



BELGIO

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PORTO NOSTRUM



E847LPA7

PORTO NOSTRUM

THE FRAME

During the last two decades most of the port cities have changed their relationship with the “water”. For river towns or coastal towns, water is no longer just a part of their economy. Genoa is no exception to this phenomenon. The question is not only “how can we use the sea more efficiently?”, but also: “how can we live next to it?” The shift in this relationship is due to an economical evolution of the European society, but also to a new ecological conscience.

From a port mainly used in the past as an economical place for commodity exchange and construction, the port city of Genoa has diversified its economy with the yachting and tourism; the recent transformation of the Antic port is a good illustration of this phenomenon.

Genoa has to reinvent its relationship with the sea. Next to the commercial port, still crucial to the economy of the city, the Genovesi need to be connected more directly with the sea. Infrastructures such as the main 4-lines street or the industrial area are creating a border. That is why the site of the competition is a marvelous opportunity to reunite the people with water.

In light of those elements and the “monstrous” scale of the program - which could scare more than a Genovesi - our first concern was to create a space on a human scale, to integrate life next to water.

THE PURPOSE

The complexity of the site, its division and its size stroke us. In order to create a human sized space that any Genovesi could relate to, we have used a single town planning gesture which allows us to structure the space and read more clearly its already existing “monument” .

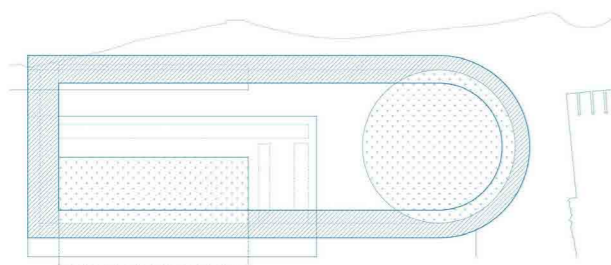
This action allows the management of this immense space from the largest scale to a more human scaled one. The simplicity of the plan allows us to create a series of more complex sequences which are animated by the different activities of the program.

These activities, with the housing in head line, have been developed in order to let every defined area be bordered by another area, whose activity has still to be defined. The goal is to create the opposite of the marinas as we know them, which are often separated from a bedroom community.

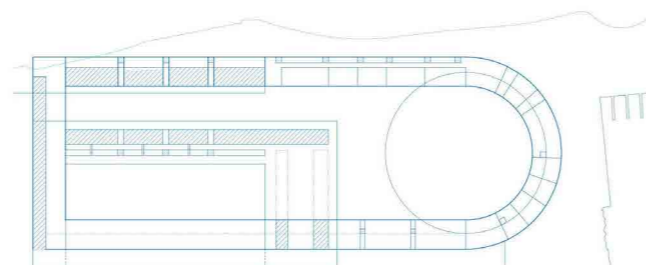
More specifically:

- The housing are not constraining their owner: the space in between the second skin and the main building is a free space which is going to be colonized by their owner, animating the regular façade at the same time. The roof of the housing area is also coming to life thanks to the owner: it will be used as a garden and kitchen gardens, located next to a common room above every vertical circulation.

-The waterfront: instead of being homogeneous, the Genovese will experience different typologies of quays, according to the activity occurring along them such as: restaurants, small-scale trade,



Readability of the site
Give back a coherence to the territory



Sequences
To give to the new structure a diversity of functions, uses, views and ways to live the port

workshop, housing, yachting but also some more public spaces such as: the sport dock facing the floating sport court or the cultural floating space, from which the docks turns into some stands. A diversity of activities runs along the main boardwalk and continues all around the Pavilion S animating the building himself but also the large esplanade running from the J-F Kennedy square to the Piloti Tower. This richness of relations between the water, the buildings and the pedestrian constitutes the identity of the project. Next to this volunteered humility, which we hope is going to let the predominant role to the citizen, a few more designed pieces solve the more physical issues.

THE REMARQUABLE ELEMENTS

In order to fix the more physical issues, some few pivotal constructions are used:

The first of them is a tower which links the uptown to the seafront. As the Piloti Tower is in relation with the sea, our building addresses itself to the city. The location and the shape of the tower makes it more visible from the coastal street than from the sea. It is also an answer to the elevator located across the street. Programmatically, the permeable ground floor which is a meeting point, receives the public transport station, the entrance of the parking and a press point. In between the ground floor and the uptown, some public activities take place. Above this public part some few stylish accommodations will be installed.

The pedestrian bridge which opens on to the B Pavilion offers a new perspective of the massive building, assuming it as an element of composition and not a disruptive factor. It also connects the different levels of the urban space. To conclude it's not only a crossing element but also an urban hub and viewpoint, offering a nice comprehension of the surrounding area.

The bridge building, which contains the hotel complex, will, aside from being an entrance to the site, also open the long single track stuck between the industrial zone and the cliff. The bridge also makes access to the B pavilion easier.

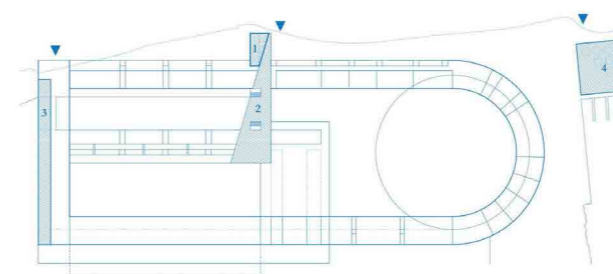
The canopy beyond its architectural benefits: finishing the monumental perspective of Brigade Partigiane Avenue and create a qualitative space that is also an urban hub. It connects the esplanade to the forest but also links the site to the Bisagno River.

We would like to keep the number of architectural interventions as small as possible, so as to reinforce their exceptional status. This ambition reflects our desire of an economic and ecological answer aware of the challenges of tomorrow.

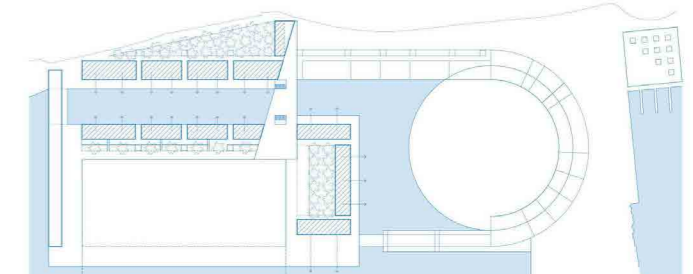
In summation our aim is to create a space which is integrated in the city, and to create a space of communion between the citizen and the sea thanks to the relocation of the economic activity, a 'communion' they have been deprived of for a long time.

A particular care was taken to the composition of the housings.

To extend the benefits of the project localization we took the decision to position the housing close to



Remarkable entities
To valorize access to the site using structuring elements, catalyst of a new attractive area
1. Tower / 2. Footbridge / 3. Building bridge / 4. Canopy



Qualities of housing
Every single housing, without exception, are crossing and enjoy a direct relation to the water and a vegetale zone

the water.

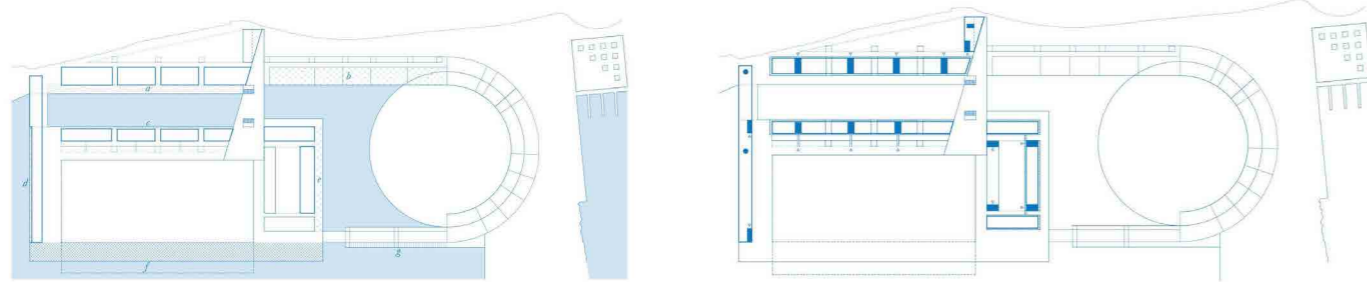
This aim generate a crossing housing which allows every resident to have a direct view on the water. This spatial organization has many interests – it allows to:

- have a natural ventilation of the housing
- have a maximum natural lightening
- have a dual atmosphere different for every building

The second skin covering the buildings as well as creating a free “in-between” space which is going to animate the façade, and is also a sun screen which helps the housing to be tempered without an over use of mechanical ventilation. This self-supporting element also gives its identity to the project, built in a light metallic mesh (which allows the vegetation to grow in, and also to do not become to hot), this skin allows the building to reinvent itself without changing its identity. This first skin can also free the second one which could be built in some more raw material (recycled, creating a nice contrast between the two skins).

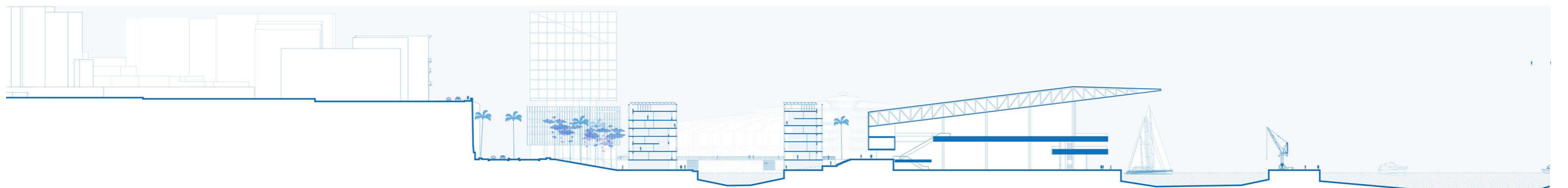
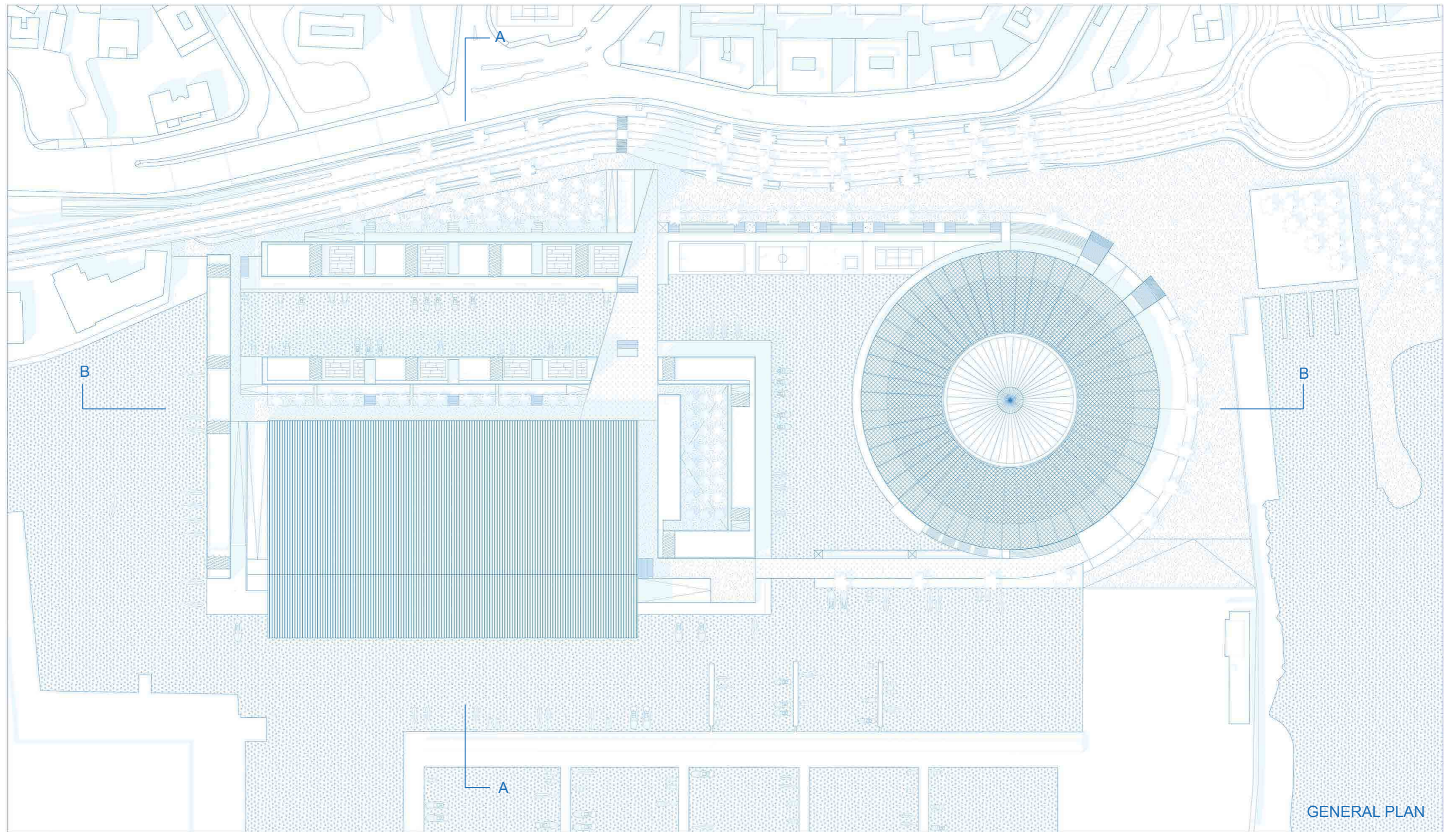
Indeed a classic system of pillars and beams allows a free use of the building which also gives the projet the possibility of changing the affectation of the building in the future (the first step to the sustainability of a project).

