



Abu Dhabi
Urban
Oasis

Abu Dhabi URBAN OASIS

an urban plan vision

by SERGIO PASCOLO ARCHITECTS — Venice - Italy





Abu Dhabi URBAN OASIS



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Principles



Compared urban scheme



Compact Structure



Urban Area Reduction



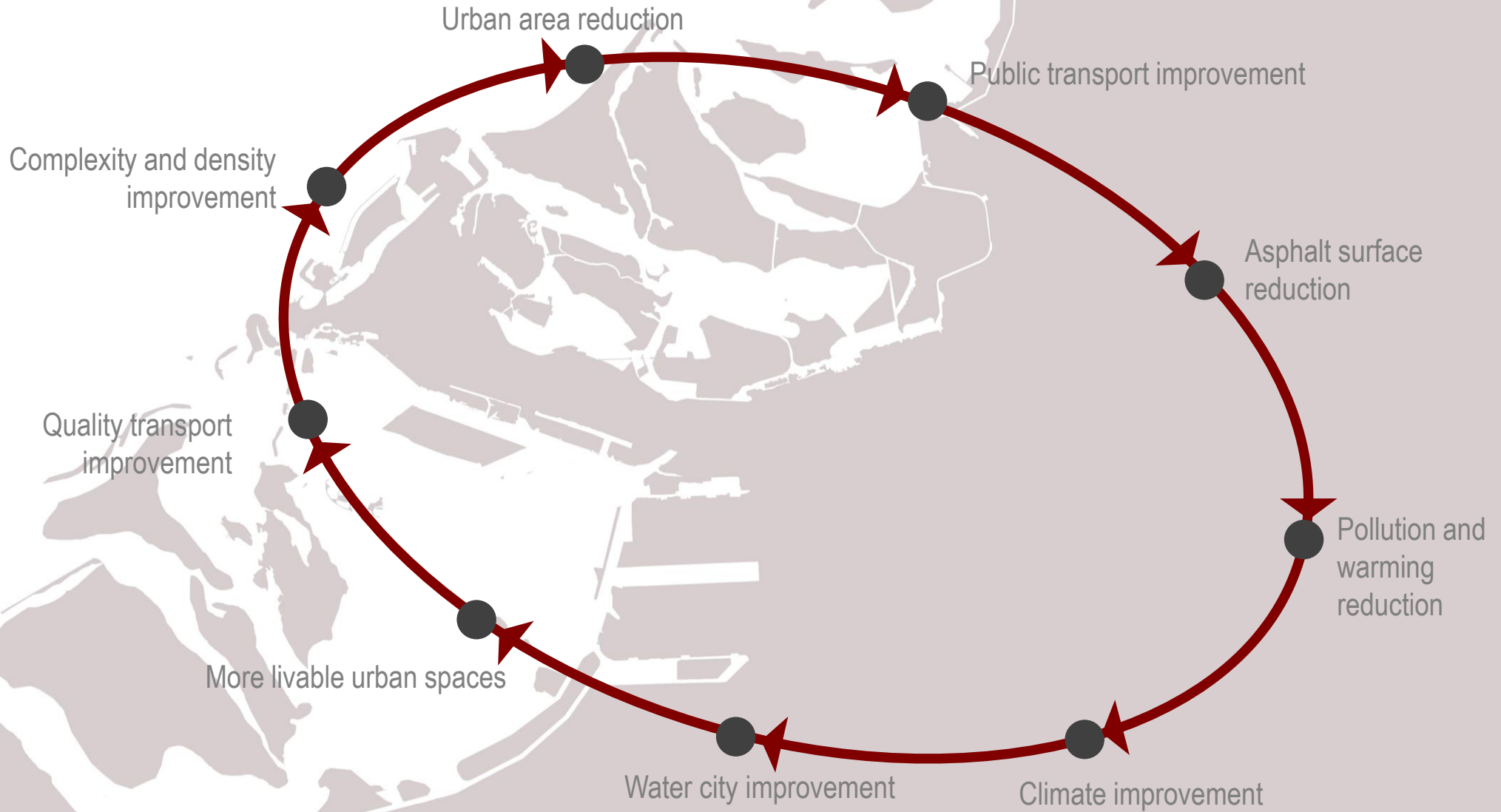
Multi-Mobility Concept



Water City Cluster



CIRCULAR LOOP OF SUSTAINABILITY





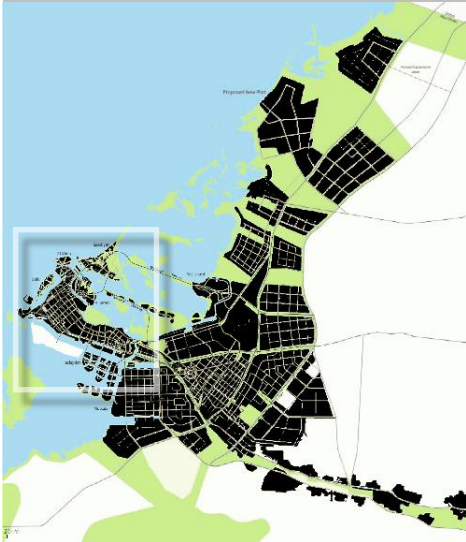
PLAN ABU DHABI 2030:

Abu Dhabi **more** extended than **New York City**

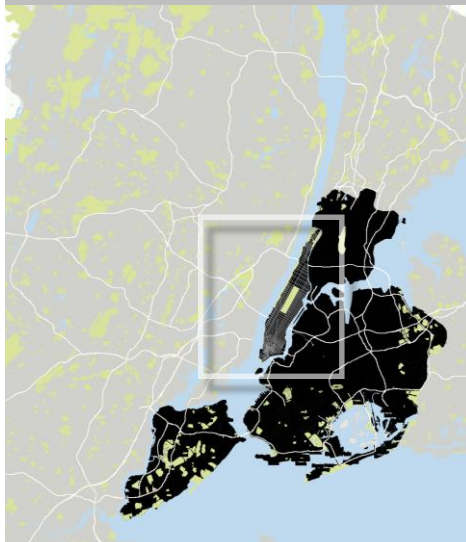
Abu Dhabi extended **almost as San Francisco Bay**



Plan Abu Dhabi 2030



New York City



San Francisco [bay area]



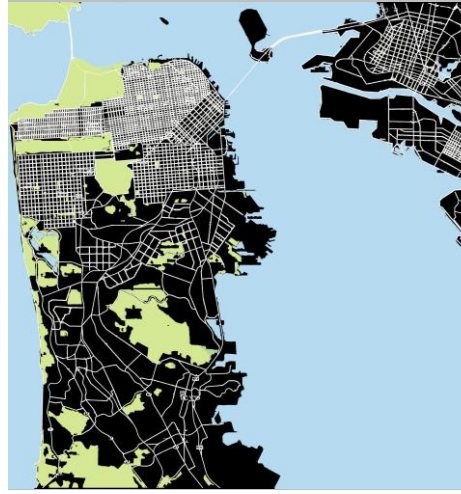
Abu Dhabi [central part]



New York [Manhattan]



San Francisco [peninsula]



Compared dimensions of cities:

Plan Abu Dhabi 2030: 1940 km²

San Francisco bay: 2100 km²

New York: 1.215 km²

Compared main areas of cities:

Abu Dhabi Island: 100 km²

Manhattan: 55 km²

San Francisco peninsula: 225 km²



Compared urban **compact** structure:



Abu Dhabi



New York City



Venice



Rome



Paris



Amsterdam



Orthogonal compact structure

Thick compact structure

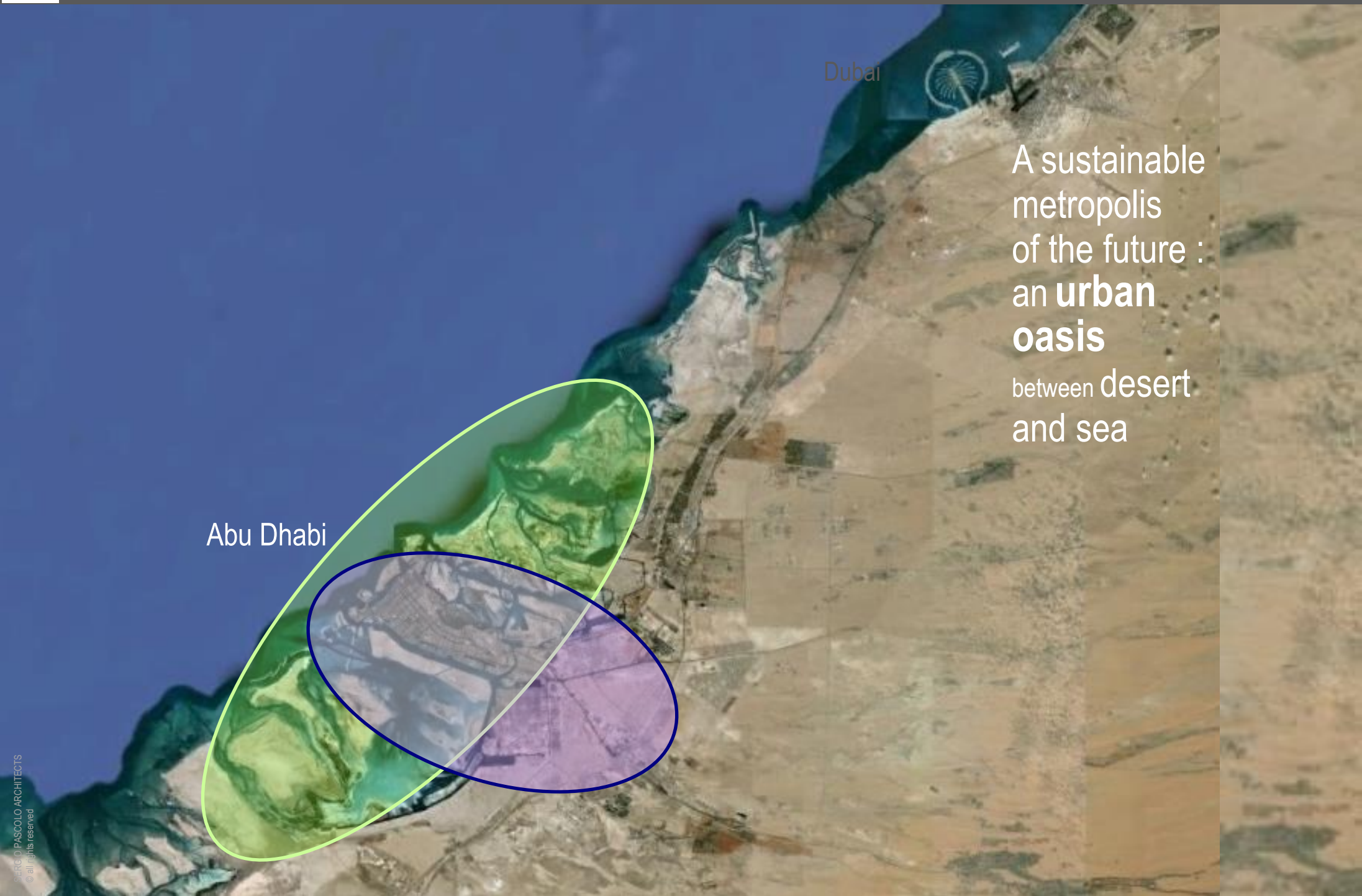
Geometrical compact structure



Tools



- Density
- Compactness
- Functional complexity
- Public space on water
- Water for mobility
- Relation - desert, city, sea
- Natural environment improvement
- Pedestrian mobility and social life in the public space



