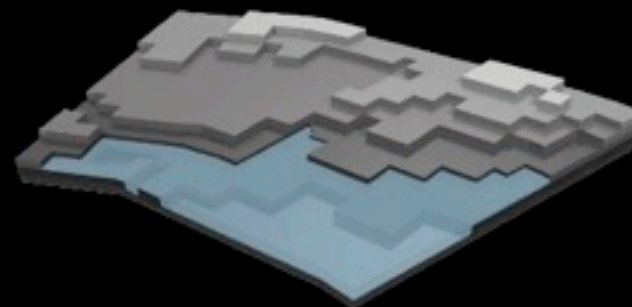
ELEVATION

Elevation relative to sea level is mapped at the intersection of each street in Central City. The variations in topography range from 7.5 feet above sea level to 5 feet below sea level.



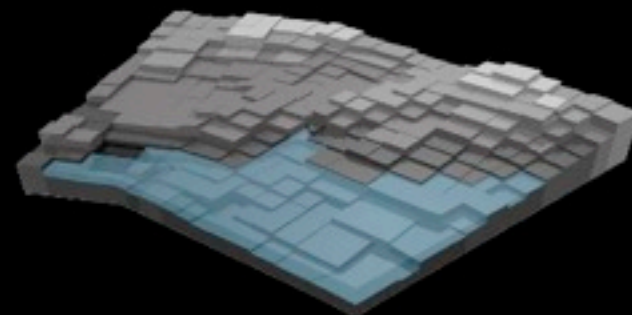
CONTOURED ELEVATION

The data gathered from the street mapping is mapped as the contours of the actual landscape at increments of 2.5 feet from -5 feet to +7.5 feet. The model is exaggerated vertically in order to easily show the change in elevation.



AVERAGE ELEVATION

The contours are mapped back onto the street grid in increments of 2.5 feet to read as an average gridded elevation. The corner of Calhoun and Louisiana, where the Magnolia Housing Projects stand empty, is at the lowest elevation in Central City.

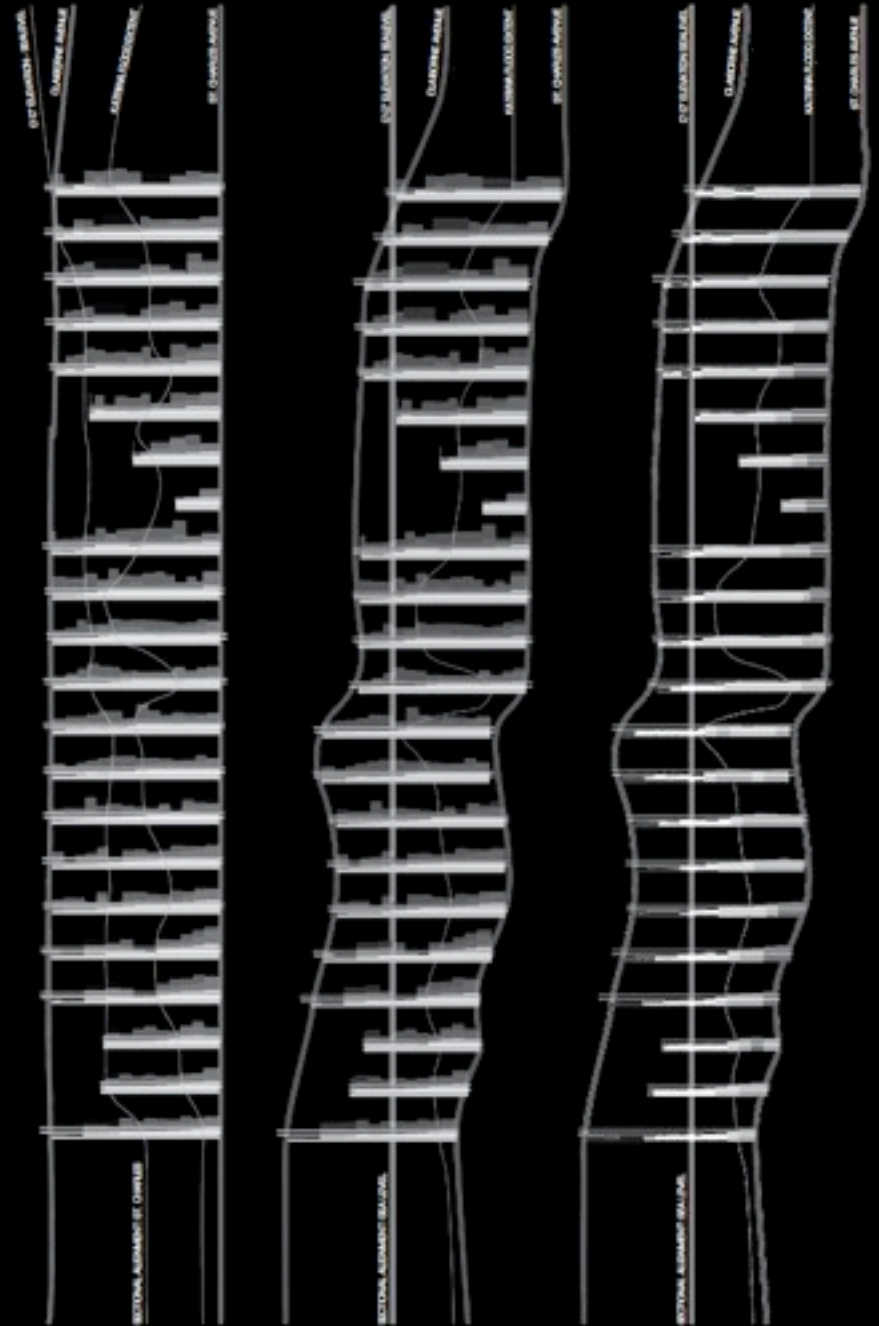
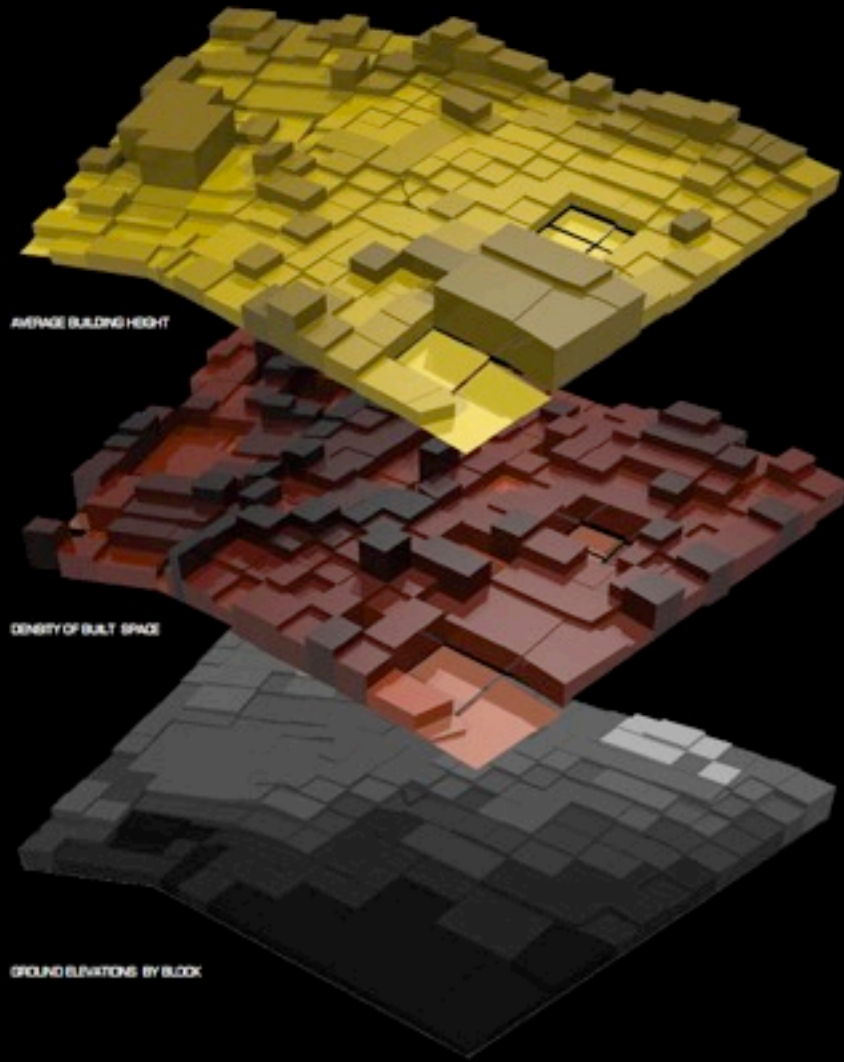


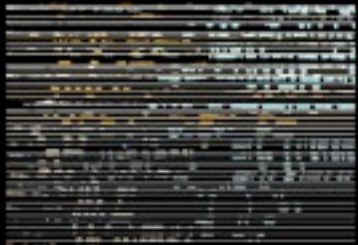
ELEVATION BY BLOCK

Central City elevations are mapped by block. The 2.5 foot increments remain only in the tone of each block. The majority of Central City lies above sea level. The area around Jackson St. / St. Charles intersection and the Washington St. / St. Charles intersection lie at the highest elevations of Central City.

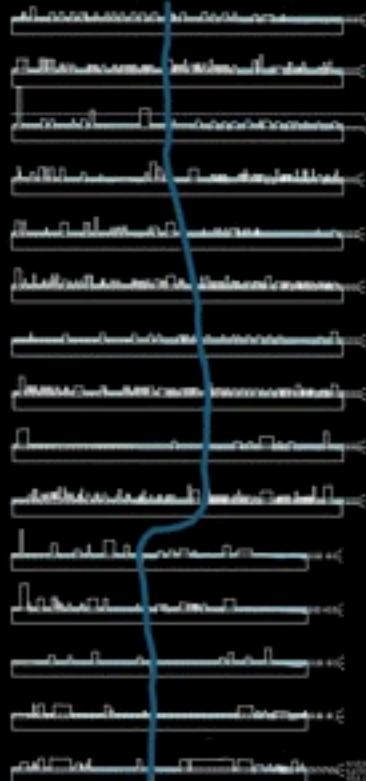


Monday, October 4, 2010

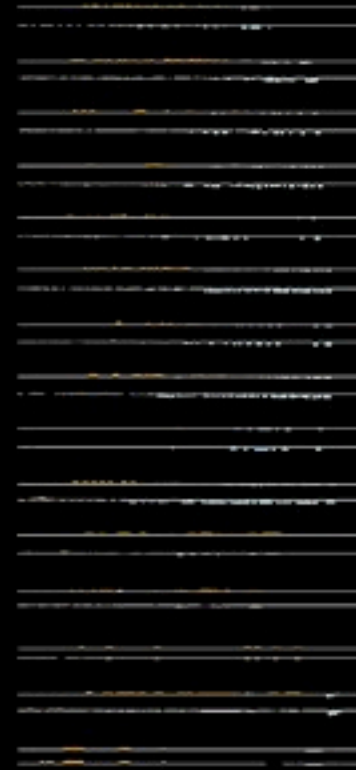




CONSECUTIVE SECTIONS



URBAN SECTIONS: SEA/RIVER LEVEL + FLOODING

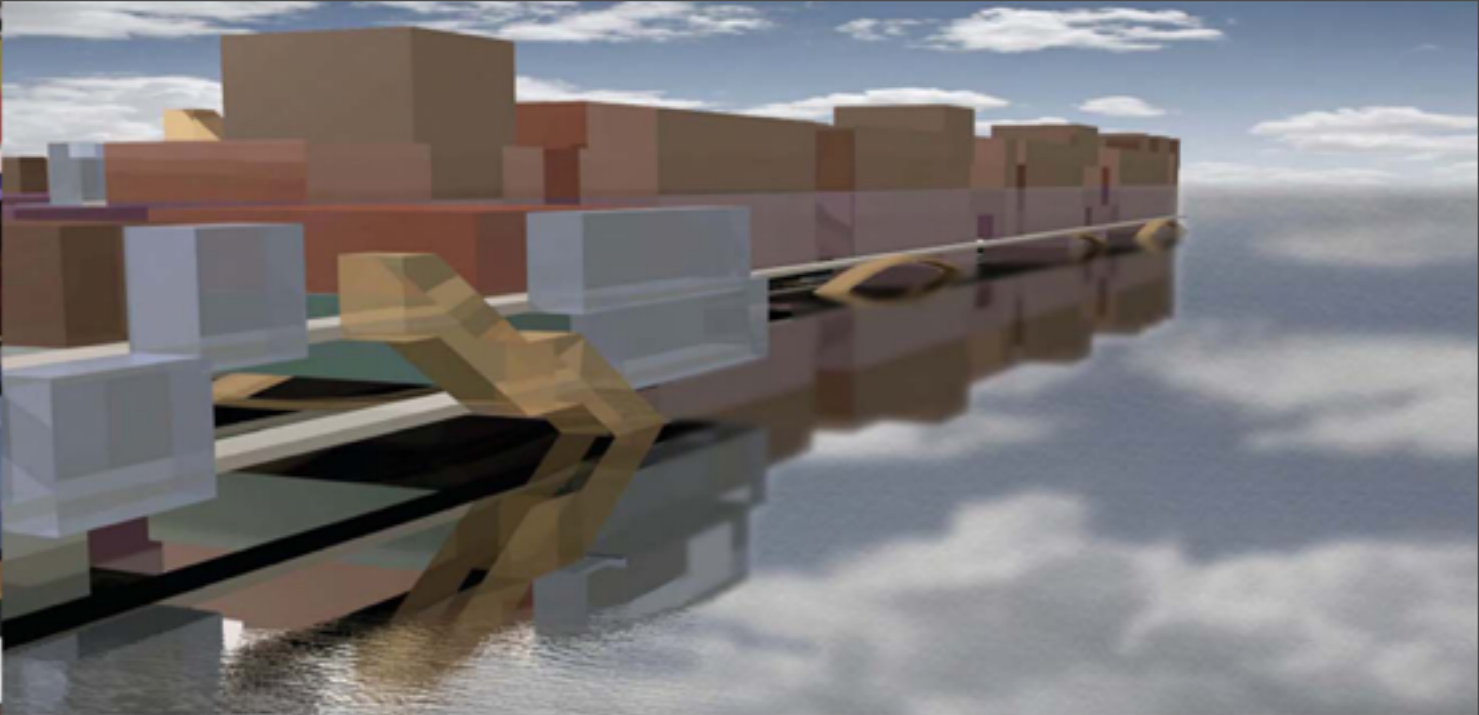
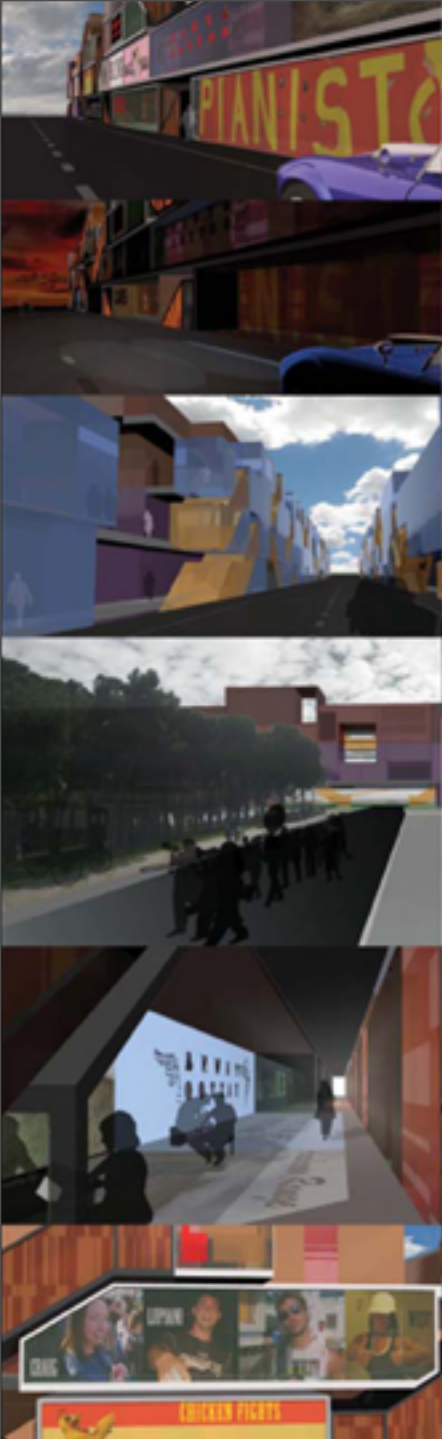


BUILDING SECTIONS: ABOVE/BELOW FLOOD LINE

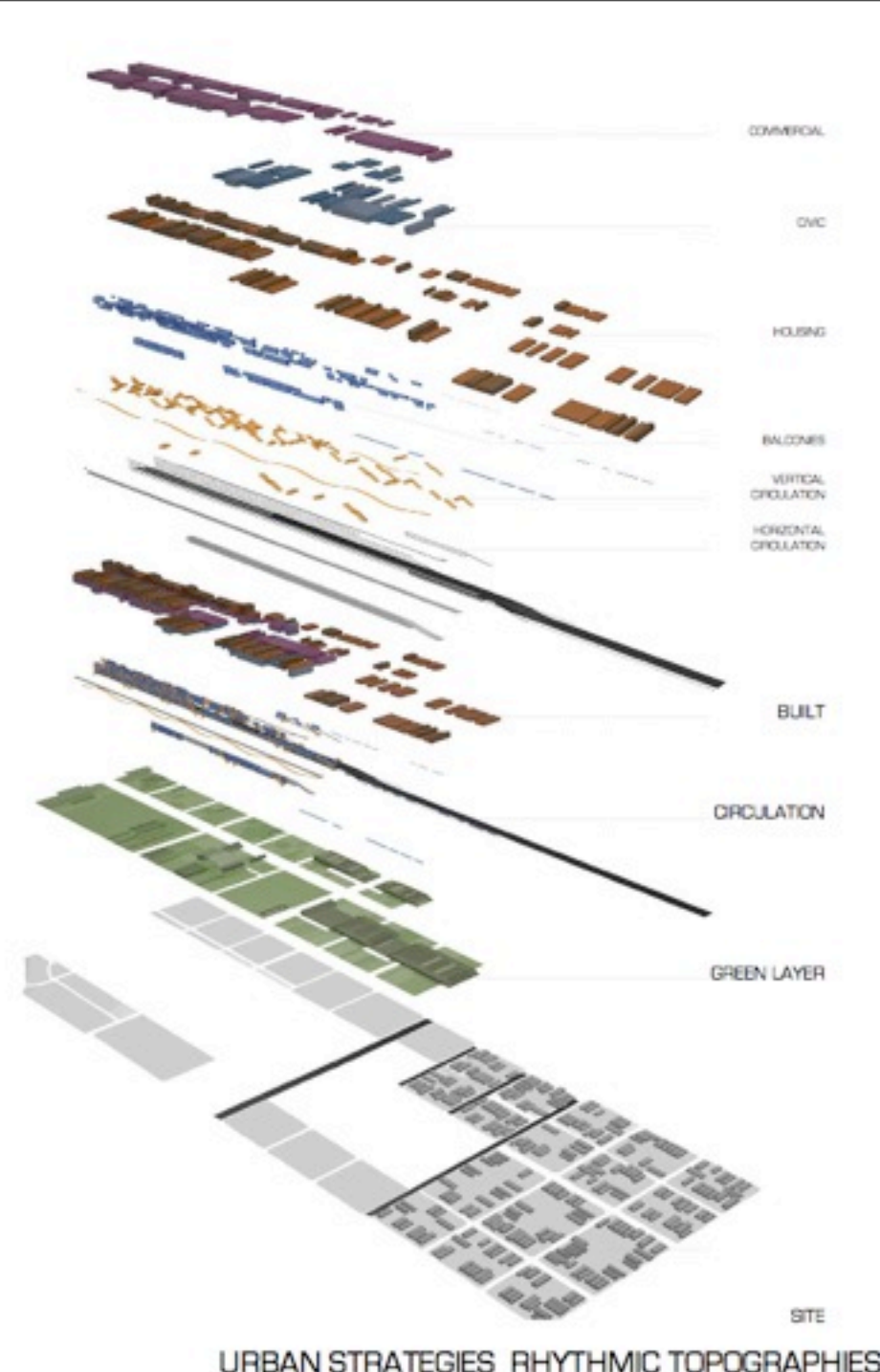


GROUND TOPOGRAPHY: ABOVE/BELOW FLOOD LINE

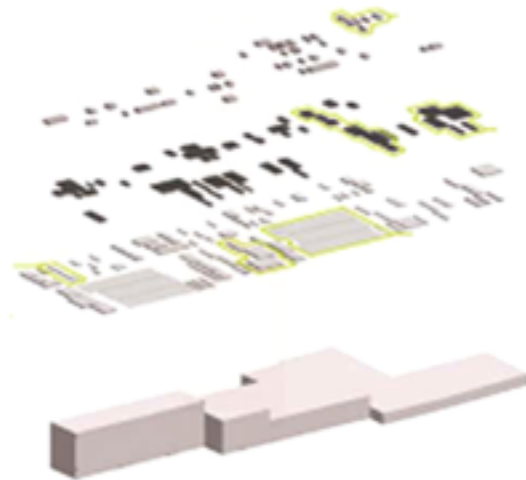
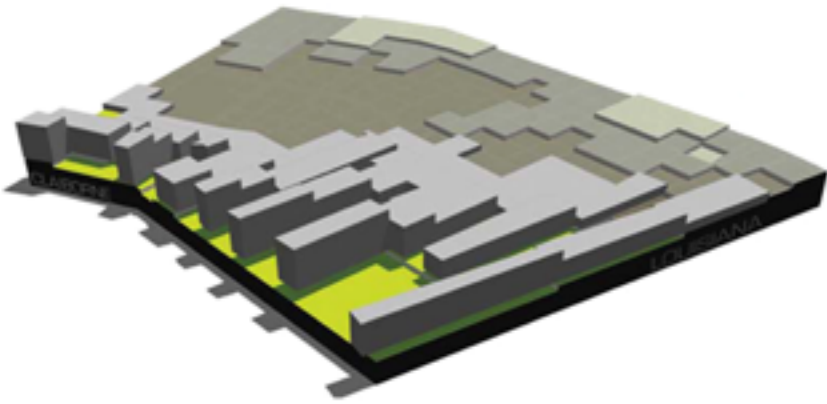




Monday, October 4, 2010



URBAN STRATEGIES, RHYTHMIC TOPOGRAPHIES



Urban form and building massing

- Block form and building massing
- Block form and building massing
- Block form and building massing

Building form and building massing

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Building form and building massing

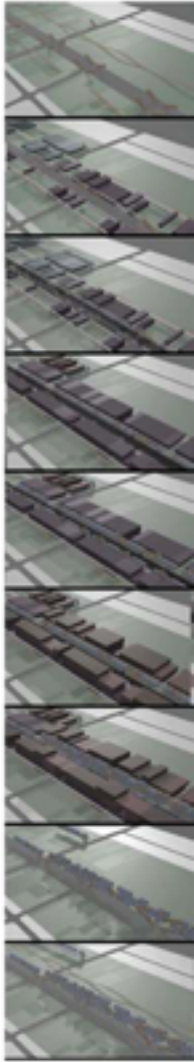
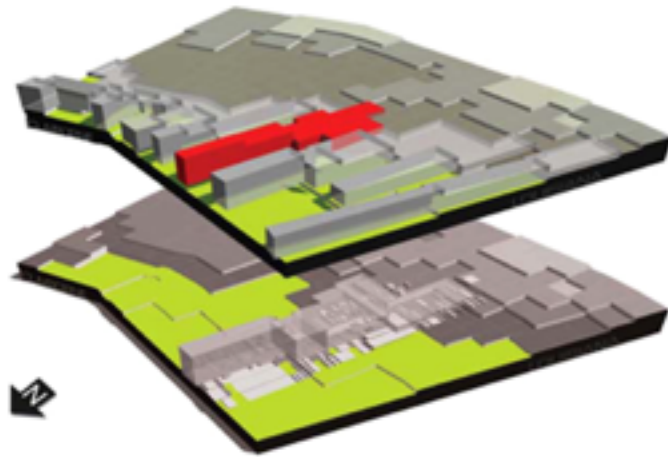
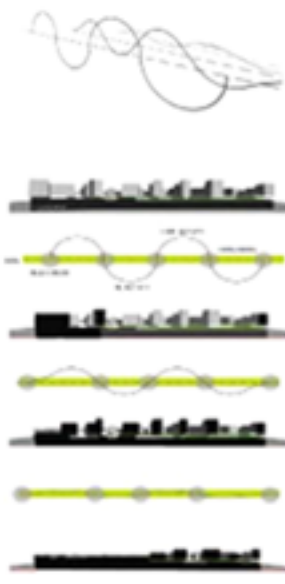
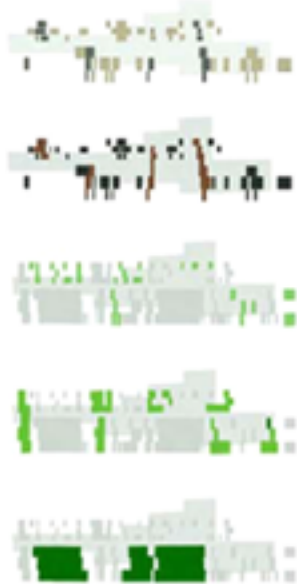
- Building form and building massing
- Building form and building massing
- Building form and building massing

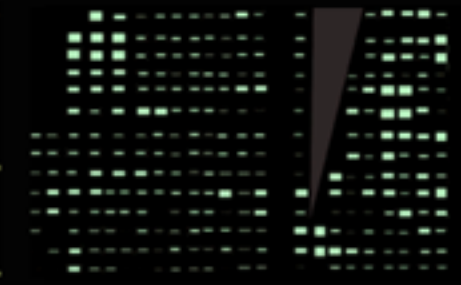
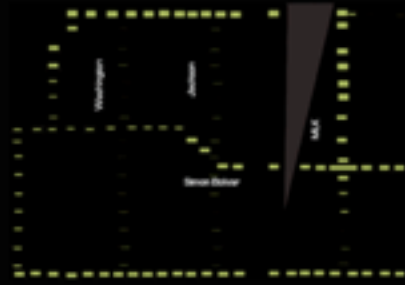
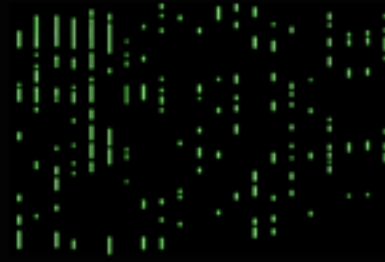
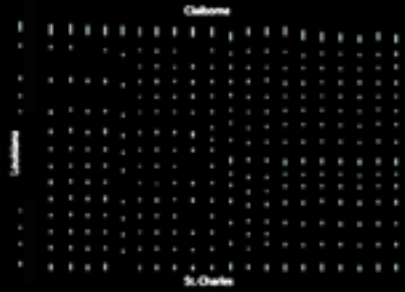
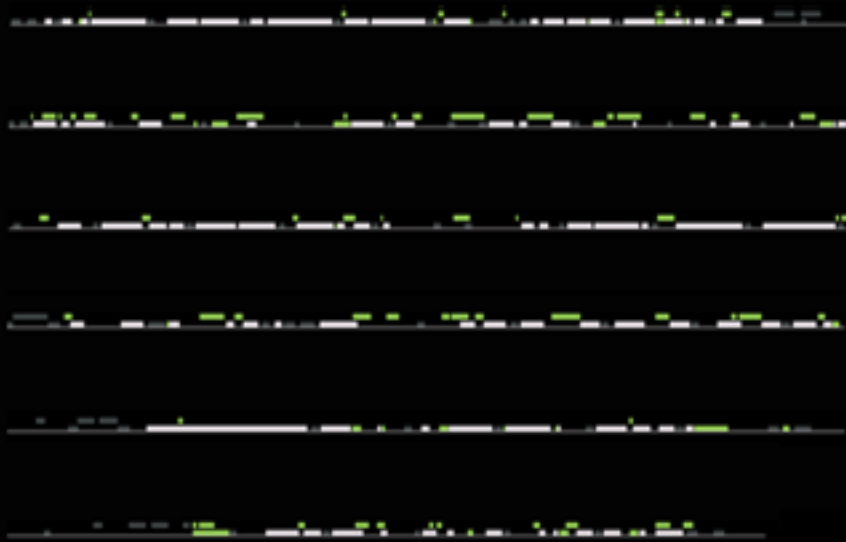
Building form and building massing

- Building form and building massing
- Building form and building massing
- Building form and building massing

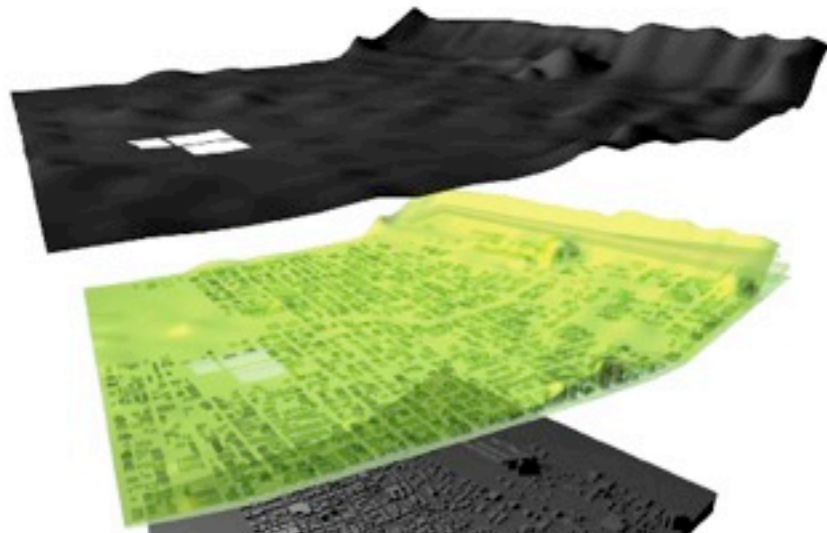
Building form and building massing

- Building form and building massing
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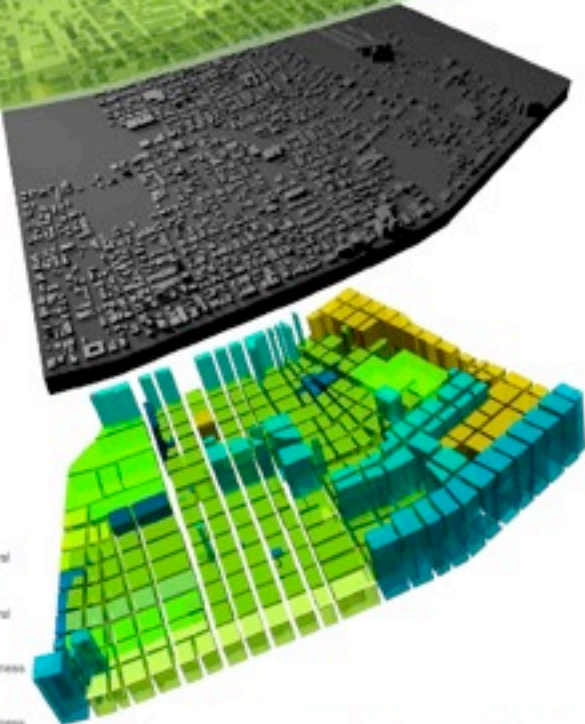








