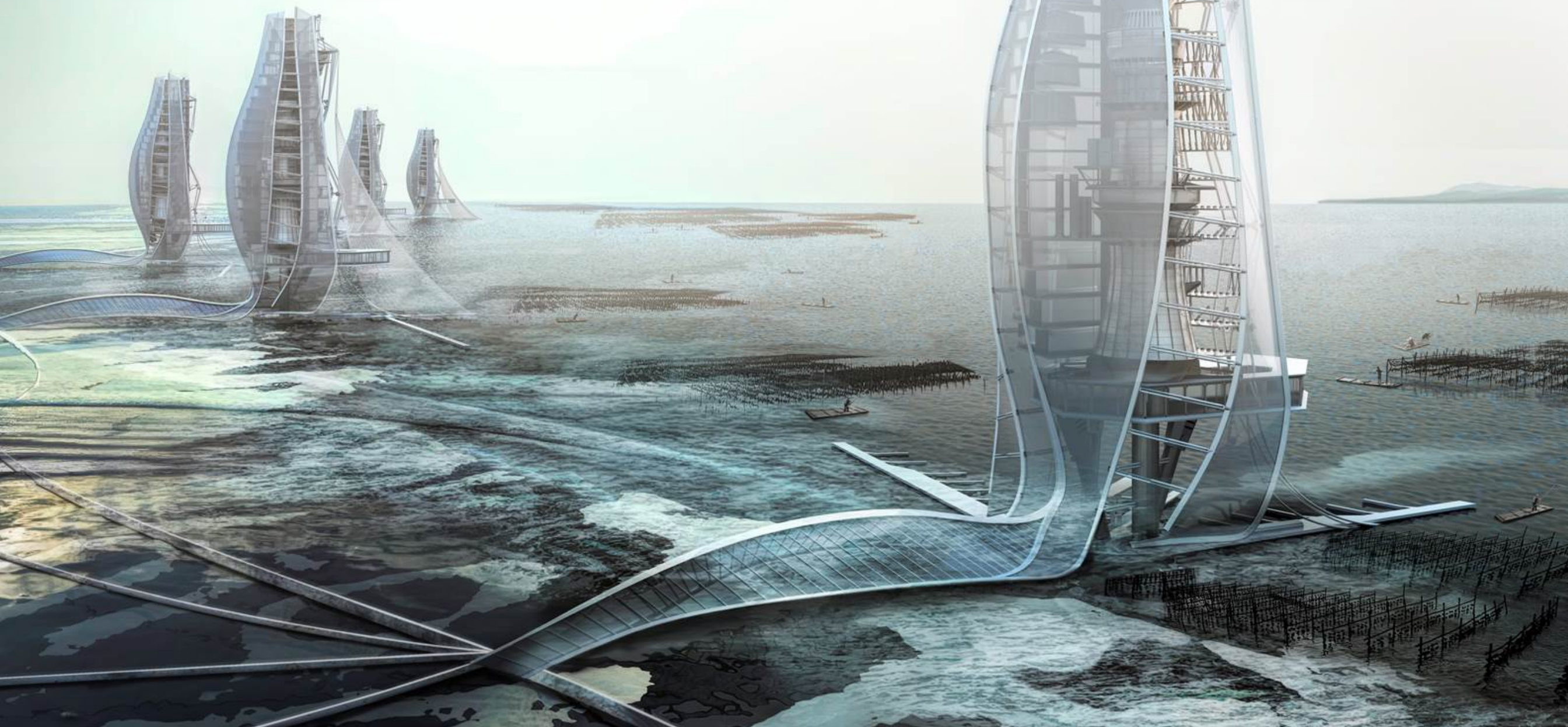


# THE GREAT WALL OF LAGOON

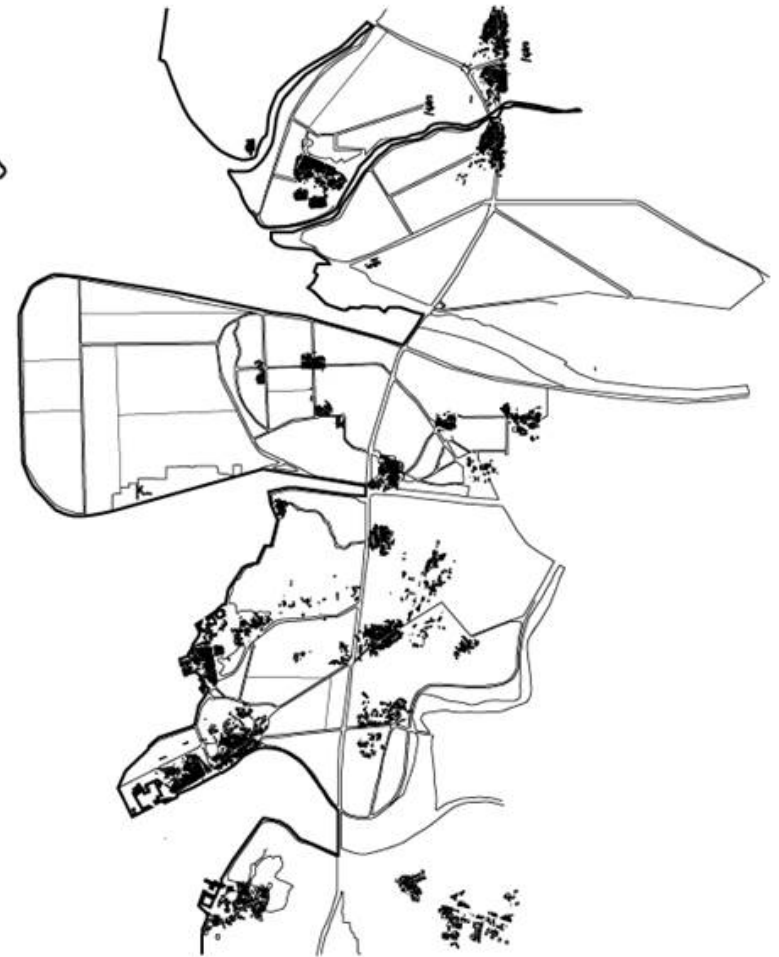
The great wall of China used to keep northern tribes from invading Ming Dynasty, it stood hundreds of years keeping it's mission, unlike China, nowadays we are not threaten by the normads from the north, but meanwhile, the sea level is rising just like them, is eroding our land.