Abu Dhabi

Dubai

A sustainable
metropolis
of the future :
an **urban
oasis**
between desert
and sea



A compact
city
between
sand,
water
and
green



Plan Abu Dhabi 2030

Urban area 1940 km²

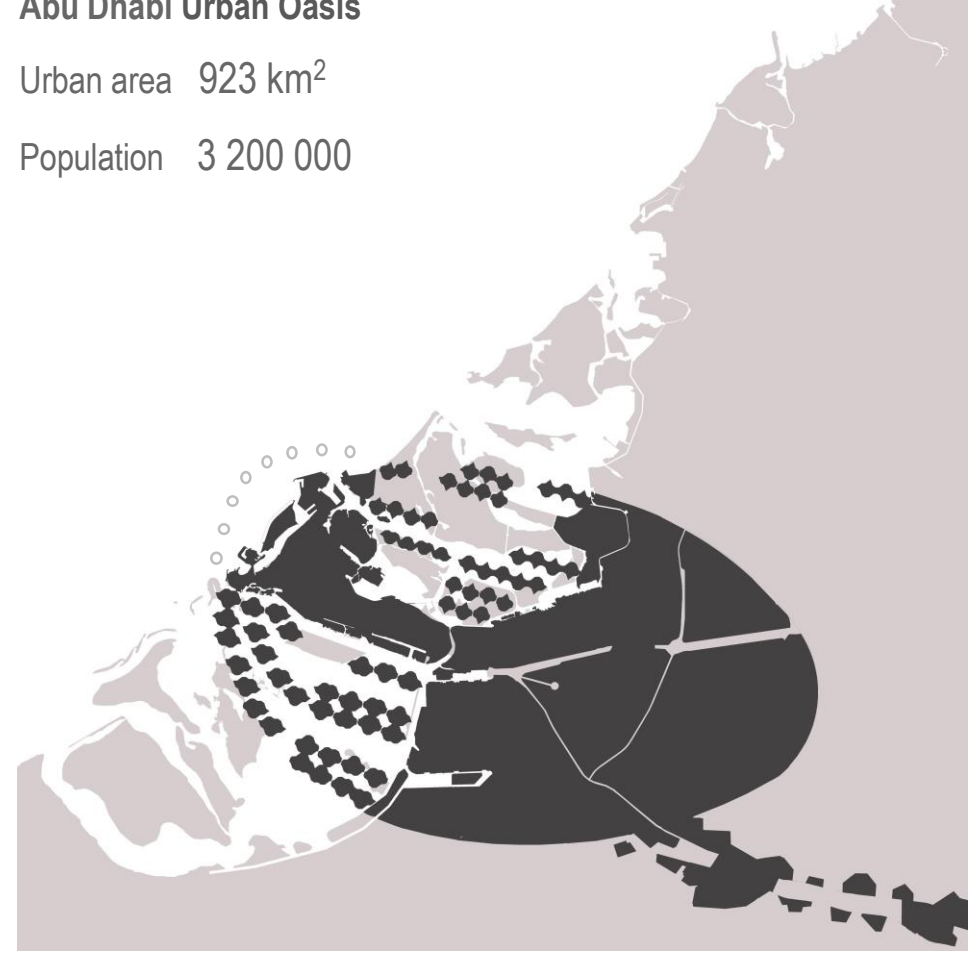
Population 3 170 000



Abu Dhabi Urban Oasis

Urban area 923 km²

Population 3 200 000



Total urban area reduction: **1017 km²**



Plan Abu Dhabi 2030

Mainland 1787 km²

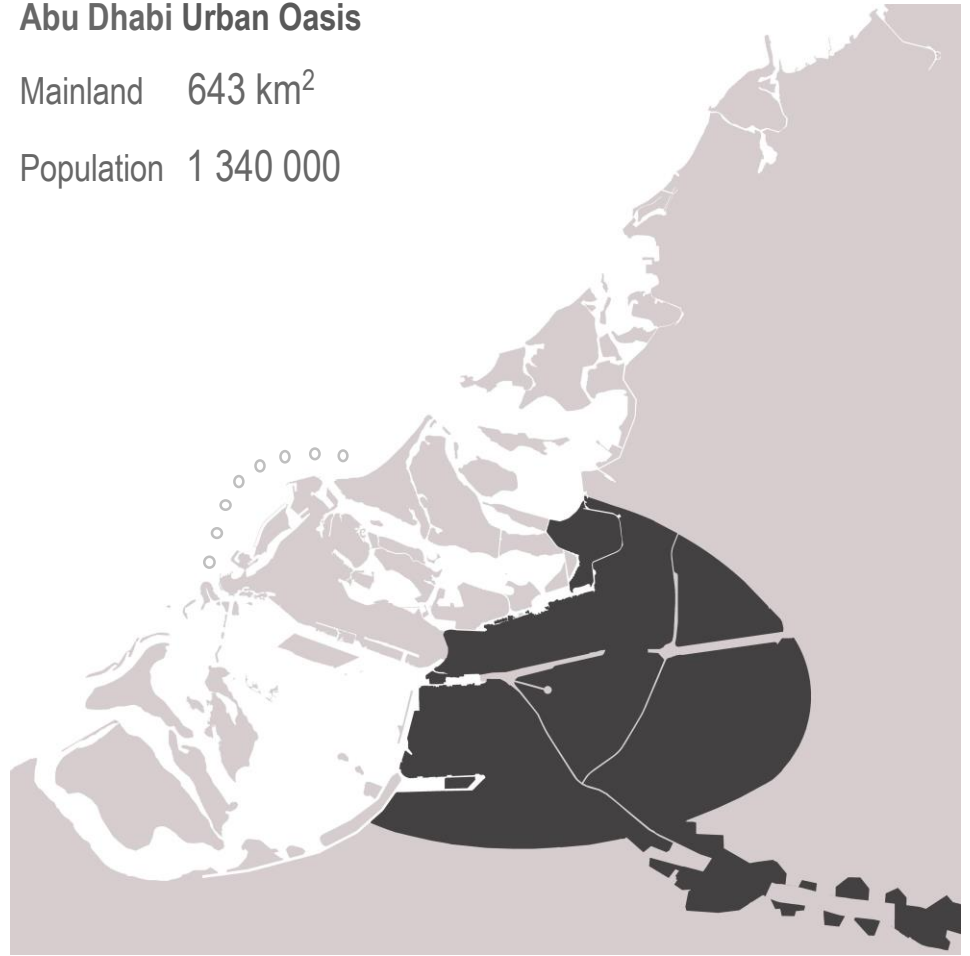
Population 1 840 000



Abu Dhabi Urban Oasis

Mainland 643 km²

Population 1 340 000



Mainland urban area reduction

Inhabitants: - **500.000**



Plan Abu Dhabi 2030

Water city 150 km²

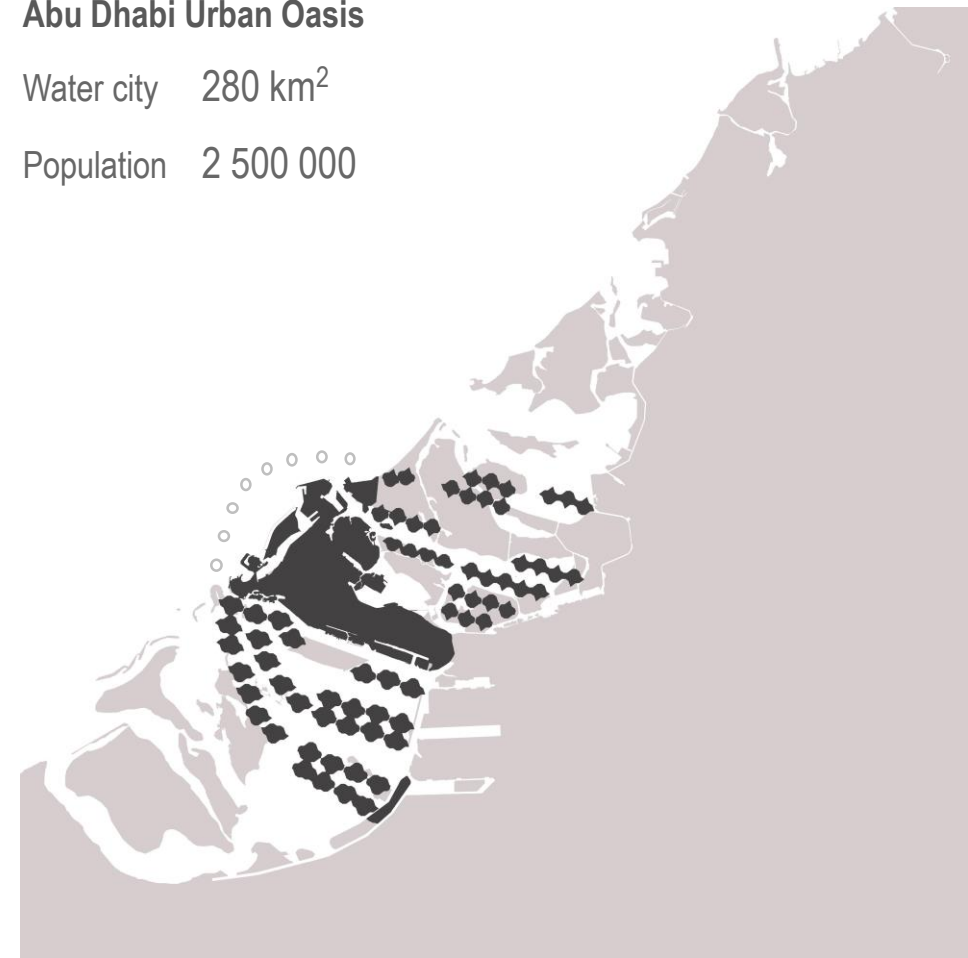
Population 1 000 000



Abu Dhabi Urban Oasis

Water city 280 km²

Population 2 500 000



Water-city: **66 cluster = 130 km²**

Inhabitants: **+ 1.500 000** + commercial spaces

+ services

+ offices


+ entertainment





Compact Structure






The urban oasis between sand, water and green:

 The archipelago: a green and water park of Abu Dhabi

 The forest for air refreshment

 The Green Dune protect the city from sand storm



- ## Energy
-  Fotovoltaic roof
 -  Eolic atoll and offshore harbour
 -  The 75 Km long **Green Dune** protects the city from sand storm and hosts
 -  an eolic park for the city with fifty x 2,3 Mw windmills (Total 175