- RM-4 (42%) Residential, Multi-family
- RM-3 (11.5%) Residential, Multi-family
- RD-3 (2%) Residential, Two-family
- RM-2 (2.5%) Residential, Multi-family
- MB (15%) Business, Medical Service
- RM2A (8%) Residential, Multi-family
- U (14%) Industrial, Light
- C-1 (5%) Commercial, General
- C-1A (5%) Commercial, General
- B-1 (2%) Neighborhood Business
- B-2 (1.5%) Neighborhood Business



DISTING SPATIAL CONDITION FOR CENTRAL CITY
GROUND IMPRESSION
ZONING PLATS
AVAILABLE SPACE
SPATIAL ZONING

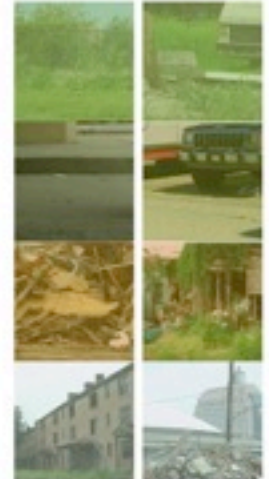


- AIR RIGHT
- DRIVE SPACE
- BACK YARD
- ALLEY
- FRONT YARD
- SUB YARD
- SIDEWALK
- GRASS BUFFER
- CURB
- PARKING
- STREET

TYICAL SPATIAL CONDITIONS OF SHOTGUNS n STREET



SIFTING + SORTING GREENSPACE
GREENSCAPES
HANDSCAPES
BLEND TO
TRANSITIONAL

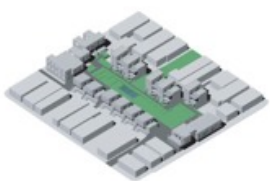


GREEN IMAGES
GREENSCAPES
HANDSCAPES
BLEND TO
TRANSITIONAL

TOPOGRAPHY_ENVIRONMENT + AVAILABILITY

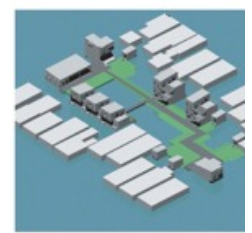
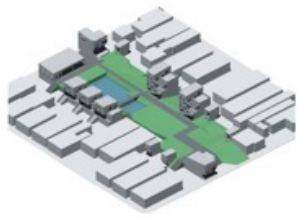


Architectural



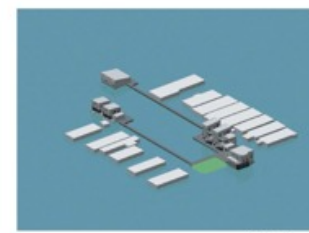
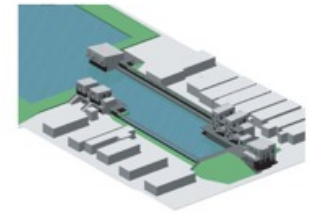
4 foot flood

Agricultural

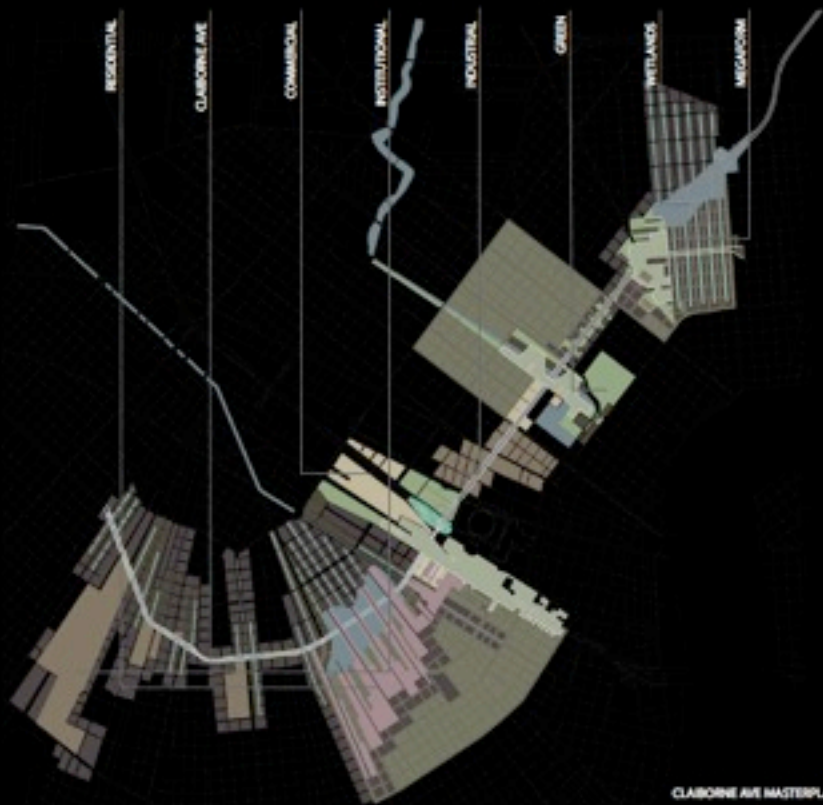


6 foot flood

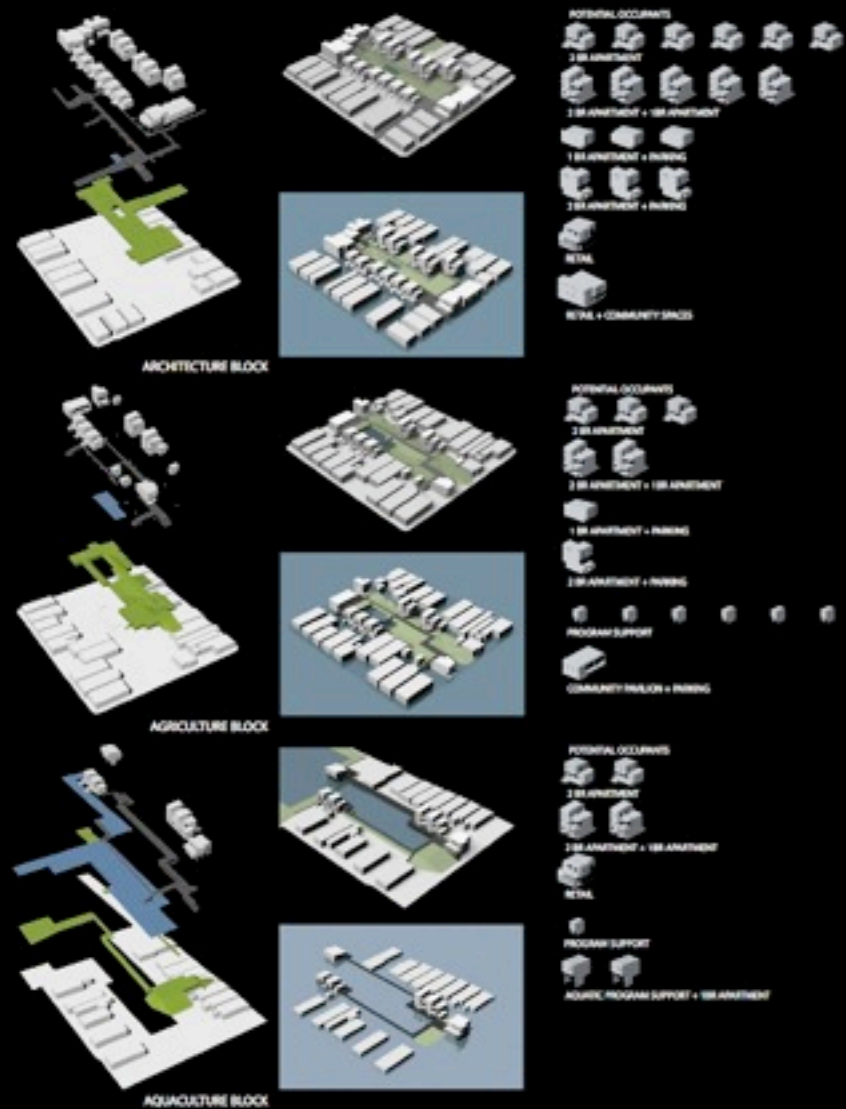
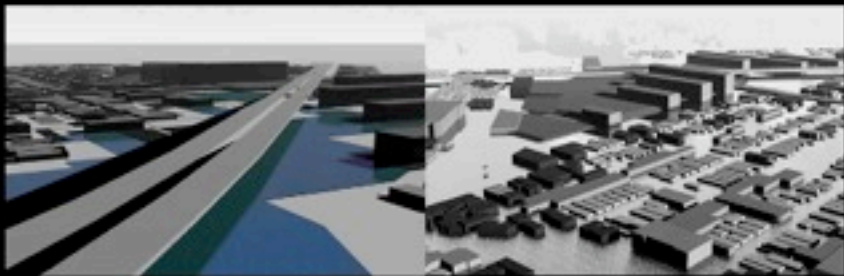
Aquatic



8 foot flood



CLAIBORNE AVE MASTERPLAN



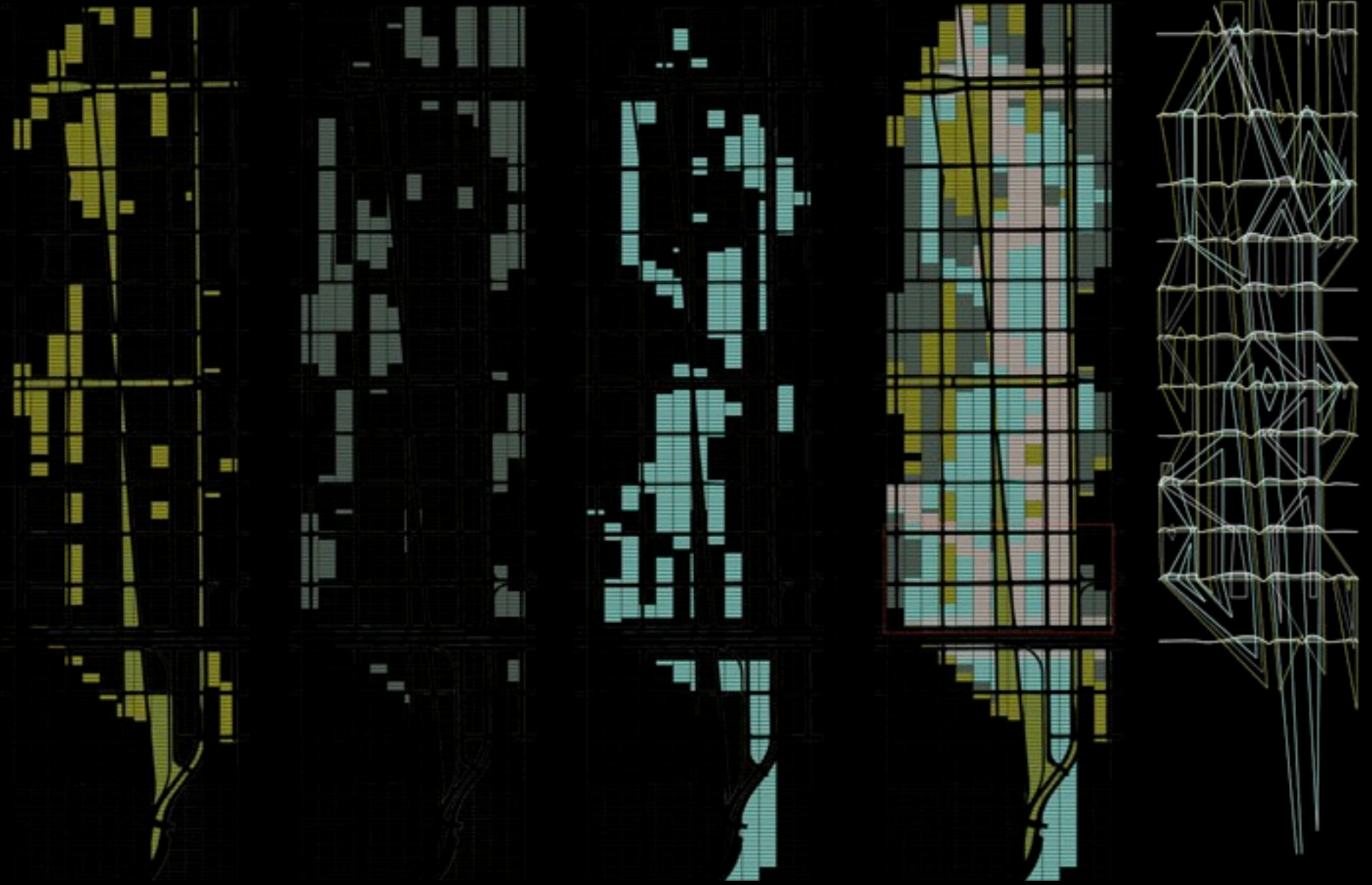
TOPOGRAPHIES_AGRO/AQUATIC MASTERPLAN

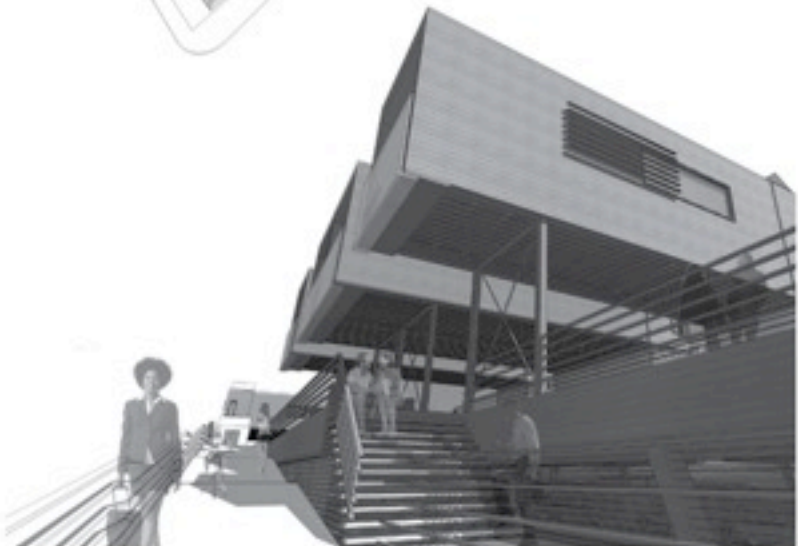
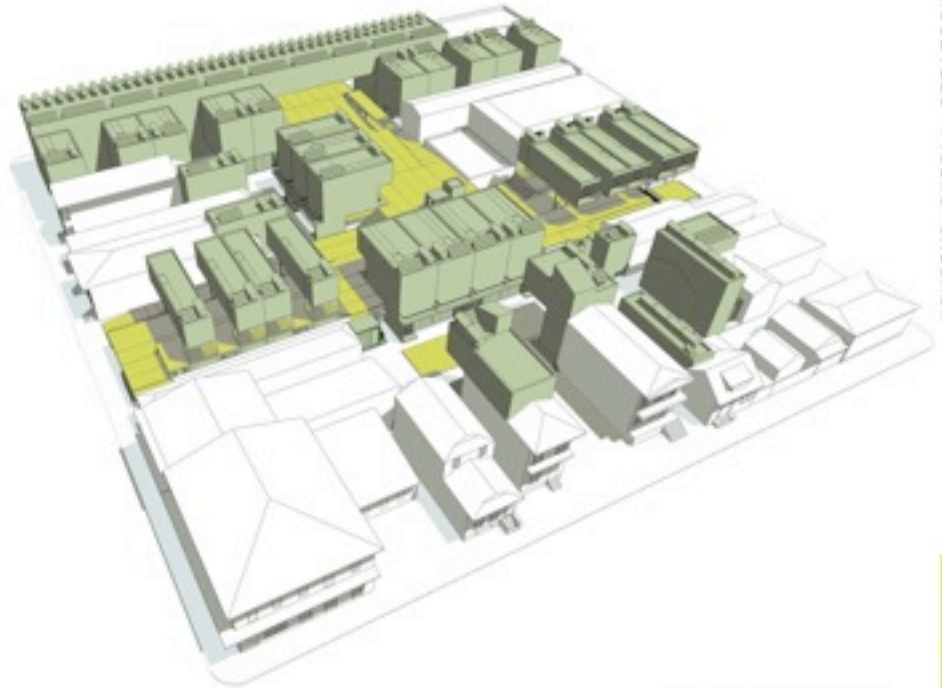
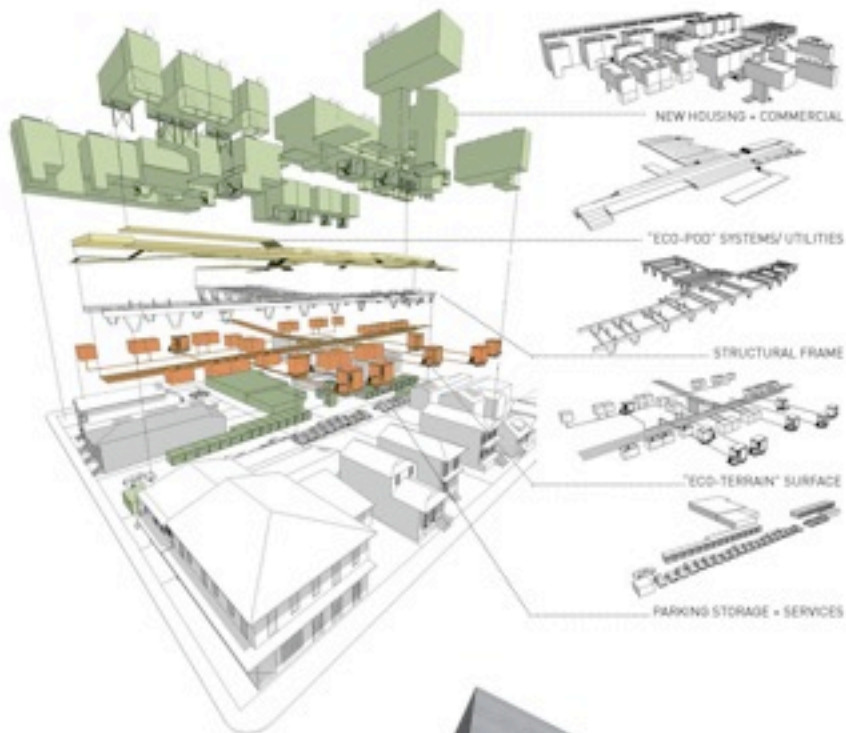
green space
recreational

low density
residential (1 unit per lot)

medium density
residential/community (2 units per lot)

high density
residential/commercial (3 units per lot)

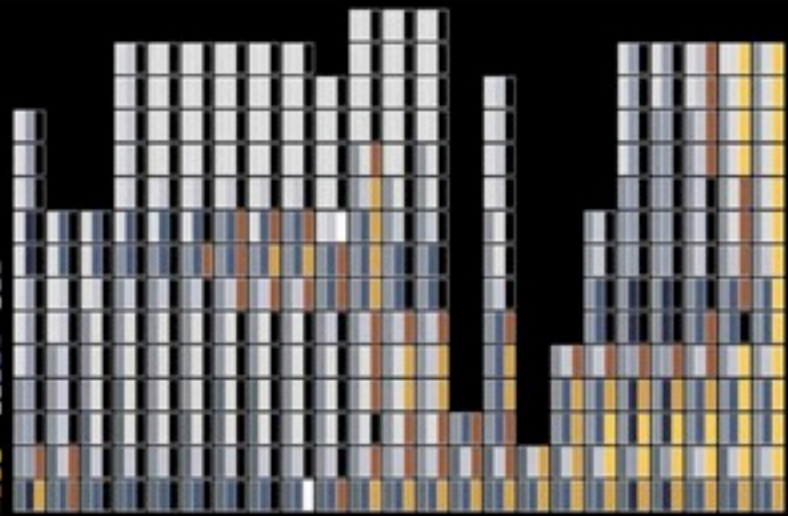
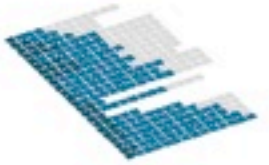
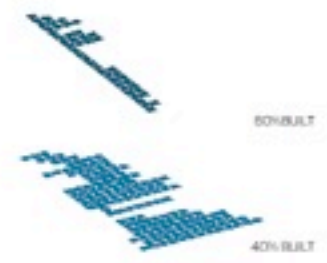
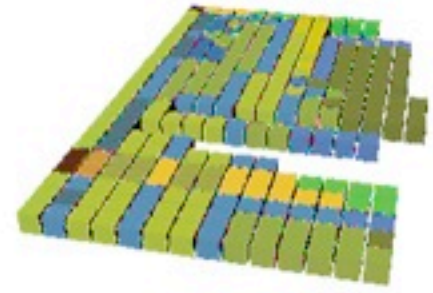
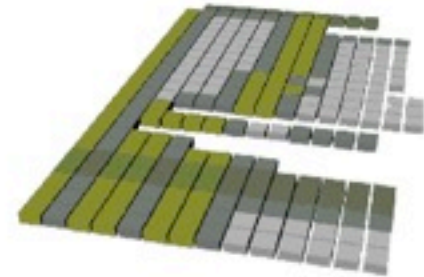
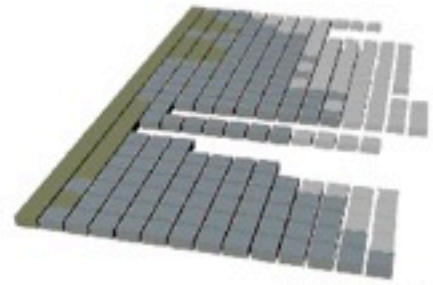
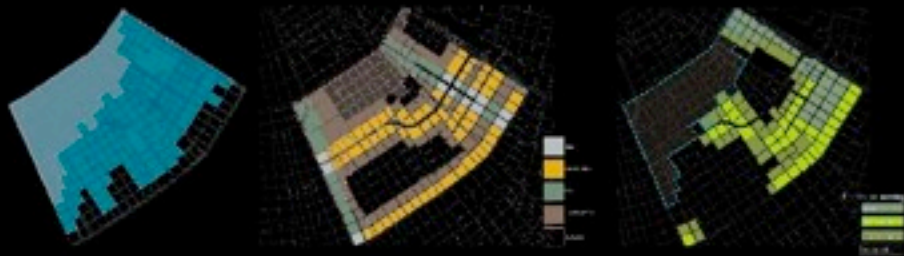




BLOCK INFILL HOUSING STRATEGY



SITE PLANS - LEVELS 1-3



- 60%
- 40%
- 0%
- Nexus
- Circumferentially
- Radial
- Transitional
- Residential
- Industrial
- Commercial
- Transitional
- Residential



CENTRAL CITY BLOCK INTERIOR



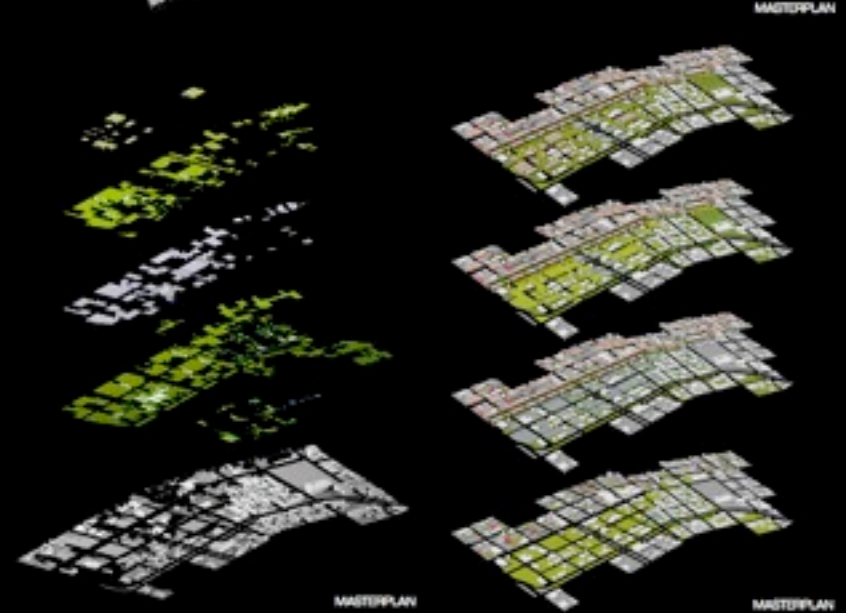
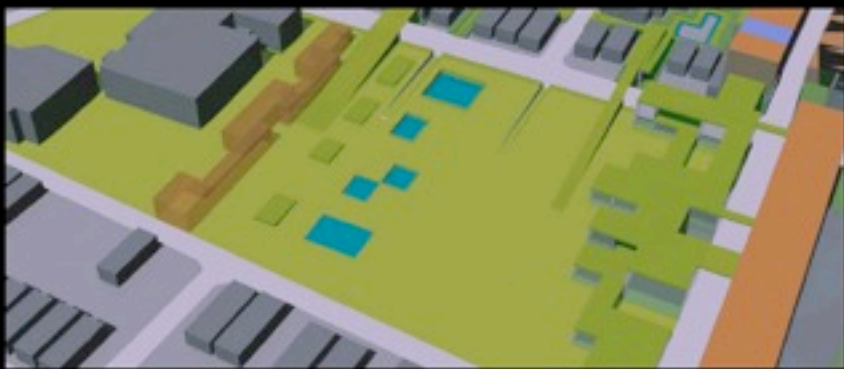
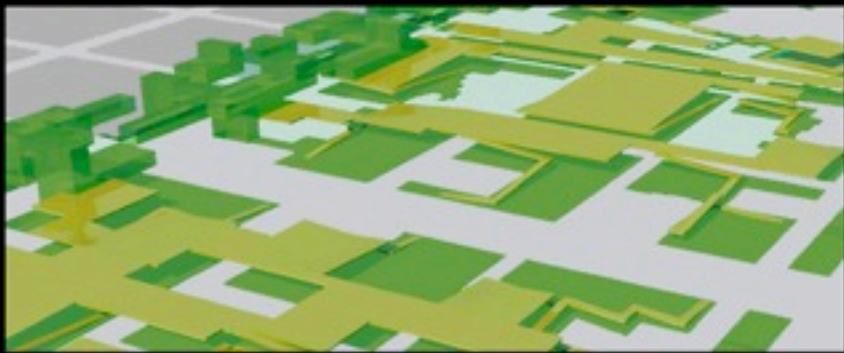
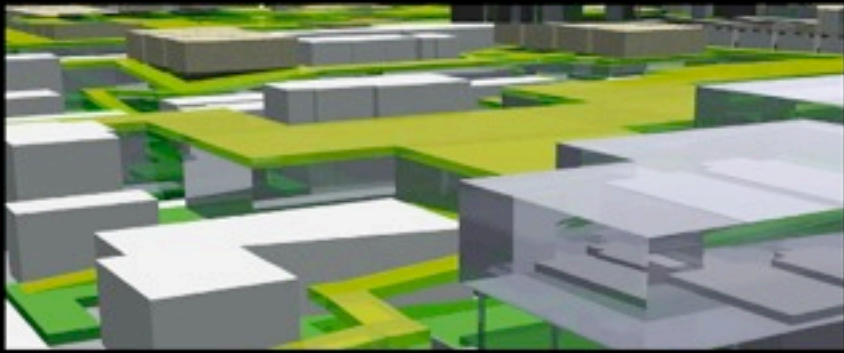
CC-HALEY SUPERBLOCK

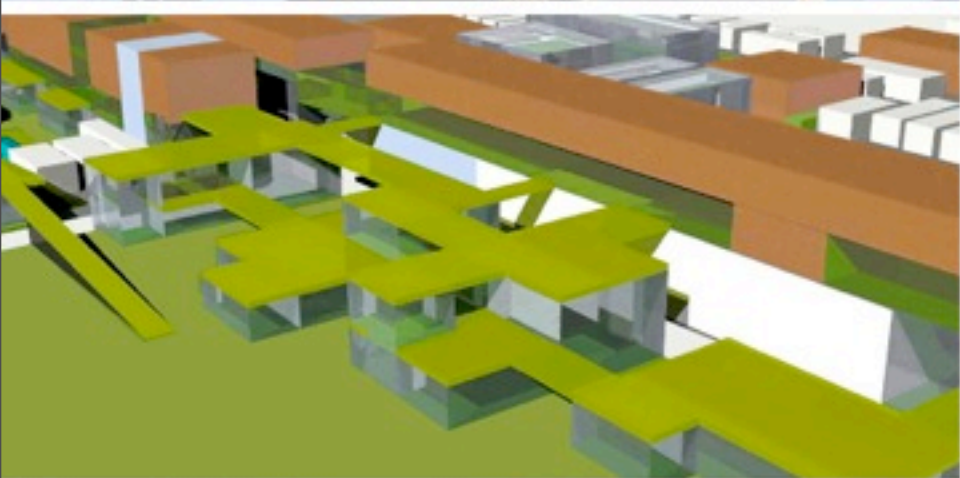


CC-HALEY SUPERBLOCK ELEVATION

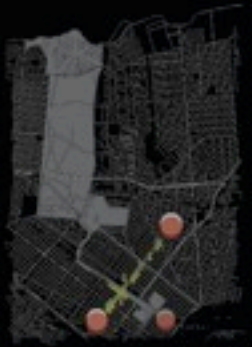


PEDESTRIAN PATHS THROUGH BLOCK INTERIOR NETWORK MASTERPLAN





URBAN STRATEGIES URBAN NETSCAPES



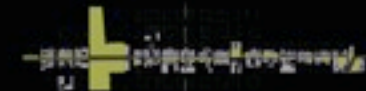
BUBBLE PLAN



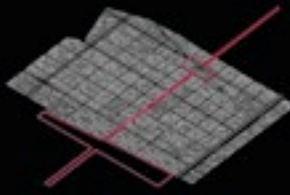
POINTS OF INTEREST GREEN



POINTS OF INTEREST CULTURAL



Galvez Street Green/Cultural Modes Intervention



ANCHOR POINTS



Galvez String Boundaries Addition of Support Infrastructure Breaking Boundaries



Green space



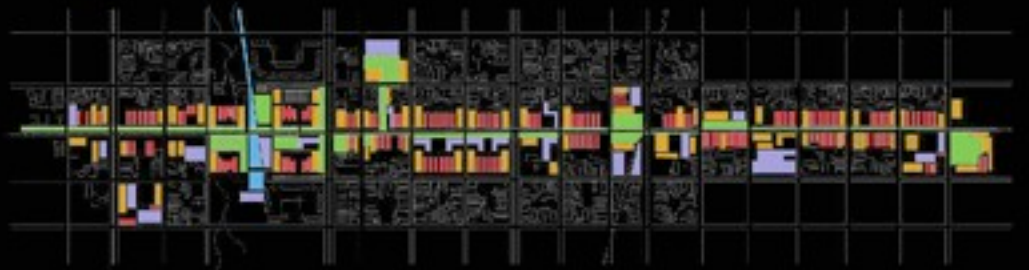
Housing Prototypes
Shotguns
Small Business