Note: The fifth façade as we sometime call the roof - is a very important element of our proposal. Indeed the roofs will be visible from the uptown so we decided to let them be colonized by the residents by building some garden, vegetable garden, sports area, common space ...

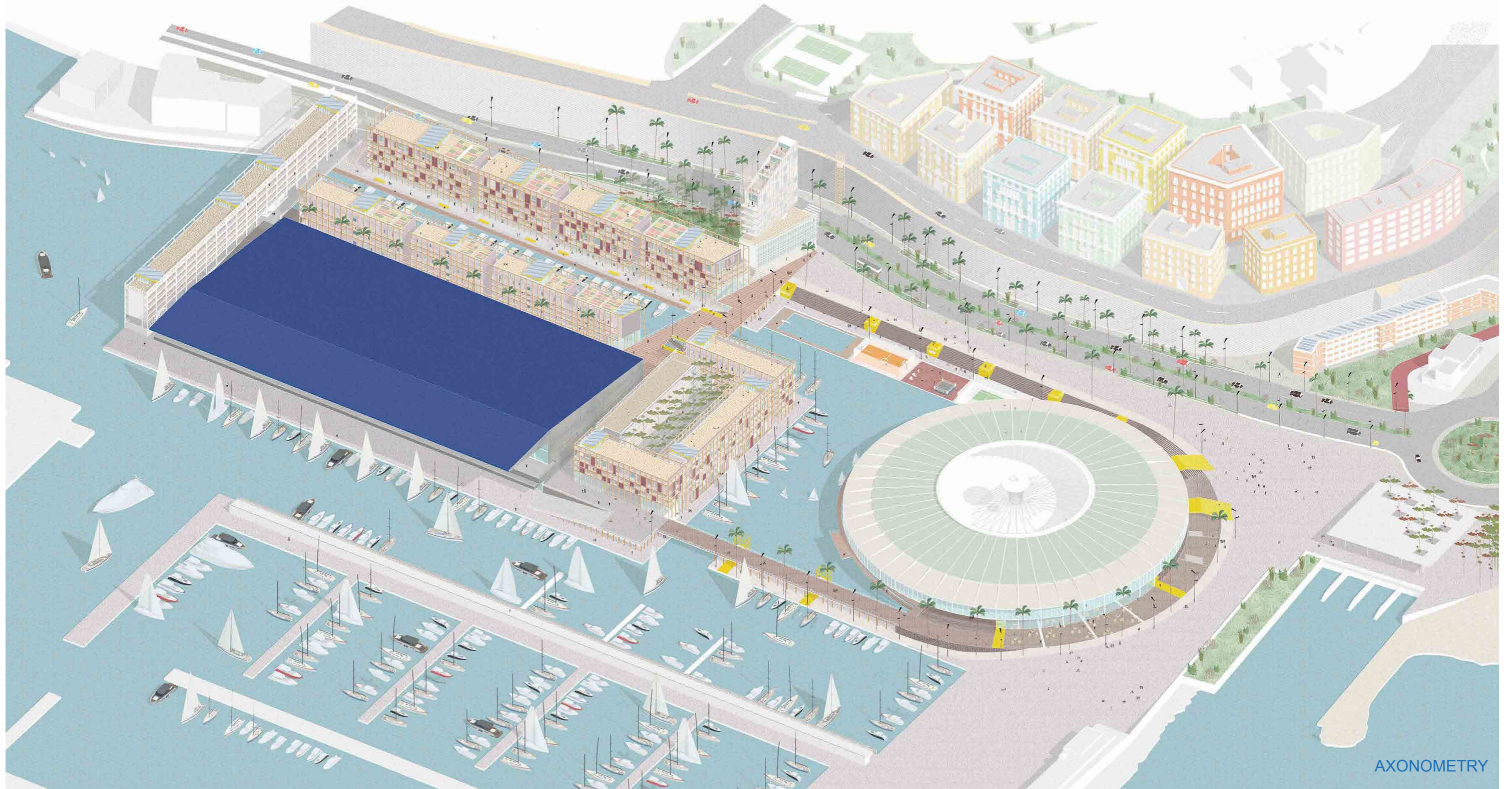


Diversity of docks
7 different kinds of docks offer a richness of appropriations
a. commercial / b. sport, leisure, wellness / c. crafts / d. hotel terraces / e. residential / f. wharf / g. relocation

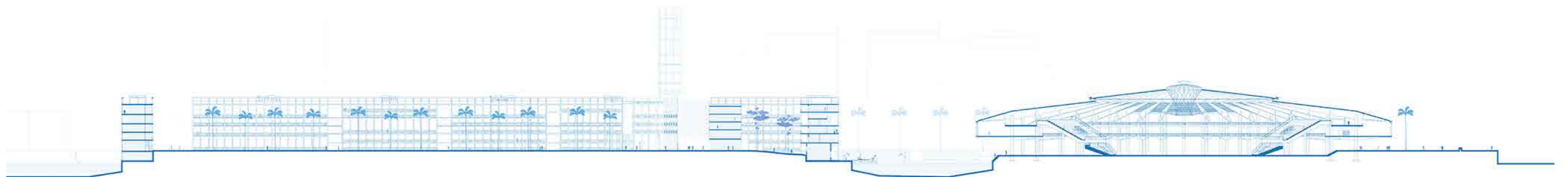
Circulation, distribution & terraces
A structural second skin allows to generate the accesses and the outdoor spaces of the housings,
offering to the users a complementary space in direct relation with their environment



SECTION AA



AXONOMETRY



SECTION BB

ENVIRONMENTAL STRATEGIES

As explained in the following diagram we have thought about different ways to minimize the foot print of our architecture during its time of use. Our concern is not to make a technologic answer to the environmental issues, in fact we are convinced that the solutions of the future are low-tech.

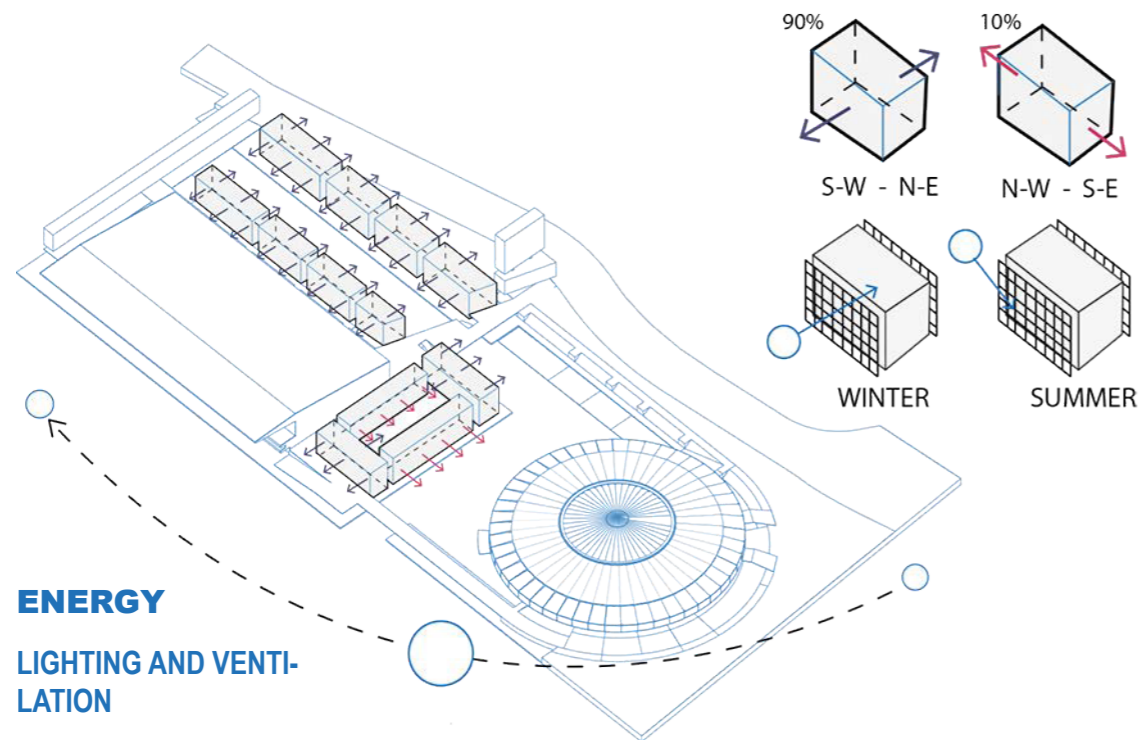
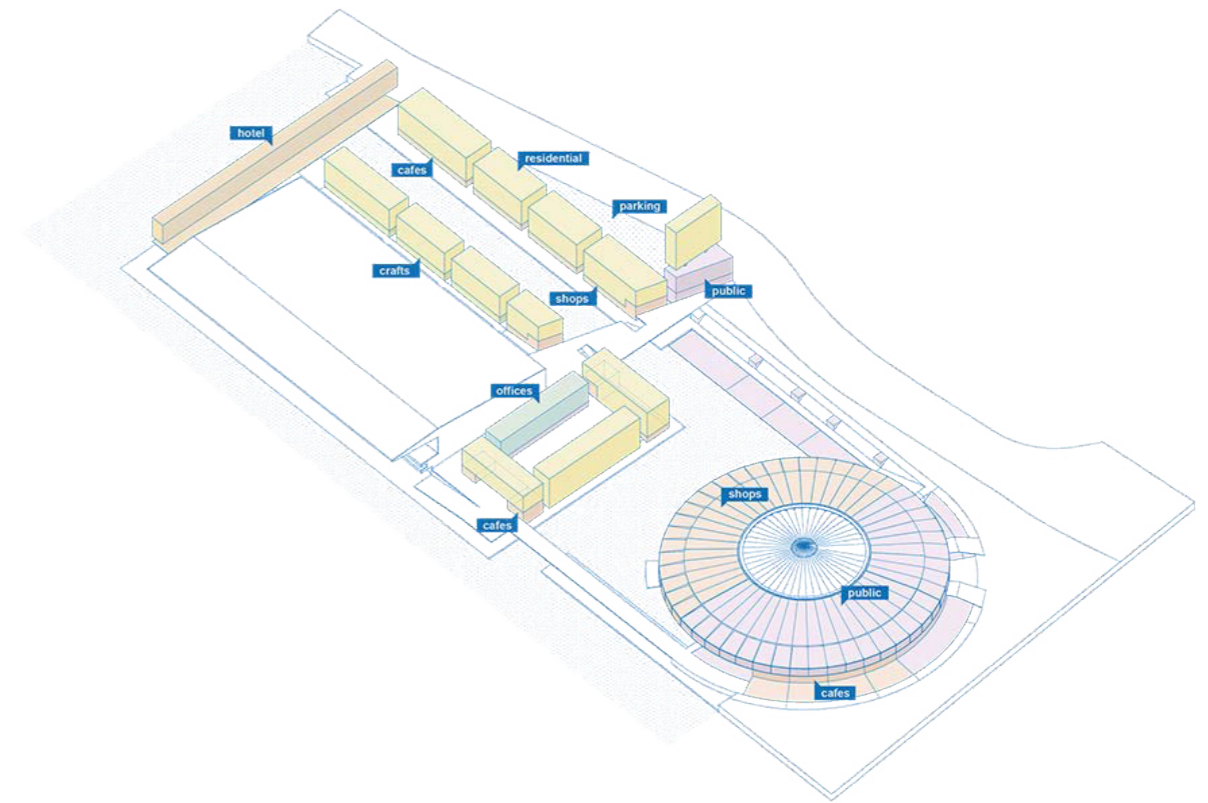
The aim is not to make the technology dependent building, in the contrary. From this standpoint, we have decomposed the building life in 3 part:

- Its conception and construction
- Its functional life
- Its recirculation

3 temporalities during which the economy as to be thought from the soil movement (by boat to some local area) to minimize the number of trucks to the quality of the urban furniture has to be well thought, not everything can rest in the shoulder of the monstrous housing machinery killing architecture.