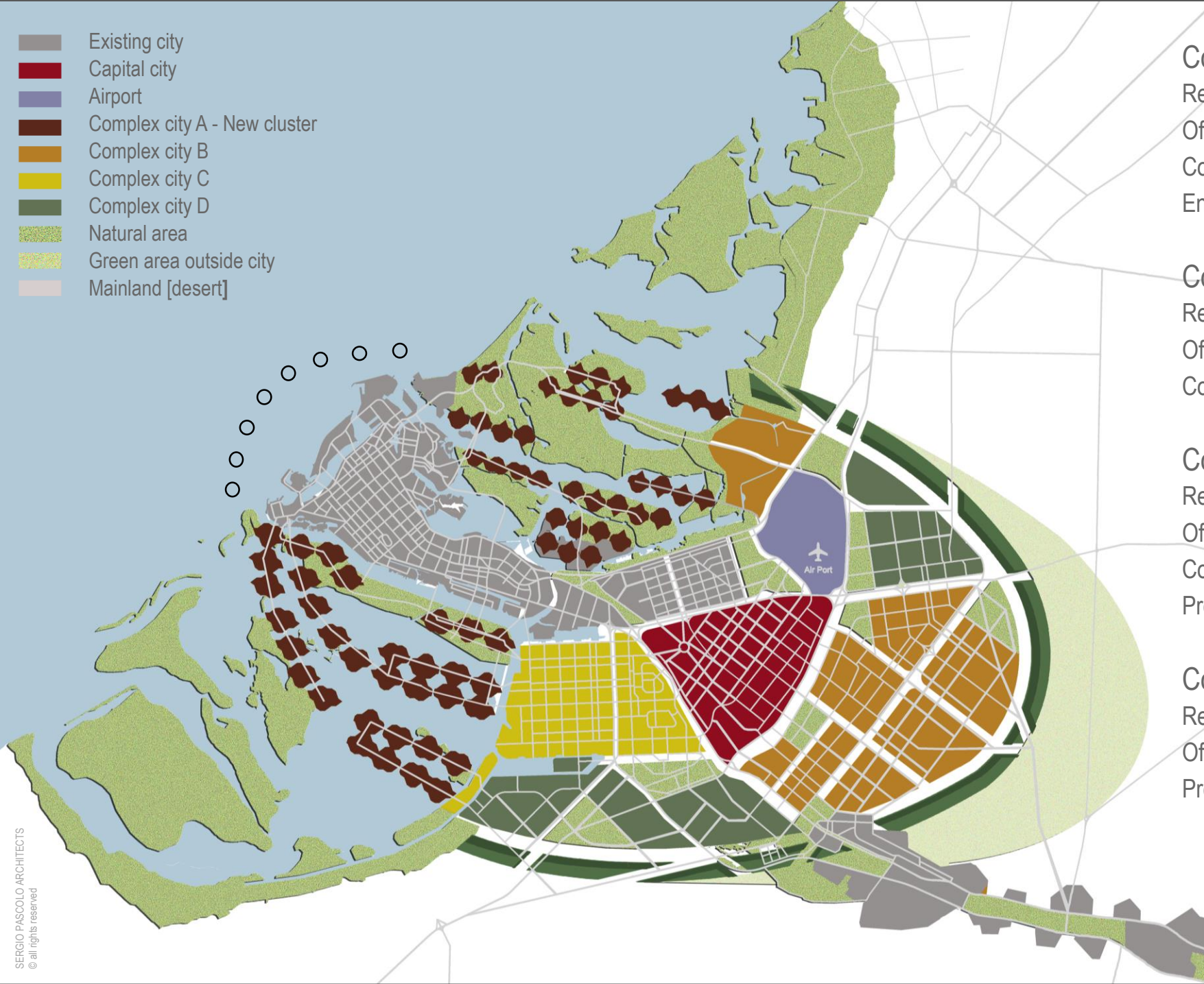
- Existing city
- Capital city
- Airport
- Complex city A - New cluster
- Complex city B
- Complex city C
- Complex city D
- Natural area
- Green area outside city
- Mainland [desert]

- Complex city A:**
Residential
Offices
Commercial
Entertainment

- Complex city B:**
Residential
Offices
Commercial

- Complex city C:**
Residential
Offices
Commercial
Productive

- Complex city D:**
Residential
Offices
Productive



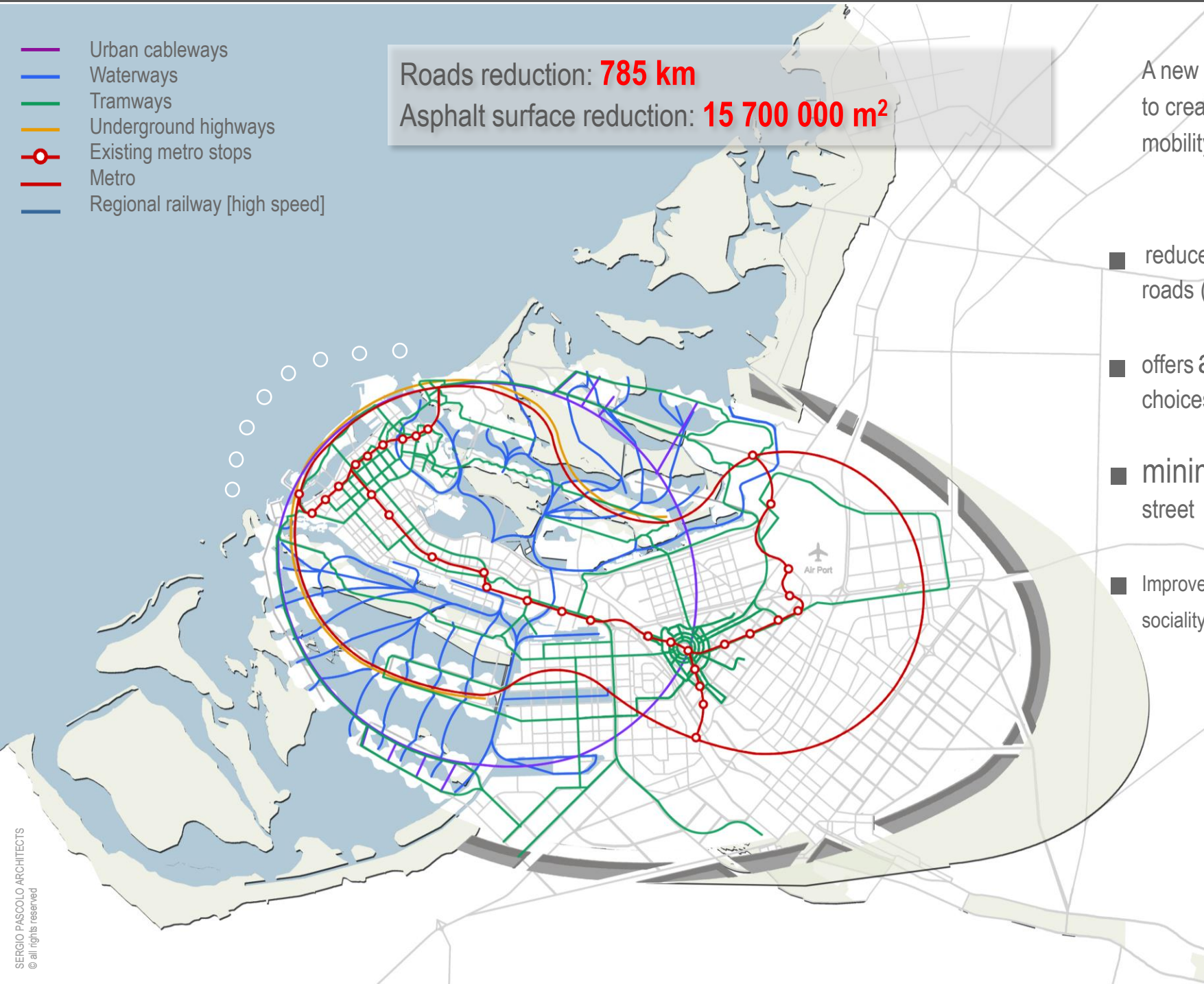


- Urban cableways
- Waterways
- Tramways
- Underground highways
- Existing metro stops
- Metro
- Regional railway [high speed]







Roads reduction: **785 km**
 Asphalt surface reduction: **15 700 000 m²**

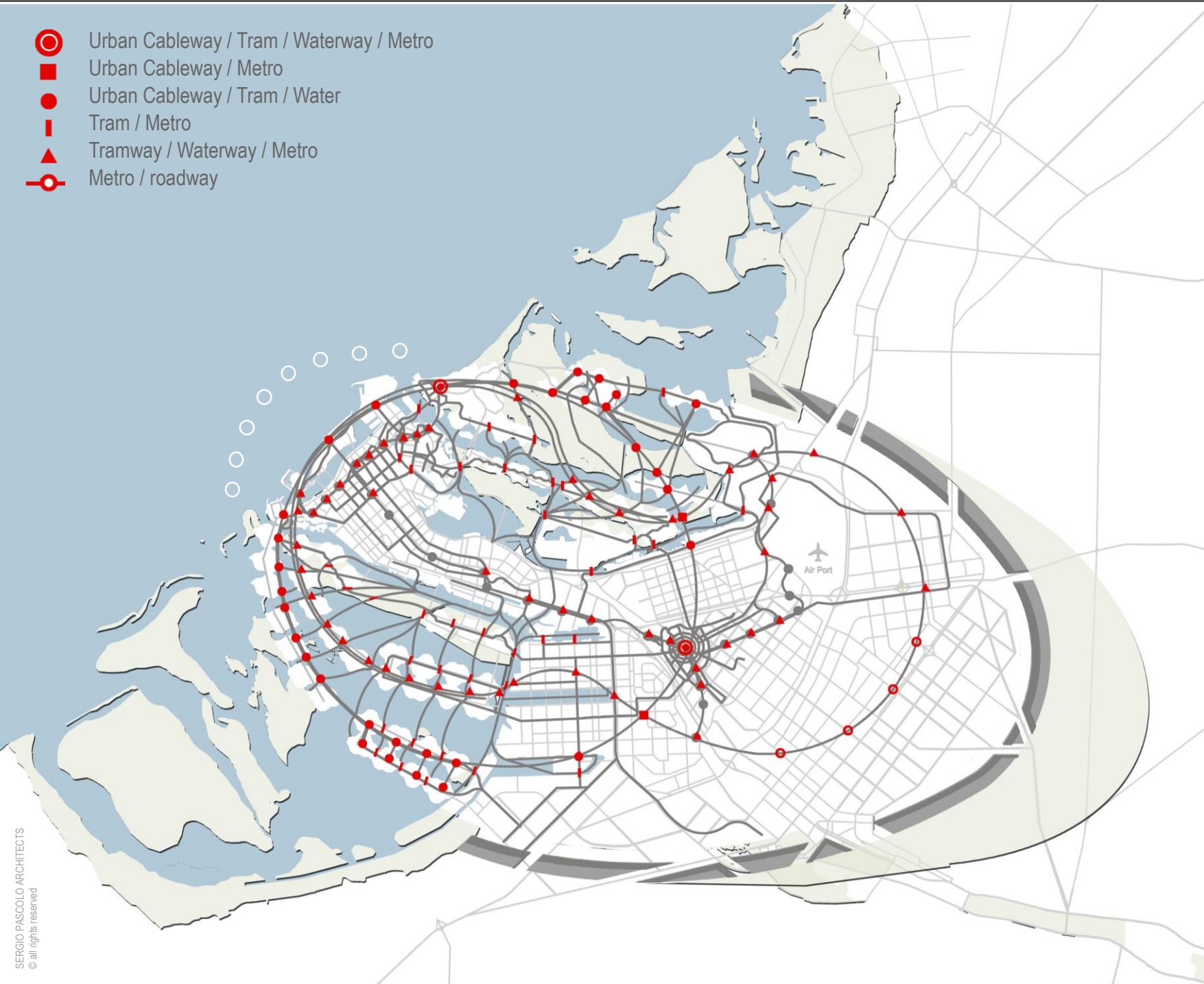
A new compact urban plan allows to create a more exhaustive mobility plan that:

