

Coast Breakwater Community



L'AVANCEE DE LA MER

St. Louis, Senegal

St. Louis, located in the north-west of Senegal by the mouth of the Senegal River, has been the home to generations of fishermen. However St. Louis Fishermen community has suffered the grievance of multinational fishing companies in their area, as well as continuous confrontations with their neighboring country, causing a decline in fishing activity. On top of those difficulties, the biggest challenge remains the rising sea levels, called by the residents "L'Avancee de la mer". It has already damaged and even destroyed some of the buildings located on the coastline. The fishermen are suffering from this situation through several ways. Powerless, they can't anymore leave their boats on the coast, but instead on the river, far from the sea. Consequently, many operations related to the fishing trade is pushed inland.



FISHING SENEGAL METHODOLOGY

Fishing is considered as an honorable profession and it plays an important role in the culture, economy and food security in Senegal and neighboring countries. Traditionally, regardless of where they live, Senegalese feel that they have the right to fish.

- 1.-Fishermen, with the help of their large boats, head offshore in search of their main objective, the fish.
- 2.-Once back, the fishermen trade with the women waiting in the bay in order to collect the maximum amount of fish, either buying it or getting it from their relatives.
- 3.-The women use three different techniques to process the fish: fermented and sundried, salted and sundried as well as smoked and sundried.
- 4.-The dried fish is then mainly taken inland to regions that cannot get any of the fresh fish because located too far away.

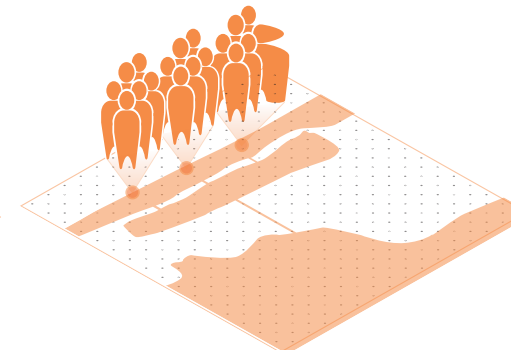
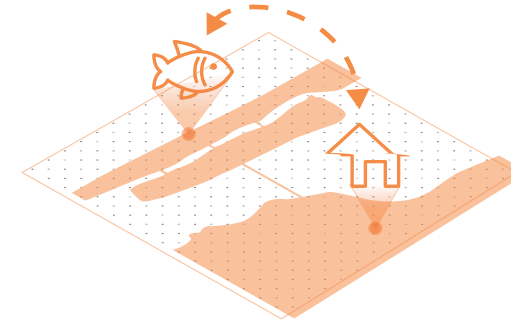


EROSION COASTLINE CONSEQUENCES

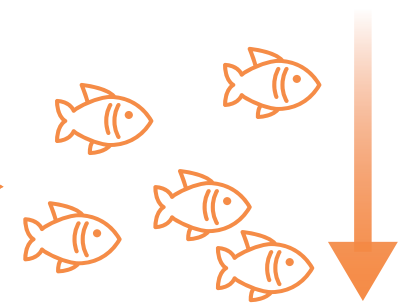
Due to the level sea rising, the coasts of St. Louis are threatened by the erosion of beaches, slowly destroying the fishers' houses.