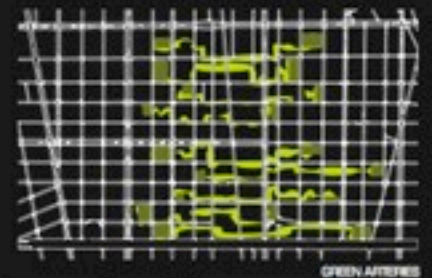
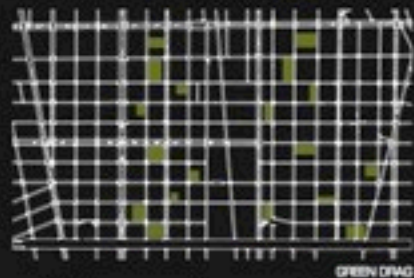
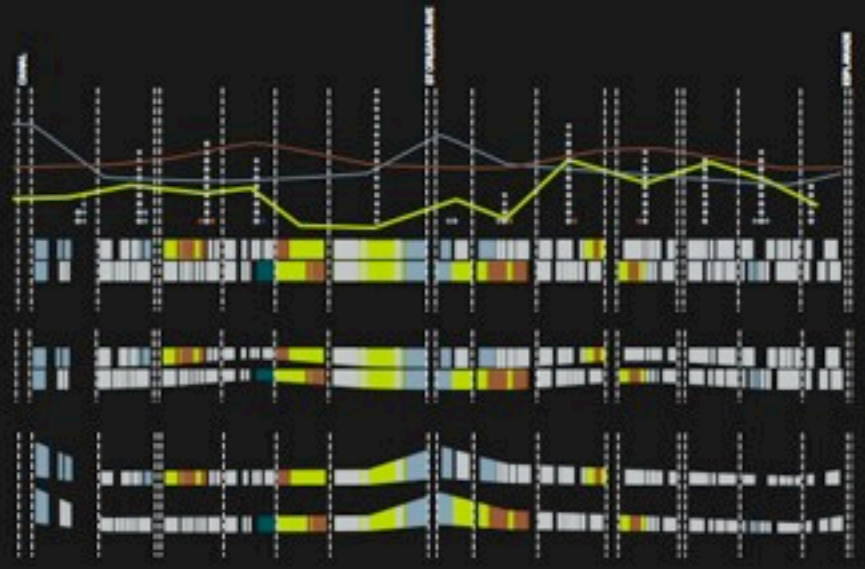
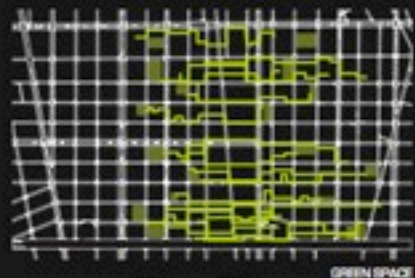
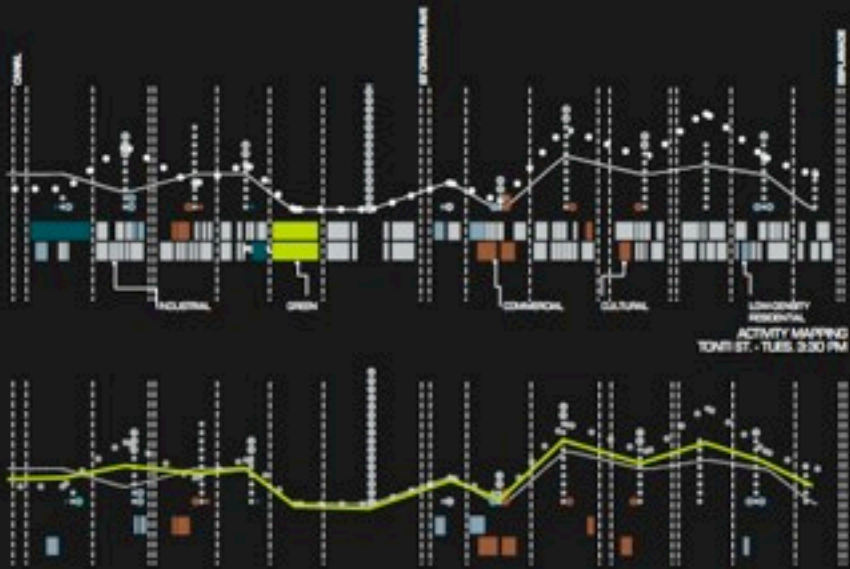
Multi-Unit Housing



Large Commercial



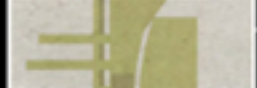
NETWORKS: ARTERIAL URBAN CORRIDOR REDEVELOPMENT: Galvez Street



GREEN NETWORK: TULANE/GRAVIER 6th Ward

The edges of the megaform take two different stances toward the surrounding fabric. The upriver edge extends into Central City and folds down, creating paths to the inside and the top of the form. The downtown edge is sharp, and it defines itself against the city's existing fabric: the Superdome, Race Tower, and the Loyola/Poydras St. area.

THE GREEN MAT
SPORTS FIELDS



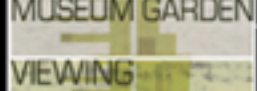
CITY HILL
PICNIC PARK



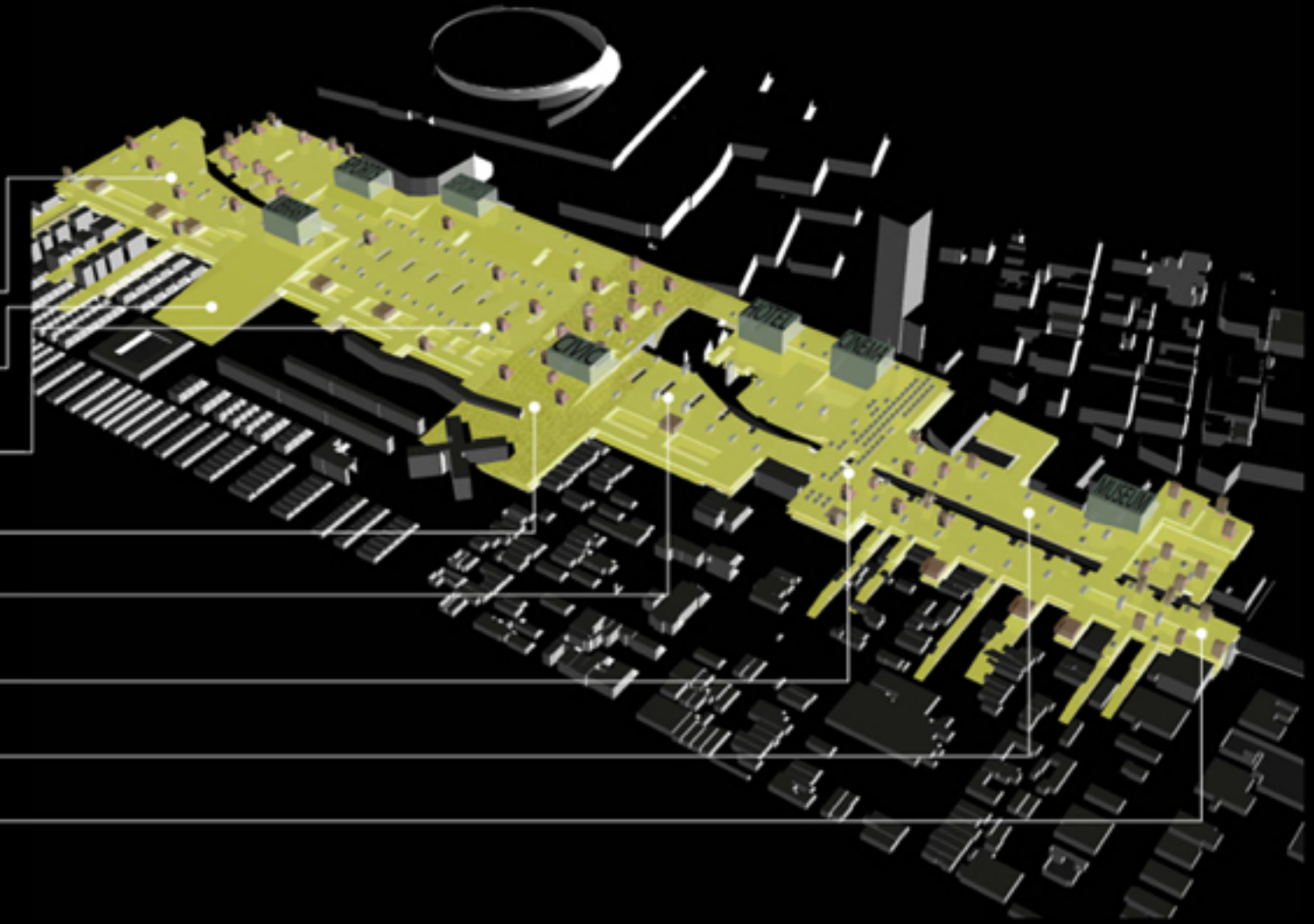
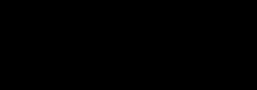
FOREST
LAWN



OUTDOOR
MARKETS



MUSEUM GARDEN
VIEWING
PLATFORM



URBAN MEGAFORM: I-90 GREEN MAT



GREEN MAT CONCEPT DIAGRAMS



1 TO 2



2 TO 3

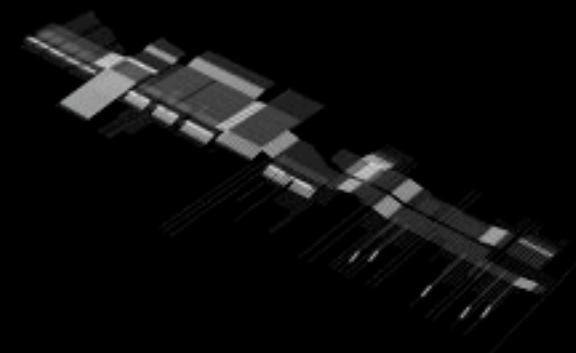


3 TO 4

FINAL FOLD
CIRCULATION DIAGRAMS



INTEGRATION AGAINST INTERSTATE



FOLDING PLATES COMPOSITE



GROUNDSCAPE PLAN 1:300



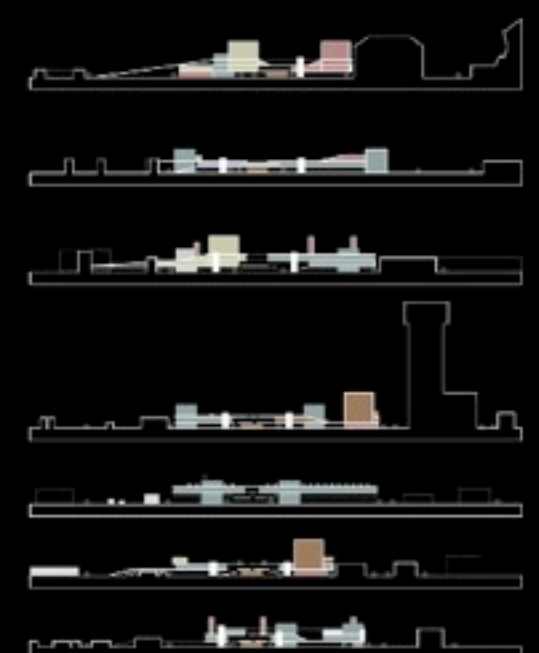
LEVEL 2 PLAN 1:300



LEVEL 3 PLAN 1:300



ROOFTOP PLAN 1:300



LATERAL SECTIONS 1:500

URBAN MEGAFORM: I-90 GREEN MAT

**THE URBAN MAGNET:
INTENSIFYING ACTIVITY
& SCALE AT THE EXPRESSWAY**

M. MORROW
DECEMBER 7, 2006

The Penchant Expressway is a separator to the areas directly around it and a divide between downtown (the Central Business District) and uptown (Central City). Because it is massive and elevated, travelers can effectively avoid the areas directly adjacent to it and connections between either side are severed.

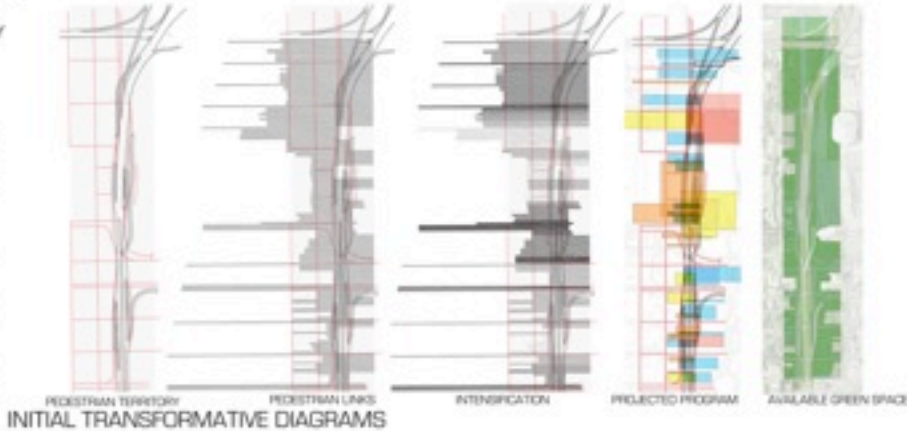
The programmatic machine reverses this condition by transforming the interstate from a separator to an attractor. The original concept connects both sides of the interstate by a series of westerns perpendicular to the direction of traffic, then zoning types of activities based on the fabric directly adjacent to the Expressway.

In order to clarify the urban fabric, available space at the levels of the ground, interstate, and sky were cleared as built space, creating a large horizontal form capable of affecting the existing urban landscape.

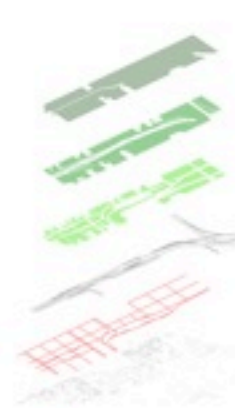
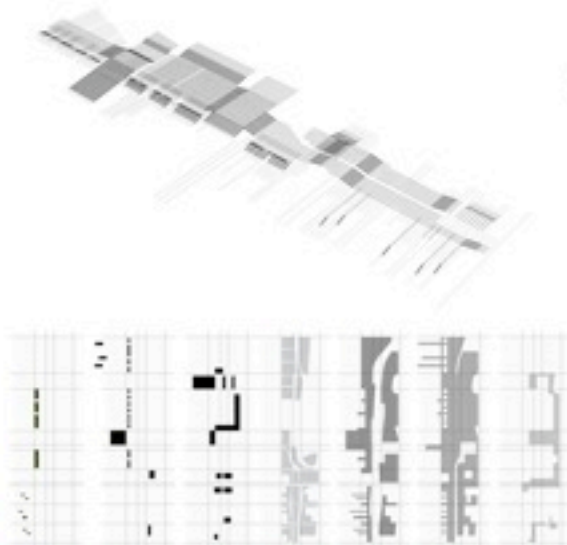
The resulting megafarm is made up of a series of components, which can be seen as architectural types housing various kinds of program, and several programmatic zones, which dictate where types of activities happen in the form.

The edges of the form take two different stances toward the surrounding fabric. The uptown edge extends into Central City and folds down, creating paths to the inside and the top of the form. The downtown edge is sharp, and it defines itself against the city's existing fabric and its megainstitutions.

The form is inhabited at all times of the day, with daily, weekly, seasonal and yearly events.



DEVELOPED PLATES AND FOLDS



**PRECEDENT:
URBAN PLAN FOR
FOSHAN, CHINA
REISER + LIMEMOTO**
"A multilayered infrastructural sheet, or mat building, covers the entire site, multiplying the ground into 3 layers. A vast urban park covers the top of the sheet. Pedestrian paths weave through all levels." - JLR



ROOFSCAPE:

SPORTS FIELDS

CITY HILL

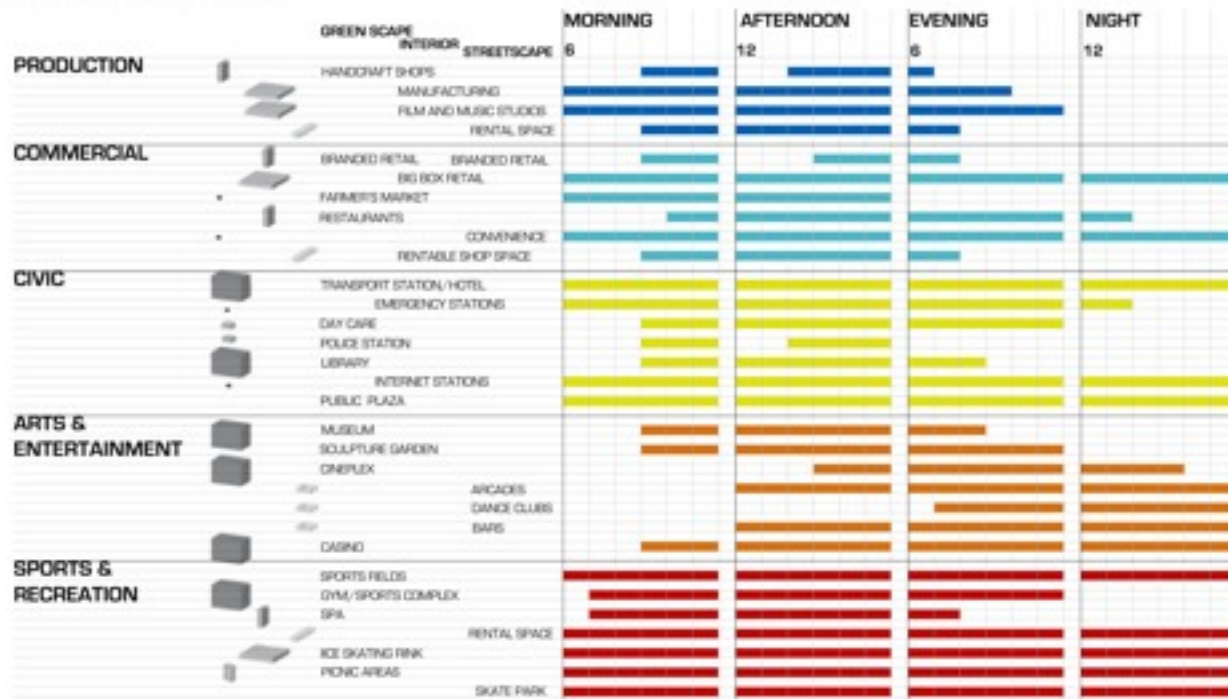
PICNIC PARK

FOREST LAWN

OUTDOOR MARKETS

MUSEUM GARDEN

VIEWING PLATFORM



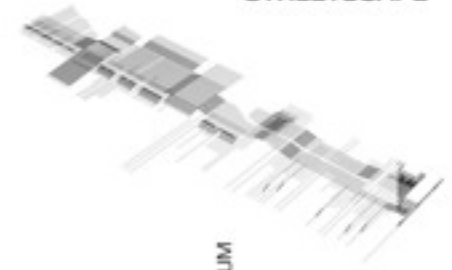
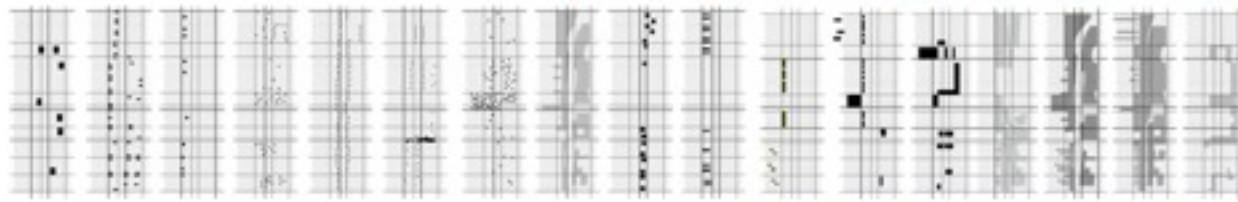
GREENSCAPE
GROVE + SKY BOXES



EXPRESSWAY
BIG BOX

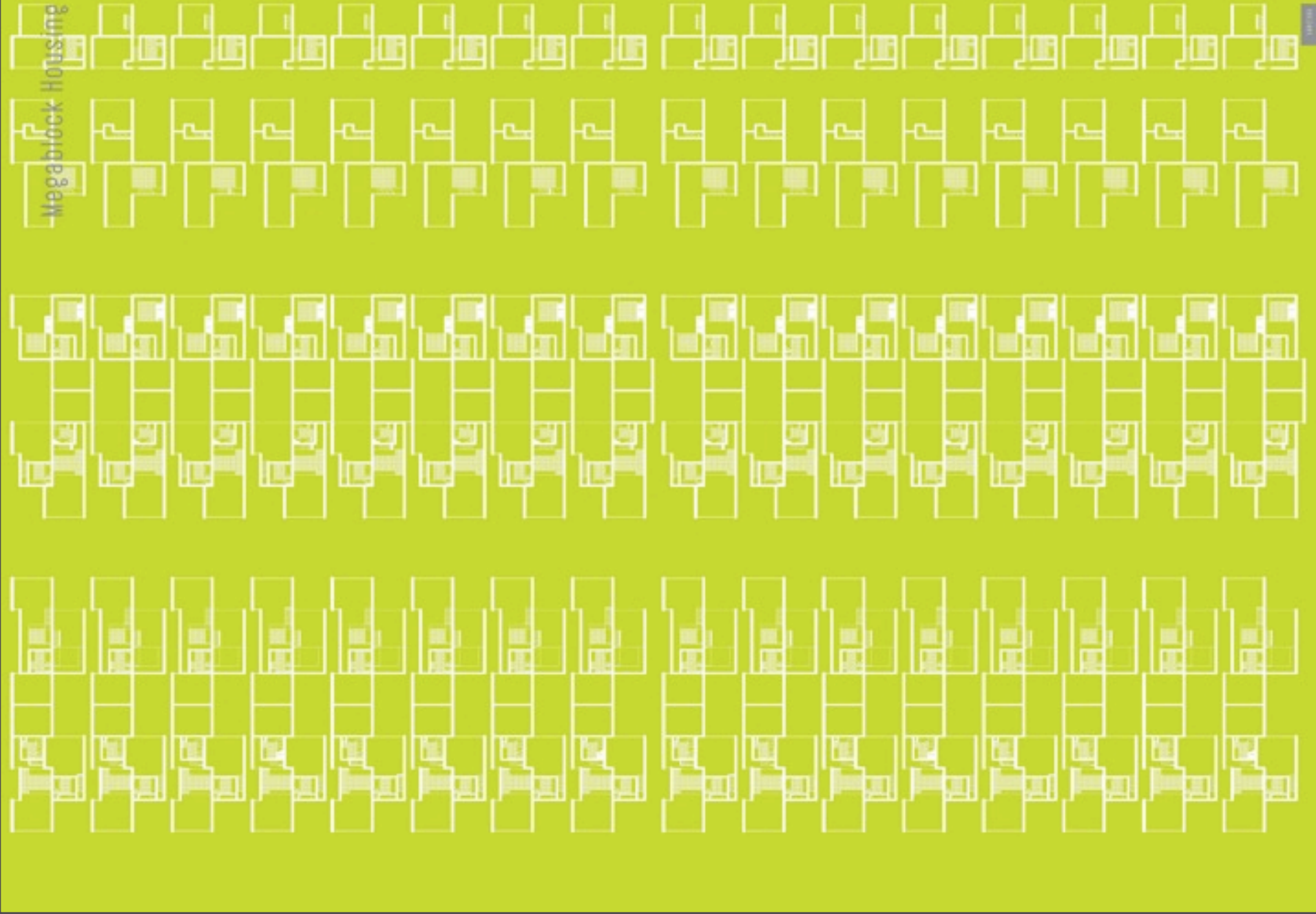


STREETSCAPE



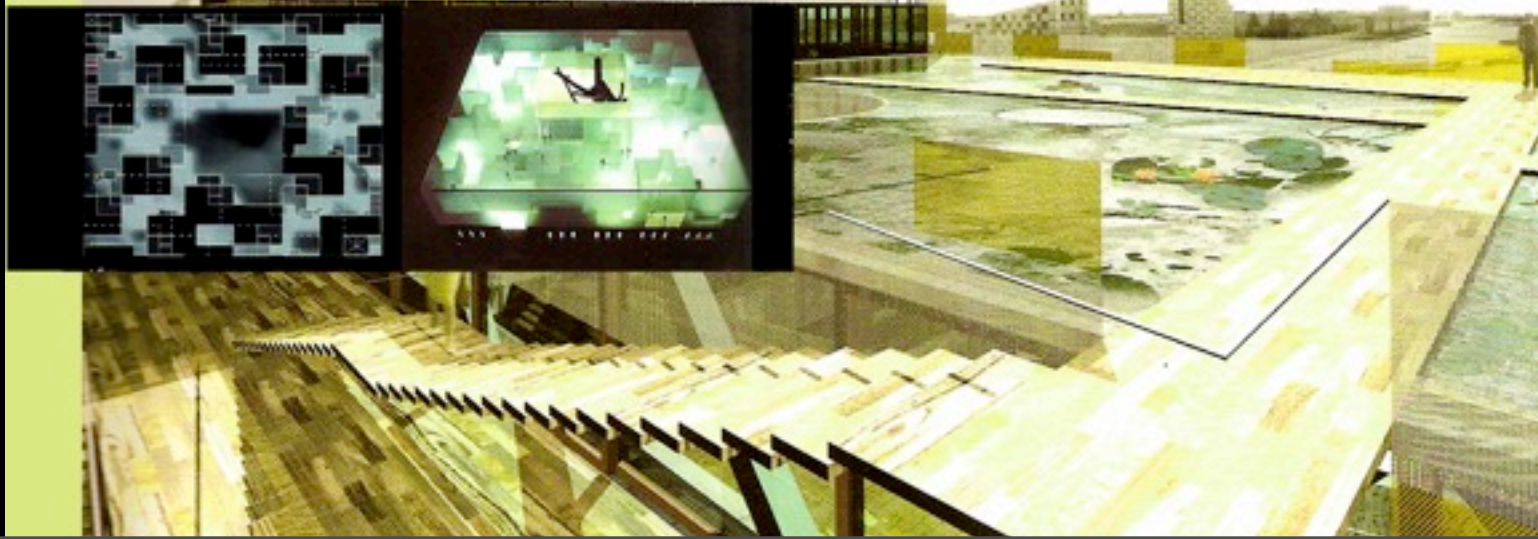
URBAN MEGAFORM: I-90 GREEN MAT

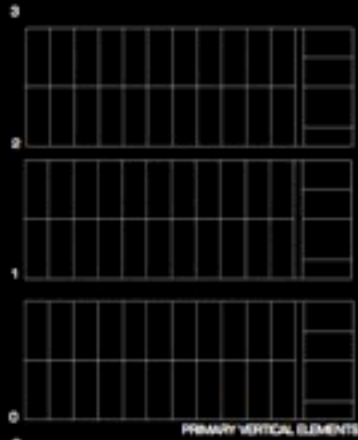
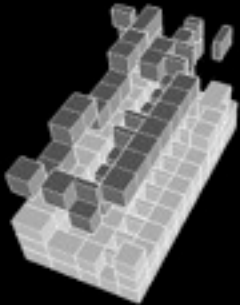
Megablock Housing



HOUSING + THE NOLA SUPERBLOCK

URBANbuild Design Studio DSGN 420 SPRING 2007 BERMAN LEWIS EL KHAFIF

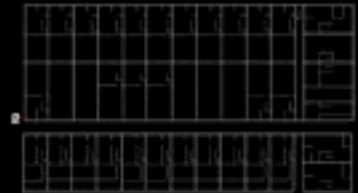




PRIMARY VERTICAL ELEMENTS



SECONDARY VERTICAL ELEMENTS



HORIZONTAL ELEMENTS



HORIZONTAL ELEMENTS

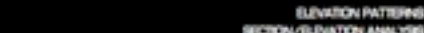


GRID

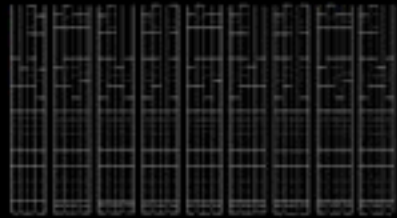


SOUTHERN ELEVATION
ELEVATION DIAGRAMS





UNIT ALIGNMENT



UNIT ALIGNMENTS



UNIT CONFIGURATIONS



UNIT ASSEMBLIES



UNIT CONFIGURATIONS

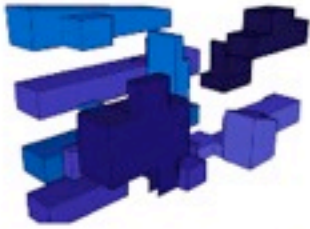
PLAN ANALYSIS



VOLUMETRIC ANALYSIS



- OUTDOOR SPACE
- ▒ LIVING SPACE
- CIRCULATION
- SERVICE



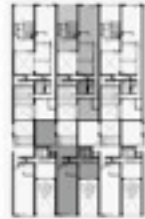
SPATIAL ANALYSIS



LEVEL 4



LEVEL 3



LEVEL 2



LEVEL 1

PLANIMETRIC PROGRAM ANALYSIS



STREET ELEVATION



LATERAL ELEMENTS



LONGITUDINAL ELEMENTS



SOLID/VOID RELATIONSHIPS SECTION/ELEVATION ANALYSIS



STREET ELEVATION



LATERAL ELEMENTS



LONGITUDINAL ELEMENTS



SOLID/VOID RELATIONSHIPS SECTION/ELEVATION ANALYSIS

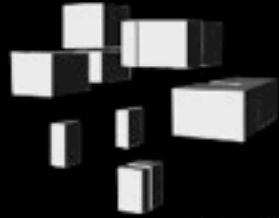




FACIAD MATERIAL LAYERING



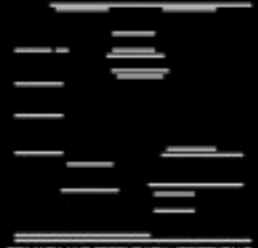
PARTY WALL



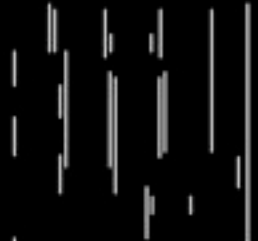
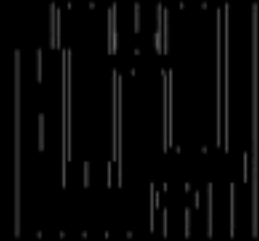
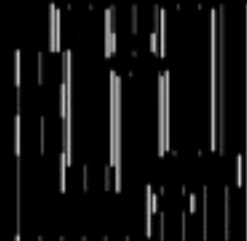
ENCLOSED SPACES