- reduces the **length** of the main roads (- 785 km)
- offers **alternative** travel choices
- **minimizes** congestion on street
- Improves **pedestrian** mobility and sociality



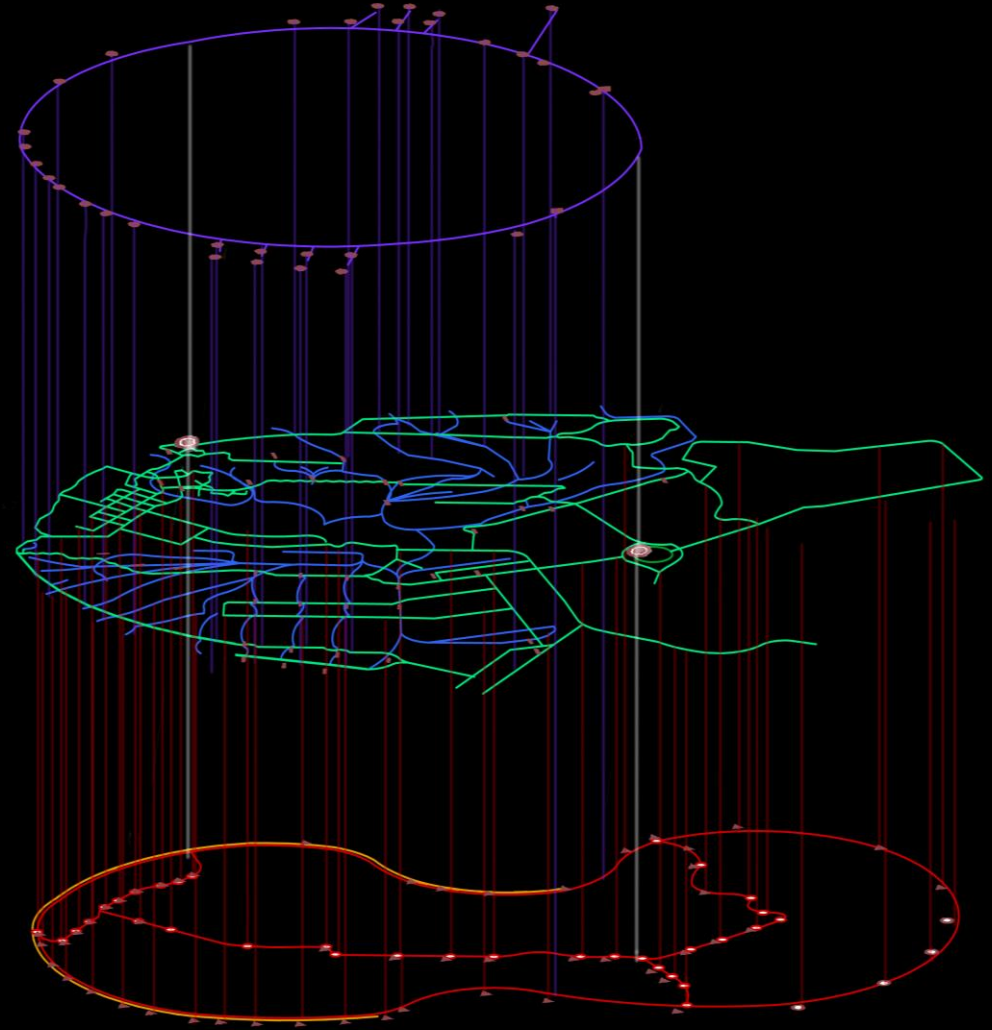


-  Urban Cableway / Tram / Waterway / Metro
-  Urban Cableway / Metro
-  Urban Cableway / Tram / Water
-  Tram / Metro
-  Tramway / Waterway / Metro
-  Metro / roadway





- Urban Cableway / Tram / Waterway / Metro
- Urban Cableway / Metro
- Urban Cableway / Tram / Water
- ▬ Tram / Metro
- ▲ Tramway / Waterway / Metro
- Metro / roadway





Metro

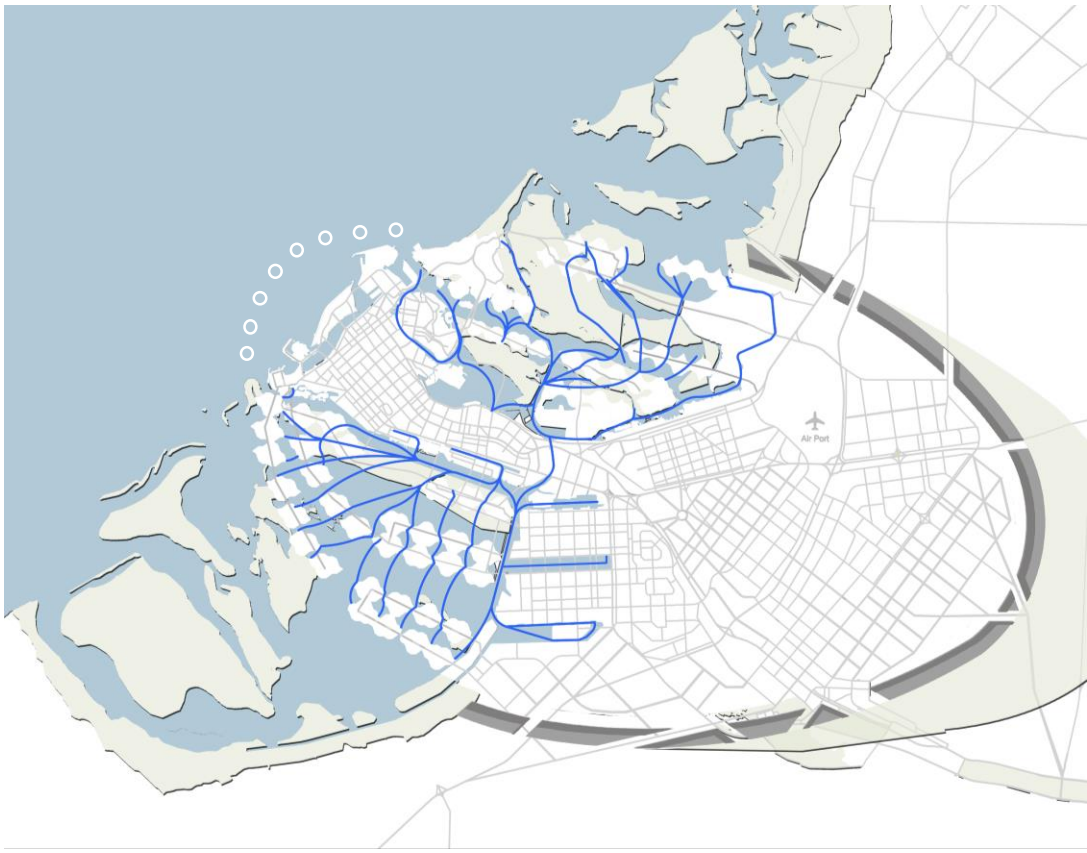
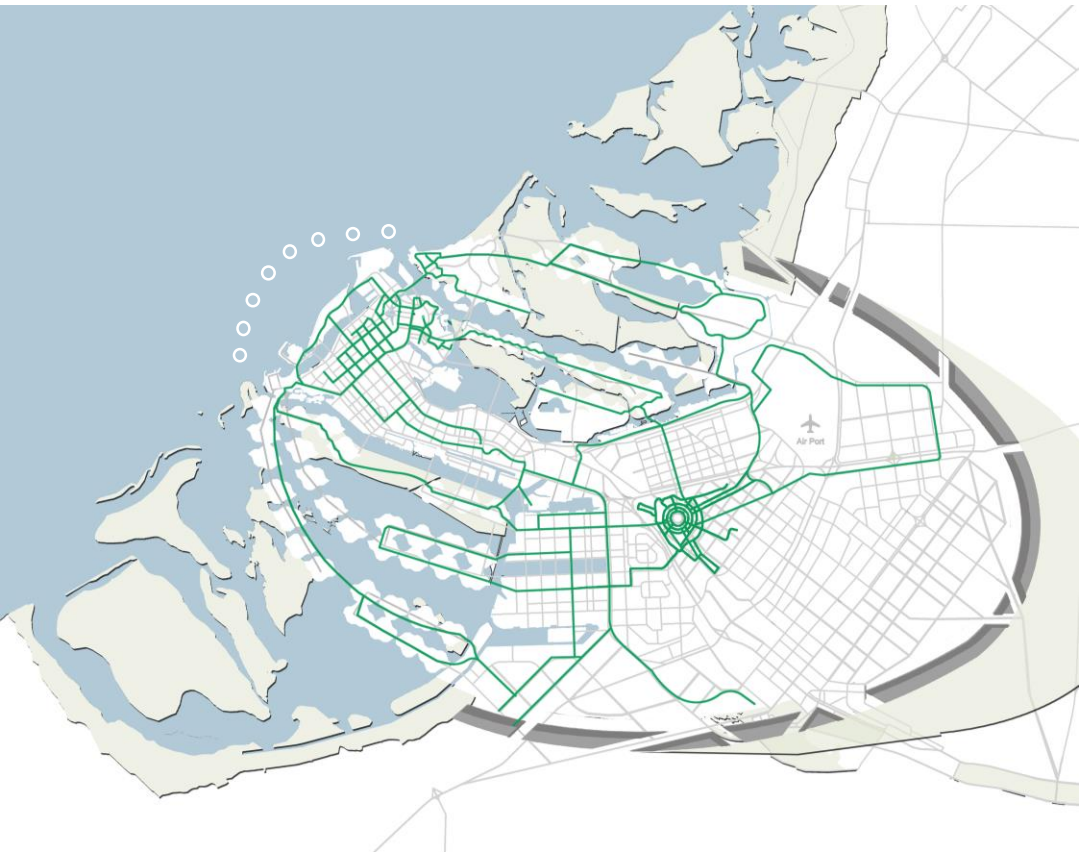