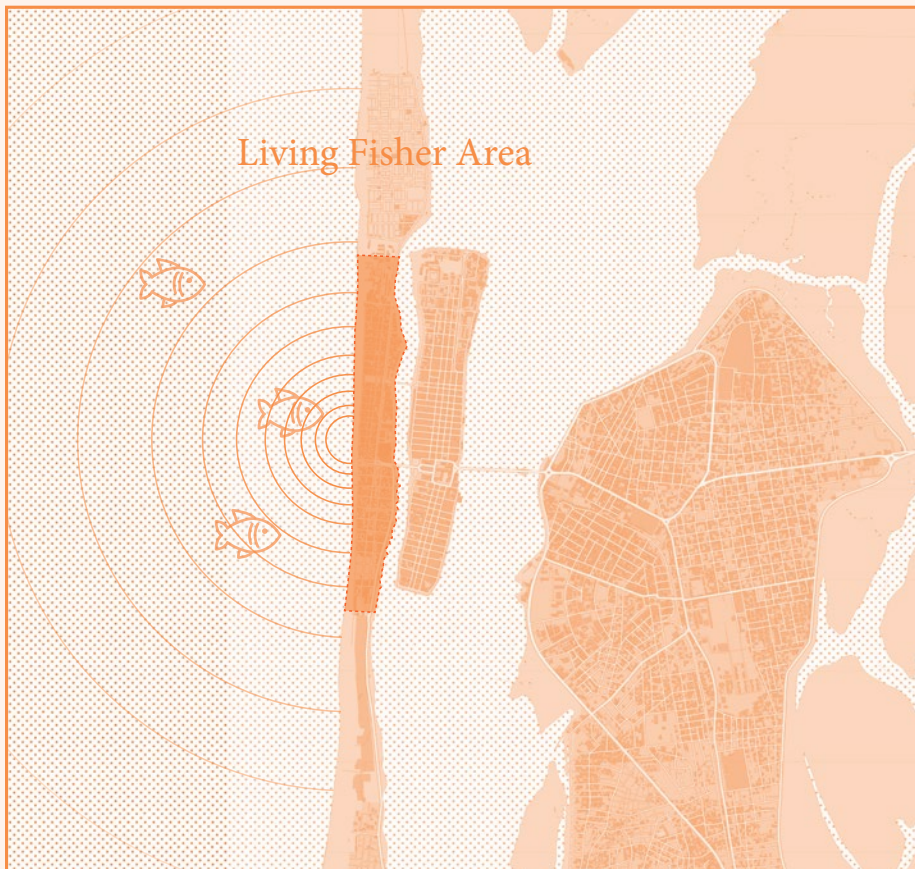
Tents under which women used to dry and cure fish on the beach have moved to a cramped space further inland.



Those alterations in the fishing cycle trigger a declination of the Senegalese fish production.



Overpopulation on the work area, creating suffocating working conditions between the smell of fishing and the heat



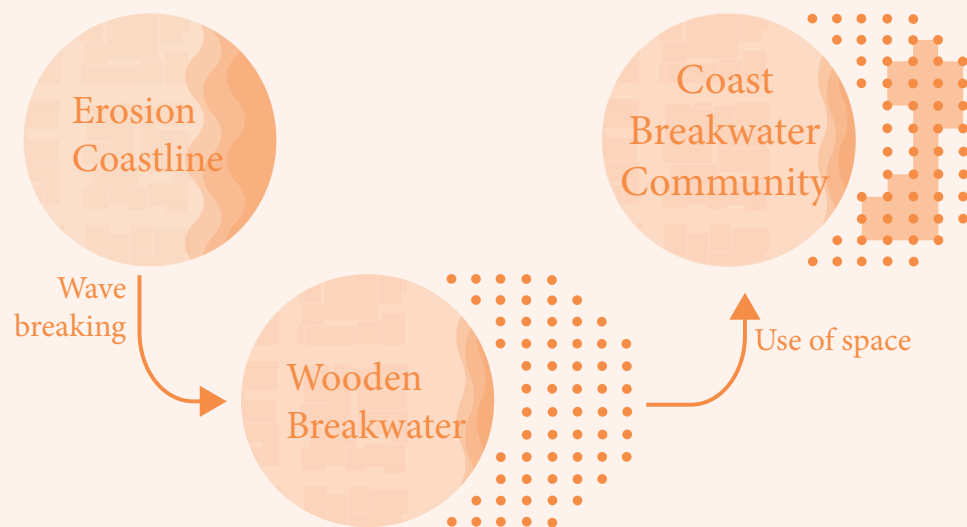
Coast Breakwater Community

PROPOSAL

Coast Breakwater Community offers an opportunity to counteract the erosion caused by the level sea rising and in turn provide a better working space for the fishing operations. The name of the project is based on the wooden breakwater technology.



How does it work? Wooden piles are installed on the beach, either parallel or perpendicular to the coast and placed vertically on the sediment in order to dissipate the attack of the waves on the beach. It limits the transport of sediments and reinforces the stability of the beach.