The goal is to come up with a project which cares about those 3 temporalities and note only think to minimize the price of exploitation. The project we propose are

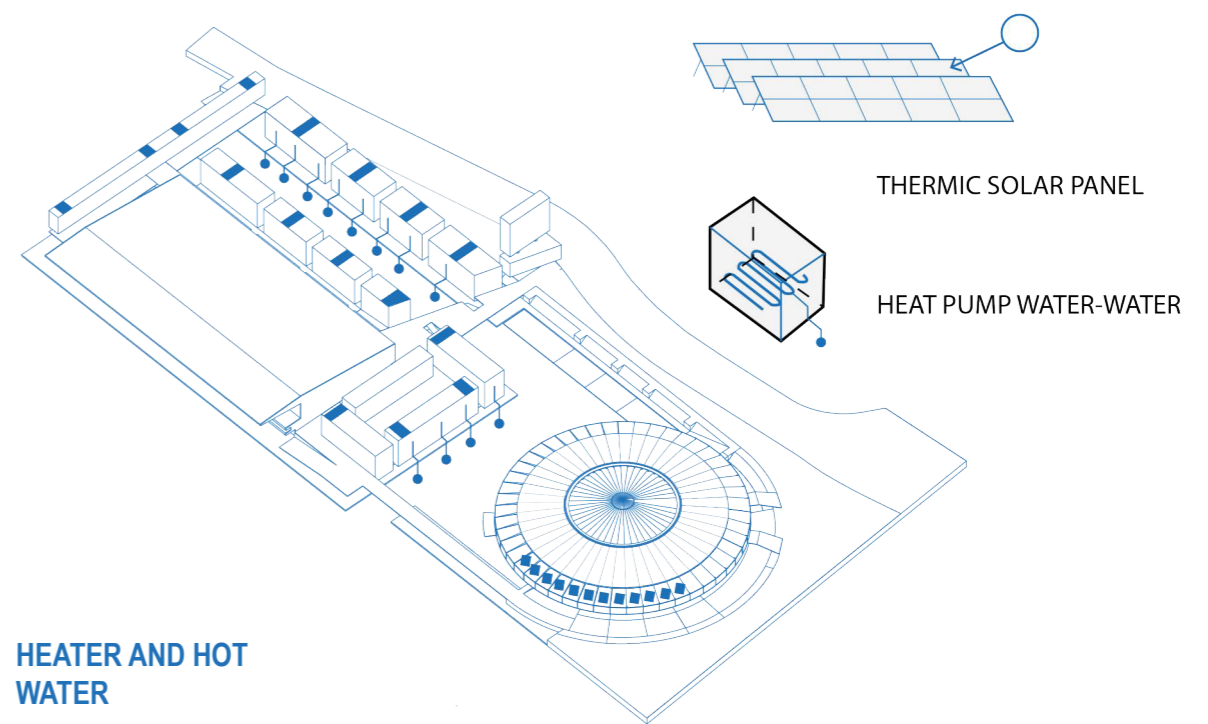
- oriented in order to maximize the natural lightening
- protected from the see wind buy the B pavilion
- covered by a multi-purpose second skin
- composed of a simple structure think to be transformed
- oriented to generate a natural ventilation of the space
- composed of a maximum of local materials
- creating complexity using local expertise



ENERGY

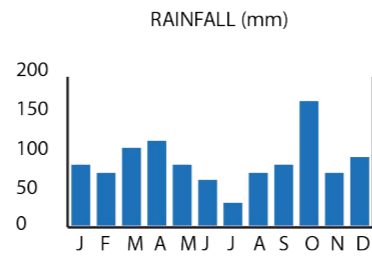
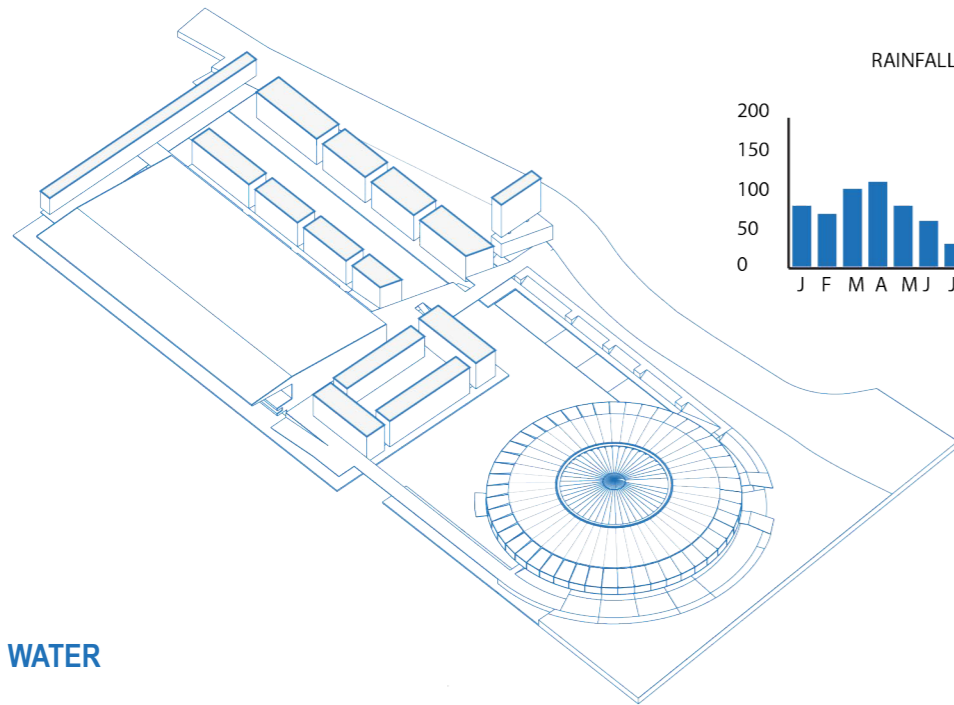
LIGHTING AND VENTILATION

All the housing are crossing : 90 % are orientated S-W – N-E and 10% S-E – N-W. This setup allows a maximum of natural light to open the apartment, reducing the needs of electricity. The second skin on the building which is separated to the main volume by 1,5 to 3 meters, protects the apartment to overheat in the summer by blocking the sunrays while letting the sun enter in the winter. Being crossing, the flow of air is eased, diminishing the need of electrical conditioning air.



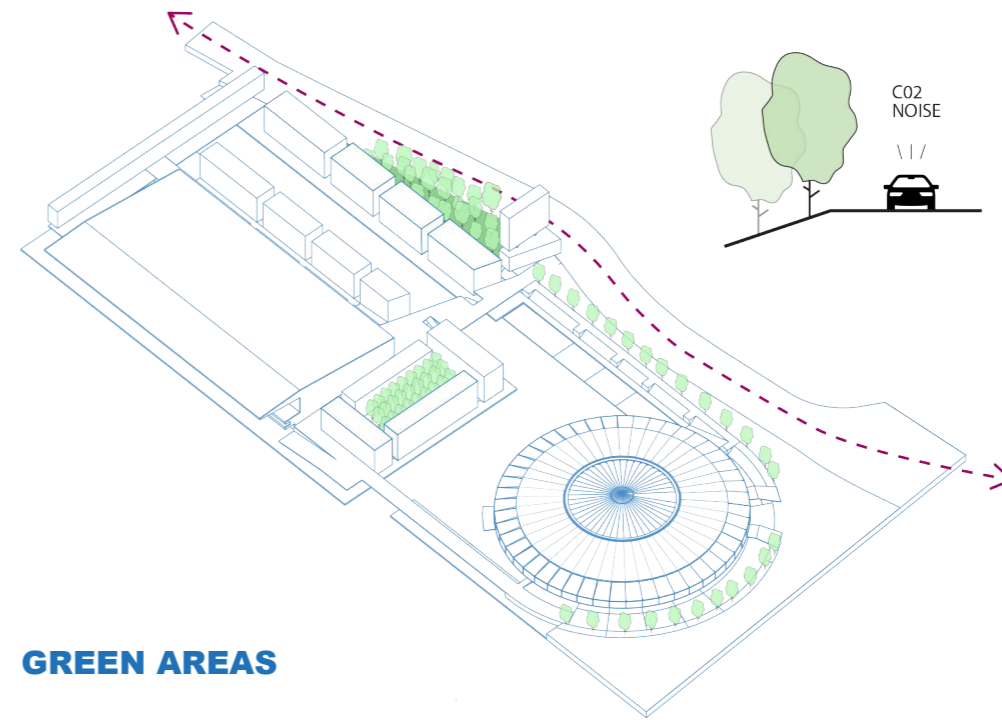
HEATER AND HOT WATER

Thermal solar panels located on the roof and heat pumps water-water, catching energy from the canal, are used to heat house water, reducing the needs of fossil fuels.



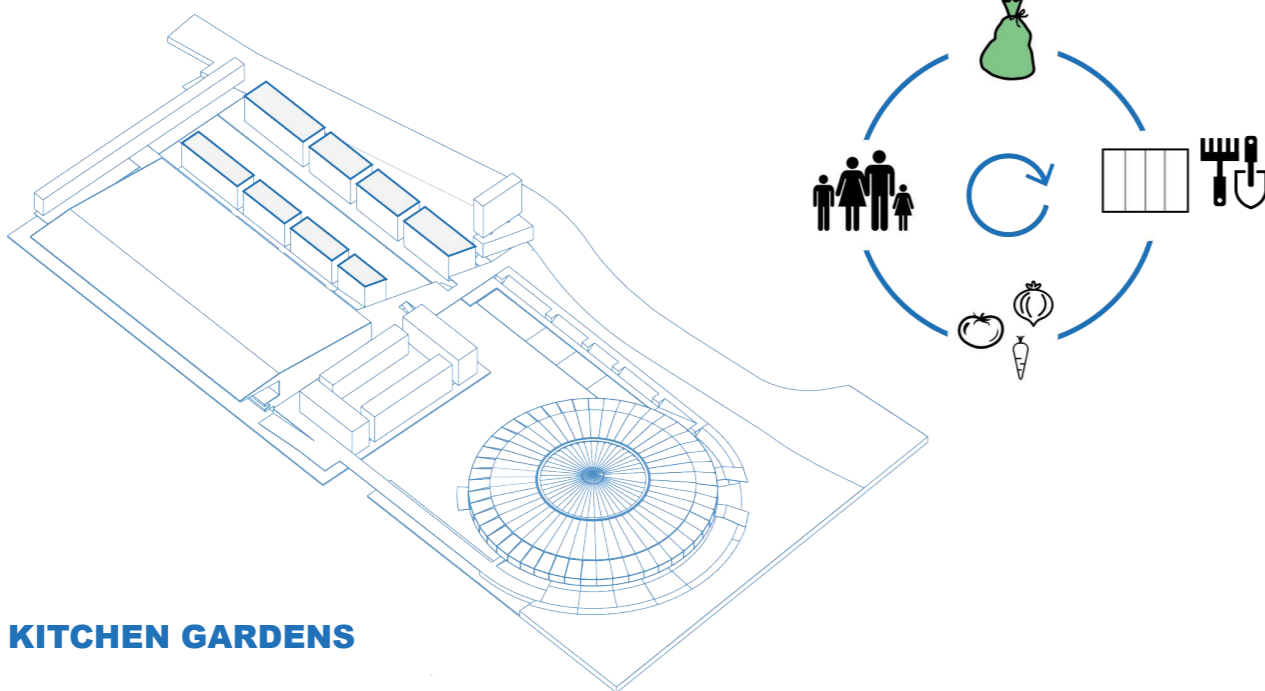
WATER

6000m³ of rain water per year can be recycled on the 9000 m² of roofs and stocked in tanks. Then it can be used for sanitary water and washing machine, and to water the kitchen gardens.