Underground highways and parking





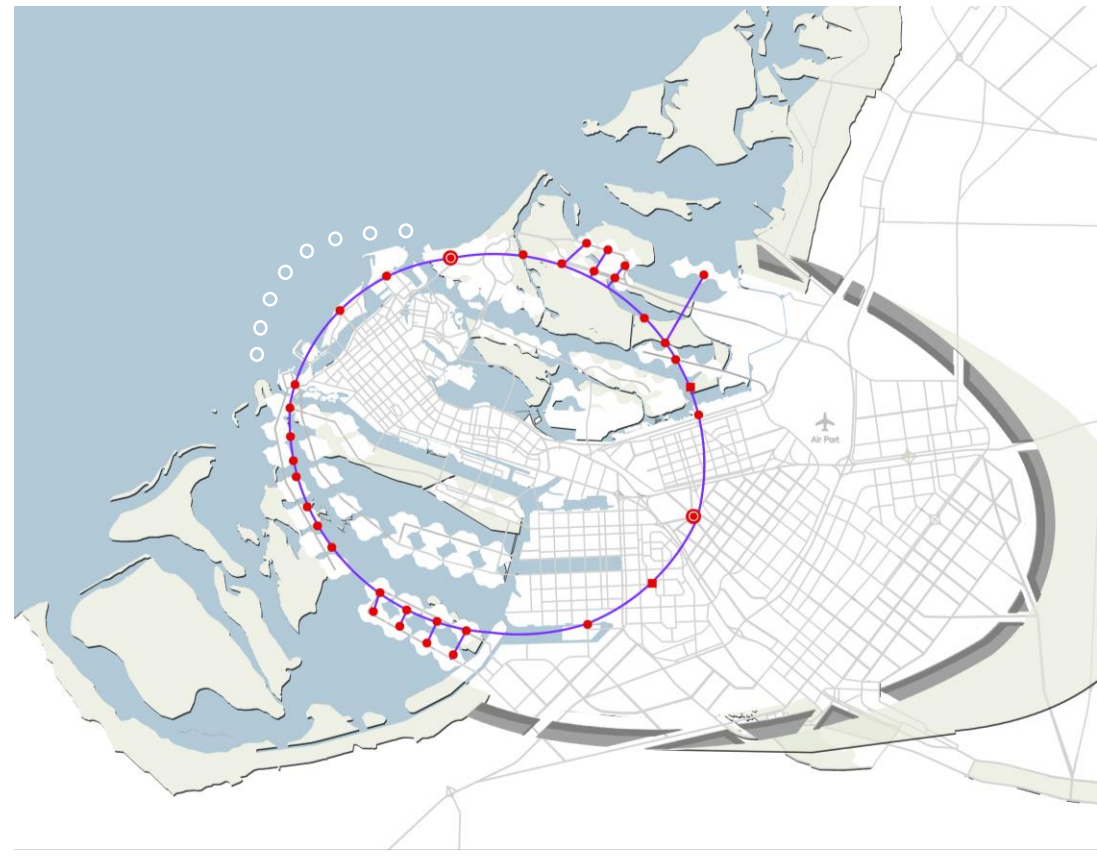
Multi-Mobility Concept [Ground and water mobility]



Tram

Waterways

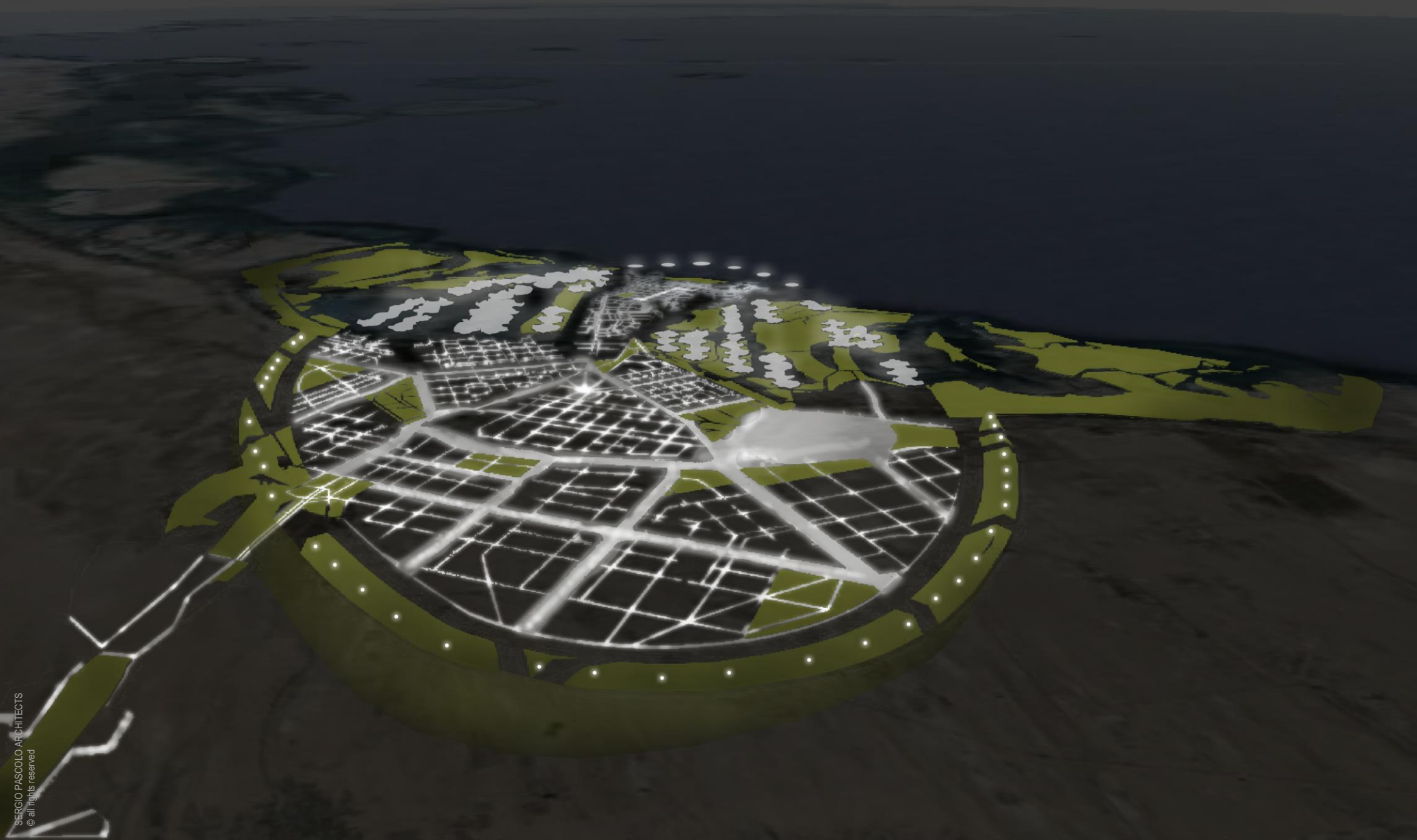


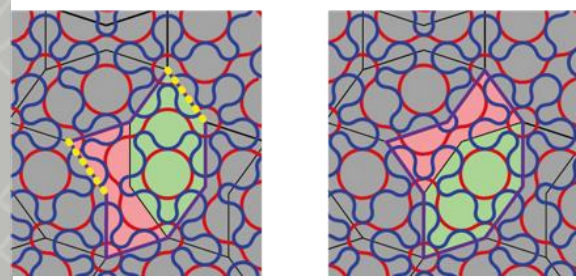
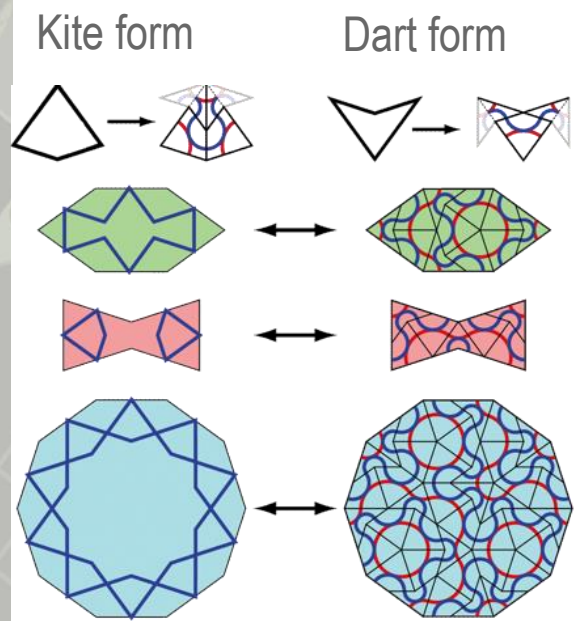
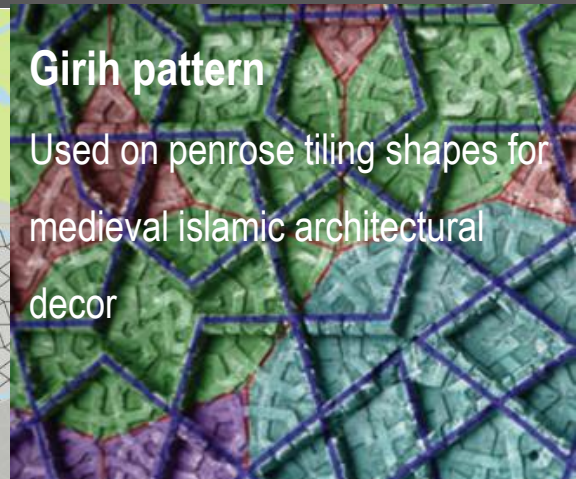
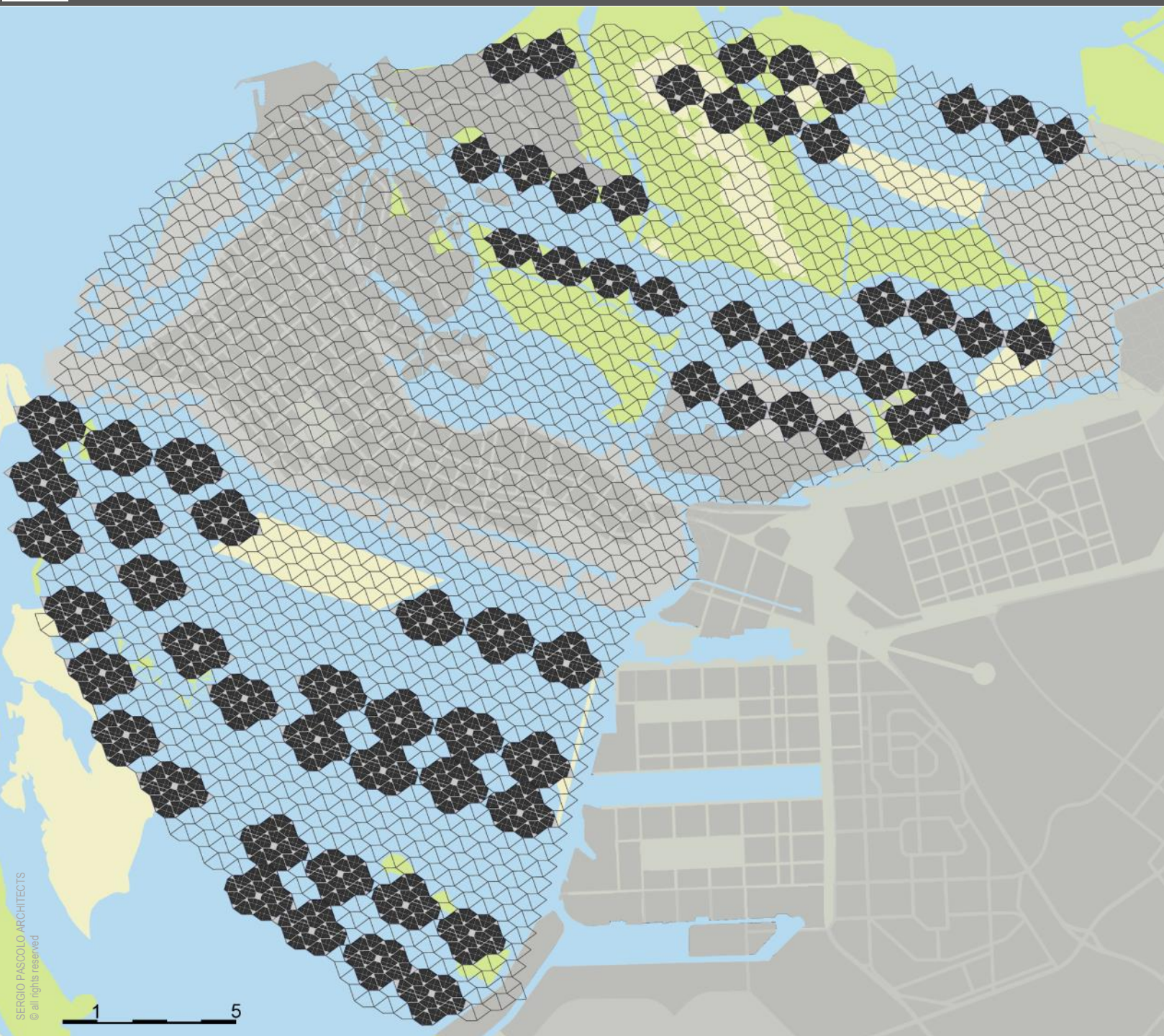