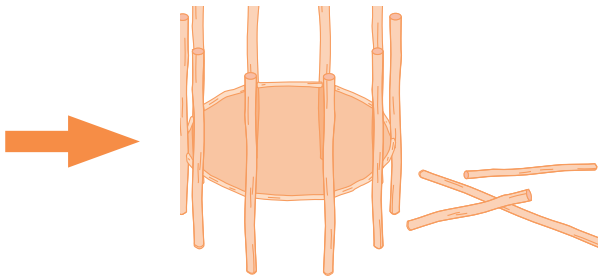


CONCEPTUALIZATION

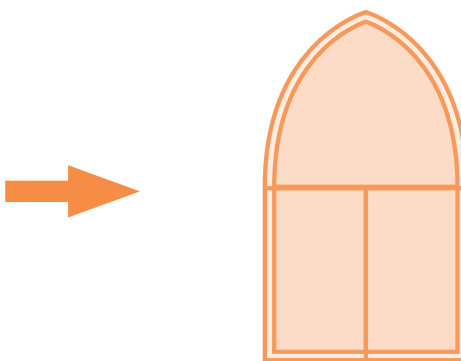
St. Louis is historically composed of two ethnic groups, the Wolofs and the Lebous, which make it a place rich in traditions. The city was the capital of the French colony in Senegal from 1864 to 1902. Its history gave it a combination of

the colonial and the rich vernacular architecture. This mix has been the main inspiration source in the process design of Coast Breakwater Community

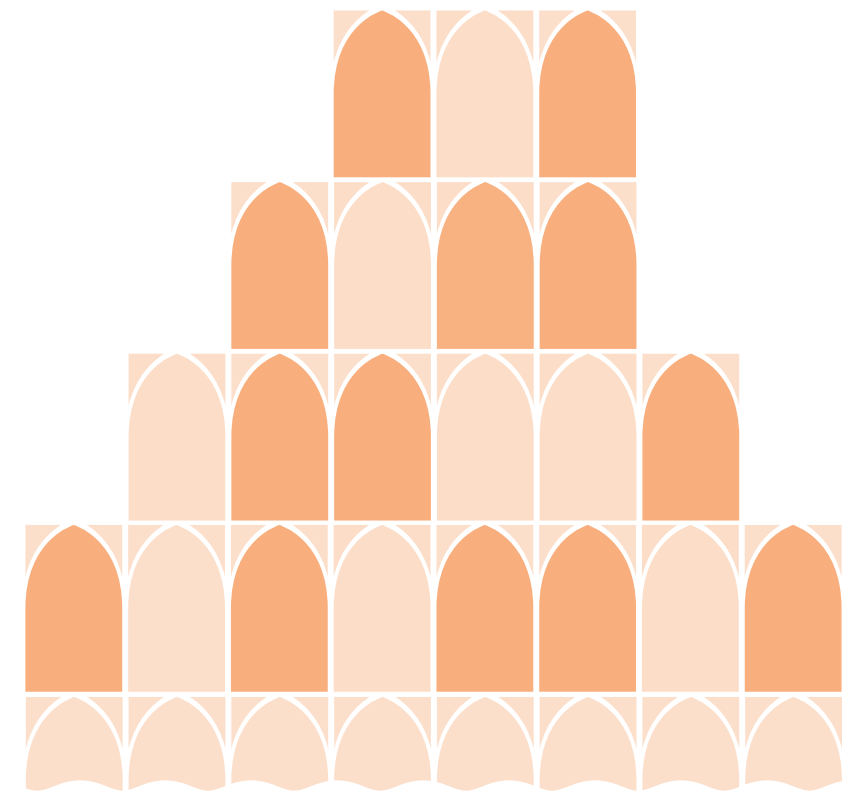
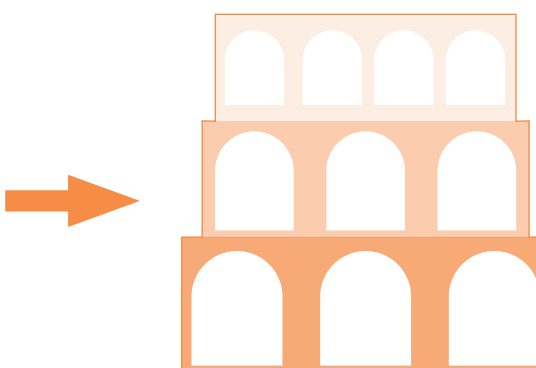
Native Architecture



Traditional St. Louis Shapes



Colonial Architecture

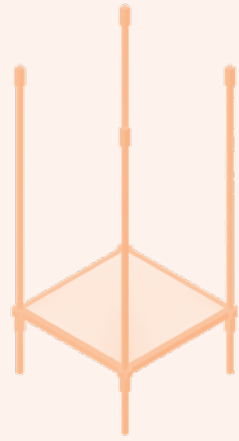


Gathering those three elements, Coast Breakwater Community tends to keep the culture of the area, yet offering a contemporary response to the fishing problematic.