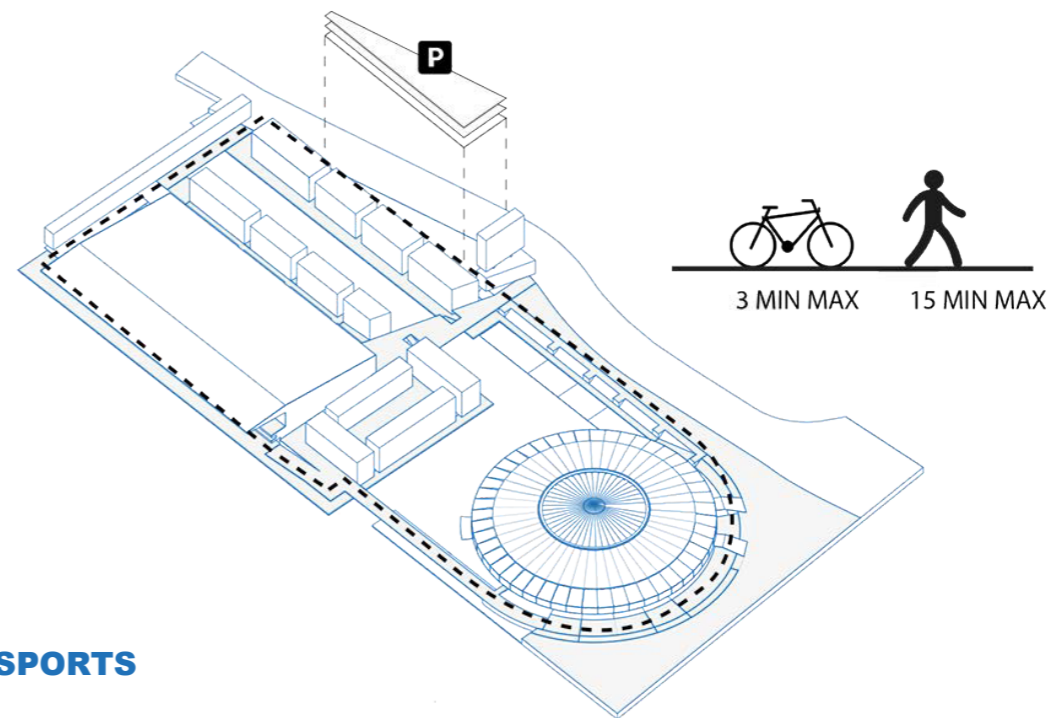
GREEN AREAS

Trees and plants are placed along the road and in the site to absorb the car's CO₂, while insulating the housings from the traffic noise. In the summer it generates shade and refreshes the air via evapotranspiration. Green areas are also home to a local biodiversity.



KITCHEN GARDENS

Located on the common roofs, kitchen gardens generate social bonds between the residents and create a closed and short loop of consumption. In fact, the organic waste of the residents once transformed into compost can serve as natural fertilizer for the kitchen gardens. People can enjoy fresh, local and season fruits and vegetables. The water used for gardening comes directly from rainwater.



TRANSPORTS

The project valorises low speed and fossil fuels free transports : pedestrians, disabled and bikers can cross the entire site thank to large qays, ramps and exterior elevator. The cars are parked in a 3 levels underground parking under the little forest. The rest of the site is car free unless for delivery, firemen and to move house.

FINANCIAL EVALUATION

			SURFACE	GLOBAL PRICE	
housing					61.311.800 €
	1. housing (terrace included + tower)	m ²	36000	54.000.000 €	
	2. passageway	m ²	2988	3.286.800 €	
	4. roof (garden and common space	m ²	5750	4.025.000 €	
office					6.105.000 €
	1.office	m ²	3620	5.430.000 €	
	2. garden	m ²	1500	675.000 €	
workshop / restaurant /shop					5.110.000 €
	1.workshop	m ²	1700	2.210.000 €	
	2. resaurant & shop	m ²	2900	2.900.000 €	
public tower					4.204.000 €
	1.public activities	m ²	2200	3.740.000 €	
	2. terrace	m ²	580	464.000 €	
hotel					24.000.000 €
	1.hotel	m ²	9600	24.000.000 €	
pedestrian bridge					16.000.000 €
	1.around th S pavilion	m ²	1000	4.000.000 €	
	2.The maine one	m ²	3000	12.000.000 €	
canopia					7.500.000 €
	1.structure	m ²	2500	7.500.000 €	
parking					30.000.000 €
	1.parking	m ²	20000	30.000.000 €	
floating space					3.965.300 €
	1.structure	m ²	2087	2.713.100 €	
	2.facilities	m ²	2087	1.252.200 €	
public space					26.335.270 €
	1. around the S pavilion	m ²	4000	4.000.000 €	
	2. garden facing the Housing	m ²	2825	1.695.000 €	
	3. level 0				
	hight standing docks	m ²	4000	3.200.000 €	
	standar docks	m ²	8700	4.350.000 €	
	gradin	m ²	1050	840.000 €	
	4. level 5 (mainly dock)				
	standar path	m ²	8000	4.000.000 €	
	5.main esplanade				
	(20%) vegetalise space	m ²	3235,4	1.941.240 €	
	(60%) standard place	m ²	9706,2	4.853.100 €	
	(20%) carriage way	m ²	3235,4	1.455.930 €	
TOTAL		m ²	142264		184.531.370 €

PERSPECTIVES



From the rempart at the access point



From the comercial dock toward the Pavilion B



South-west elevation, including the roof as the fifth facade



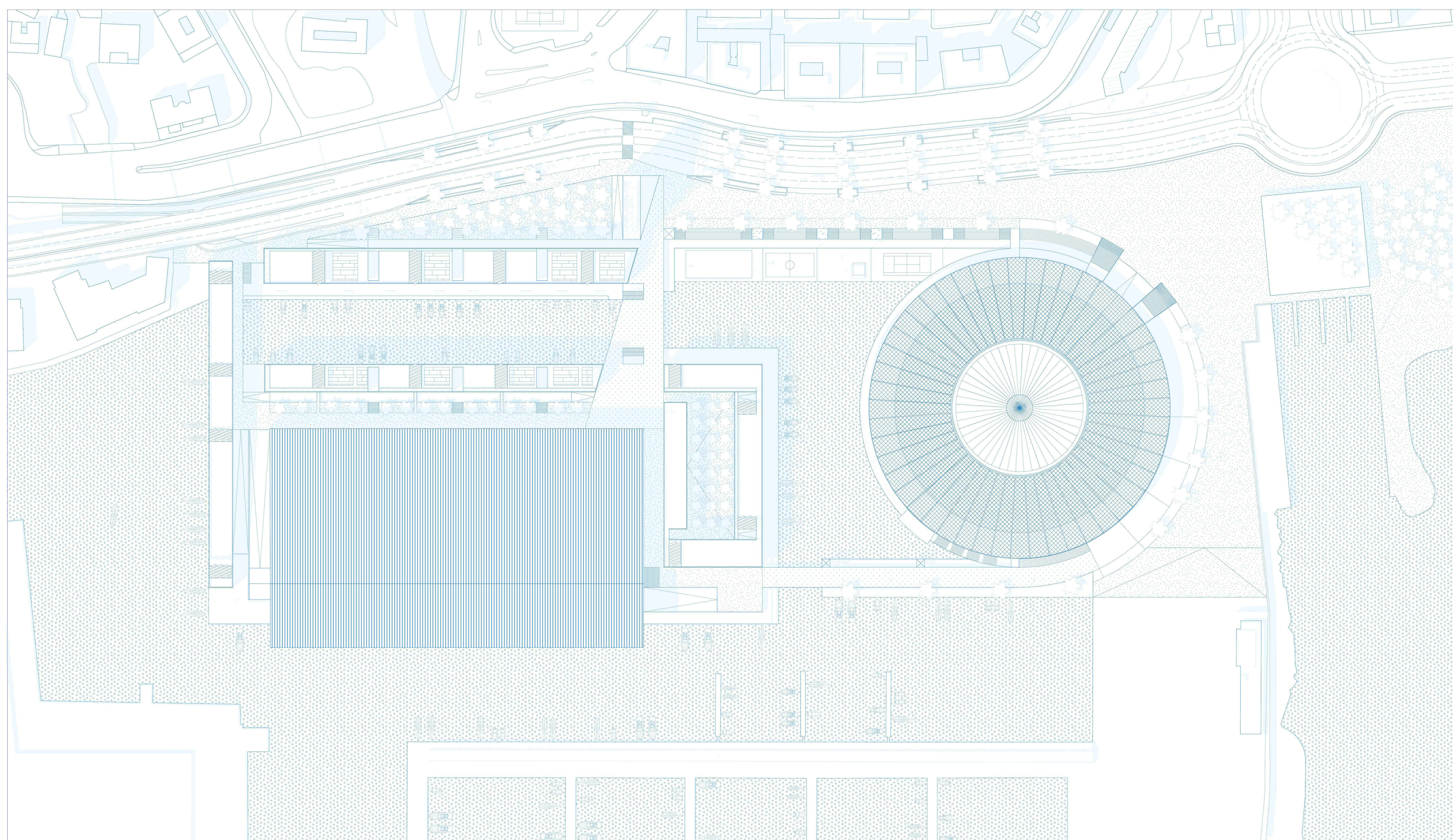
Sequences of public activities around the Pavilion S



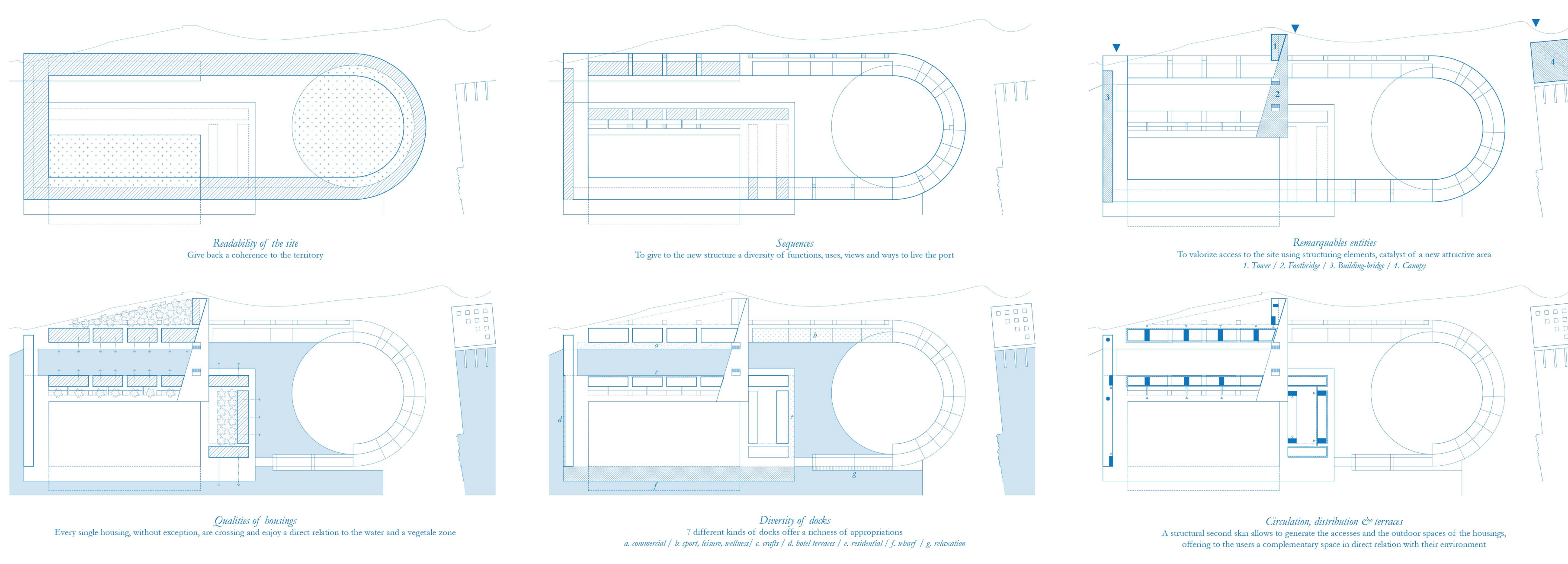
From an apartment toward the terrace, the Piloti Tower and the sea