Urban cableways (urban propelled transit)

Urban cableways connections

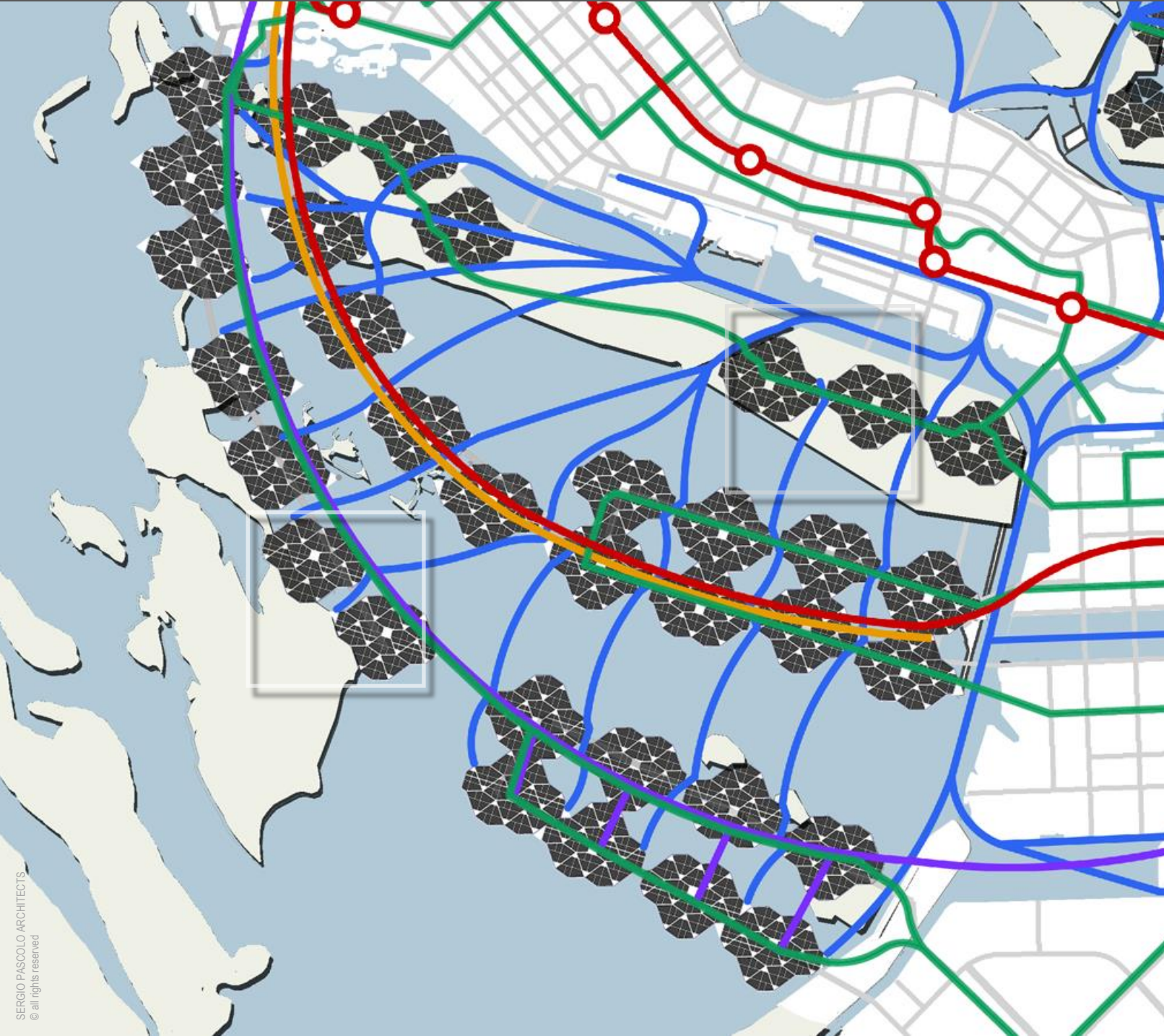




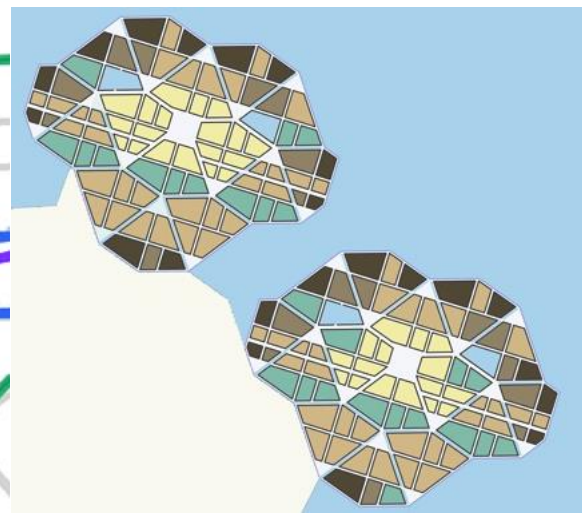
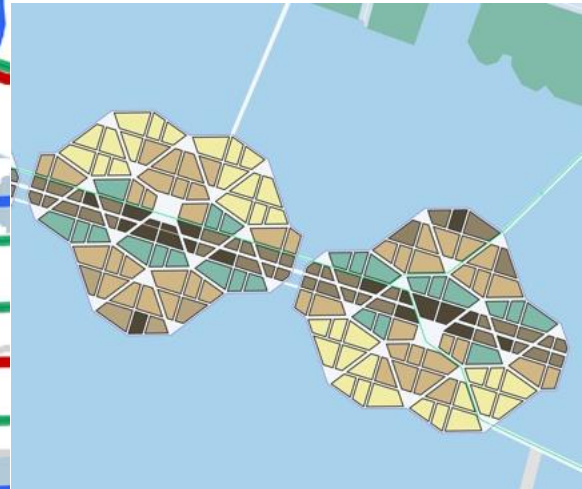


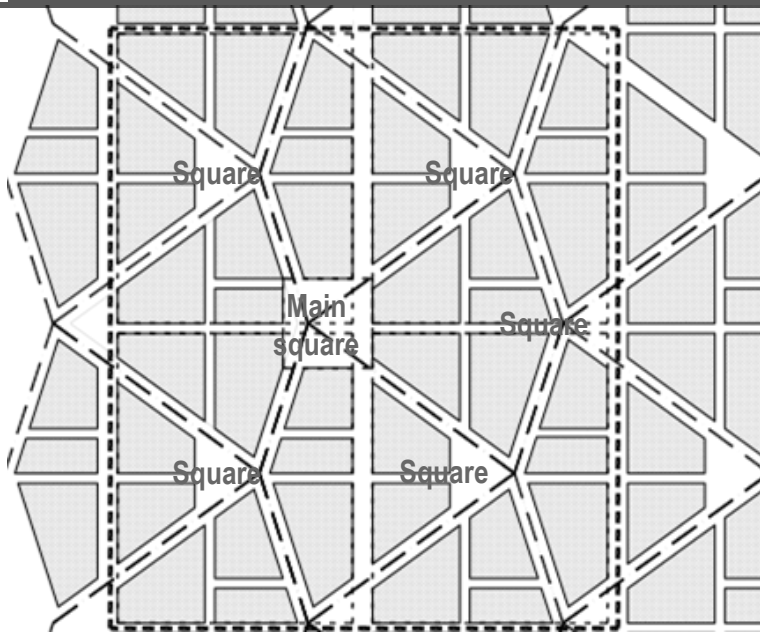


Water-city ecocluster [Mobility and heights]

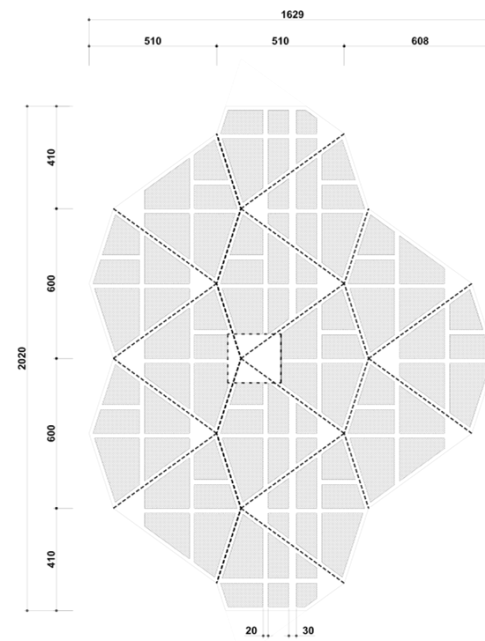


- 100 m (25 storeys typical)
- 60 m (15 storeys typical)
- 40 m (10 storeys typical)
- 20 m (5 storeys typical)
- Green area

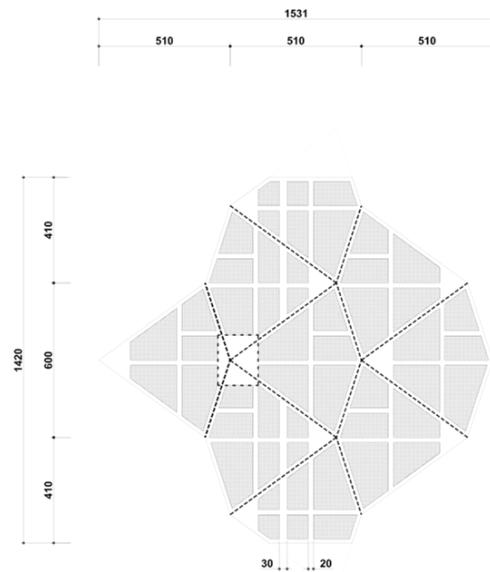
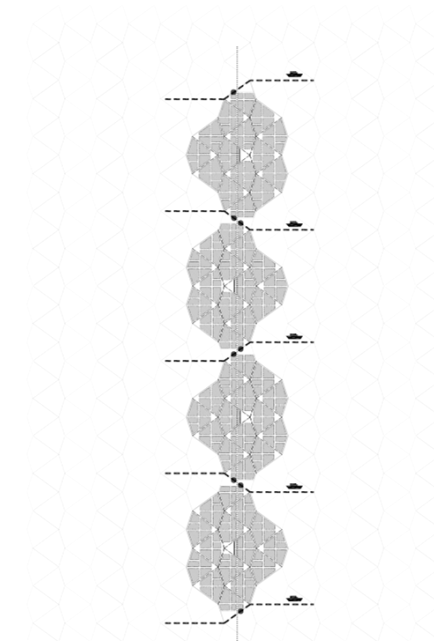