CONSTRUCTION PROCESS

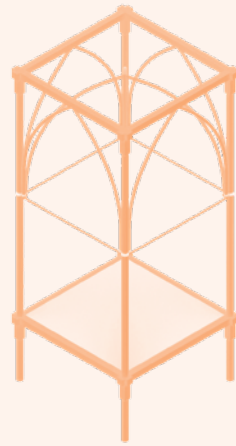
Based on the wooden breakwater system, Coast Breakwater Community is based on a modular unit capable of being replicated for different uses according to the needs of its inhabitants.

1



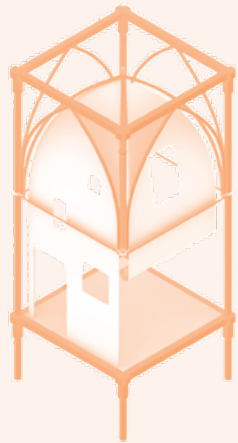
Wooden piles are placed vertically on top of the sediment providing a support base inside.

2



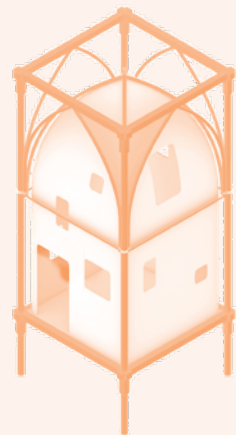
The module is stiffened through structural arches in the upper part.