CIRCULATION MAPPING



PRIMARY AND SECONDARY HORIZONTALS
VERTICAL WALLS



CONTINUES
FACIAD RHYTHMS



COPPER PANELS



WINDOW FRAMES



INITIAL CONCEPT
DIAGRAMS



PROGRAM LAYERING
FACIAD STUDIES





EXPLODED AXONOMETRIC SHOWING
BUILDING COMPONENTS/PROGRAM LAYERS

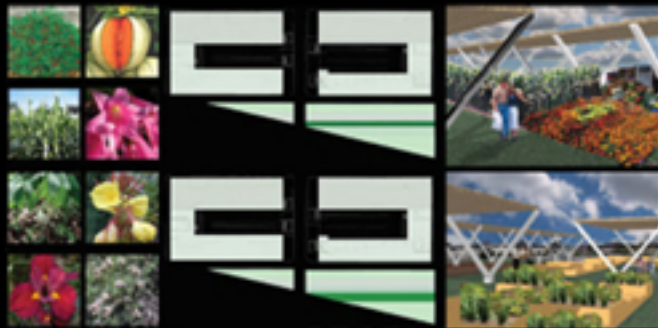
Upper Levels: Raised Bar Unit Housing
Mid Level: Topography: Public: Greenscape/Hardscape
Lower Levels: Social/Community Programs at Street Edge,
Parking at Interior of Block and below



TOPOGRAPHY + GREENSCAPE ANALYSIS IN RELATION TO ADJACENT BLOCKS



Commercial Green



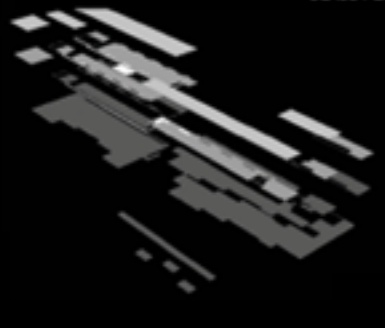
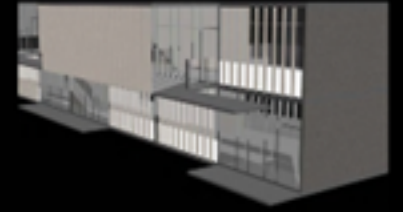
Productive Green



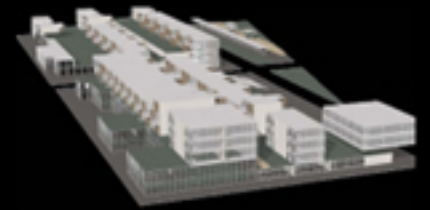
Recreational Green



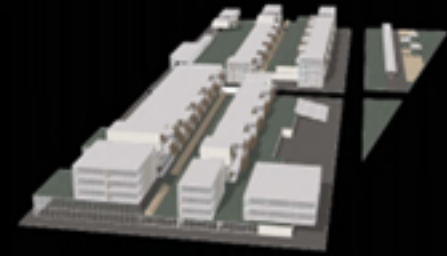
GLASS PLANES

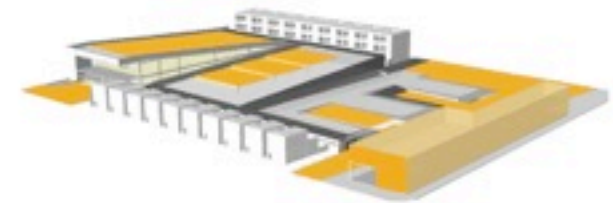


HORIZONTAL PLANES

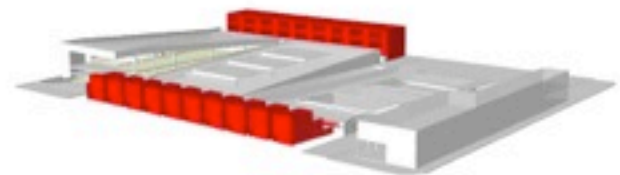


VERTICAL PLANES





PUBLIC SPACE



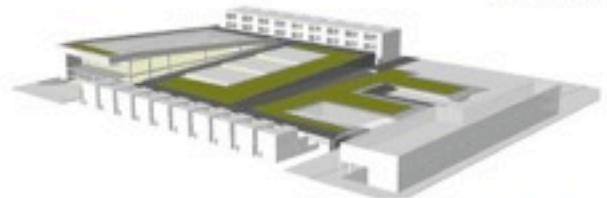
HOLDING



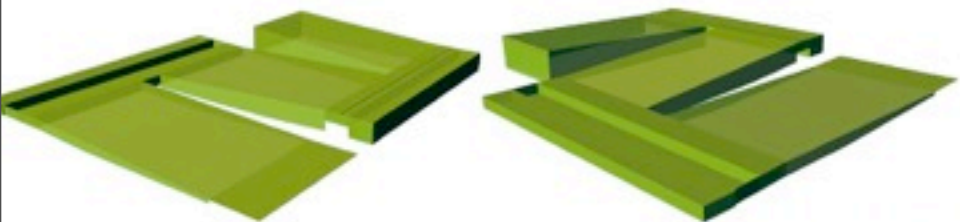
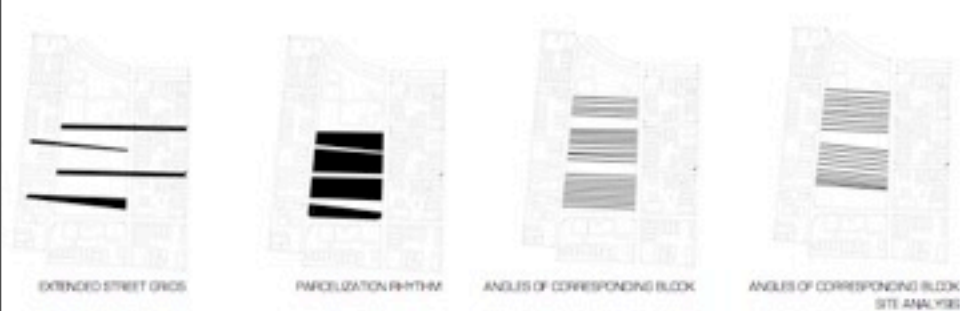
GREENROOF



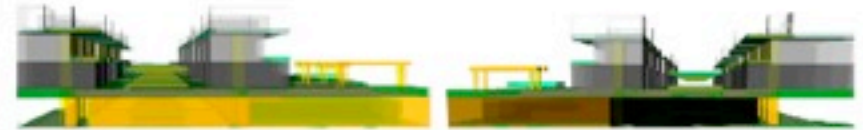
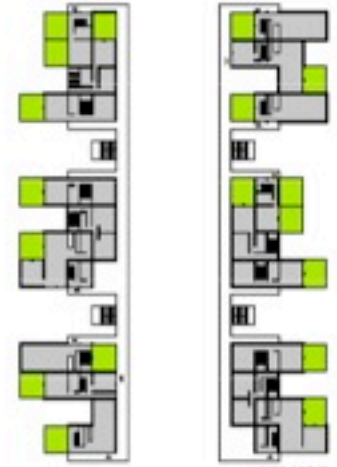
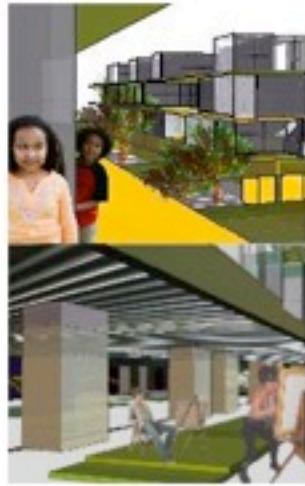
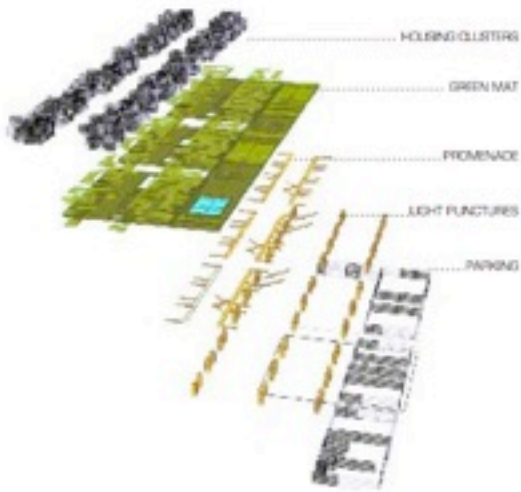
ACTIVE RECREATION



PASSIVE RECREATION



FOLDED GREEN LANDSCAPES



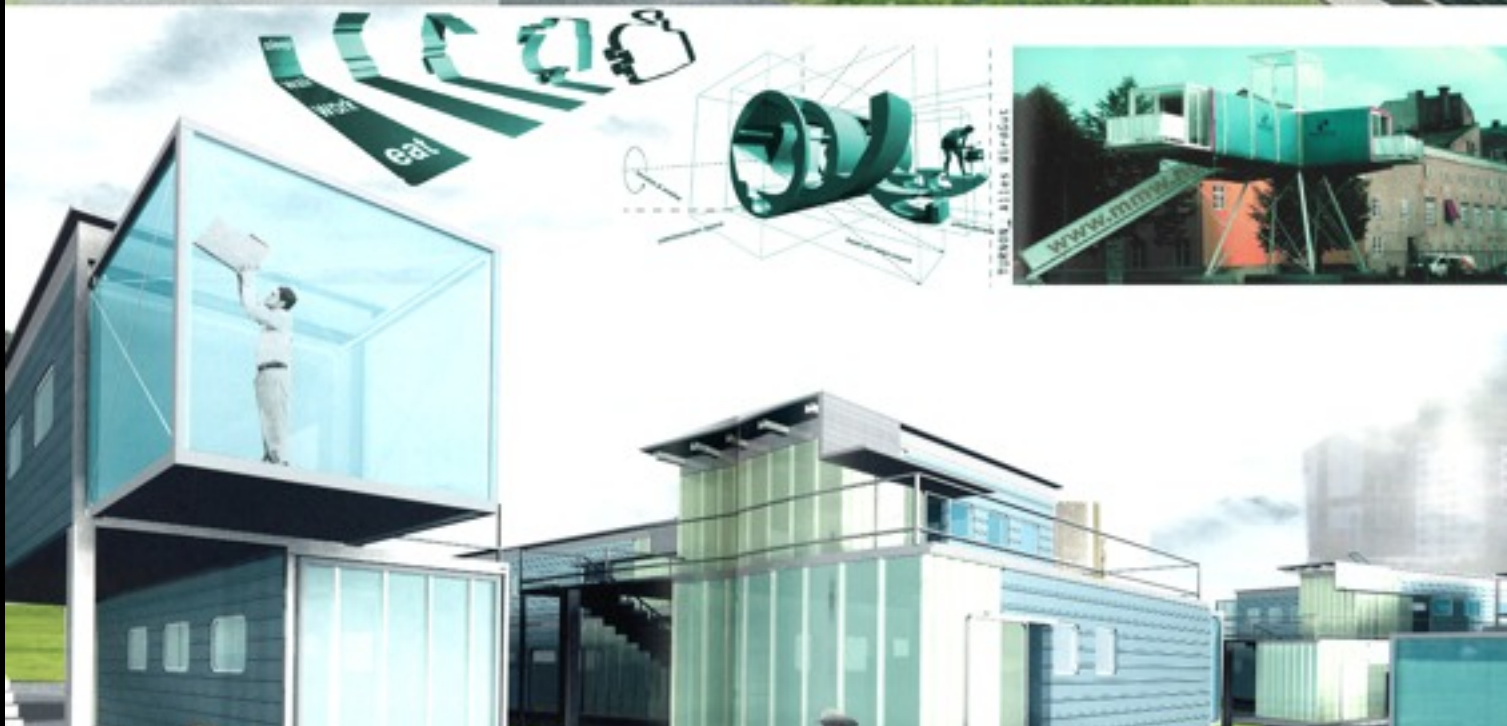
Portable+Mobile Infill

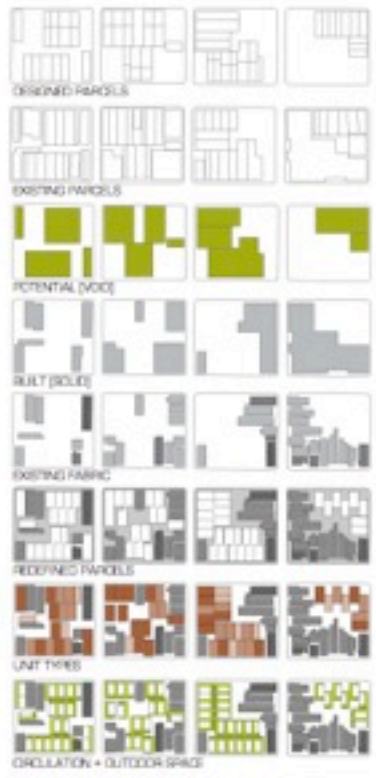
10.10



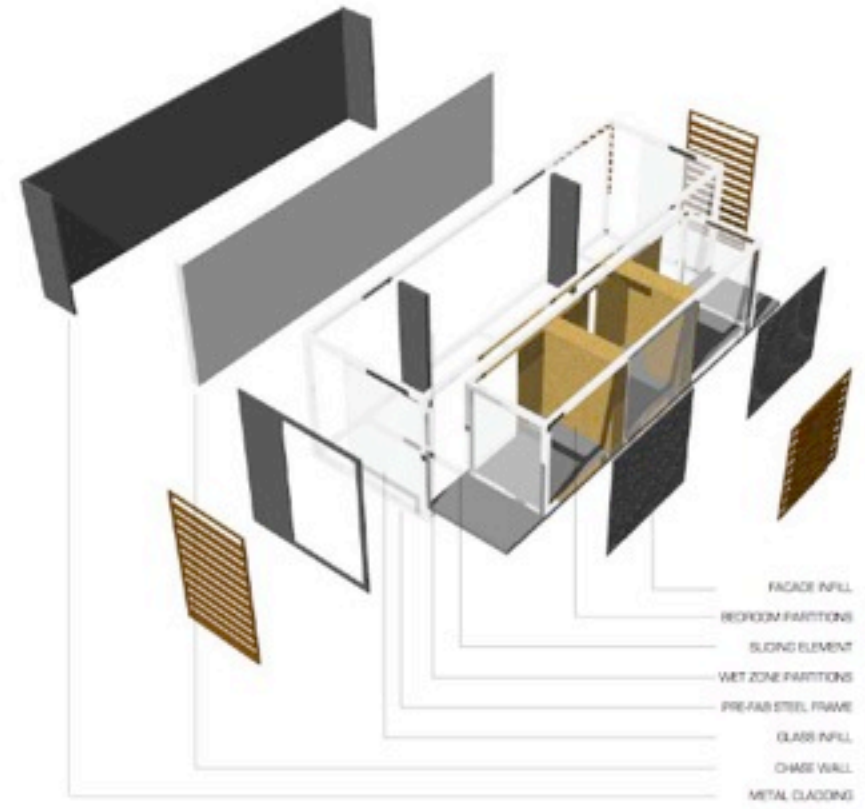
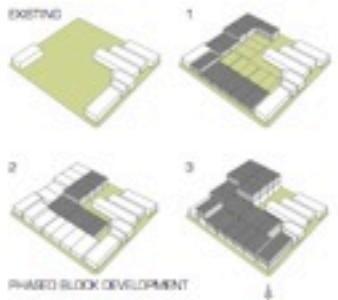
MICRO-STRATEGIES

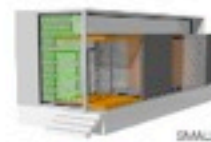
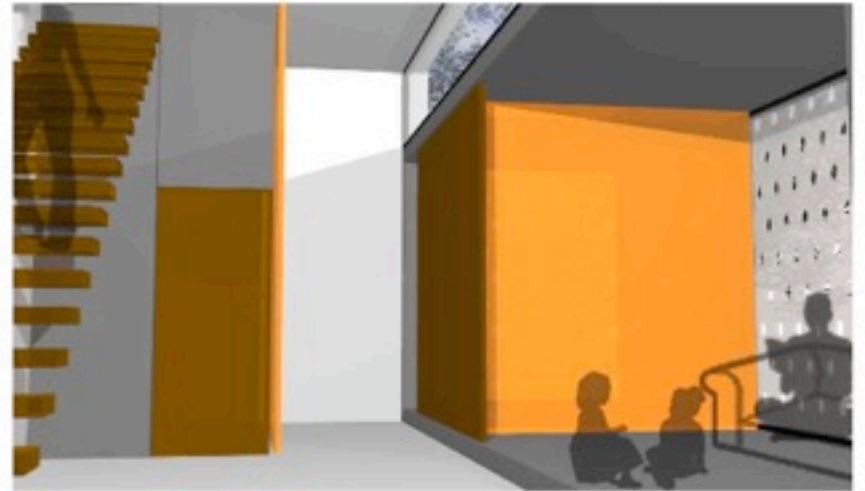
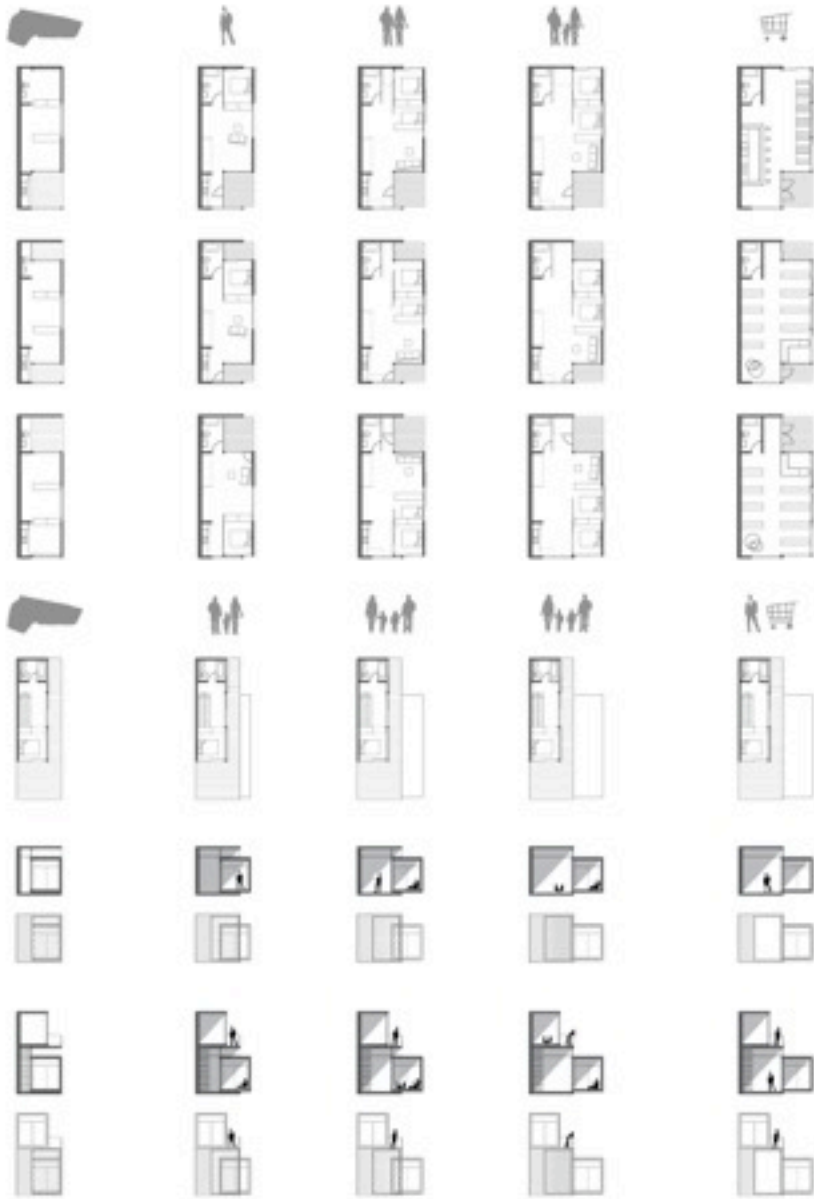
PORTABLE AND MOBILE Urbanism



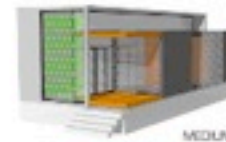


- SMALL
- MEDIUM
- LARGE

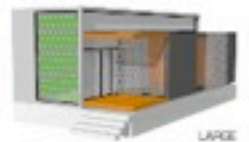




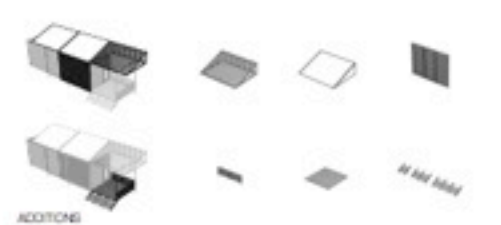
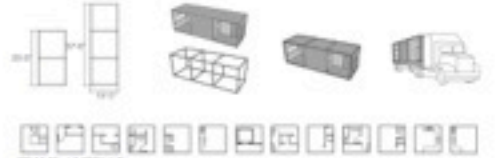
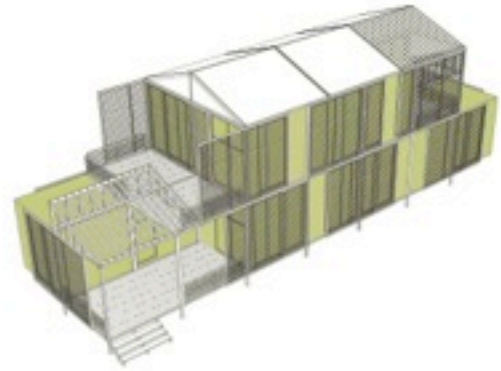
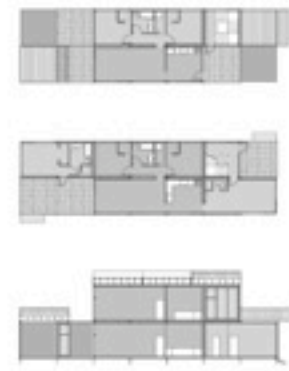
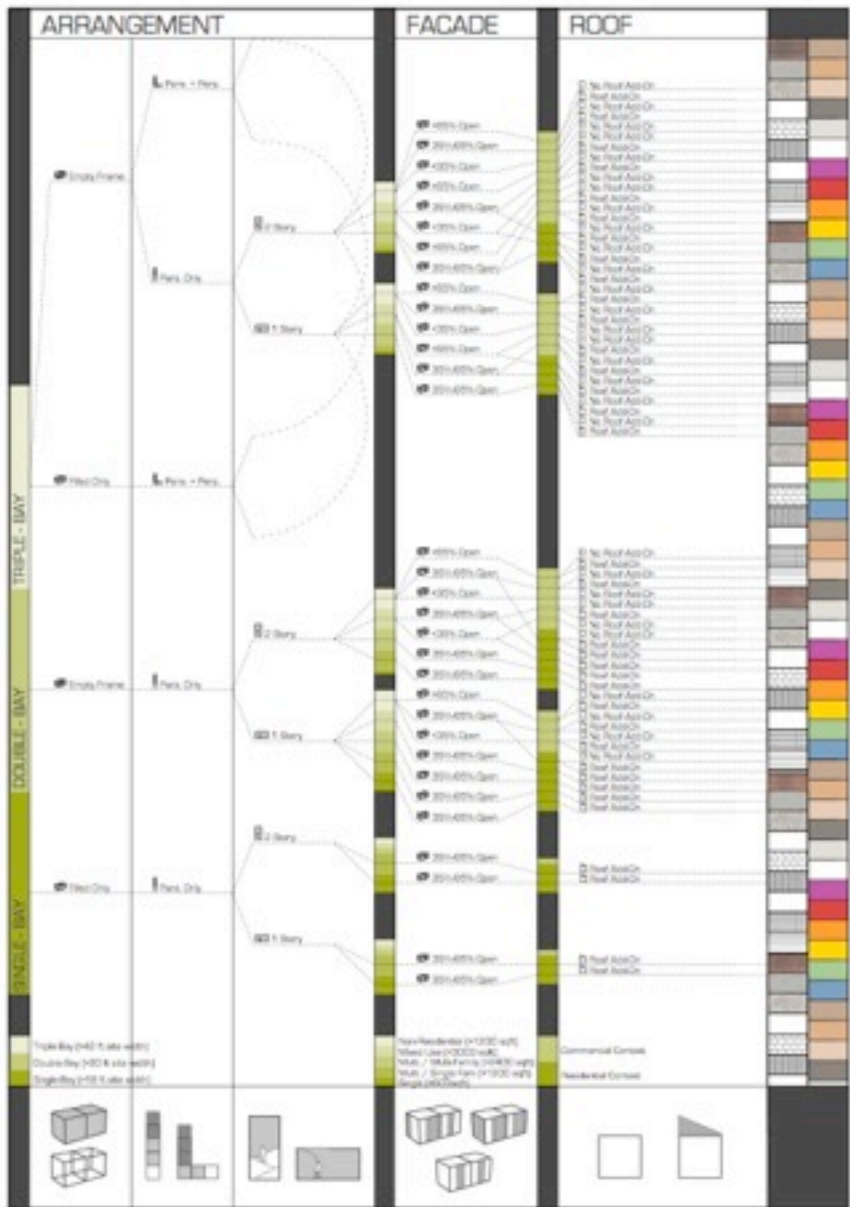
SMALL



MEDIUM



LARGE



YBOX

What is YBOX?

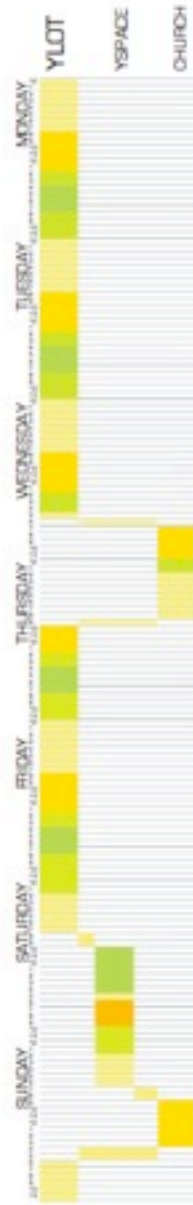
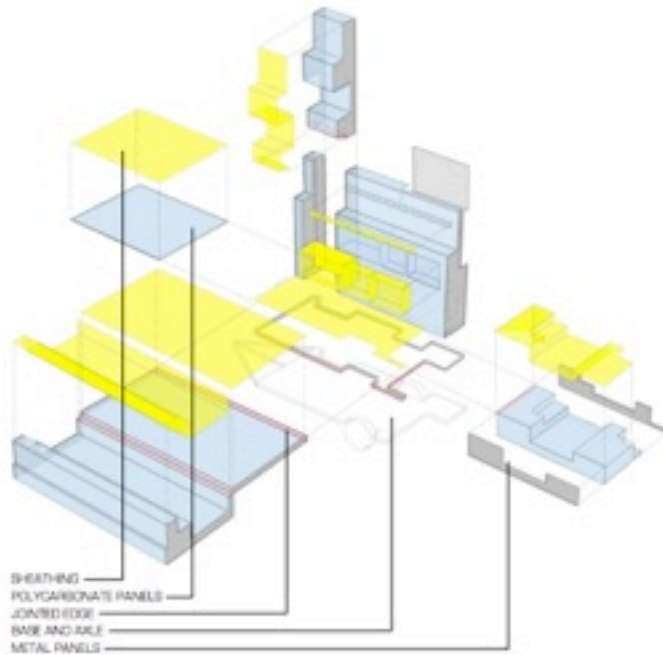
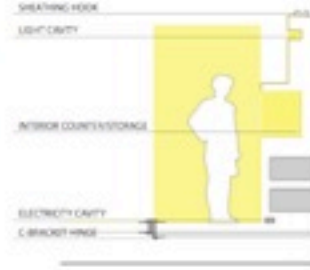
YBOX is mobile infrastructure for neighborhood play. It rests at the YMCA. It is compact, low-tech, and highly visible.

The letter Y implies a split; it looks like two sides are folding down. YBOX splits: one side for sports, one side for performance, and YBOX hinges and folds.

Y = a hinge, the way the YBOX performs.
 Y = Y in YMCA, sometimes known as the 'Y'.
 Y = Young: it is both new and for the young.
 Y = Yellow. YBOX is bright and visible.
 Y = Why? It generates curiosity.