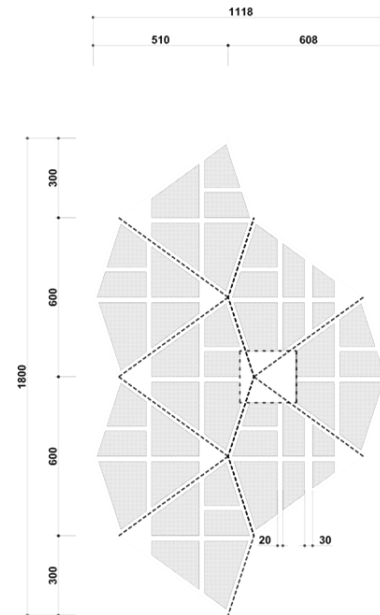
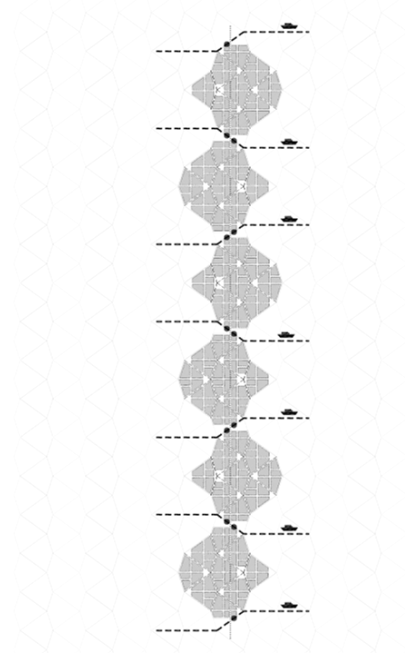
Principal Cluster Scheme



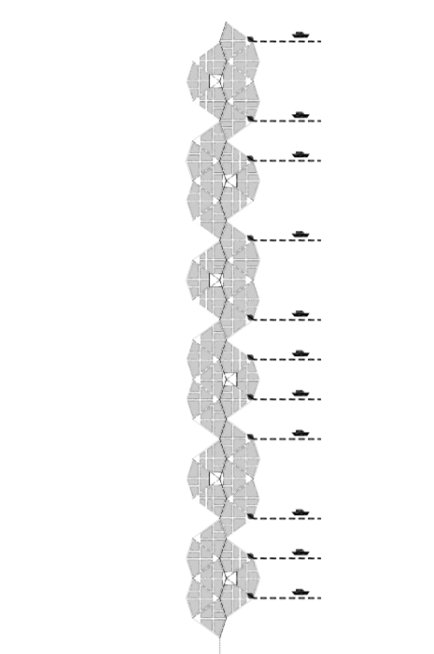
Cluster A



Cluster B

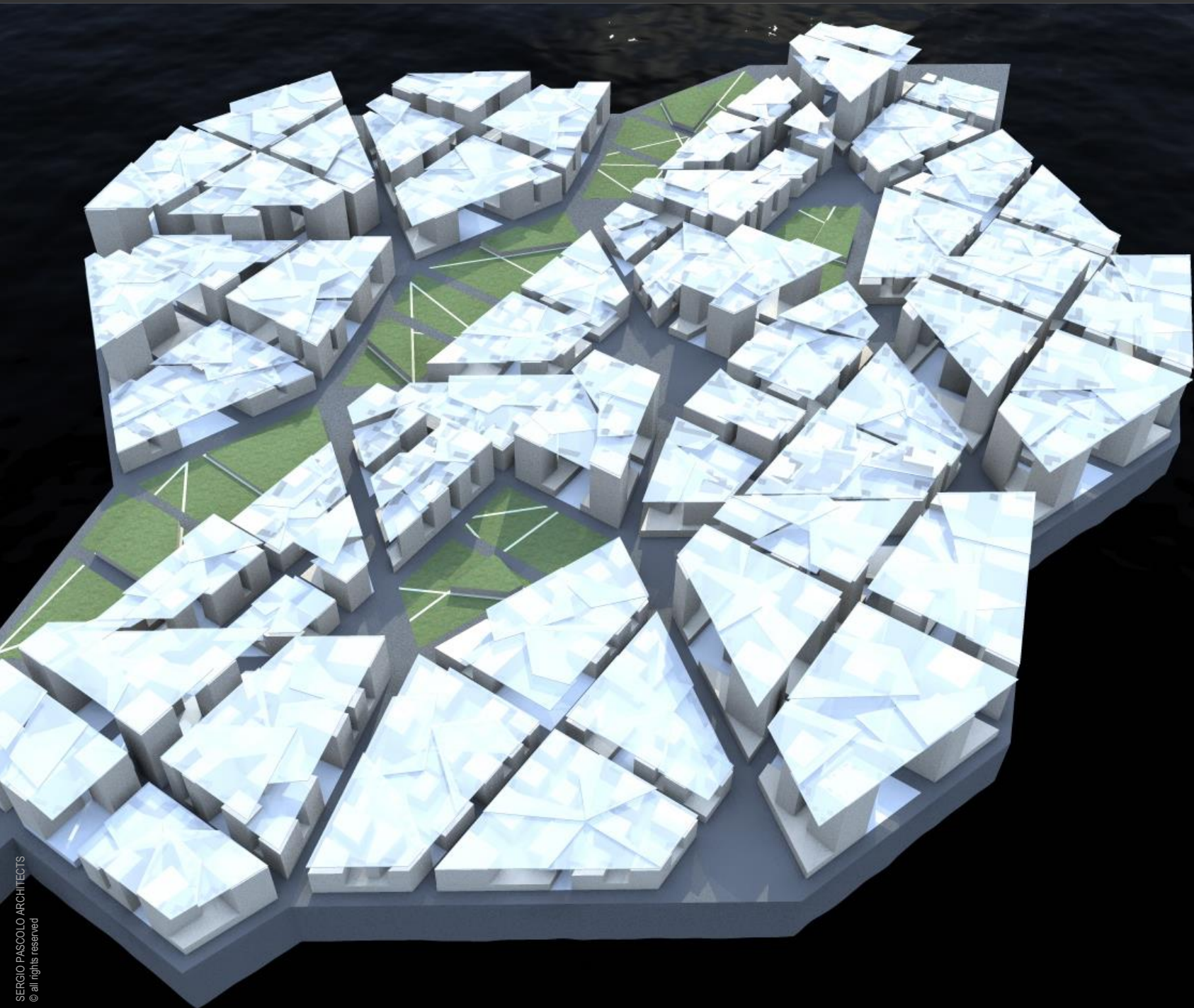


Cluster C





Water-city ecocluster [the solar blocks – urban shadow]