Sequences of public activities on ground and on water, along the boulevard



General plan 1:1000



Readability of the site
Give back a reference to the territory

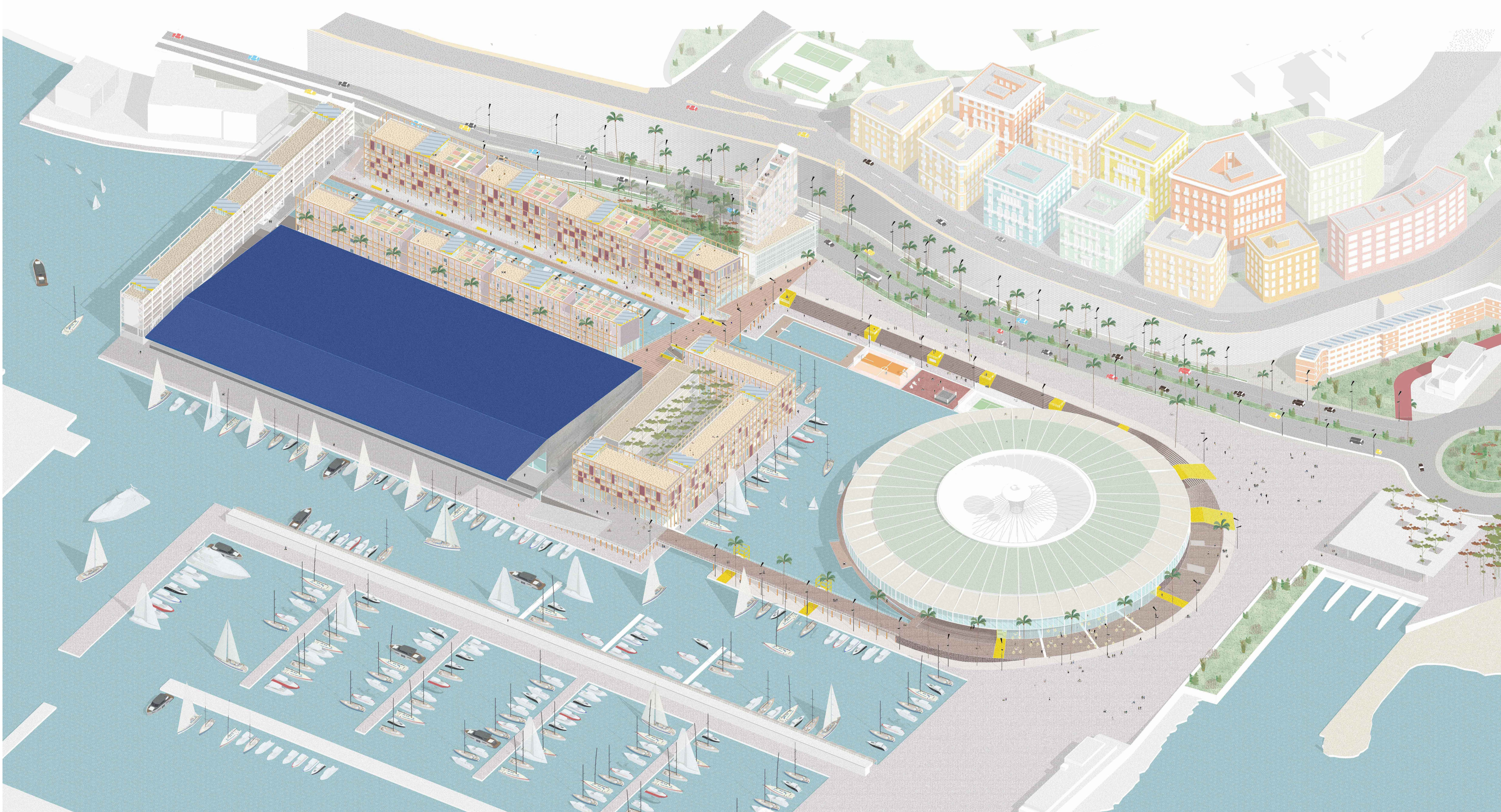
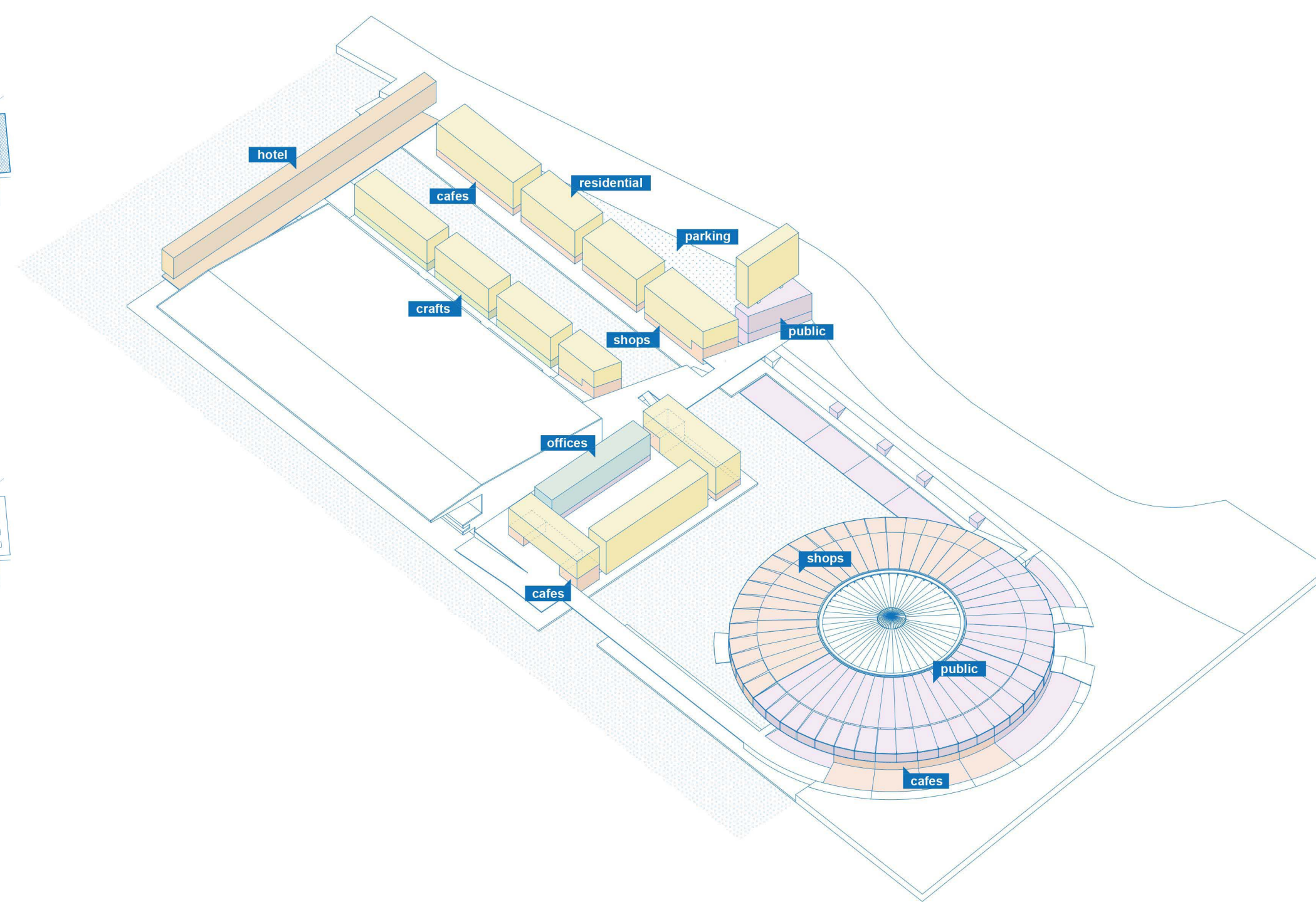
Signifier
To give to the new structure a diversity of functions, uses, views and ways to live the past

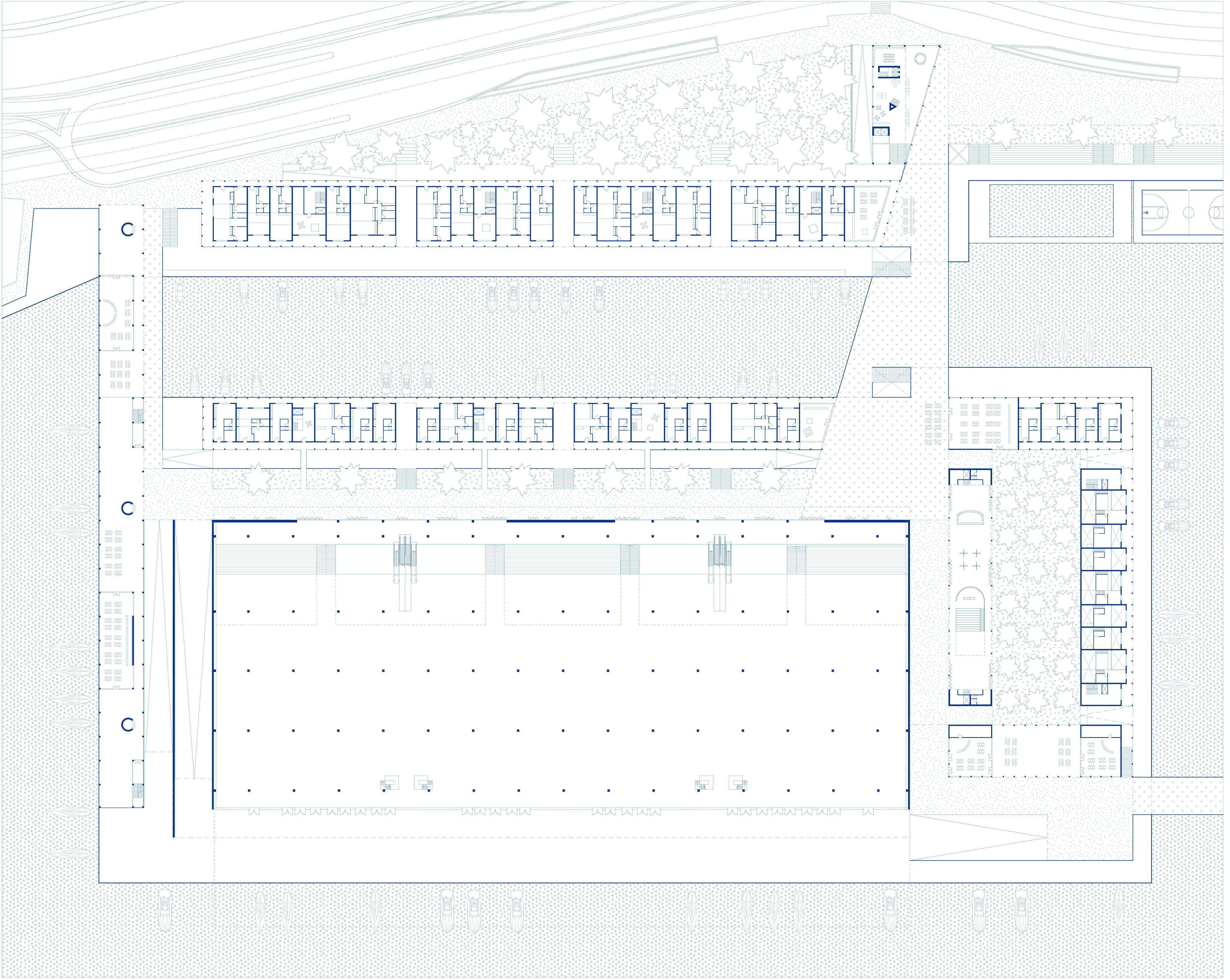
Remarkable exterior
To valorize access to the site using surrounding elements, emblem of a new structure area
E. Tower / Z. Technology / A. Building / G. Garage