DETAIL SECTION

11' x 12'



PERFORMING GAMING SPORT ADULT YOUTH LOUNGE



YBOX

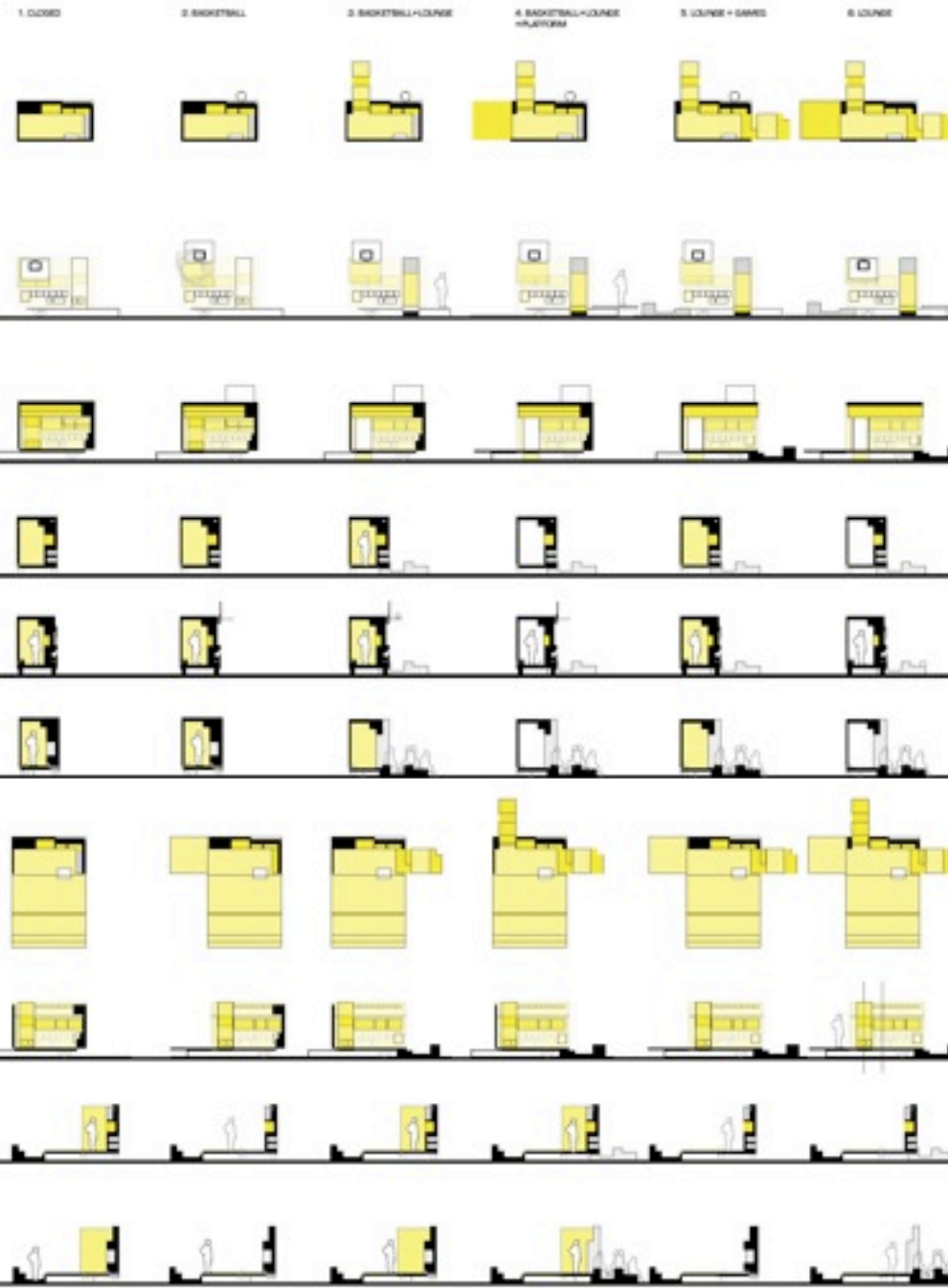
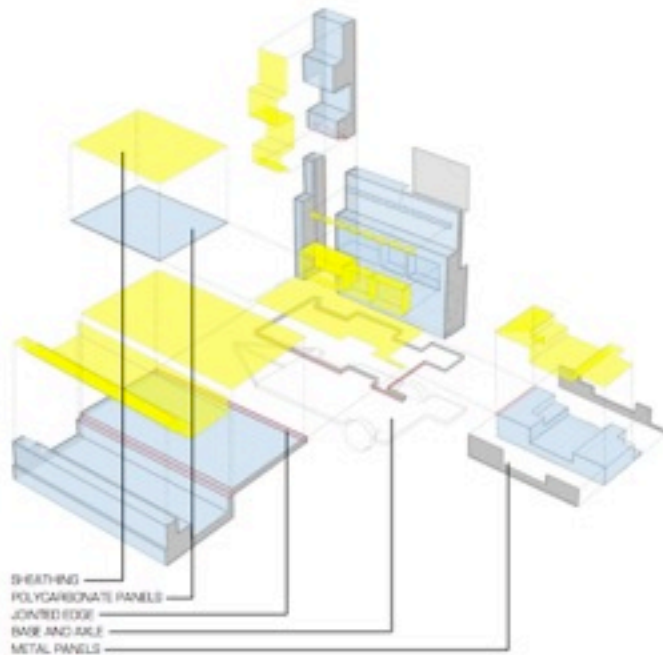
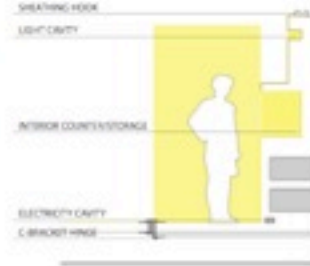
What is YBOX?

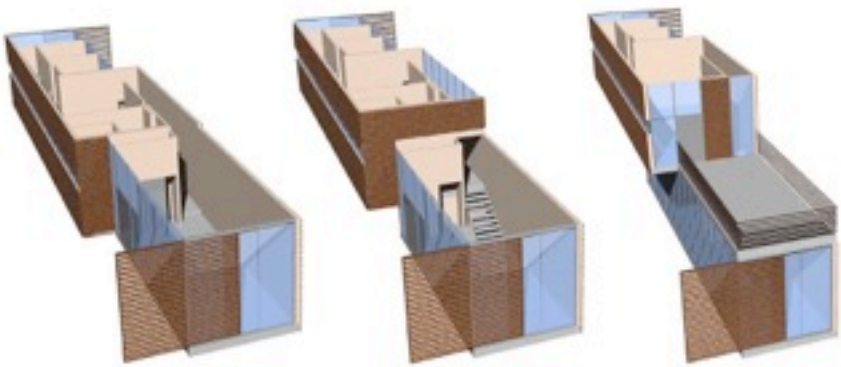
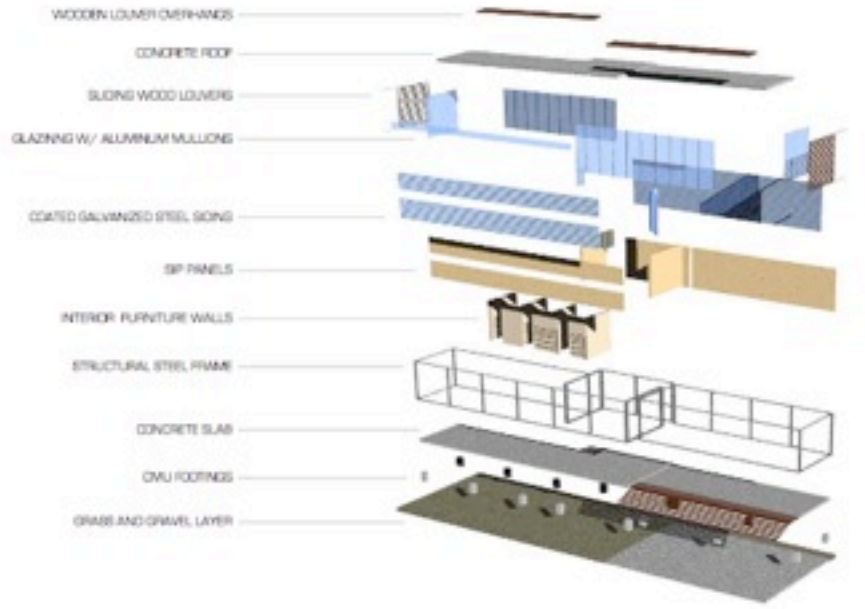
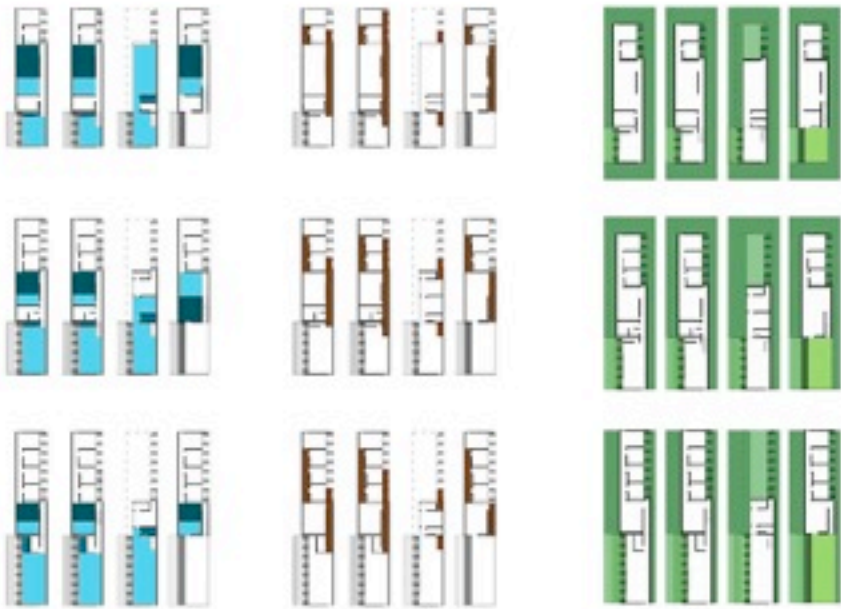
YBOX is mobile infrastructure for neighborhood play. It rests at the YMCA. It is compact, low-tech, and highly visible.

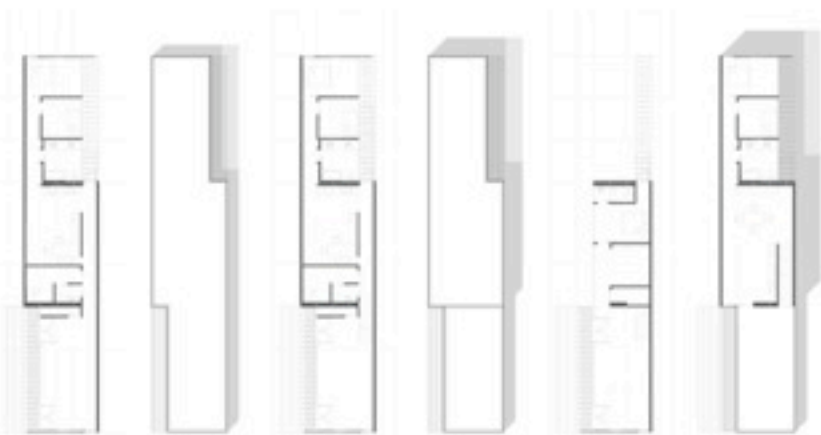
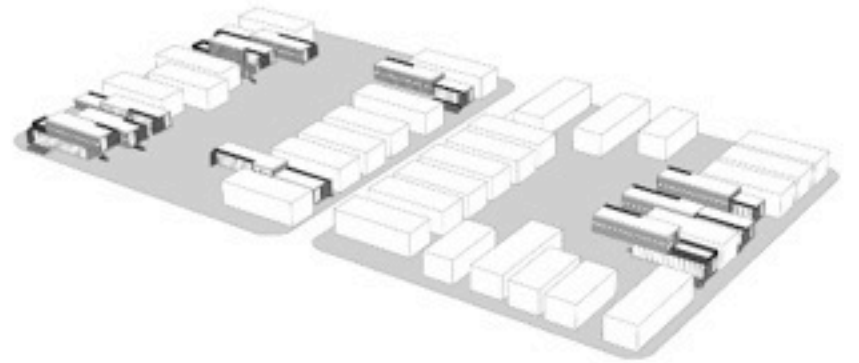
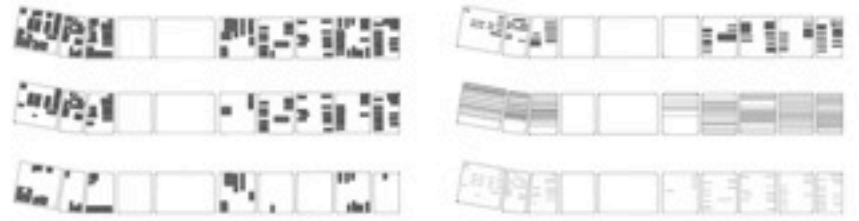
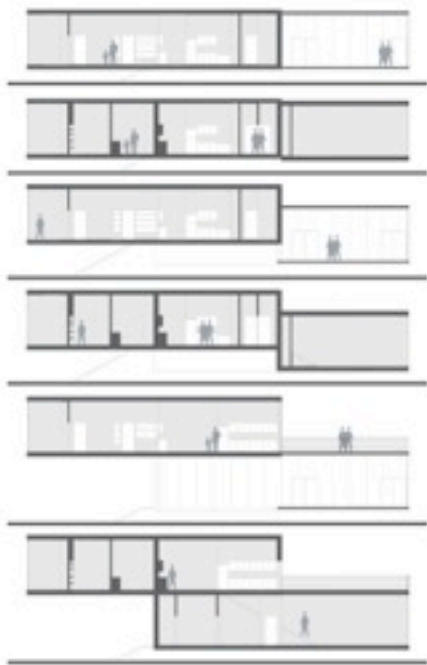
The letter Y implies a split; it looks like two sides are folding down. YBOX splits: one side for sports, one side for performance, and YBOX hinges and folds.

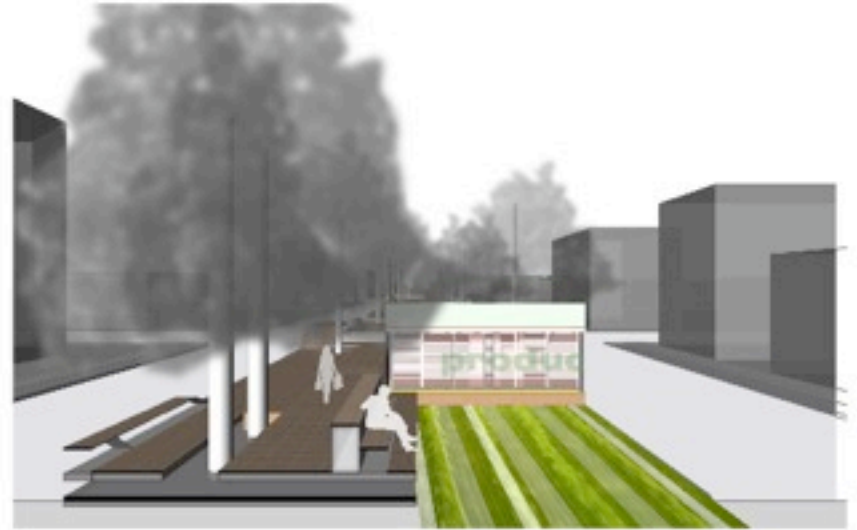
Y = a hinge, the way the YBOX performs.
 Y = Y in YMCA, sometimes known as the "Y".
 Y = Young; it is both new and for the young.
 Y = Yellow. YBOX is bright and visible.
 Y = Why? It generates curiosity.

DETAIL SECTION 1" = 1'-0"



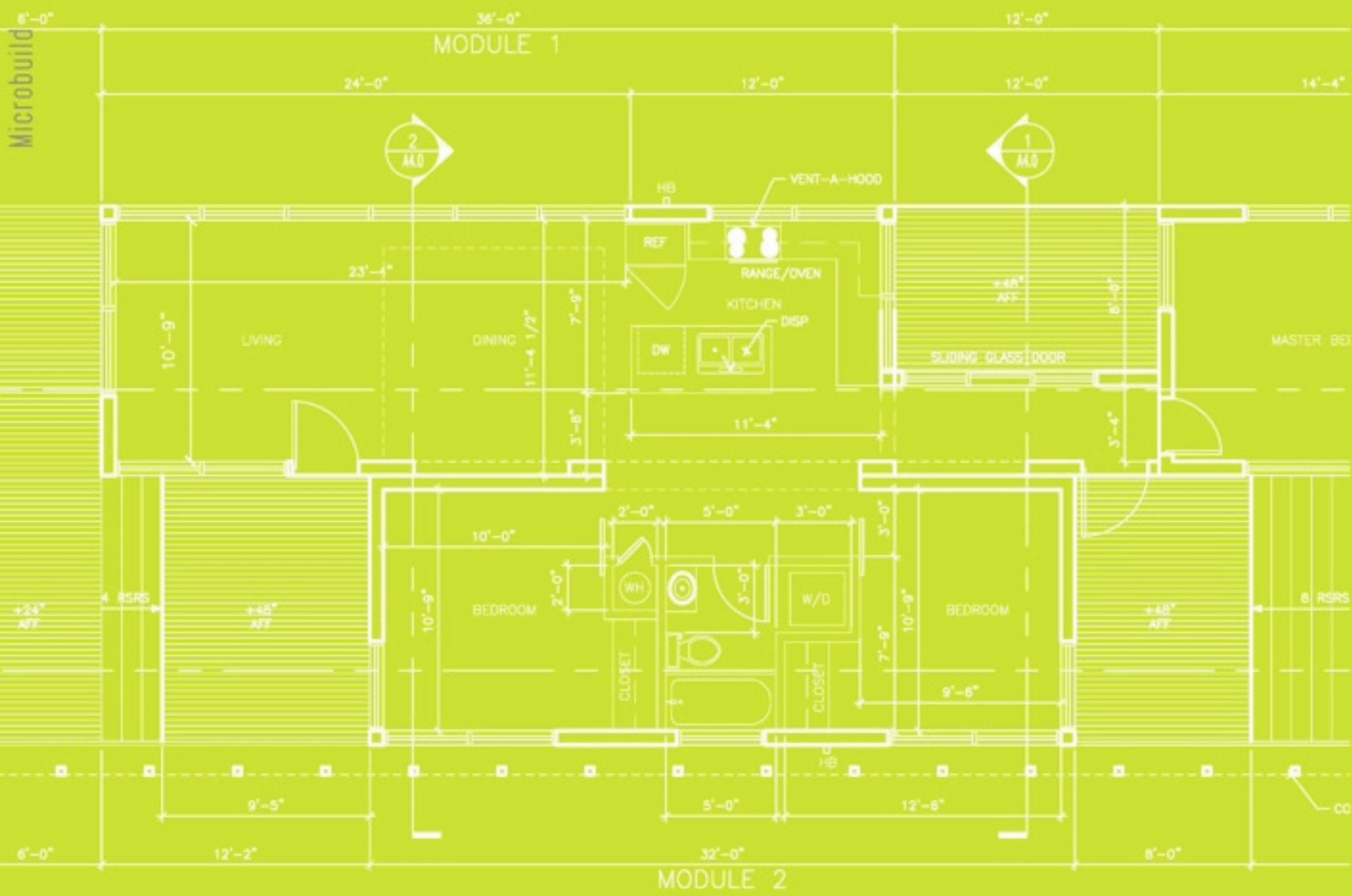








Microbuild







Monday, October 4, 2010



Monday, October 4, 2010



PHOTOGRAPH BY JEFFREY M. HARRIS

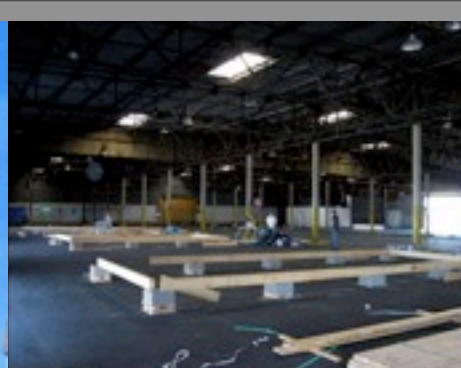
Monday, October 4, 2010



Monday, October 4, 2010



Monday, October 4, 2010



CONSTRUCTION PAPER

CONSTRUCTION PAPER

Monday, October 4, 2010



Monday, October 4, 2010



Monday, October 4, 2010

URBANbuild global BERMANA EKONOMIS

URBANbuild local global



New Orleans is not the only historic or culturally unique city whose existence has been severely threatened by a natural disaster. Neither is it the only city that has been rendered vulnerable by the fragility of inherited geographic conditions, or challenged by the socioeconomic dynamics of its urban population. The recycling of urban territories is an integral and necessary part of the life of cities. The global-local matrix is a research tool intended to aid in contextualizing the urban redevelopment of New Orleans in relation to the trajectories of other cities' responses to a related set of issues.



CONTENTS_URBANbuild GLOBAL

340_GLOBAL MATRIX

GLOBAL LOCATOR
GLOBAL DENSITY
LOCAL-GLOBAL MATRIX

364_CITY SCAN

DENSITY
GROWTH
CHRONOLOGY
DIVISIONS
PORT

412_URBAN IMPRINT

CLASIC
MORPHOLOGY
DIVISION
STRUCTURE
PATTERN

422_BLOCK MORPHOLOGY

FOOTPRINT
PARCELIZATION
GRID-GRAM

438_BLOCK TYPOLOGIES

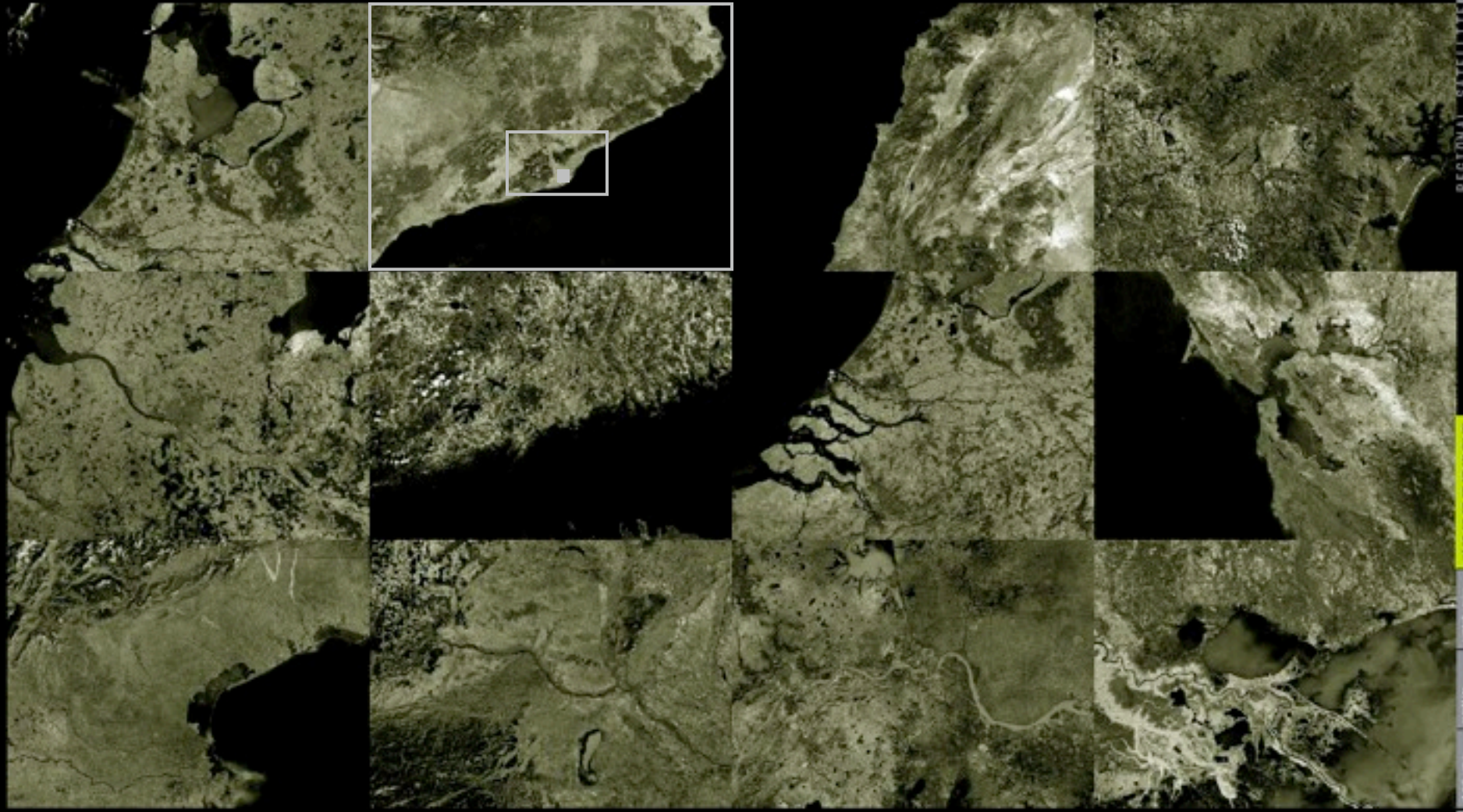
TYPOLGY
INVENTORY

452_HOUSING INVENTORY

SHYTEX
FORM-FACTOR STACK
SLAB
AGGREGATE
MULTI
WAVE
INTERLOCK
HANG
INSERT

453_UNIT ASSEMBLIES

COVERING
FIELD
EXPAND
UNFOLD
SURFACE



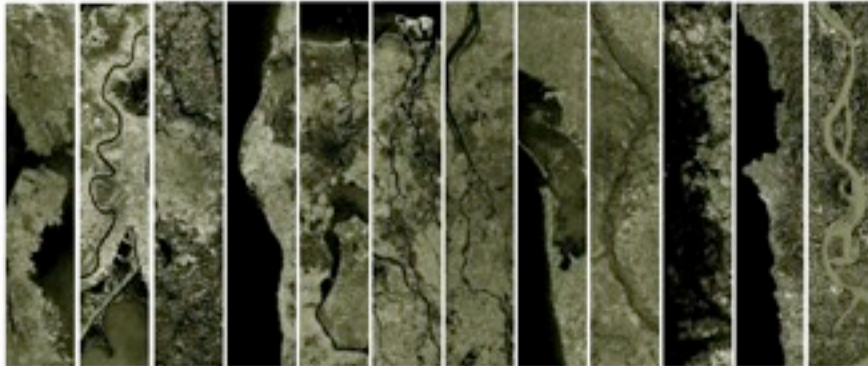
REGIONAL SATELLITE

WORLD SATELLITE

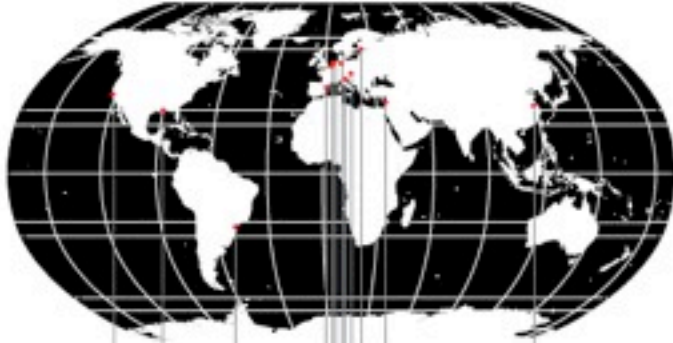
WORLD MAP

WORLD

WORLD



SAN FRANCISCO
 NEW ORLEANS
 CUIBISHA
 BAHIGUANA
 AMSTERDAM
 ROTTERDAM
 HAMBURG
 VENICE
 VIENNA
 HELSINKI
 BEIRUT
 ZHENG JIANG



10,000
sq km

100,000
sq km

1,000,000
sq km

10,000,000
sq km

10,000 sq km
 URBAN AREA
 URBAN AREA
 URBAN AREA

41,200 sq km
 NETHERLANDS (2,300,000)

84,000 sq km
 AUSTRALIA (20,000,000)

307,000 sq km
 GERMANY (80,000,000)

350,000 sq km
 FINLAND (5,000,000)

361,000 sq km
 FINLAND (5,000,000)

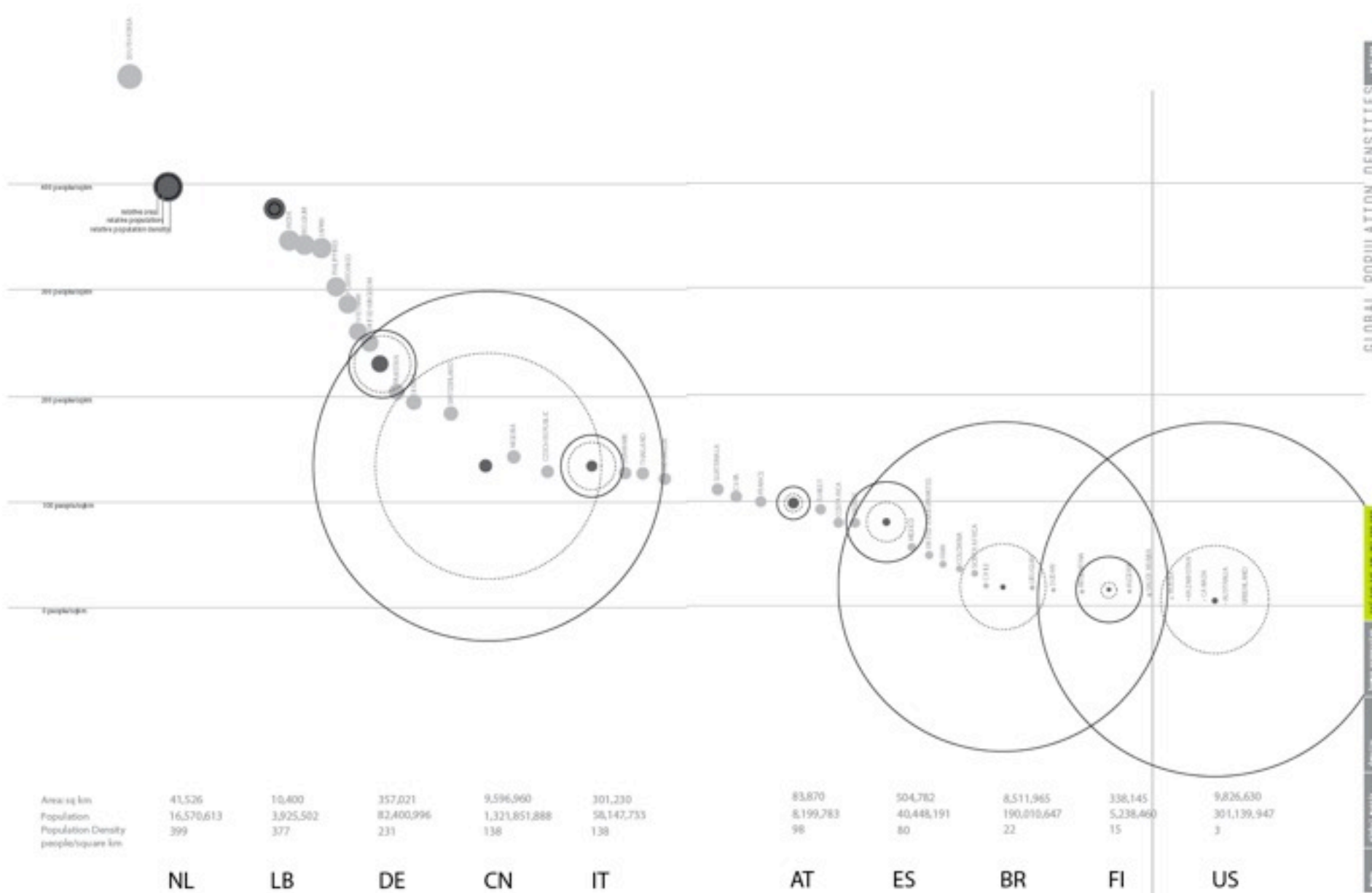
394,000 sq km
 SWEDEN (9,000,000)