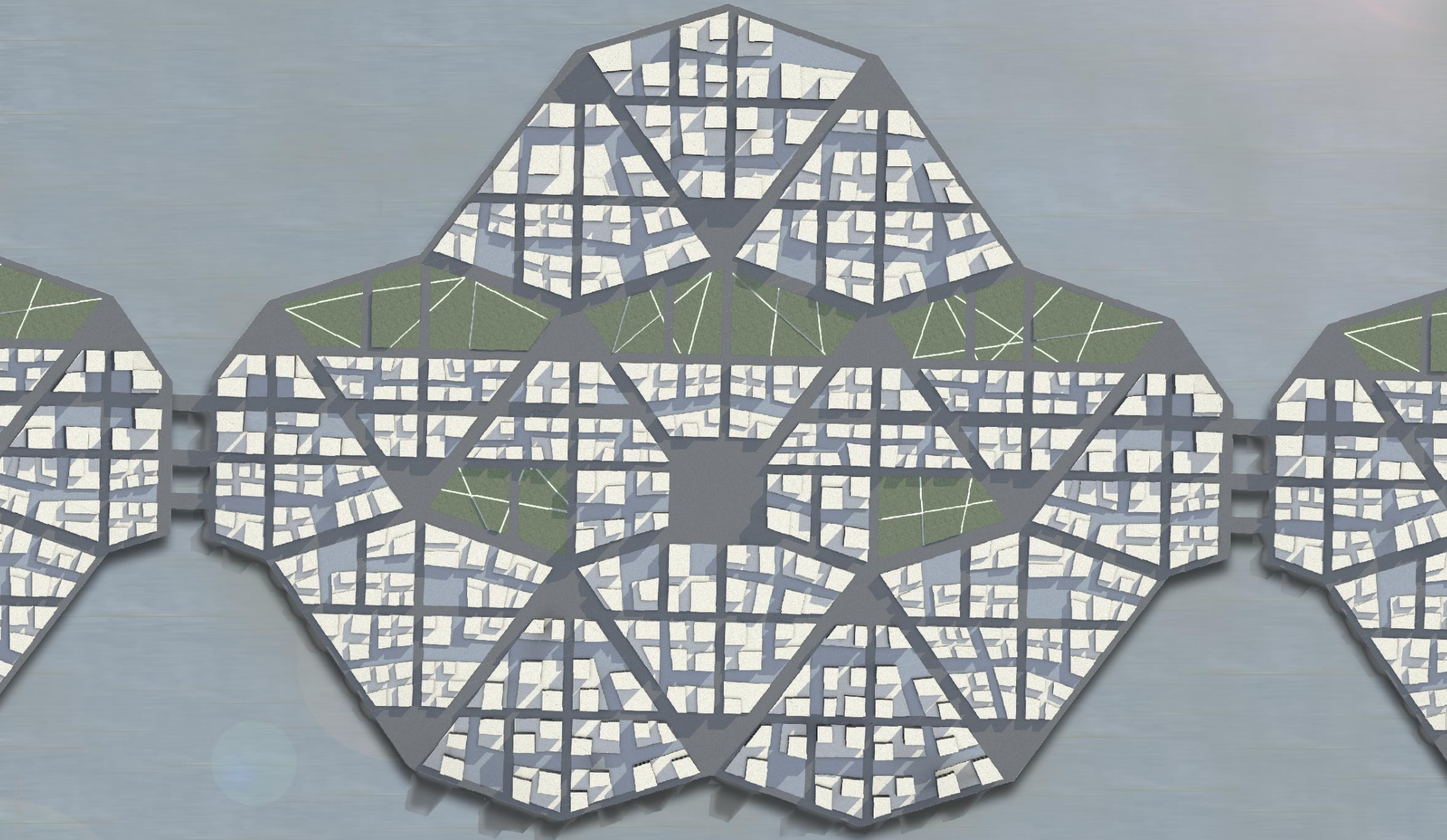
Water proximity

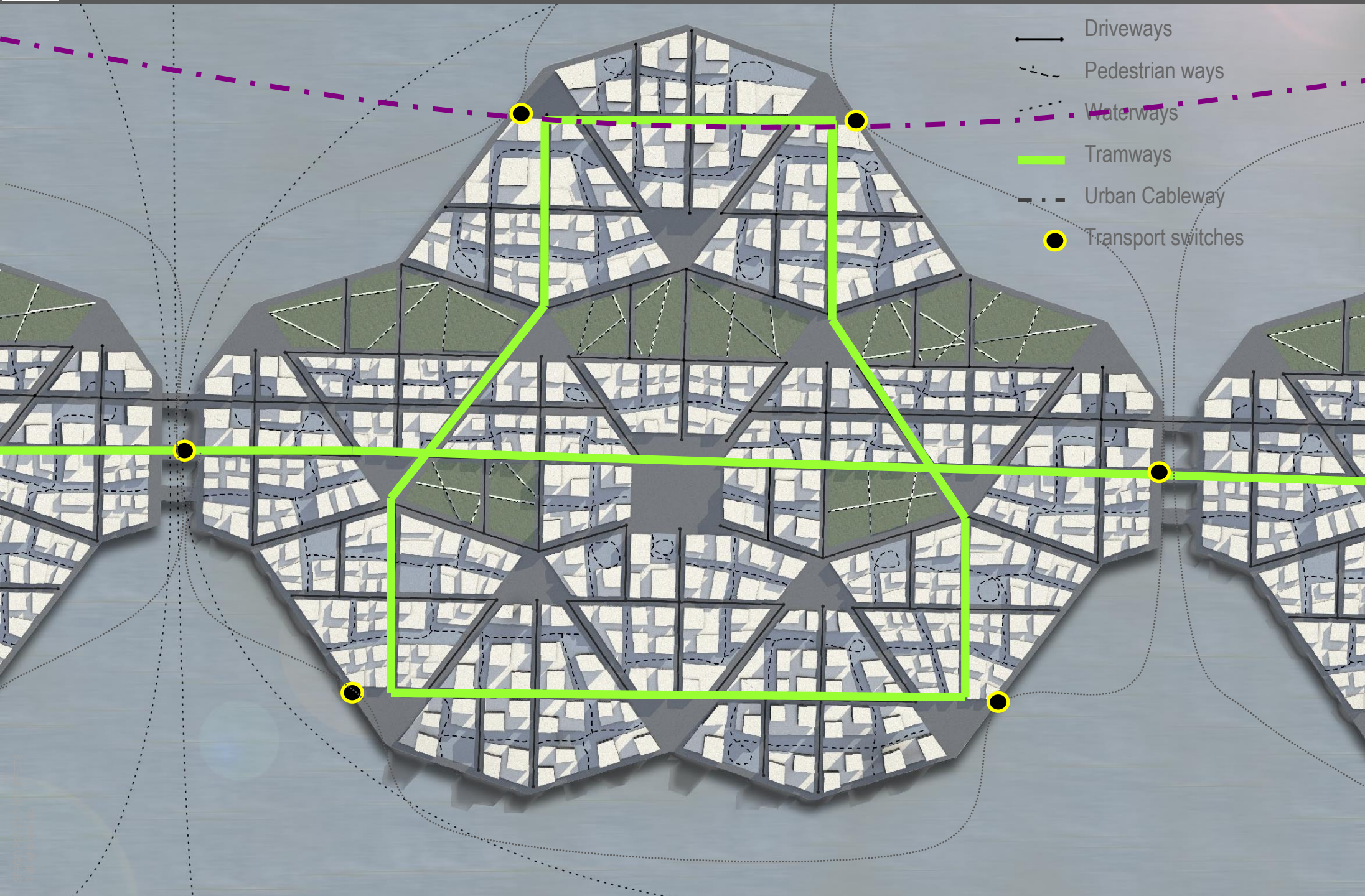
Green spaces and roofs

photovoltaic roof of the

urban blocks roof area :

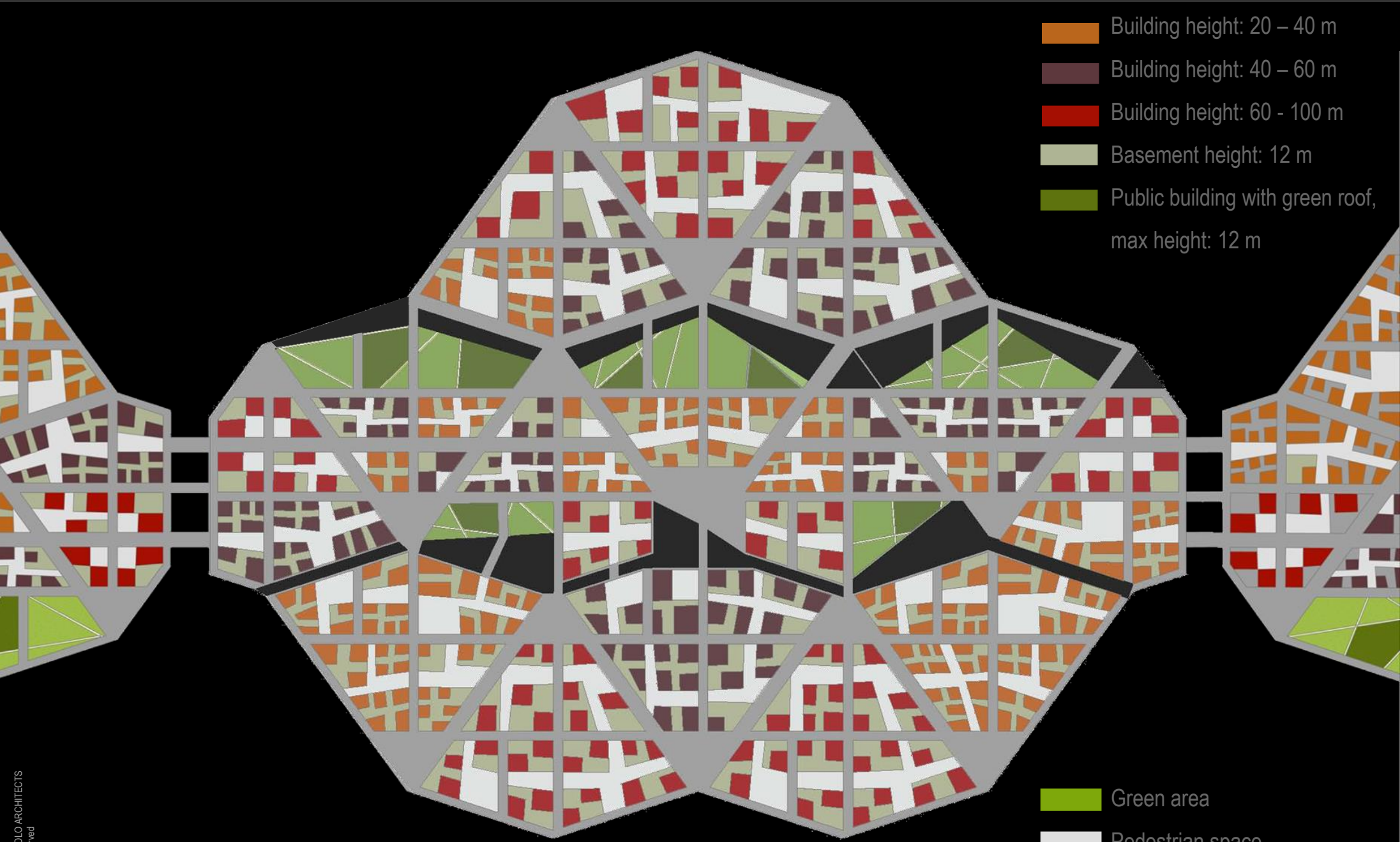
1 250 000 m²







Water-city ecocluster [50.000 inhabitants]



- Building height: 20 – 40 m
- Building height: 40 – 60 m
- Building height: 60 - 100 m
- Basement height: 12 m
- Public building with green roof, max height: 12 m

- Green area
- Pedestrian space
- Driveways

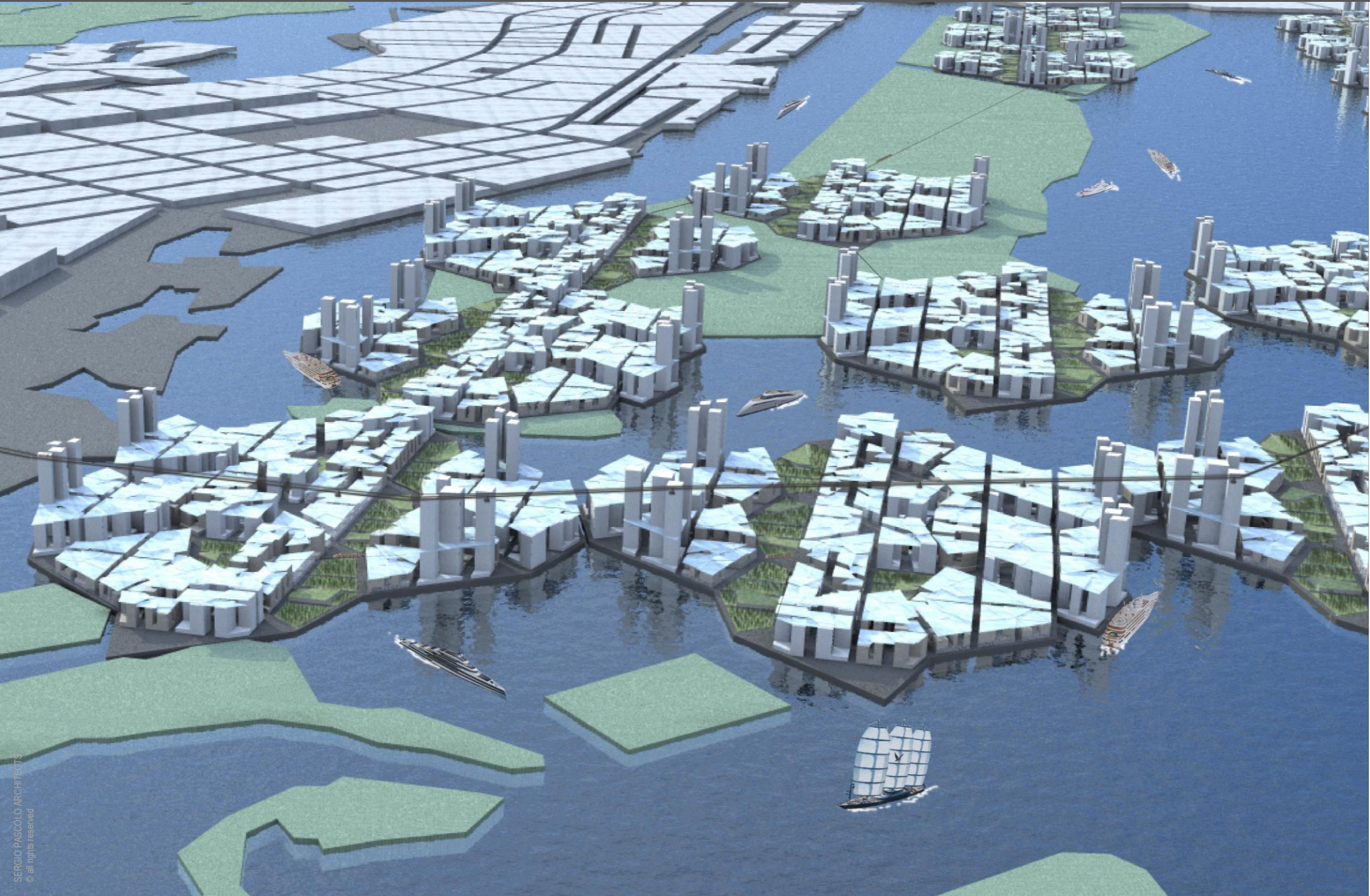




Water-city cluster [urban blocks in the shadow, green spaces in the sun]









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