Quality of housing
Every single housing, without exception, are covering and enjoy a direct relation to the water and a vegetable zone

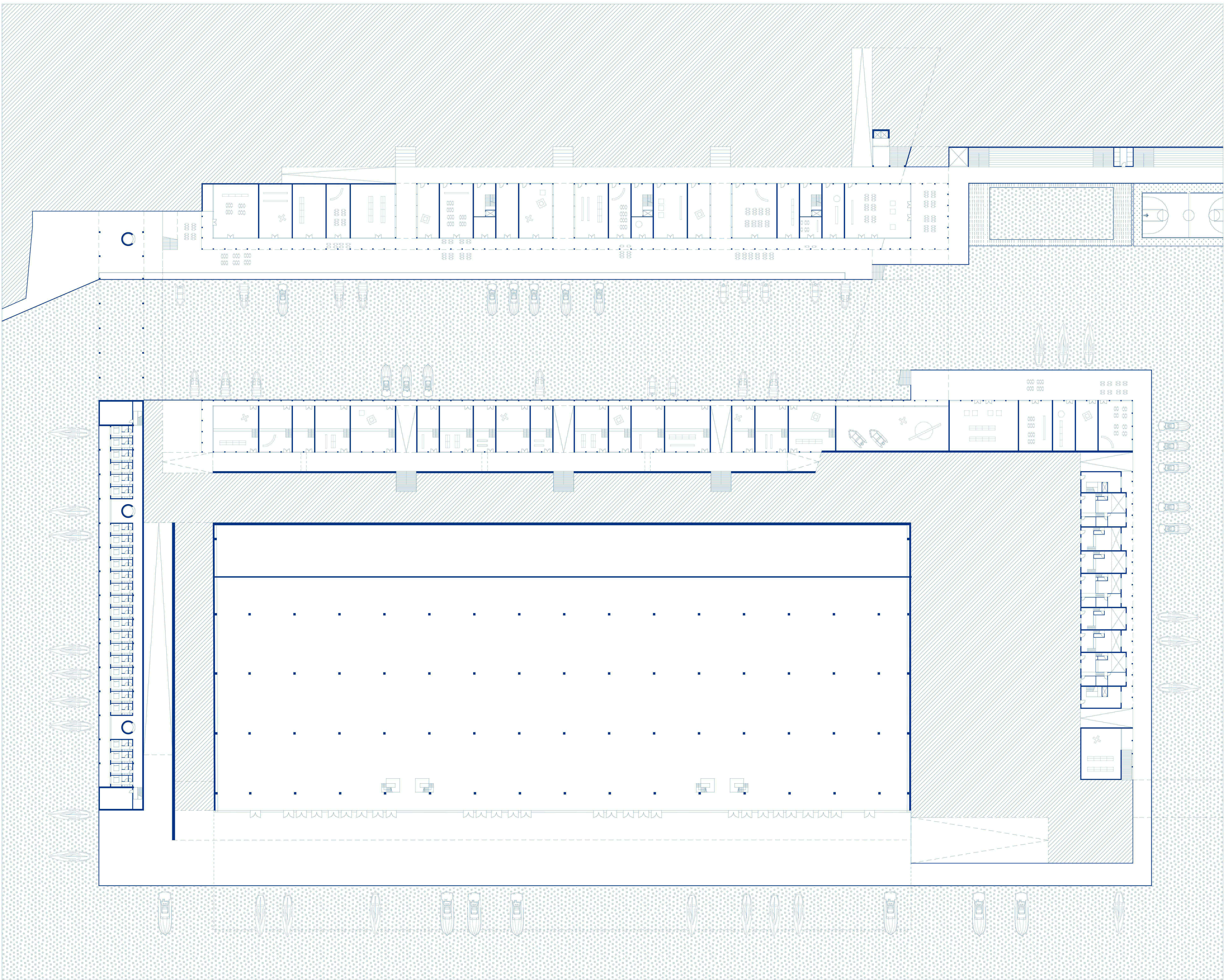
Diversity of decks
7 different kinds of decks offer a richness of appropriation
a. monumental / b. pool / c. terrace / d. half terrace / e. residential / f. shop / g. relaxation

Circulation, distribution & services
A structural second skin allows to generate the access and the outdoor spaces of the housing, offering to the users a complementary space as direct relation with their environment

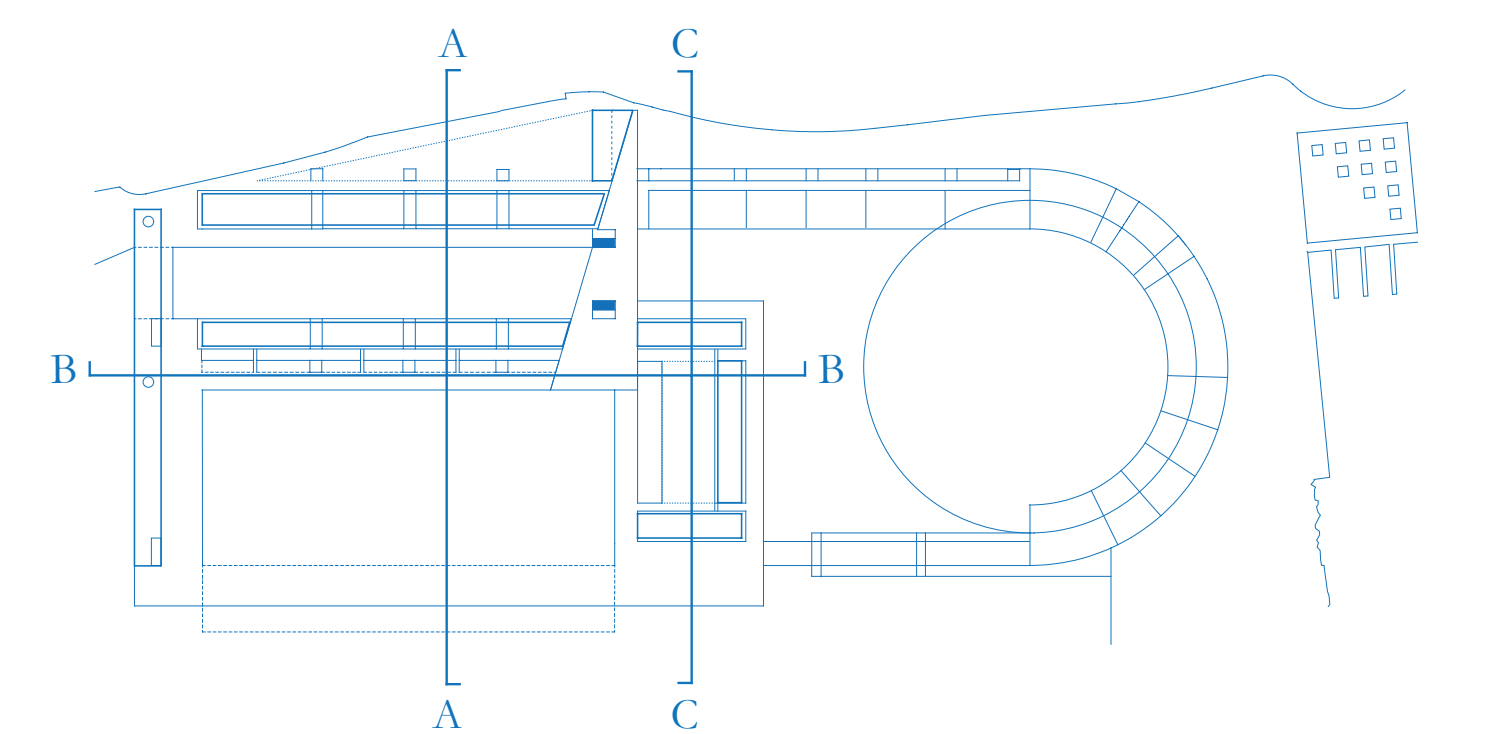
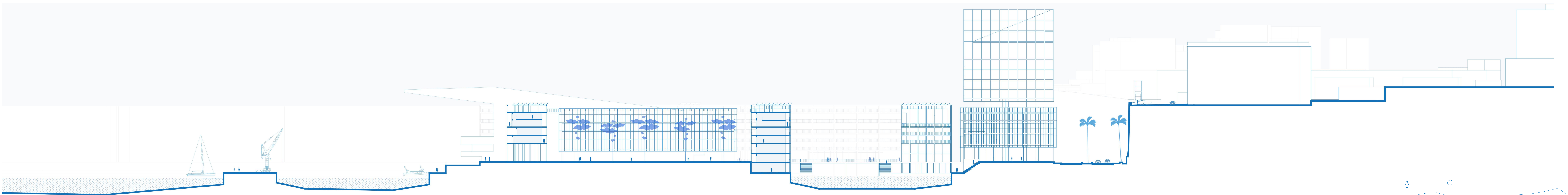
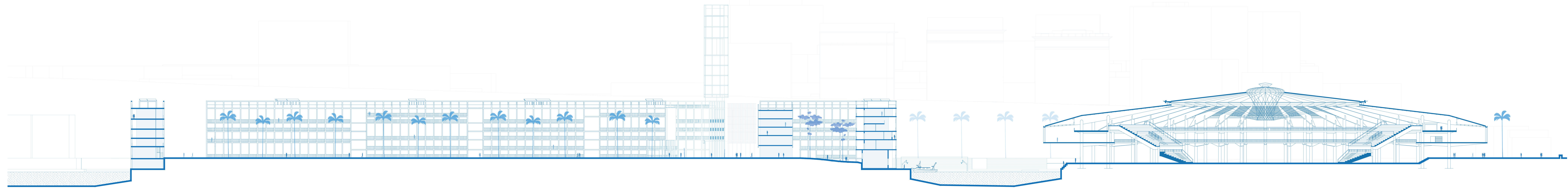
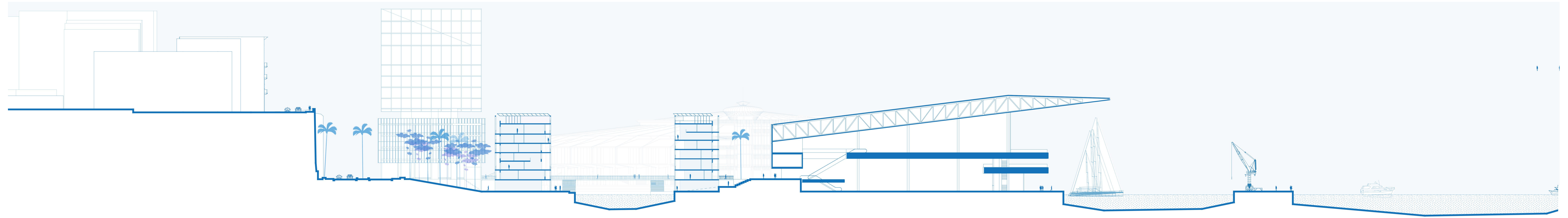