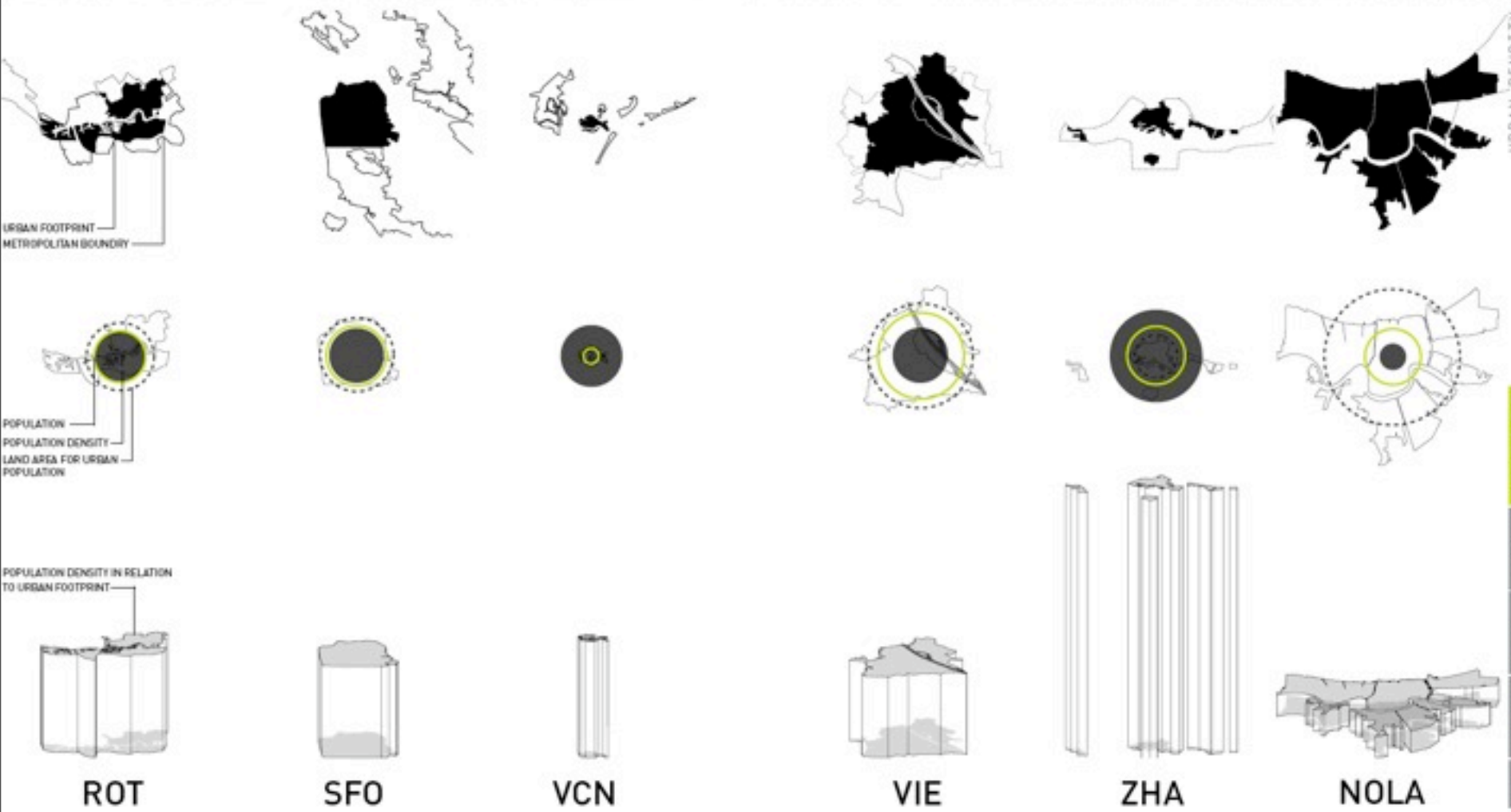
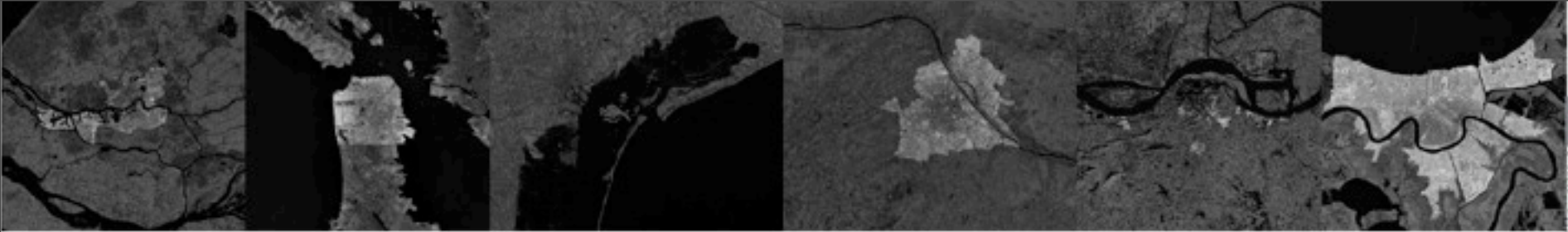
1,000,000 sq km
 SWEDEN (9,000,000)

1,000,000 sq km
 UNITED STATES (300,000,000)

1,000,000 sq km
 CHINA (1,300,000,000)









WATERcity

Issue	AMS	BCN	BEY	CWB	HAM	HEL	ROT	SFO	VCE	VIE	ZHA	Strategy
Below Sea Level	█	▢	▢	▢	▢	▢	█	▢	█	▢	▢	Sustainable Ecology
Flooding	█	▢	▢	█	▢	▢	█	▢	█	▢	█	Flexible Flood Protection
Land Erosion Conservation	█	▢	▢	█	█	▢	█	█	█	▢	█	Sustainable Footprint
Expanding Port Abandoned Sites	█	█	█	▢	█	█	█	█	▢	▢	▢	Port Redevelopment

DENSEcity

Issue	AMS	BCN	BEY	CWB	HAM	HEL	ROT	SFO	VCE	VIE	ZHA	Strategy
Population Dispersion	█	█	█	█	█	█	█	█	█	█	█	Population Redensification
Territorial Expansion	█	█	█	█	█	█	█	█	█	█	█	Organized Growth
Attenuated Infrastructure	█	█	▢	█	█	█	█	█	█	█	▢	Efficient Networks
Blighted Abandoned Territories	█	█	▢	█	█	█	█	▢	▢	▢	▢	Urban Recycling
(Social) Housing Needs	█	█	▢	█	█	█	█	▢	▢	█	█	low-rise high Density
Recreation urban Ecological Needs	▢	█	▢	█	▢	▢	▢	█	▢	█	▢	Public Greenescapes
Historic Preservation	█	█	█	▢	█	▢	▢	▢	█	█	▢	Innovative Urban Renewal

EVENTcity

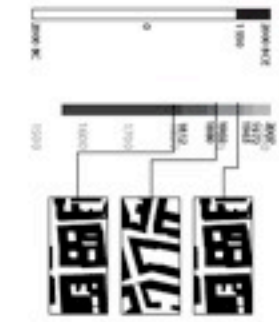
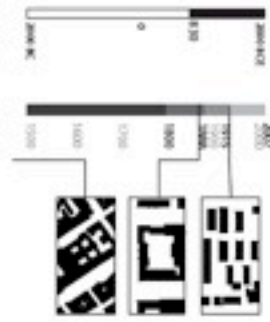
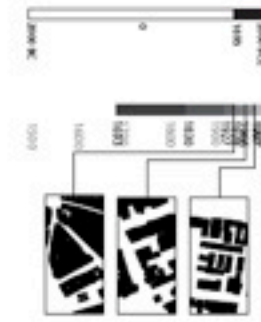
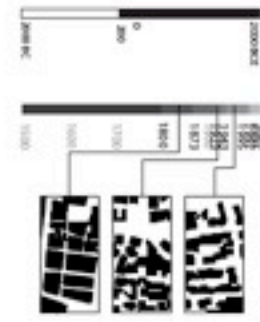
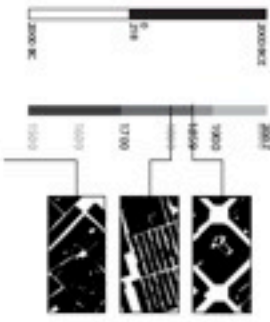
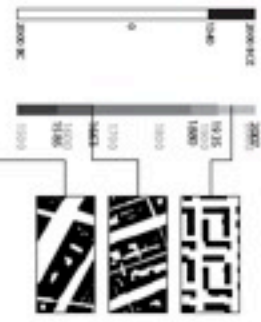
Issue	AMS	BCN	BEY	CWB	HAM	HEL	ROT	SFO	VCE	VIE	ZHA	Strategy
Leisure and Tourism	█	█	█	▢	▢	▢	█	▢	█	█	▢	Sustainable Tourism
Cultural Disasters	▢	█	█	▢	▢	▢	█	▢	▢	▢	▢	Catalyst for Redevelopment
Natural Disasters	▢	▢	▢	▢	▢	▢	█	█	█	▢	▢	Catalyst for Redevelopment



AMS BCN BEY CWB HAM HEL ROT SFO VCE VIE ZHA NOLA

COMPARATIVE MATRIX: 12 CITIES





AMS

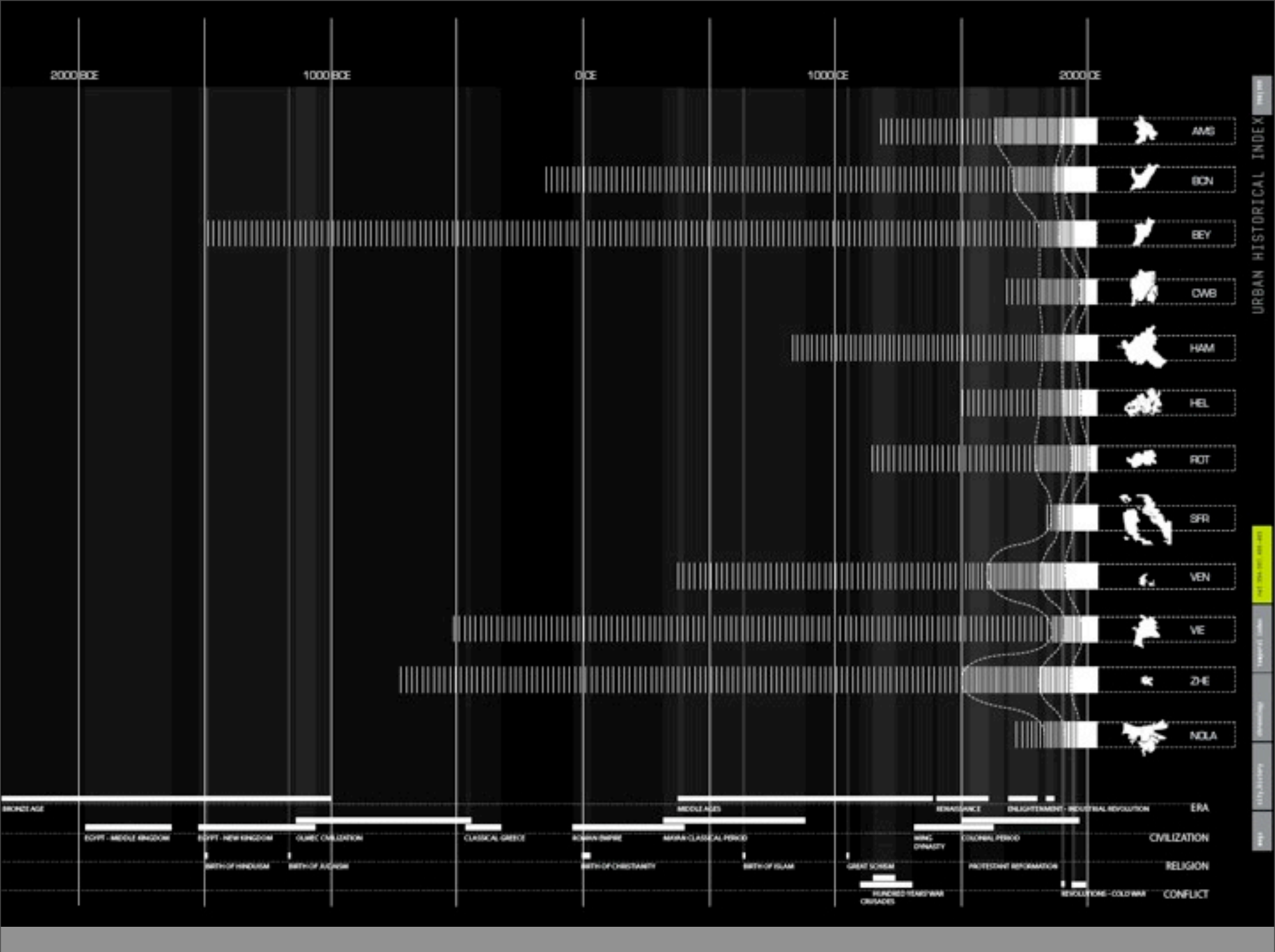
BCN

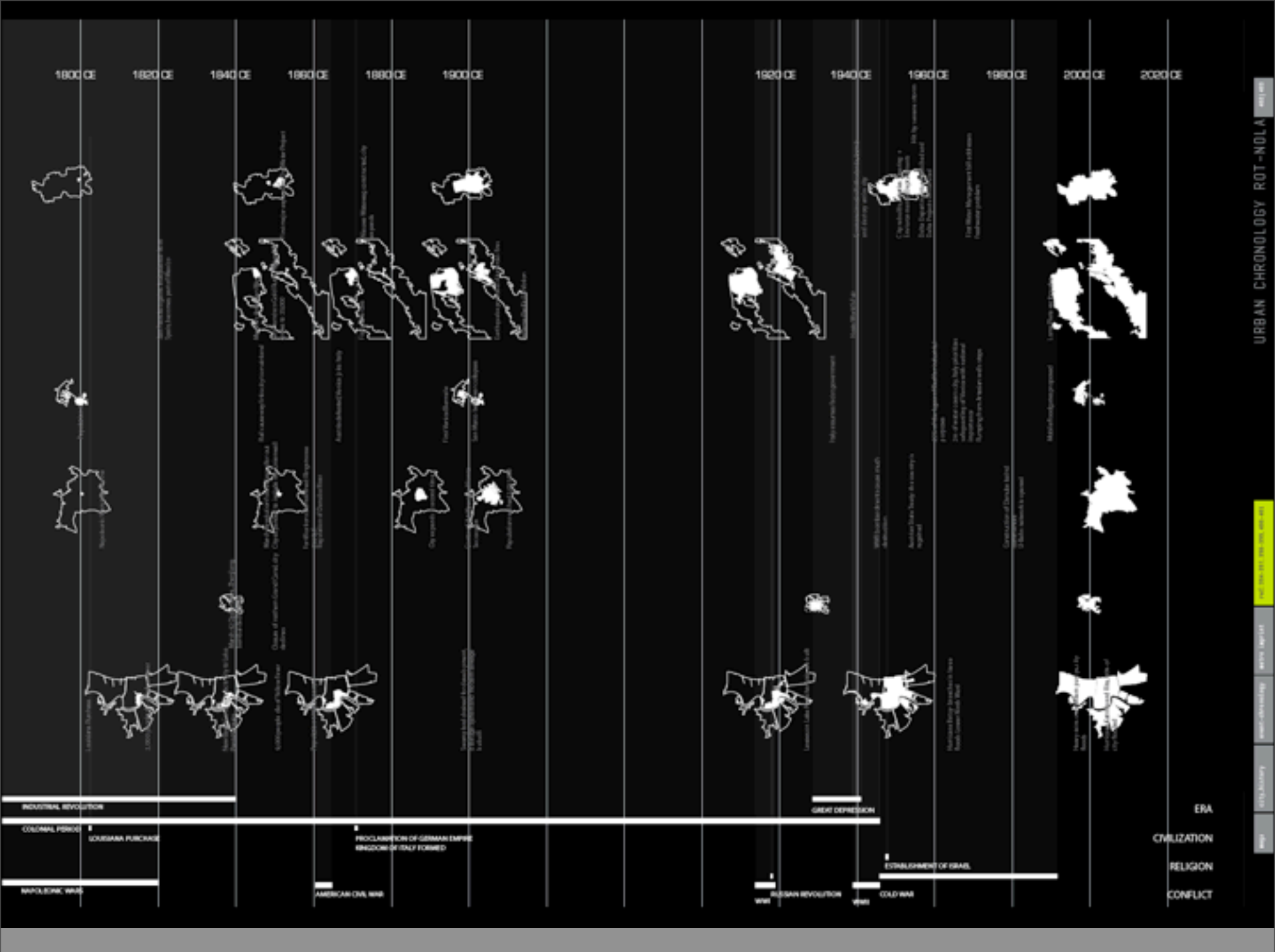
BEY

CWB

HAM

HEL





CORE URBAN STATISTICS

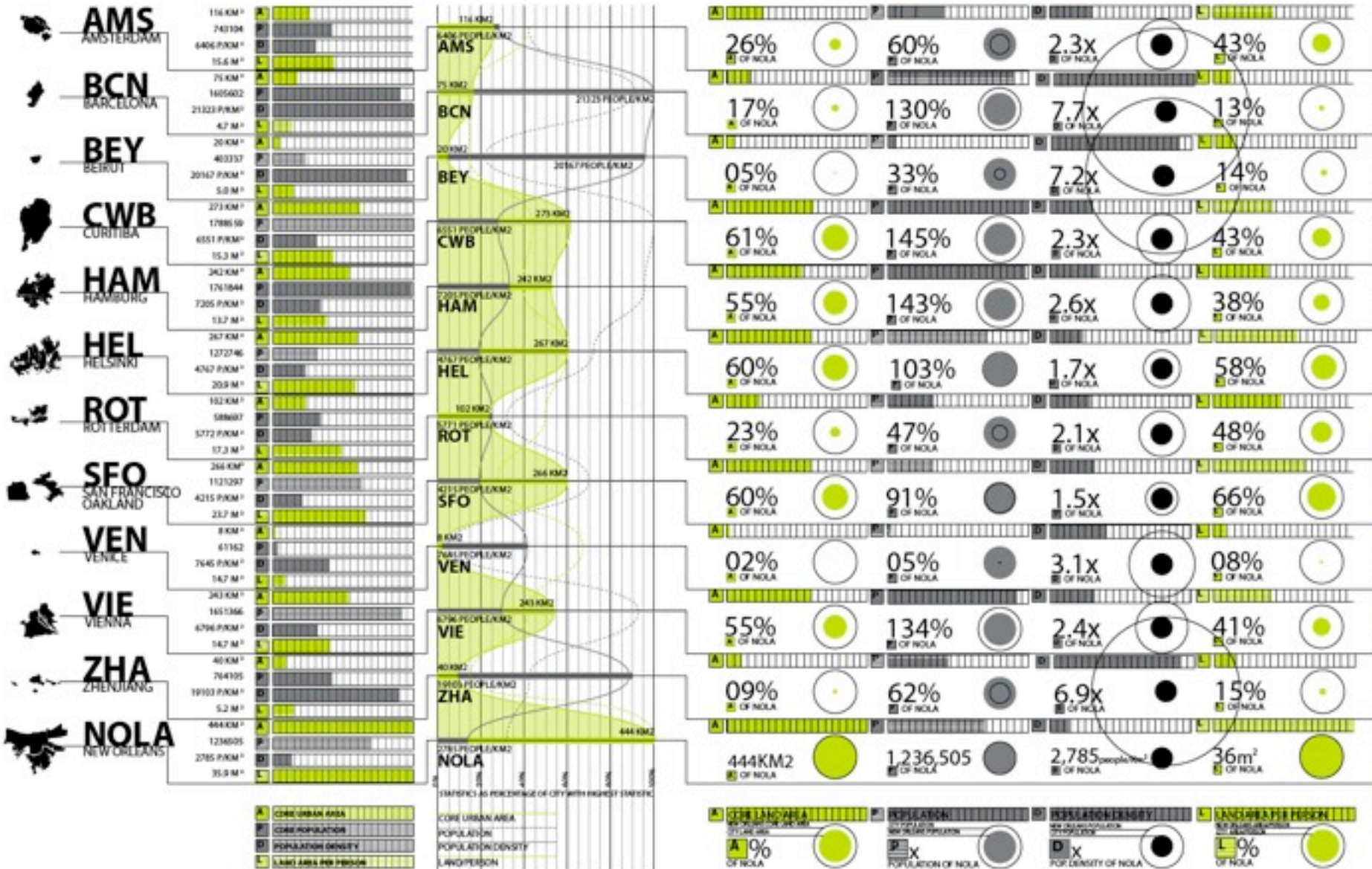
CORE URBAN AREA & POPULATION DENSITY

CORE URBAN AREA

CORE POPULATION

POPULATION DENSITY

LAND AREA PER PERSON



URBAN DENSITY - DISPERSION INDEX

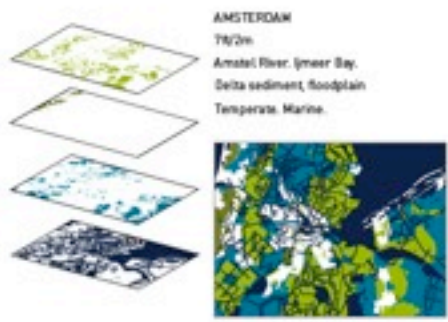


WATERCITIES: AQUA-AGRO-MAPPING

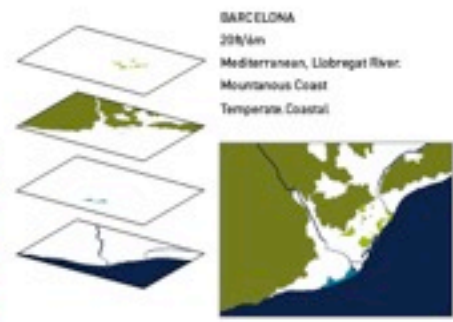
WATERCITIES: AQUA-AGRO-MAPPING

WATERCITIES: AQUA-AGRO-MAPPING

WATERCITIES: AQUA-AGRO-MAPPING



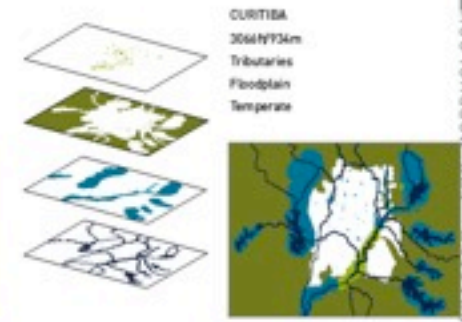
AMSTERDAM
7h/2m
Amstel River, IJmeer Bay
Delta sediment, floodplain
Temperate, Marine.



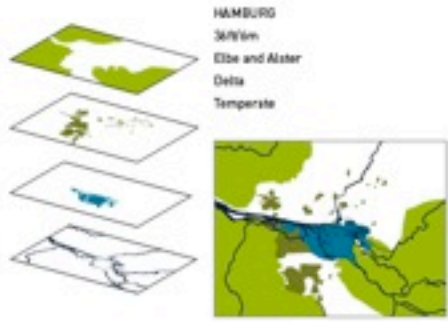
BARCELONA
20h/4m
Mediterranean, Llobregat River
Mountainous Coast
Temperate Coastal



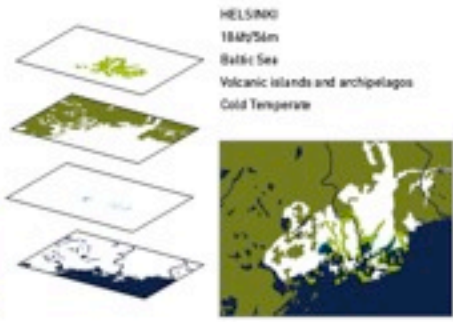
BEIRUT
62h/19m
Mediterranean Sea
Mountainous
Mediterranean



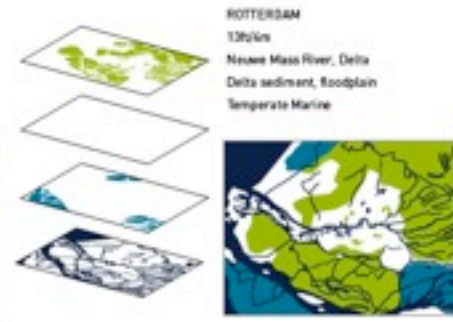
CURITIBA
306h/934m
Tributaries
Floodplain
Temperate



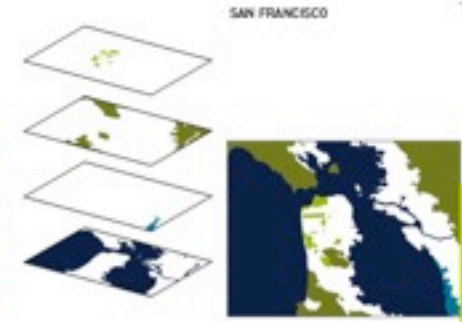
HAMBURG
3h/9m
Elbe and Alster
Delta
Temperate



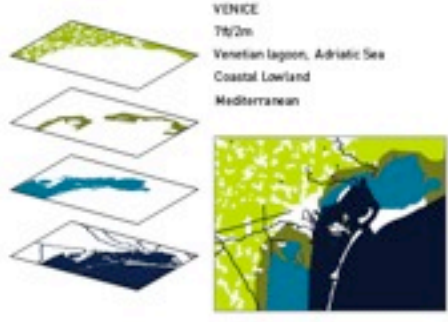
HELSINKI
184h/54m
Baltic Sea
Volcanic islands and archipelagos
Cold Temperate



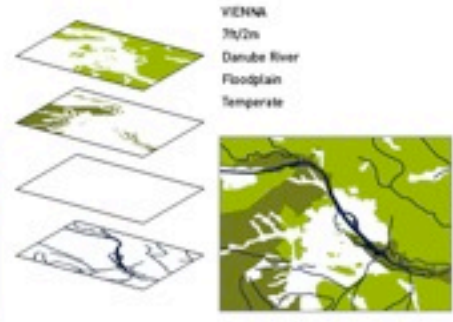
ROTTERDAM
13h/9m
Newwe Mass River, Delta
Delta sediment, floodplain
Temperate Marine



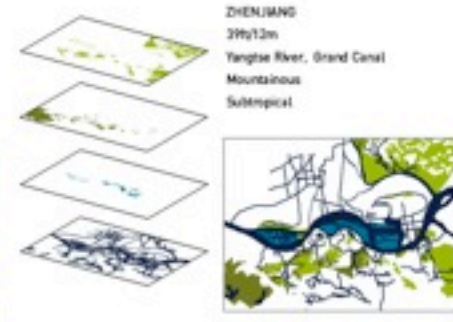
SAN FRANCISCO



VENICE
7h/2m
Venetian lagoon, Adriatic Sea
Coastal Lowland
Mediterranean



VIENNA
7h/2m
Danube River
Floodplain
Temperate



ZHENJIANG
37h/12m
Yangtze River, Grand Canal
Mountainous
Subtropical



NEW ORLEANS
47h/15m
Mississippi River, Lake Ponchartrain,
Gulf of Mexico
Delta sediment
Subtropical