3

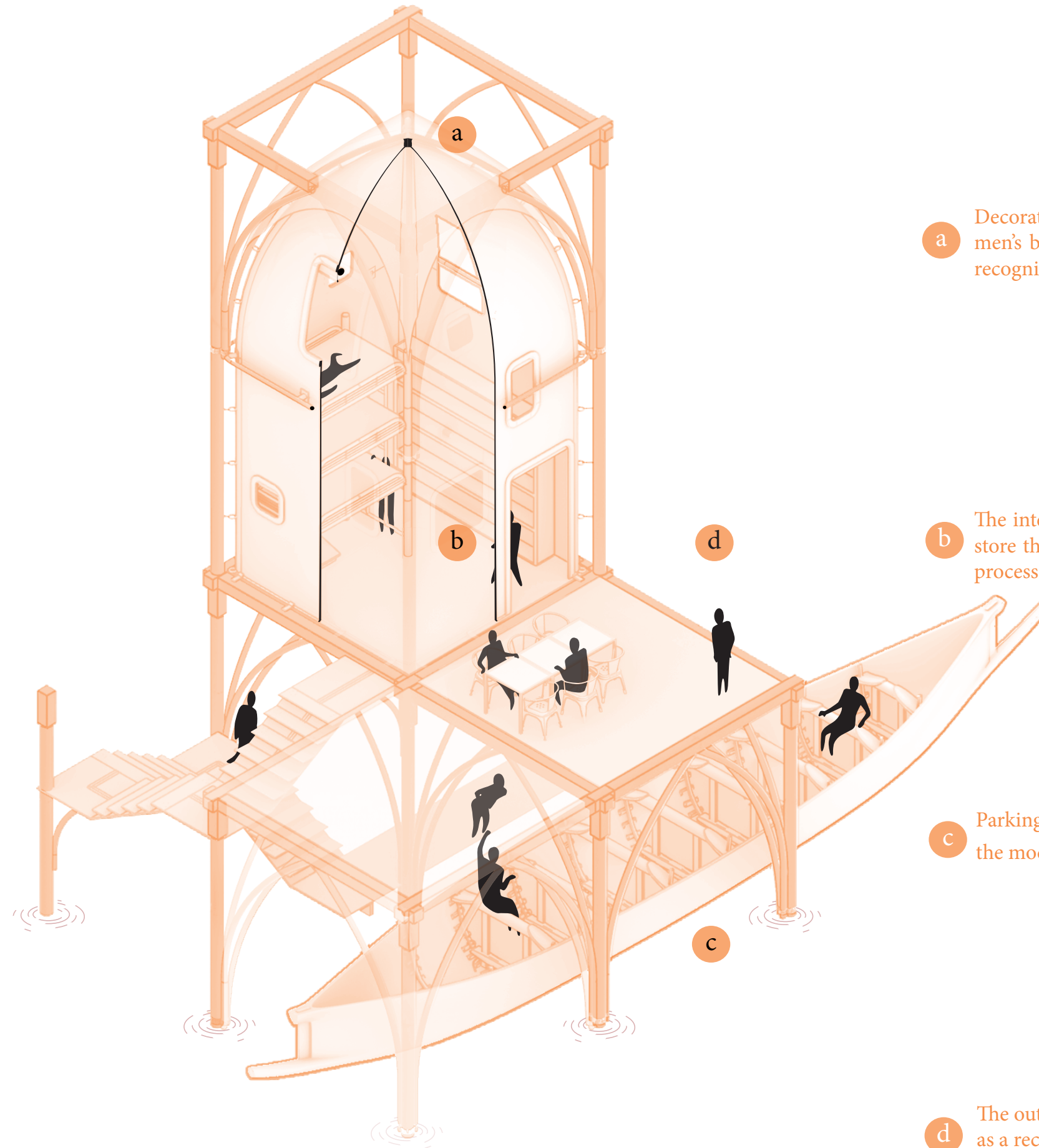


For the creation of privacy, textiles are spread over the arches raised in the form of lightweight walls.

4



The modular unit is ready to be temporarily inhabited by the workers of the complex.



a Decorative elements painted on fishermen's boats are used in textiles for the recognition of modules



b The interior of the resting modules will store the necessary elements for fishing process.



c Parking for boats is offered underneath the modules for easier access.



d The outside of the module can be used as a recreation or work area.

EXPANTION SYSTEM

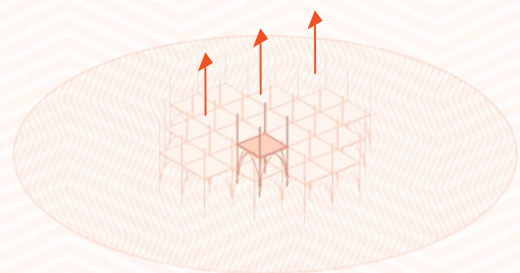
Coast Breakwater Community imitate the possible random solutions from a inland urbanism in its formation to arrange the placement of the modules according to the use or need of its users. The modulation is reflected in the numerous possibilities of use, such as the creation of workspaces for the drying of fish or maritime port of negotiation .

ST. LOUIS COASTLINE

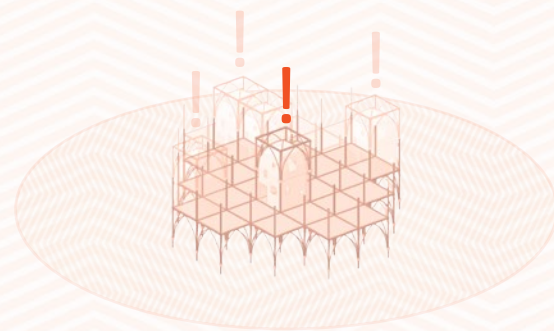
TEMPORAL LIVING UNIT

EMERGING WORKPLACES

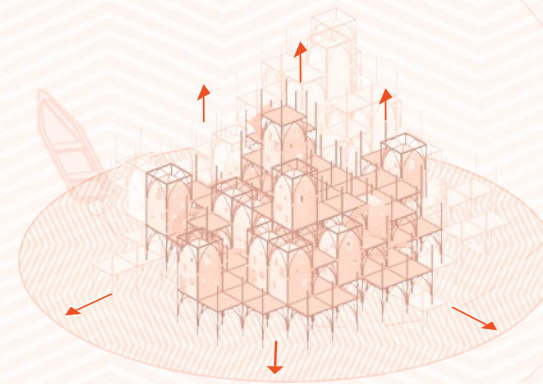
Lifting of wooden piles and their bases along the coast



Appearance of modules of rest in the base established previously



Growth of modules randomly through user demands



Establishment of swarms of modules with their respective work areas