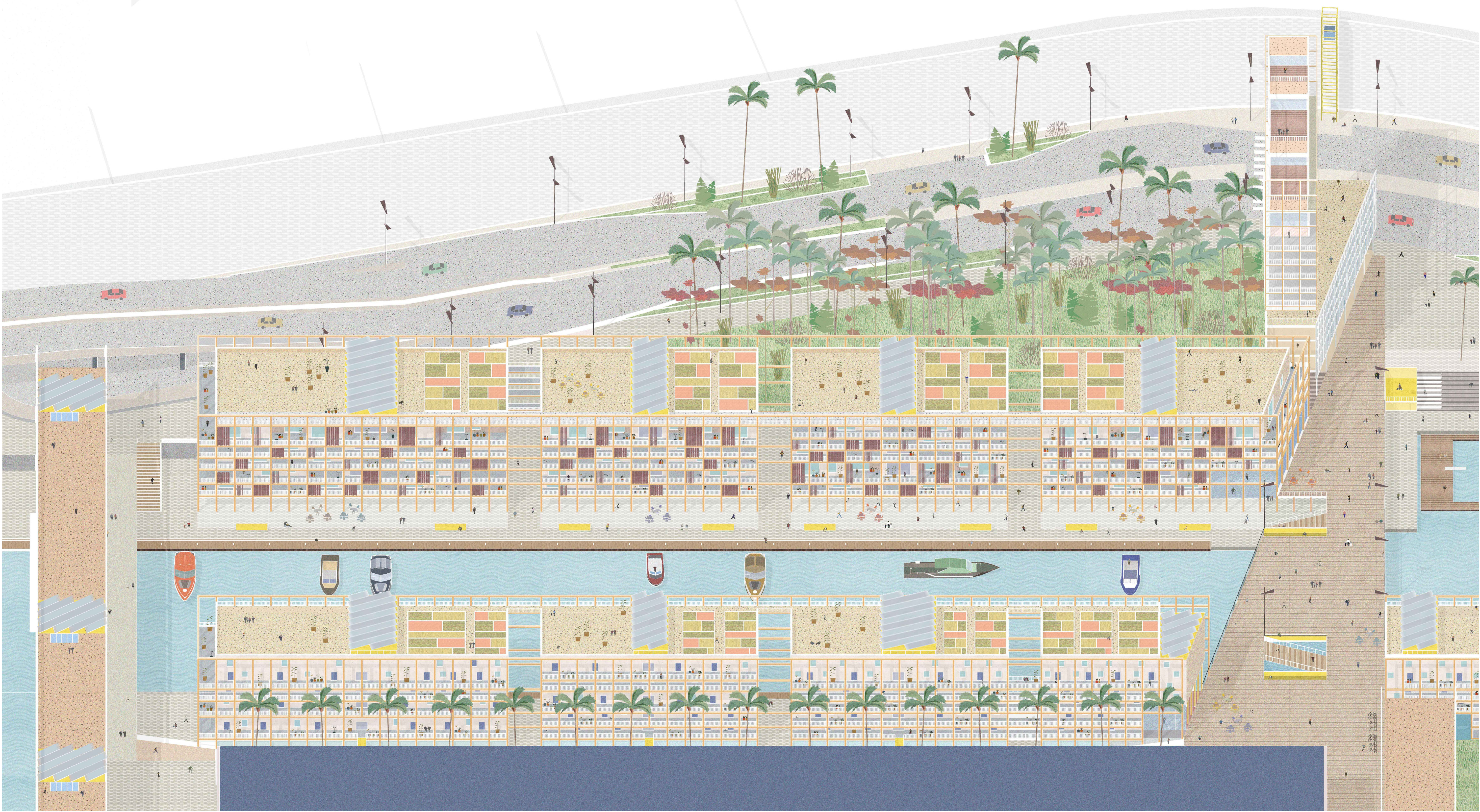


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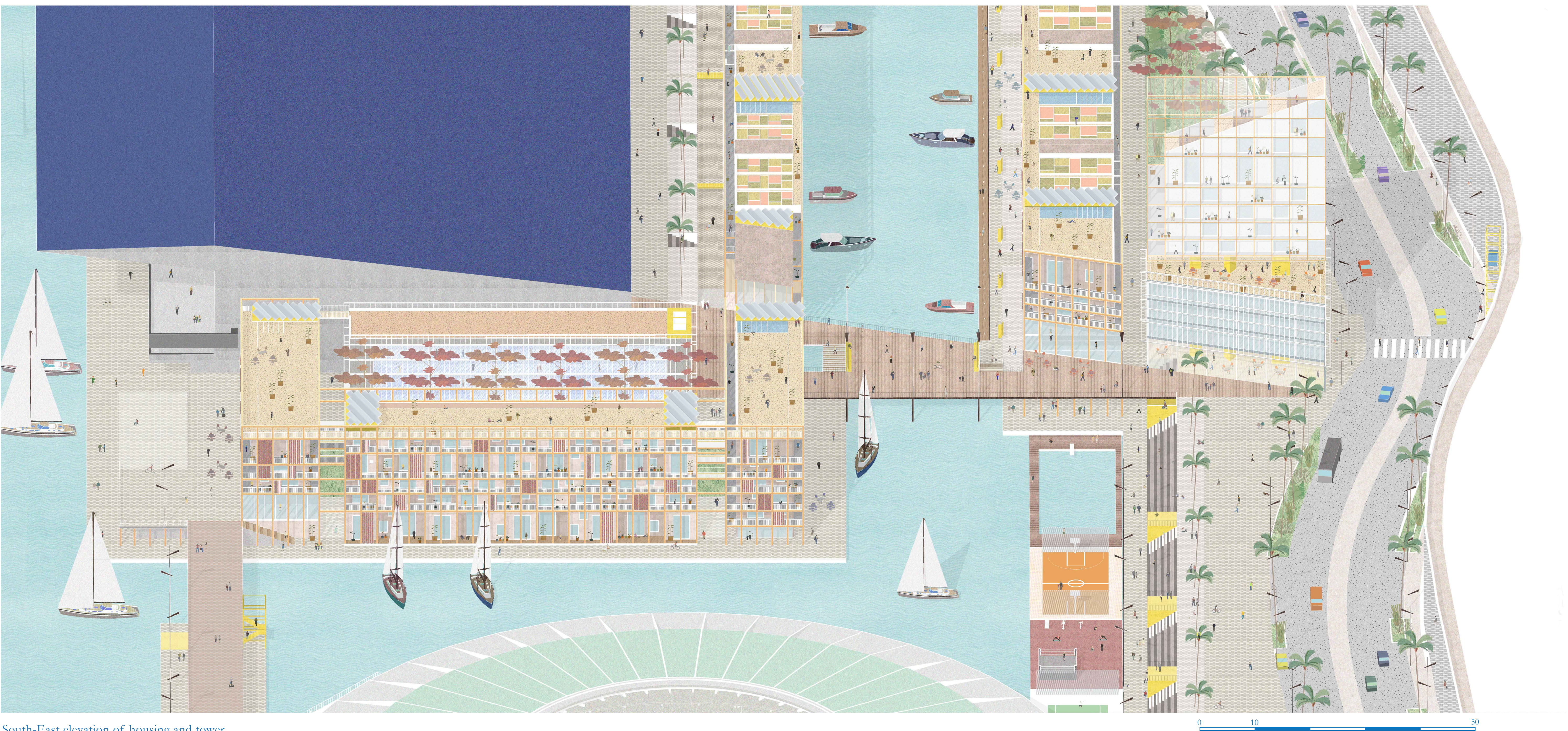


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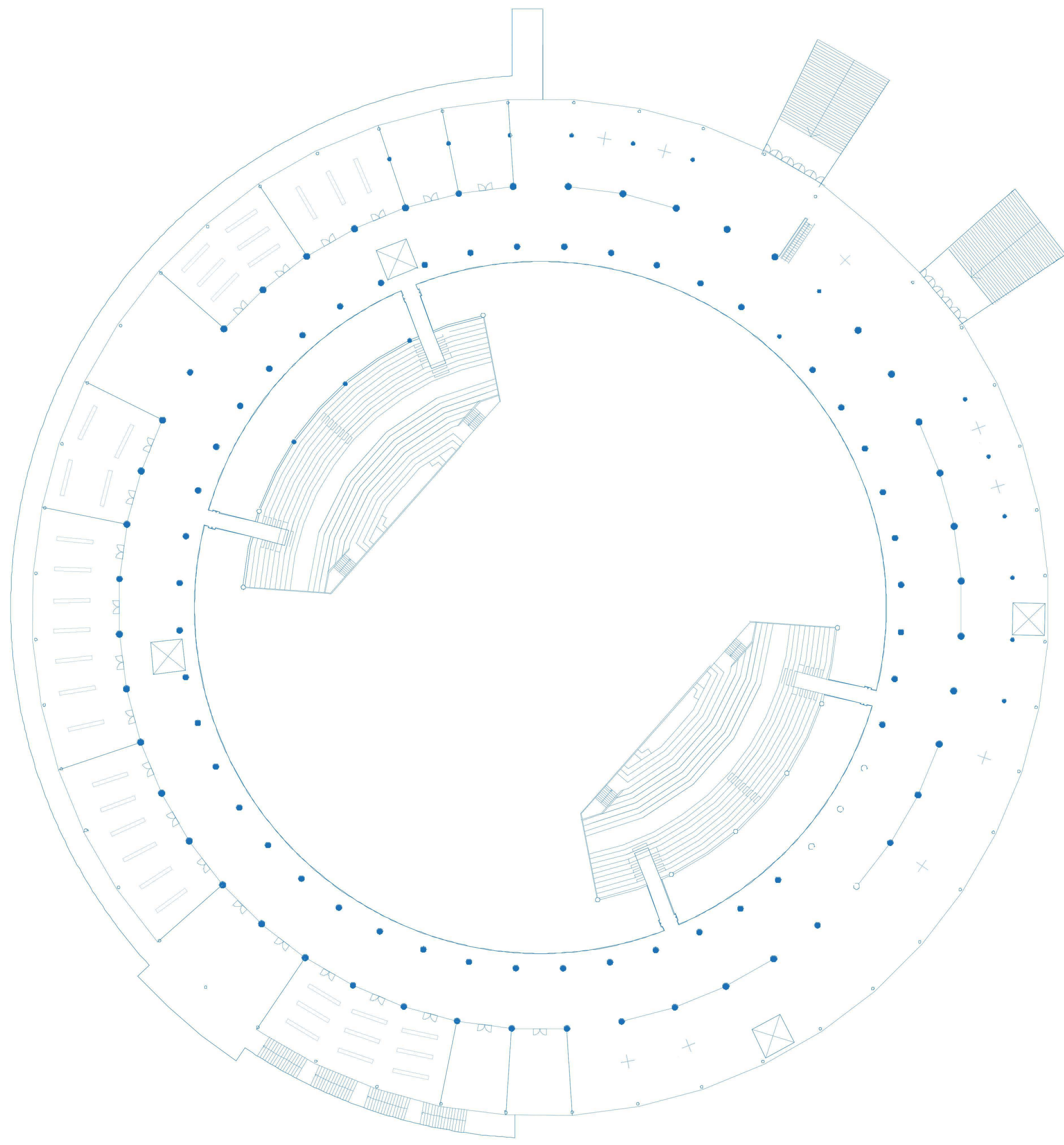
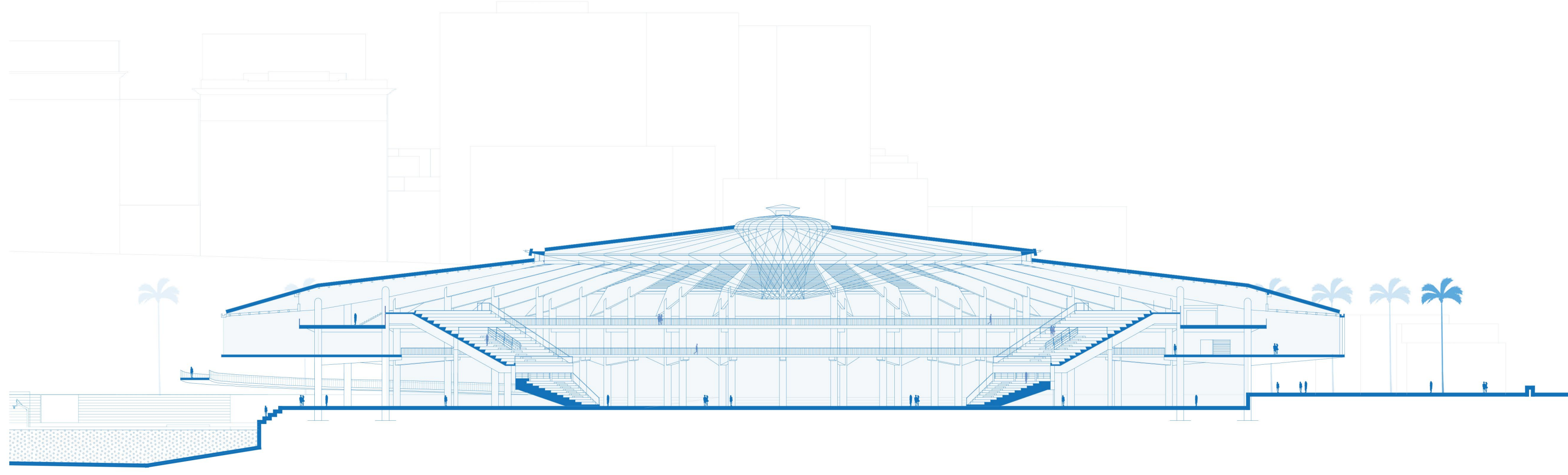