URBAN GREEN SPACE

ENVIRONMENTAL THREAT FROM WATER

URBAN BLUE SPACE

GREEN AND BLUE INDEX

AMS
AMSTERDAM

BCN
BARCELONA

BEY
BEIRUT

CWB
CURITIBA

HAM
HAMBURG

HEL
HELSINKI

ROT
ROTTERDAM

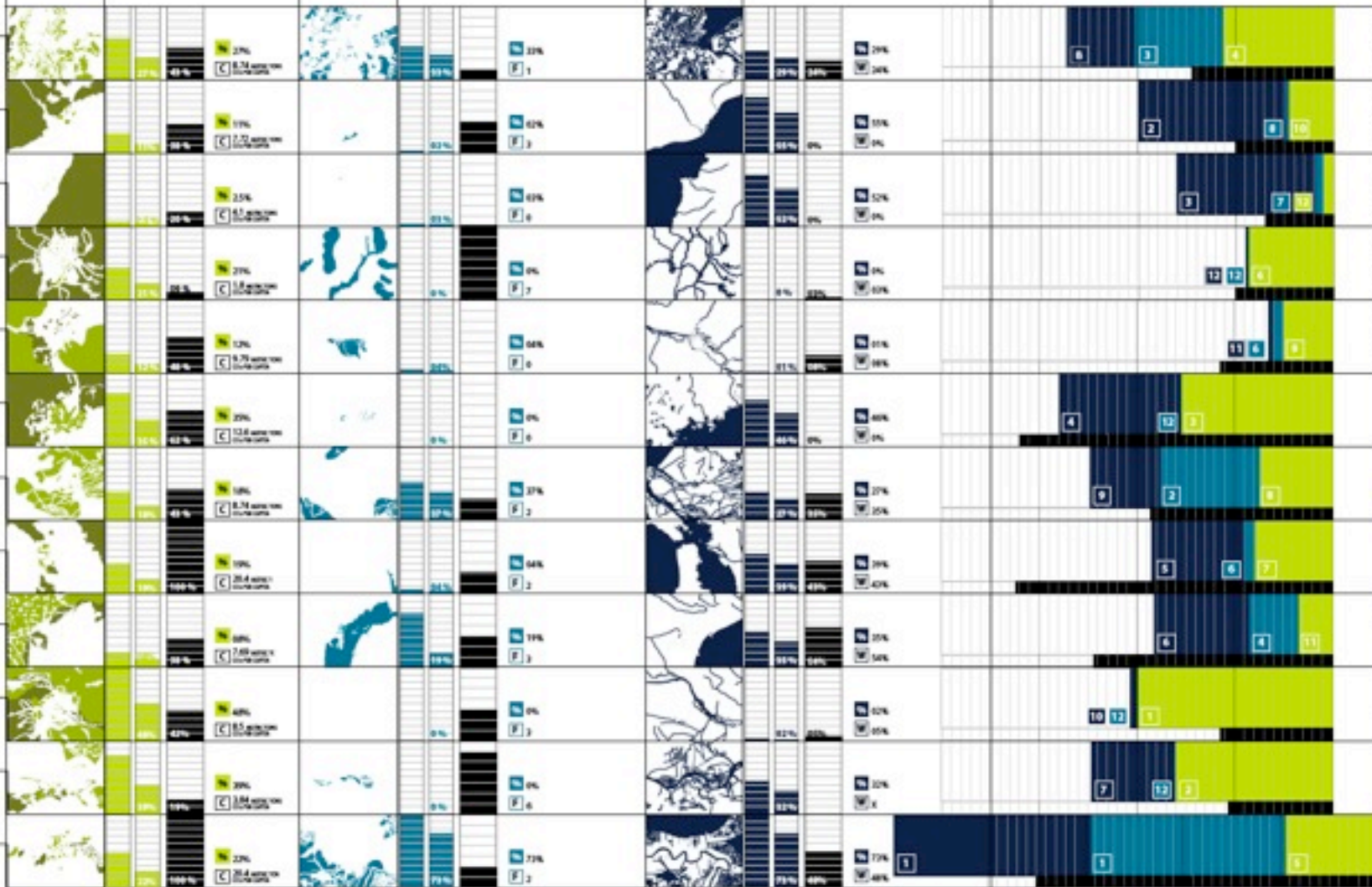
SFO
SAN FRANCISCO
OAKLAND

VEN
VENICE

VIE
VIENNA

ZHA
ZHENJIANG

NOLA
NEW ORLEANS



CITIES - ENVIRONMENTAL INDEX

CITIES - ENVIRONMENTAL INDEX

CITIES - ENVIRONMENTAL INDEX

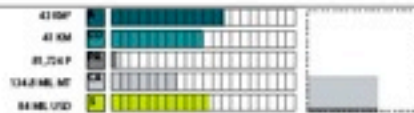
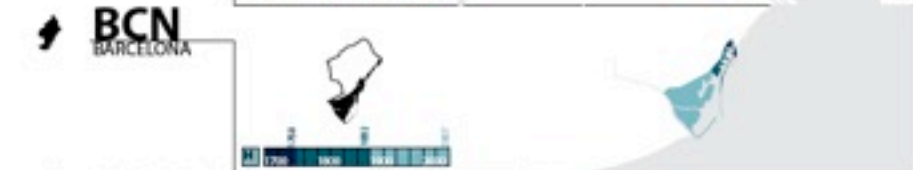
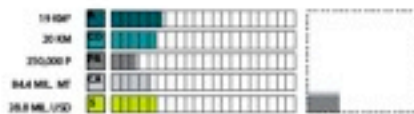
CITIES - ENVIRONMENTAL INDEX

CITIES - ENVIRONMENTAL INDEX

PORT TIMELINE

PORT STATISTICS

PORT DETAILS



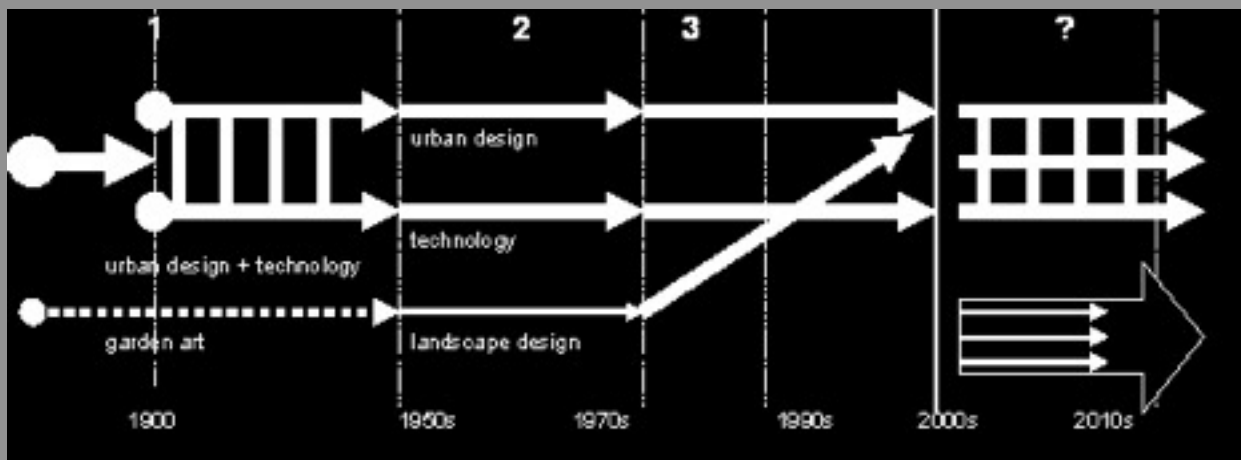
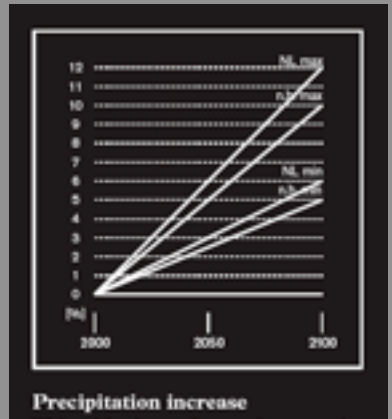
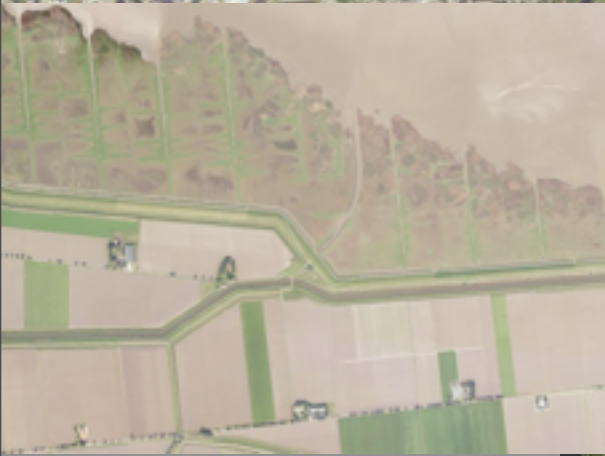
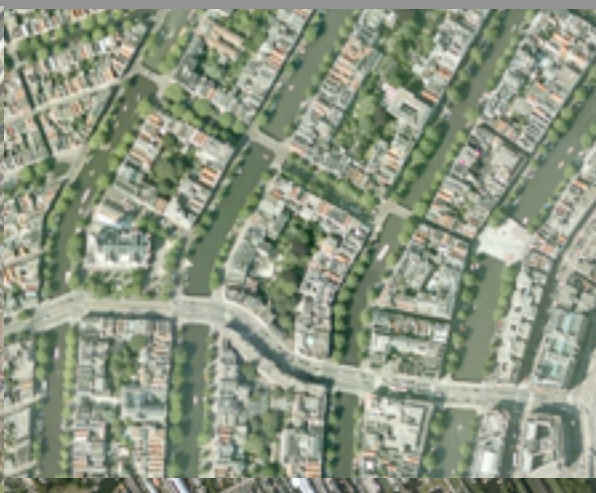
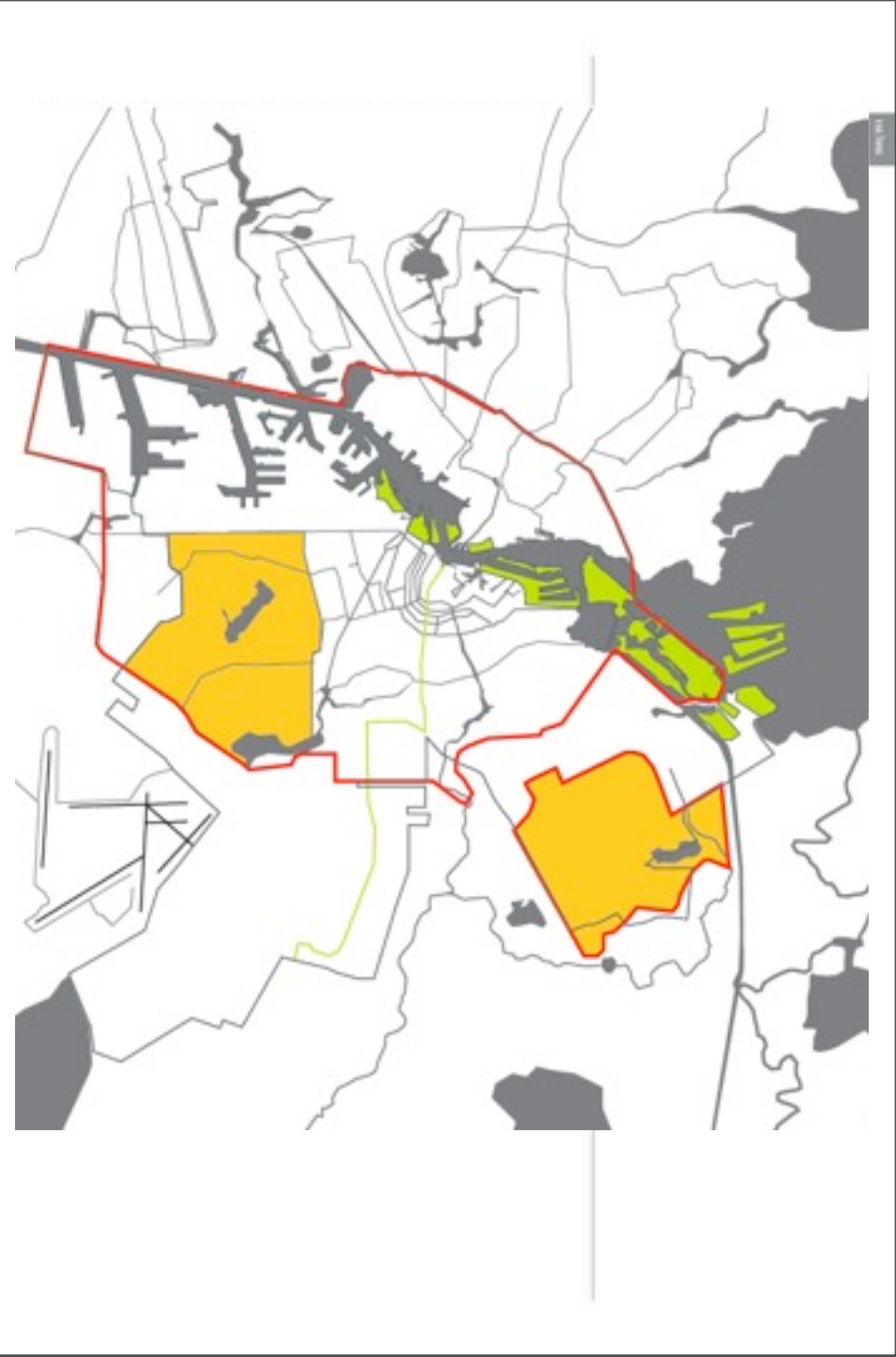


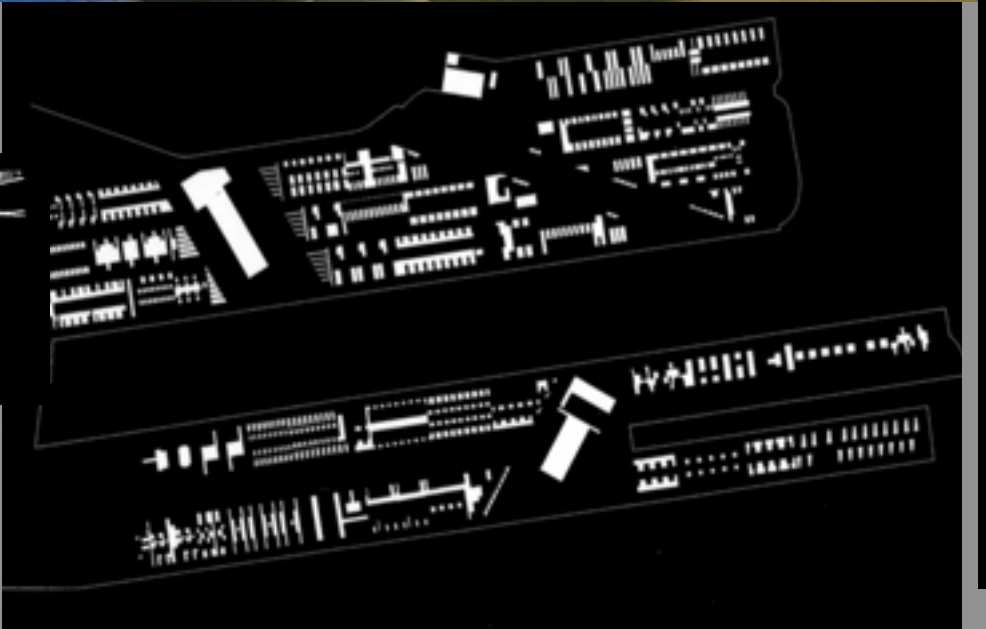
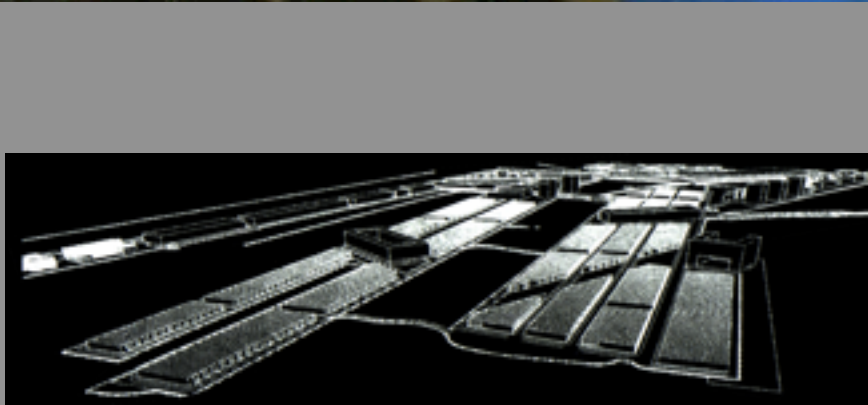
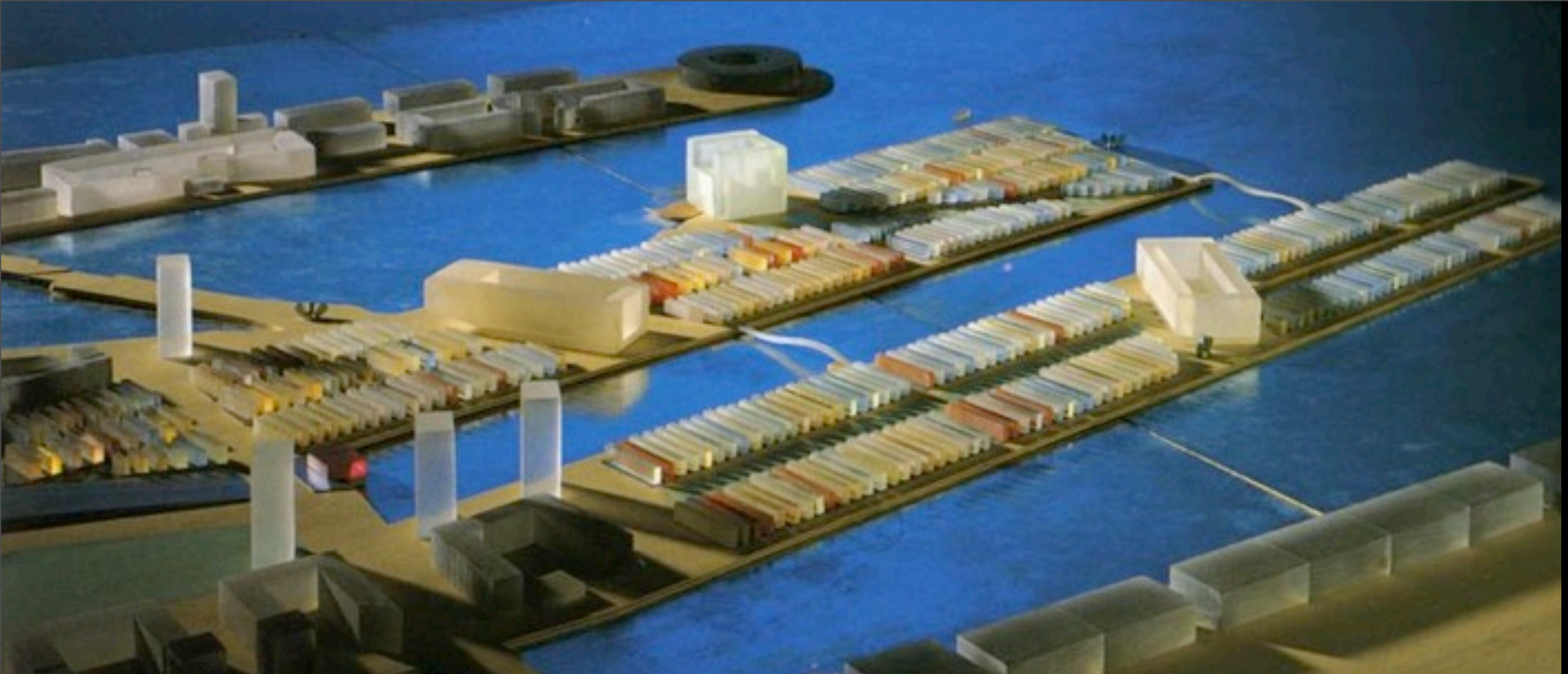
Diagram Fransje Hooimeijer PhD TU Delft



The Local-Global Matrix

LA BERMAN, MONA EL KHAFIF







Heren 5



Kother & Salman



Erna van Sambeek



Wim Kloosterboer



Claus & Kaan



Claus & Kaan



Höhne & Rapp



Arne van Herk



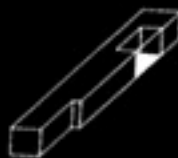
Cees Christiaanse



Liesbeth van der Pol



Hans Tupker



Marlies Röhmer



Herman Zeinstra



Van Berkel & Bos



Willem Jan Neutelings



DKV



Xaveer de Geyter

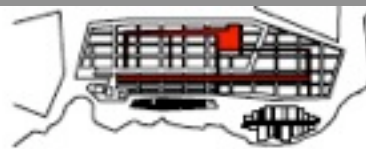
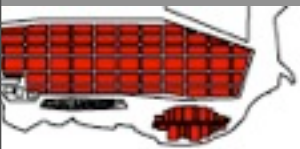


Willem Jan Neutelings



O.M.A.





blokken
blocks

verschillen in hoogte
differences in height

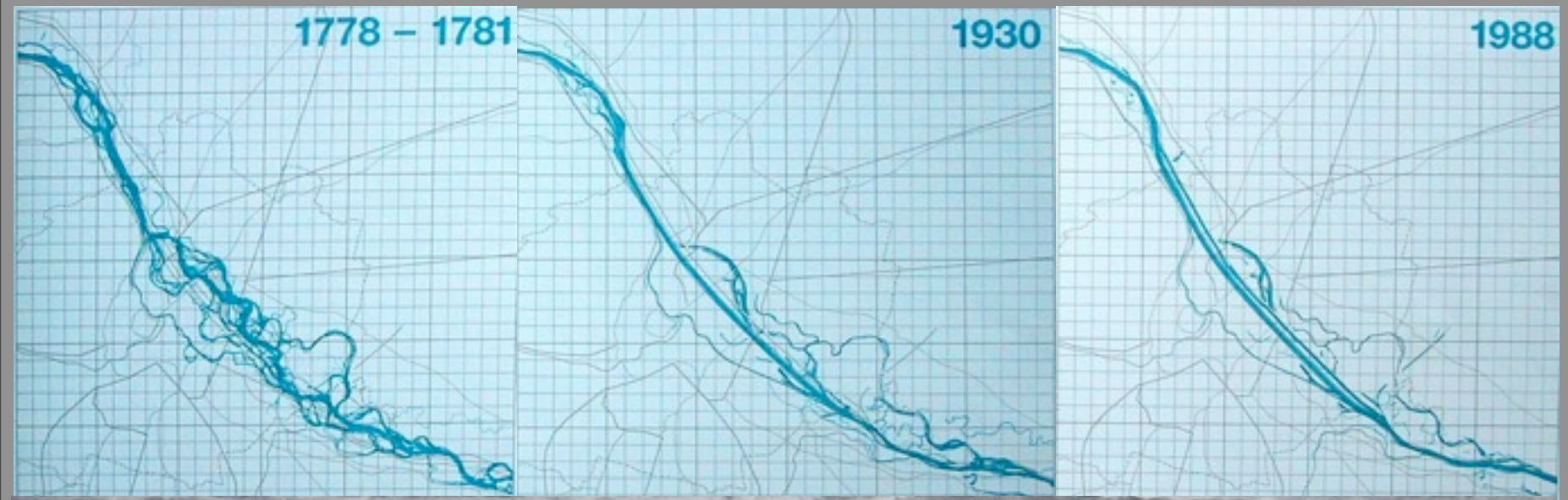
water
water

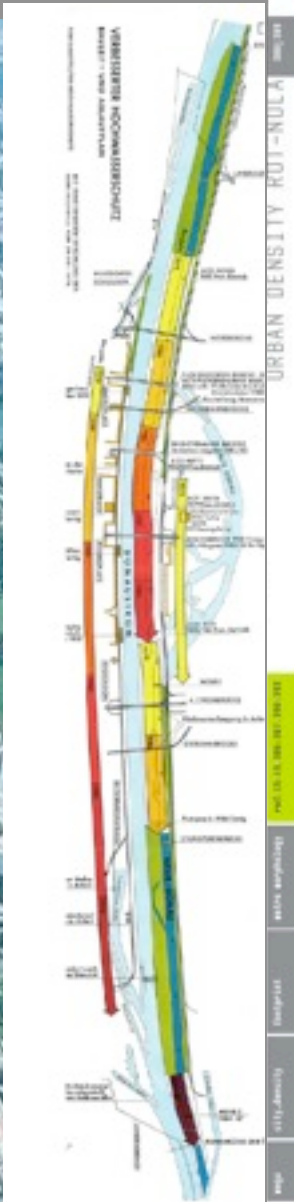


1778 - 1781

1930

1988

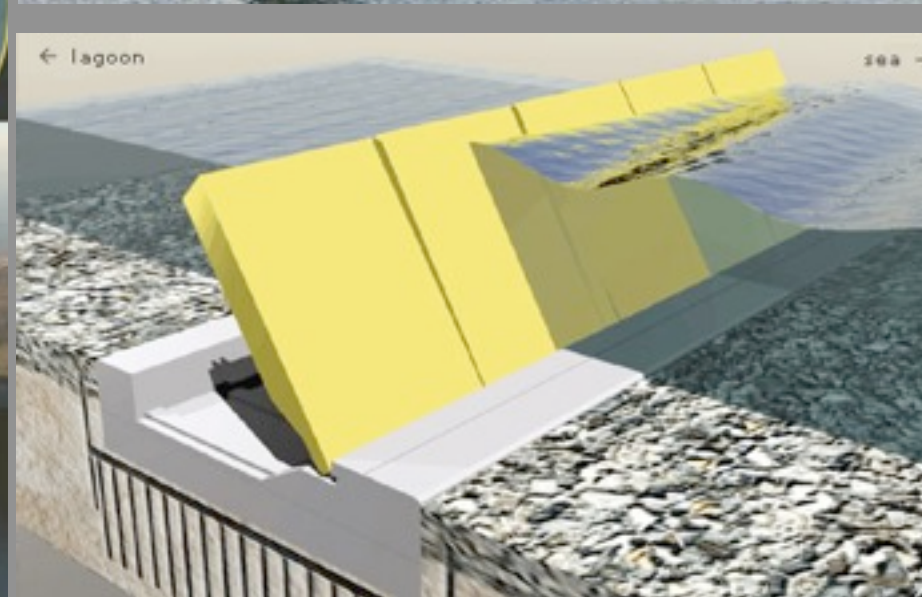
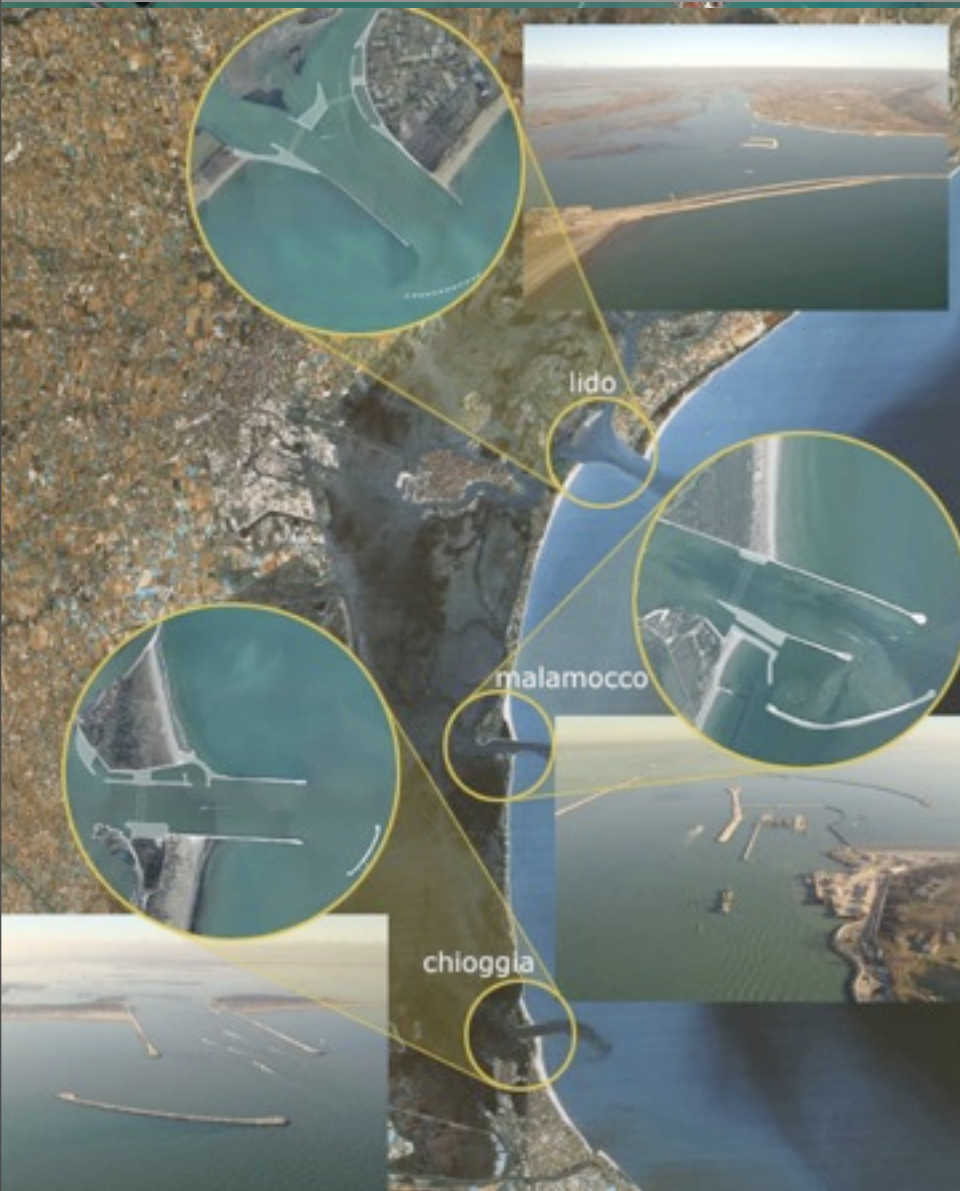


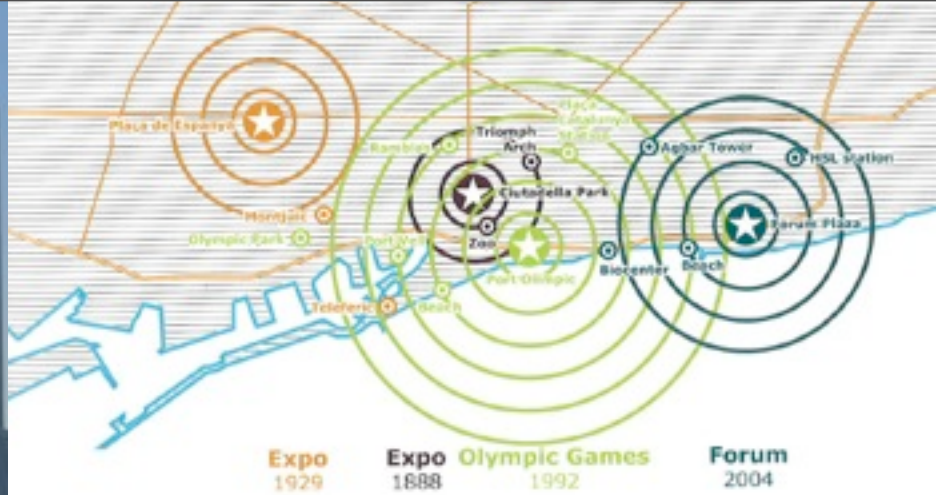






Monday, October 4, 2010





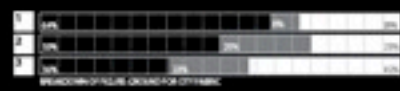
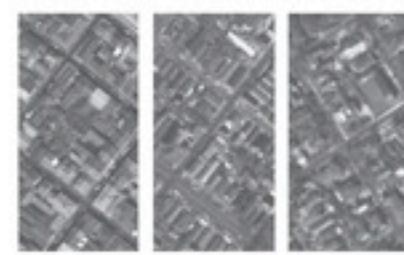
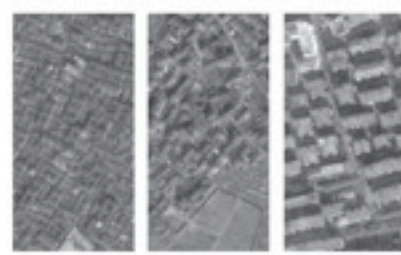
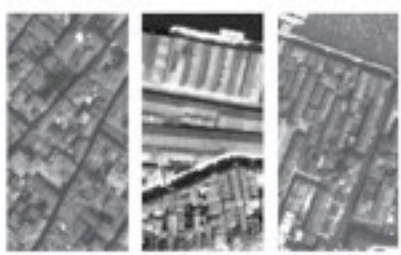
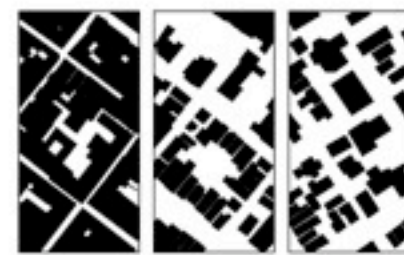
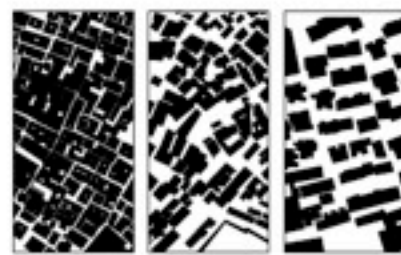
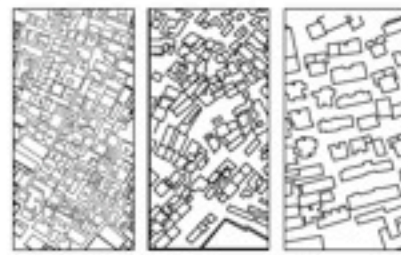
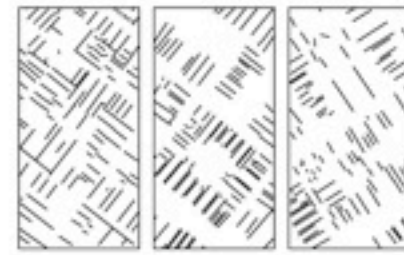
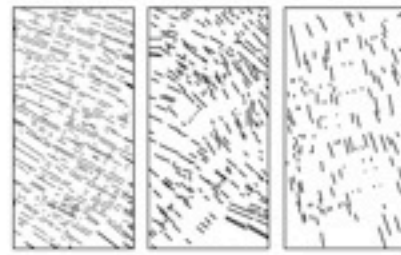
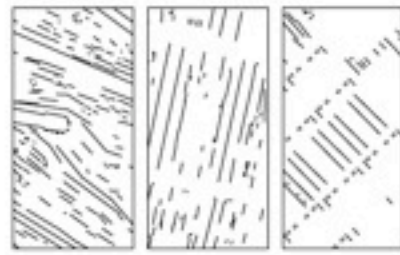
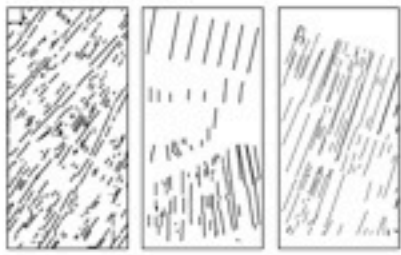
Monday, October 4, 2010

VCE

VIE

ZHA

NOLA

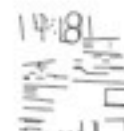


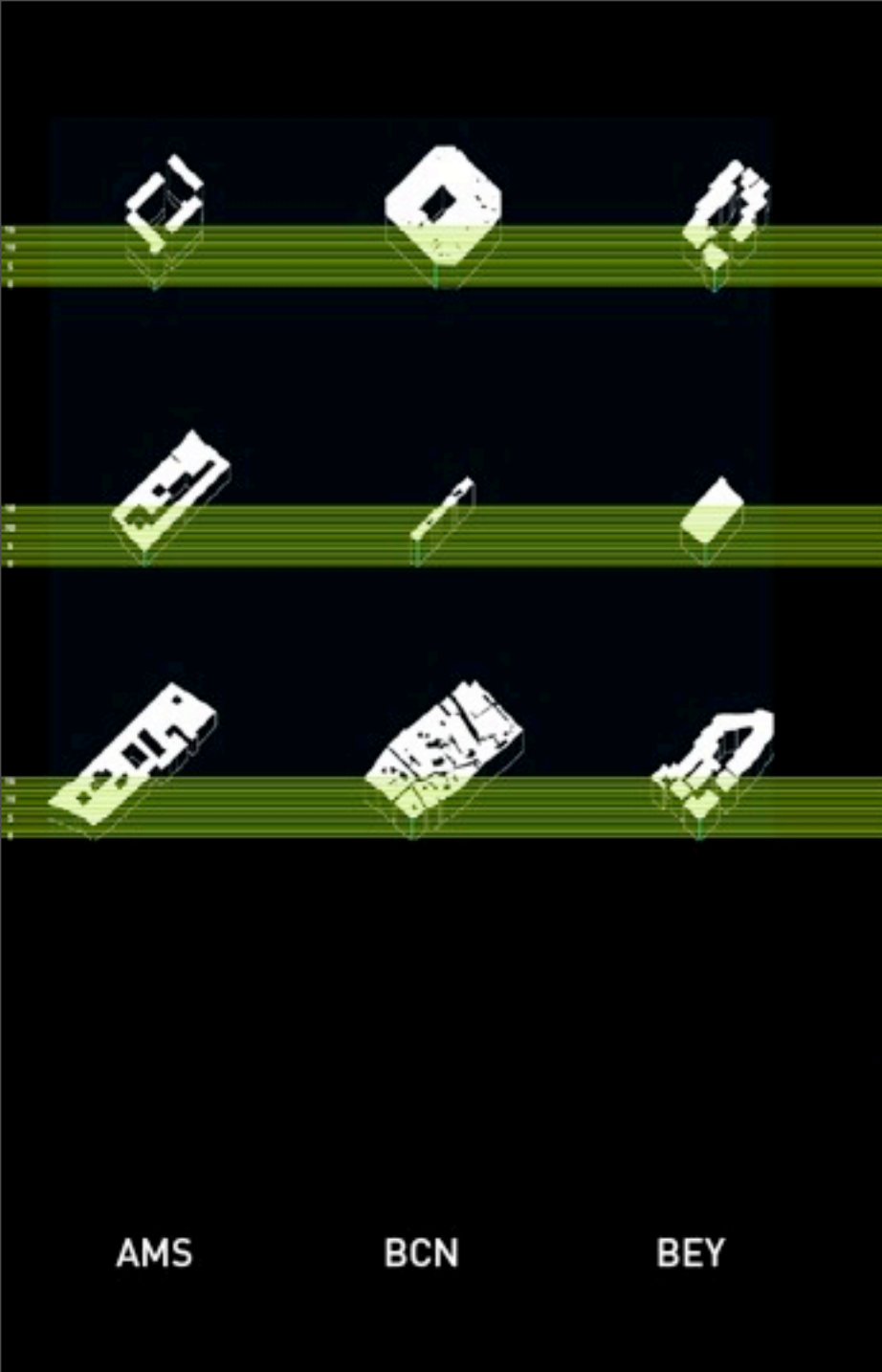
AMS

BCN

BEY

CWB





AMS

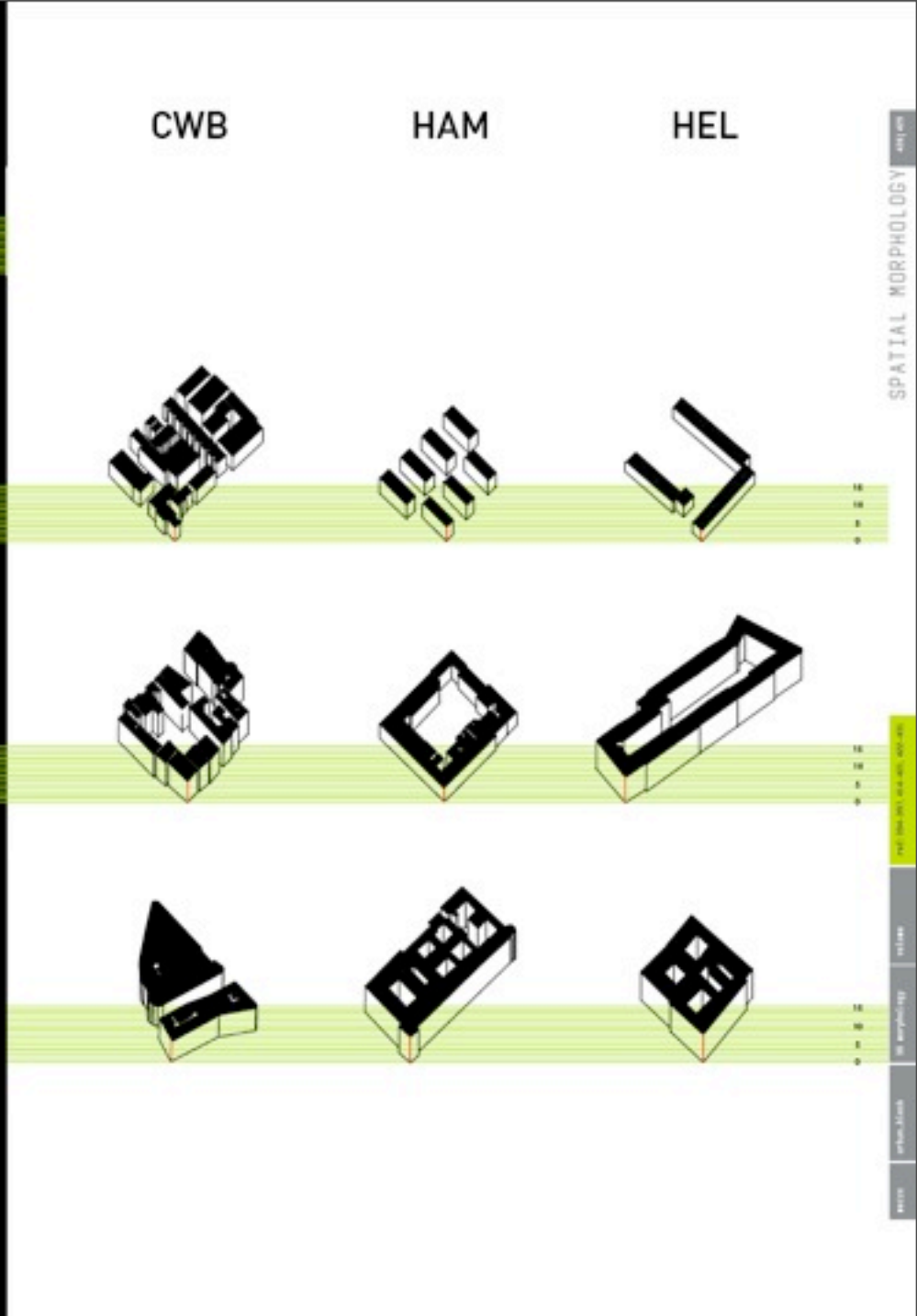
BCN

BEY

CWB

HAM

HEL



STANDARD BLOCK TYPES

PARCEL BLOCK



The multi-family low-rise block is 1 to 3 stories with a multiple units on each parcel of land. See Curitiba, New Orleans.

SAMPLE BLOCKS



SFO MID CWR MID NOLA MID



2x GREATER THAN DENSITY OF AVG NEW ORLEANS BLOCK

TYPES AT THE SCALE OF NEW ORLEANS



1668 PEOPLE/BLOCK



8.4 MILLION PEOPLE

If the CORE URBAN AREA of New Orleans was only 50% residential the **PARCEL BLOCK** could support **8.4 MILLION RESIDENTS**.

CLOSED PERIMETER BLOCK



Consists of multi-story, multi-unit buildings that line the street, leaving rooms in the center of the block for residential green space. See Amsterdam, Vienna.



HEL MID ROT OLD HAM MID VE MID AMS MID



4x GREATER THAN DENSITY OF AVG NEW ORLEANS BLOCK



1668 PEOPLE/BLOCK



15.4 MILLION PEOPLE

If the CORE URBAN AREA of New Orleans was only 50% residential the **CLOSED PERIMETER BLOCK** could support **15.4 MILLION RESIDENTS**.

OPEN PERIMETER BLOCK



Consists of multi-story, multi-unit buildings where central open space is accessible from the street. This is primarily a 20th Century typology. See Hamburg, Rotterdam.



ROT MID HEL NEW AMS NEW VE NEW



3x GREATER THAN DENSITY OF AVG NEW ORLEANS BLOCK



1668 PEOPLE/BLOCK



11.6 MILLION PEOPLE

If the CORE URBAN AREA of New Orleans was only 50% residential the **OPEN PERIMETER BLOCK** could support **11.6 MILLION RESIDENTS**.

MAT BLOCK



The mat block is a high-density residential strategy where the entire block is built up several stories. See Barcelona.



AMI OLD BON NEW ROT OLD HEL OLD



12x GREATER THAN DENSITY OF AVG NEW ORLEANS BLOCK



1668 PEOPLE/BLOCK



41.7 MILLION PEOPLE

If the CORE URBAN AREA of New Orleans was only 50% residential the **MAT BLOCK** could support **41.7 MILLION RESIDENTS**.

MAT FABRIC



Primarily Medieval fabric found at the center of European cities. Voids and streets are carved out of multi-story residential and mixed-program fabric. See Venice, Barcelona.



VE OLD VEN OLD BON OLD ZHA OLD



10x GREATER THAN DENSITY OF AVG NEW ORLEANS BLOCK



1380 PEOPLE/BLOCK



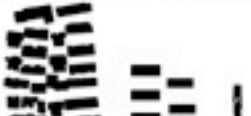
34.5 MILLION PEOPLE

If the CORE URBAN AREA of New Orleans was only 50% residential the **MAT FABRIC** could support **34.5 MILLION RESIDENTS**.

FIELD



The fabric of the field consists of towers arrayed evenly in open space. This is a 20th Century typology, but comes in a number of forms in the city. See Helsinki, Beirut, Zhenjiang.



ZHA NEW HAM NEW BON MID



7x GREATER THAN DENSITY OF AVG NEW ORLEANS BLOCK



1004 PEOPLE/BLOCK



25.1 MILLION PEOPLE

If the CORE URBAN AREA of New Orleans was only 50% residential the **HIGH DENSITY FIELD** could support **25.1 MILLION RESIDENTS**.

NOLA BLOCK AVERAGE



143 PEOPLE/BLOCK
2 STORIES AVERAGE
53% BUILT FOOTPRINT



X GREATER THAN DENSITY OF AVG NEW ORLEANS BLOCK

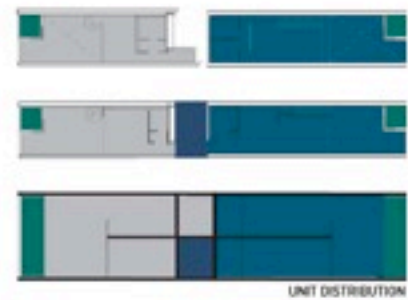
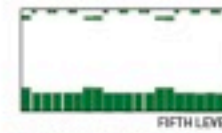
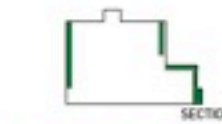
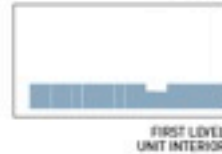
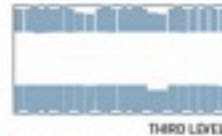
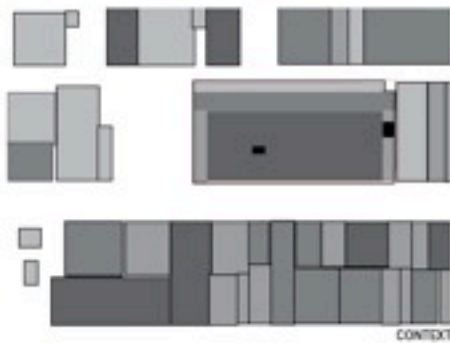


134 PEOPLE/BLOCK



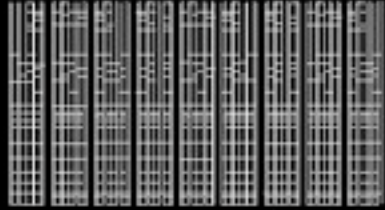
1.3 MILLION + GREATER NEW ORLEANS (2010)

If the CORE URBAN AREA of New Orleans was only 50% residential the fully populated **NOLA BLOCK** could support **3.3 MILLION RESIDENTS**.

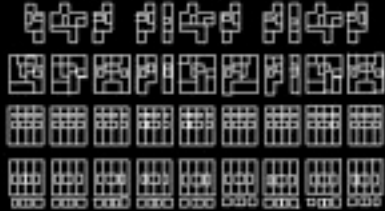




UNIT RHYTHM



UNIT ALIGNMENTS



UNIT CONFIGURATIONS



UNIT ASSEMBLIES



UNIT CONFIGURATIONS

PLAN ANALYSIS



SECTIONAL ANALYSIS



ELEVATION PATTERNS

SECTION/ELEVATION ANALYSIS



VOLUMETRIC ANALYSIS

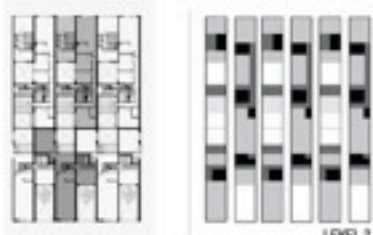




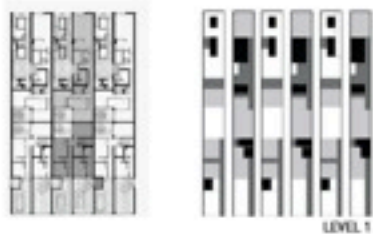
LEVEL 4



LEVEL 3



LEVEL 2



LEVEL 1

- OUTDOOR SPACE
- ▤ LIVING SPACE
- ▥ CIRCULATION
- SERVICE

PLANIMETRIC PROGRAM ANALYSIS



STREET ELEVATION



LATERAL ELEMENTS



LONGITUDINAL ELEMENTS



SOLID/VOID RELATIONSHIPS



STREET ELEVATION



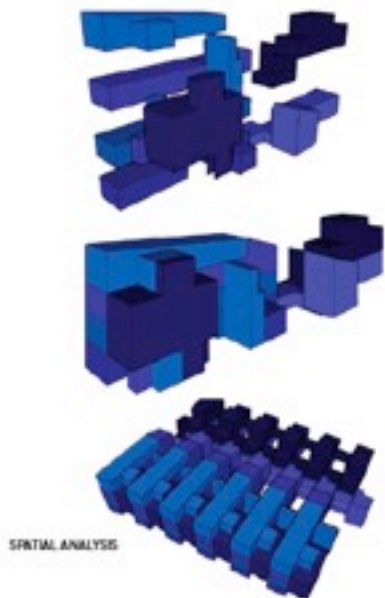
LATERAL ELEMENTS



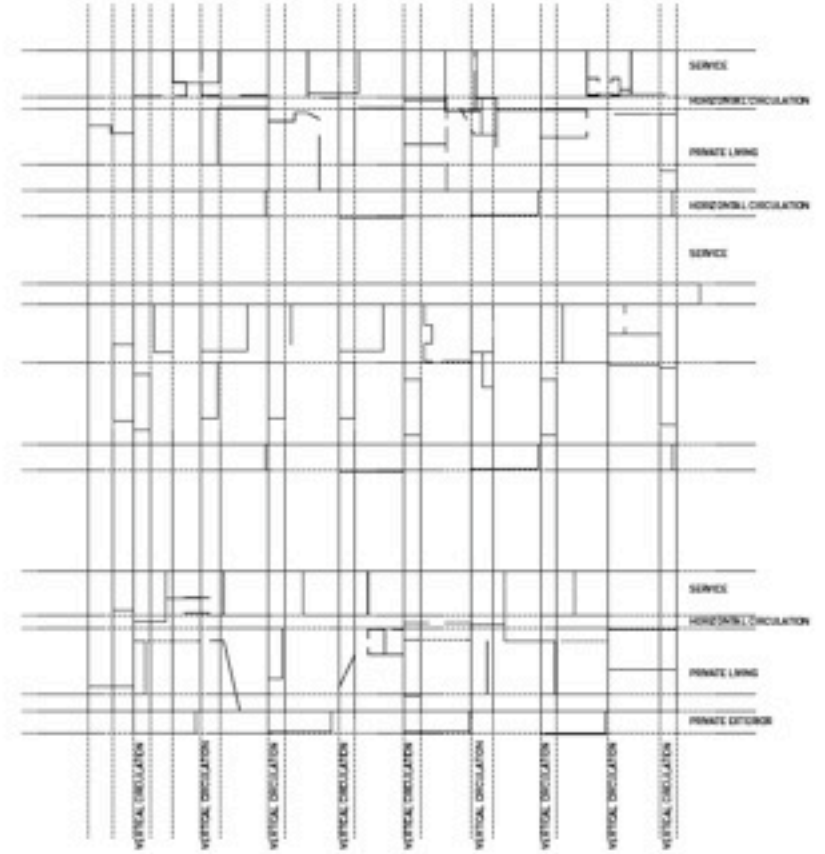
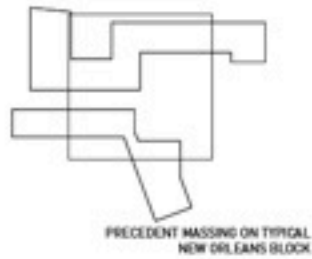
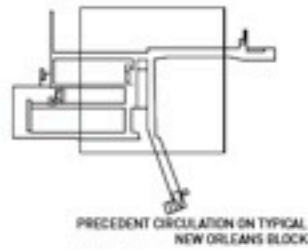
LONGITUDINAL ELEMENTS

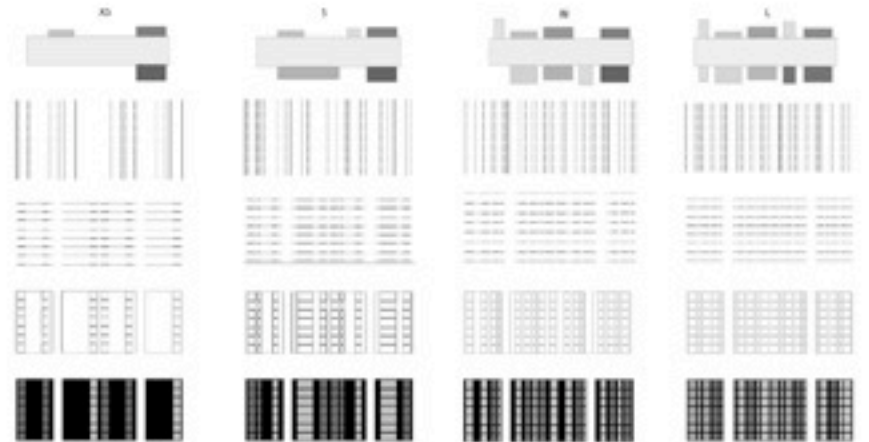
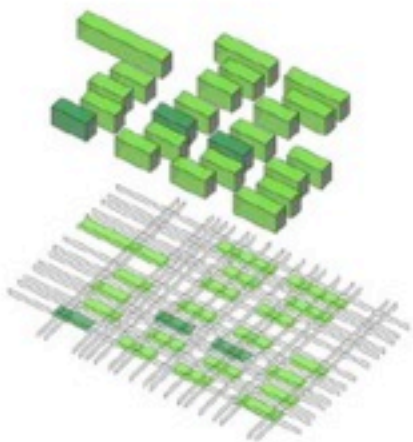
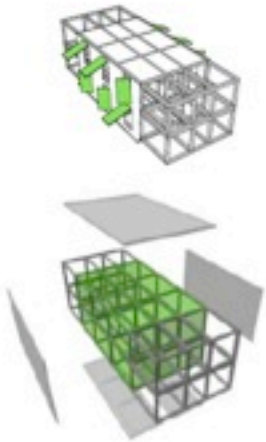
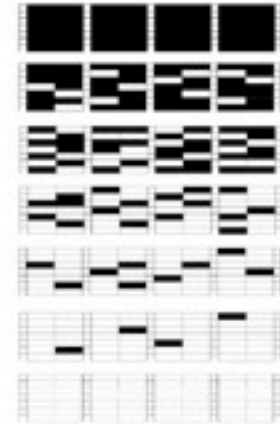
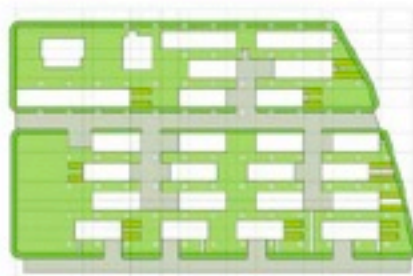
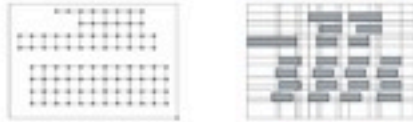
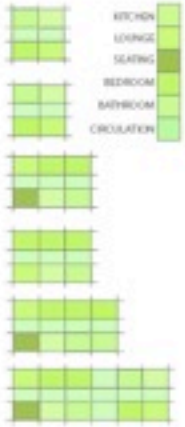


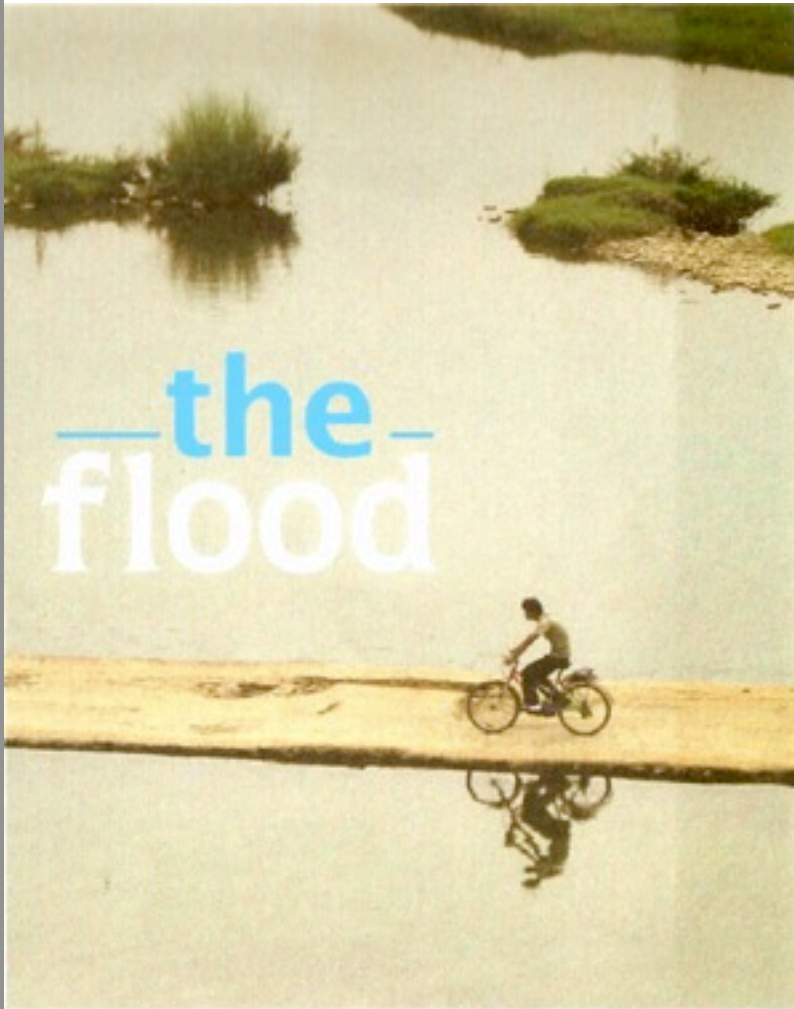
SECTION/ELEVATION ANALYSIS



SPATIAL ANALYSIS

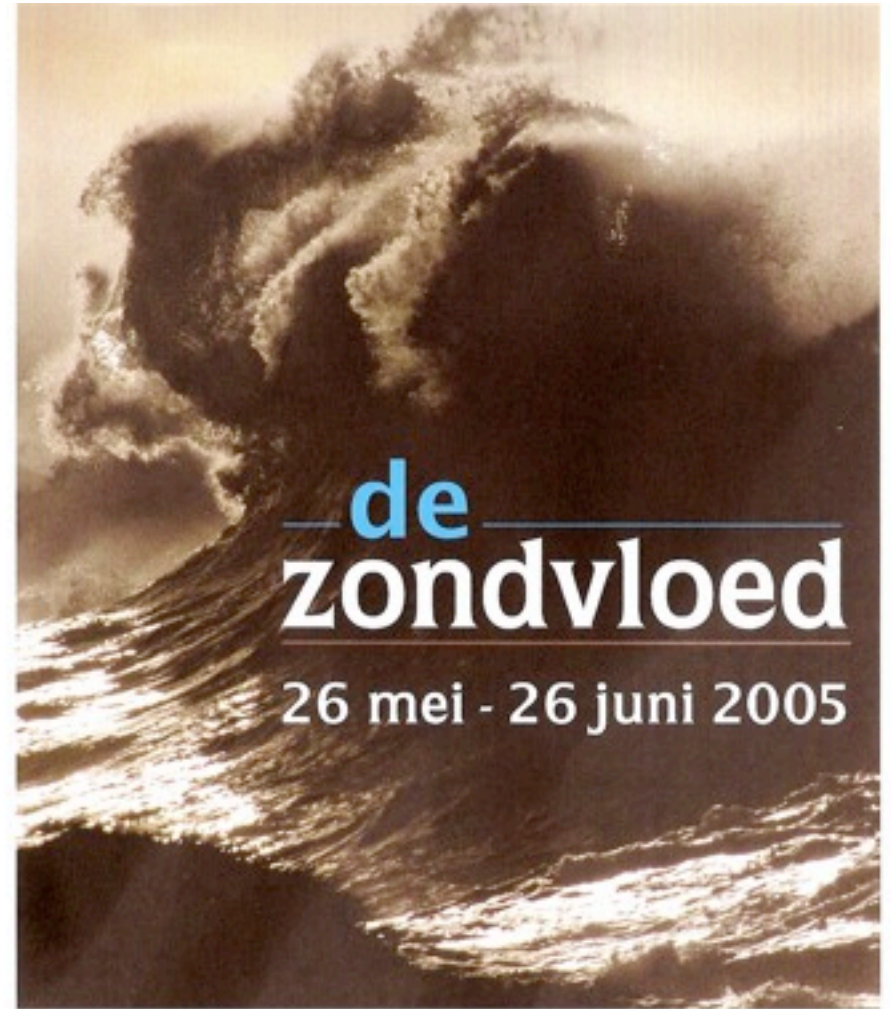






the flood

2nd International
Architecture Biennale
Rotterdam



de zondvloed

26 mei - 26 juni 2005

"Can you profit from the fact, that many billions will be invested in order to keep the water system flowing? To rebuild our ports as a new economical power for our city...Is there a way we can get something extra for your money? Or do you simply solve the immediate problems, like a state plumber, and nothing else? Besides, no matter how high we will raise the dikes there is always a chance that one day things might go wrong. With constantly rising water level we cannot take longer the risk."

Adriaan Geuze Curator, WEST 8