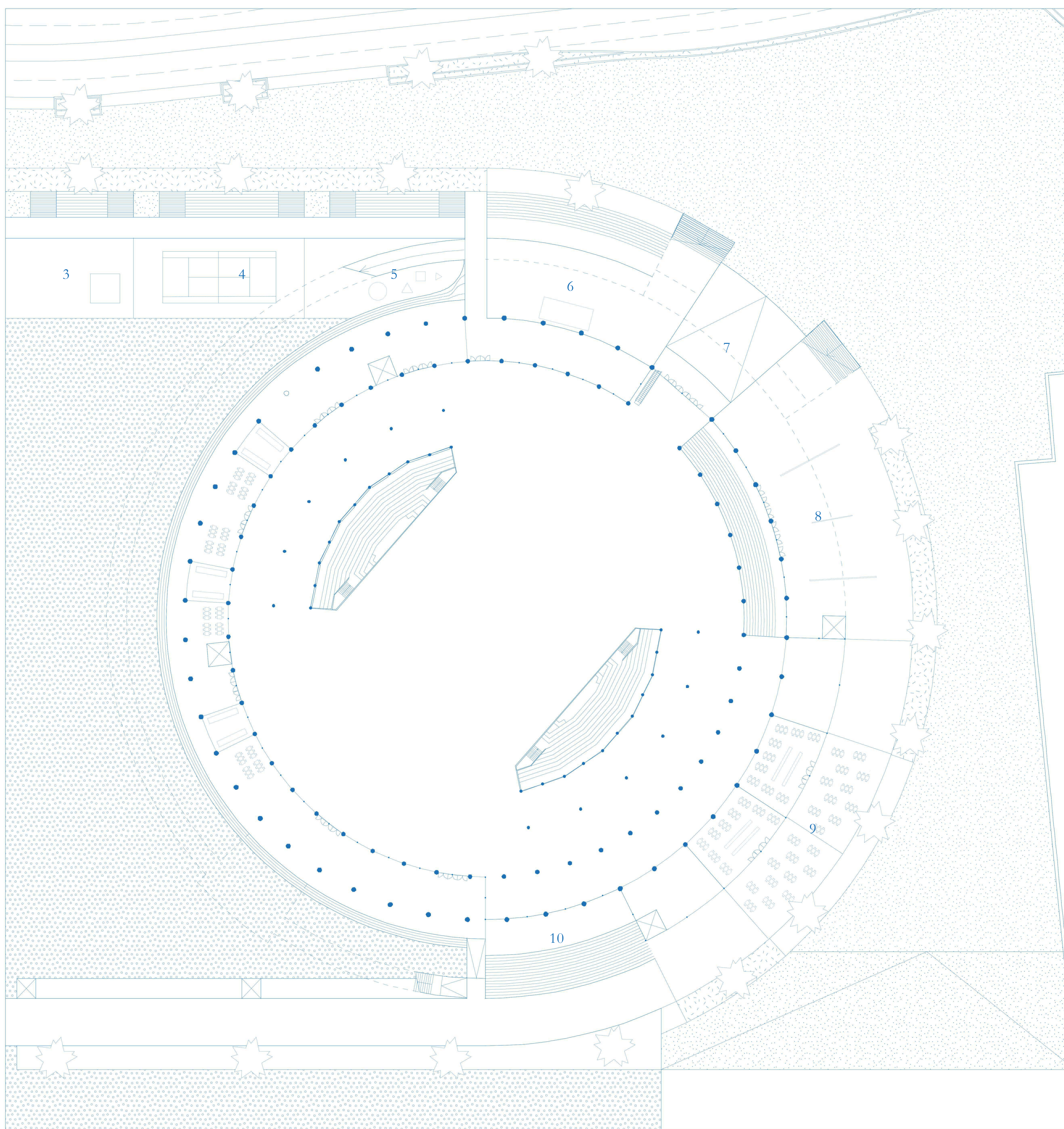
South-west elevation of housings along the main waterway (including the roof as fifth facade) and the tower, junction between the upper city and the port



South-East elevation of housing and tower



+10



+5

1 Swimming pool



2 Basketball court



3 Wellness area



4 Tennis court



5 Playground



6 Performance stage



7 Entrance



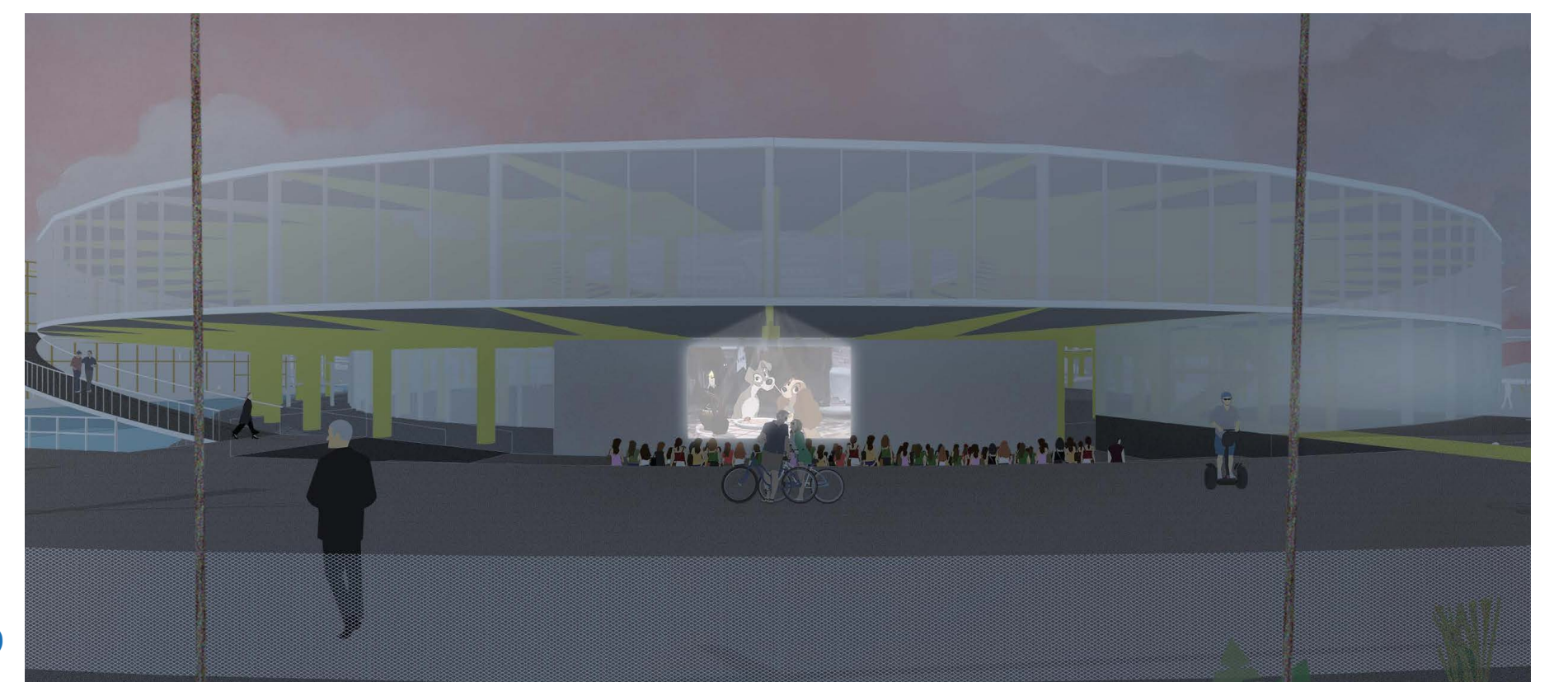
8 Exhibitions



9 Restaurants and cafes



10 Outdoor cinema





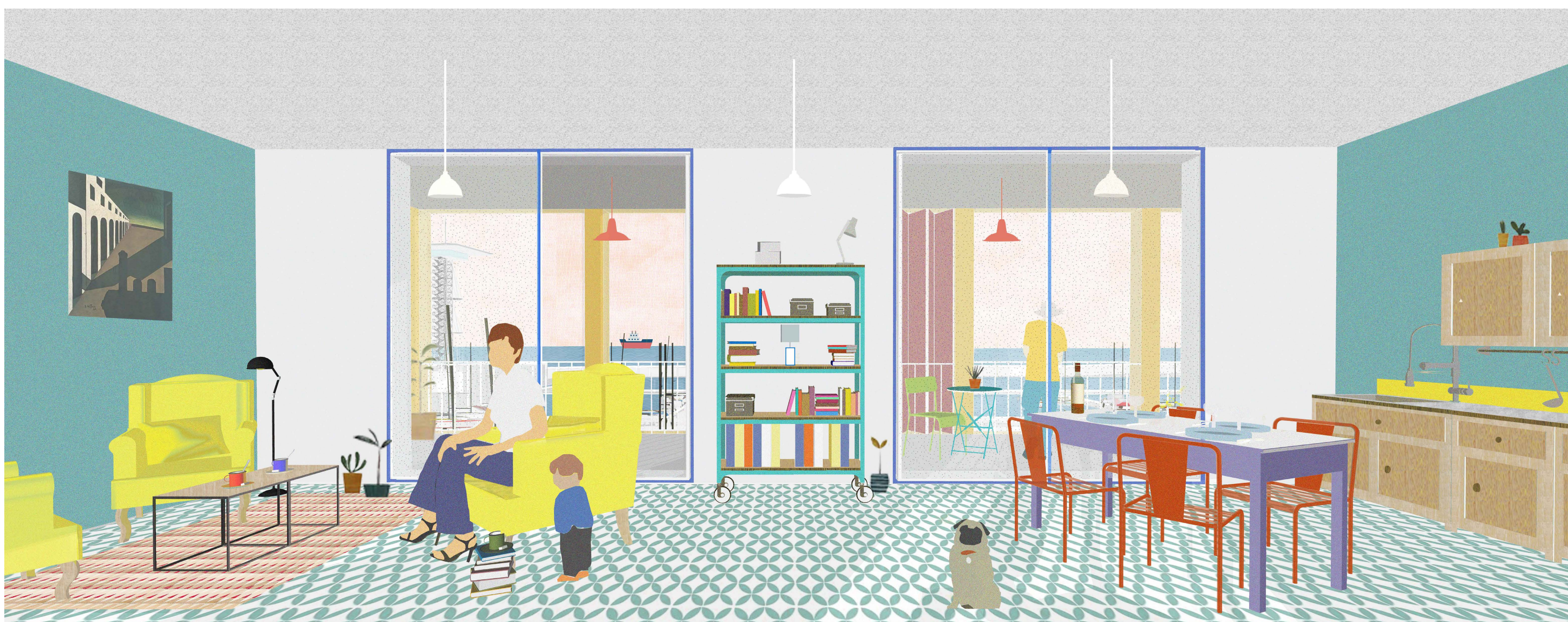
From the top of the remparts and access to the site



From the footbridge



From a commercial dock toward the Pavilion B



From an apartment toward the terrace, the Piloti Tower and the sea