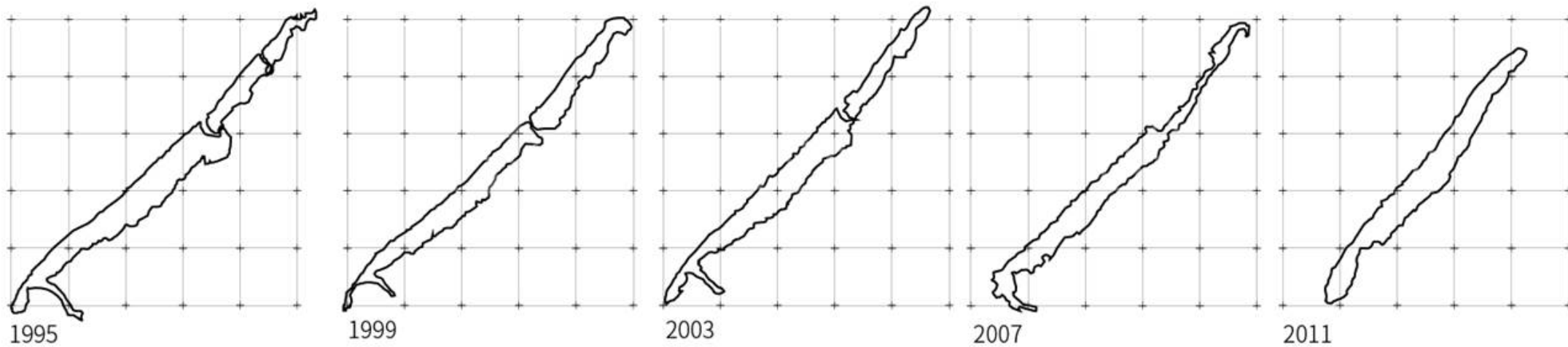
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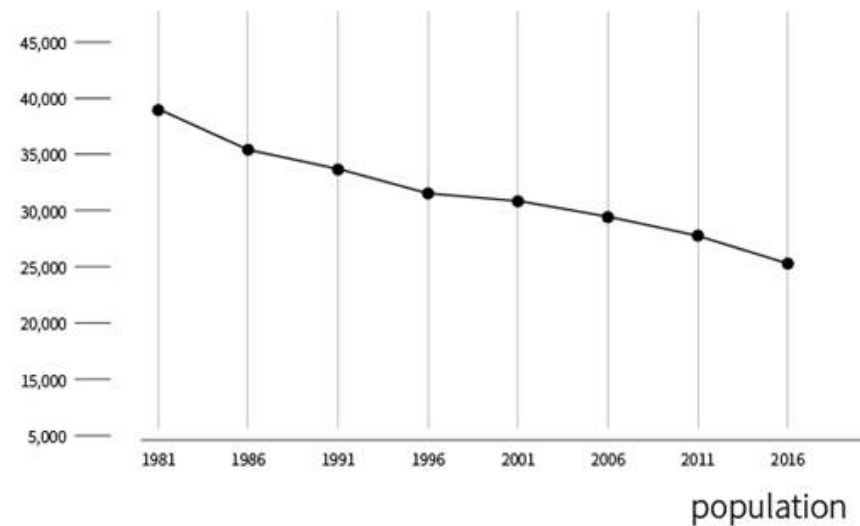
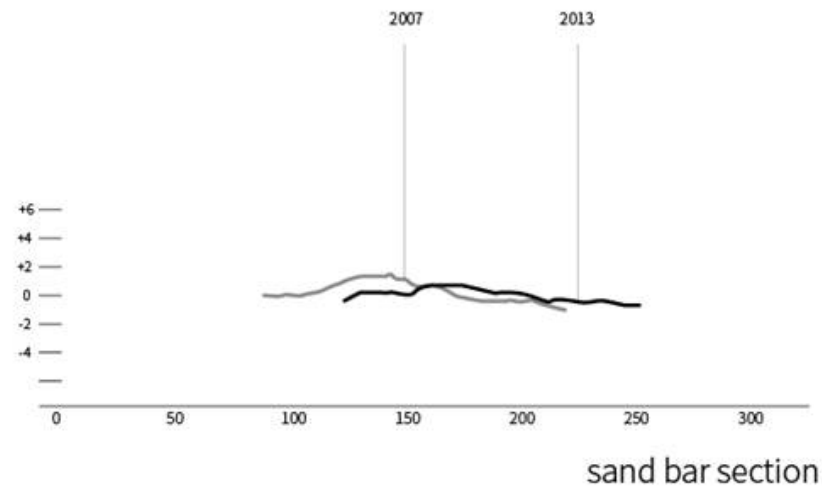


Despite the lagoon takes an important role in global shore, it's gradually shrinking due to some reasons such as sea level rising up.





The phenomenon of shrinking lagoon also affects local life and fishery industry.



create value



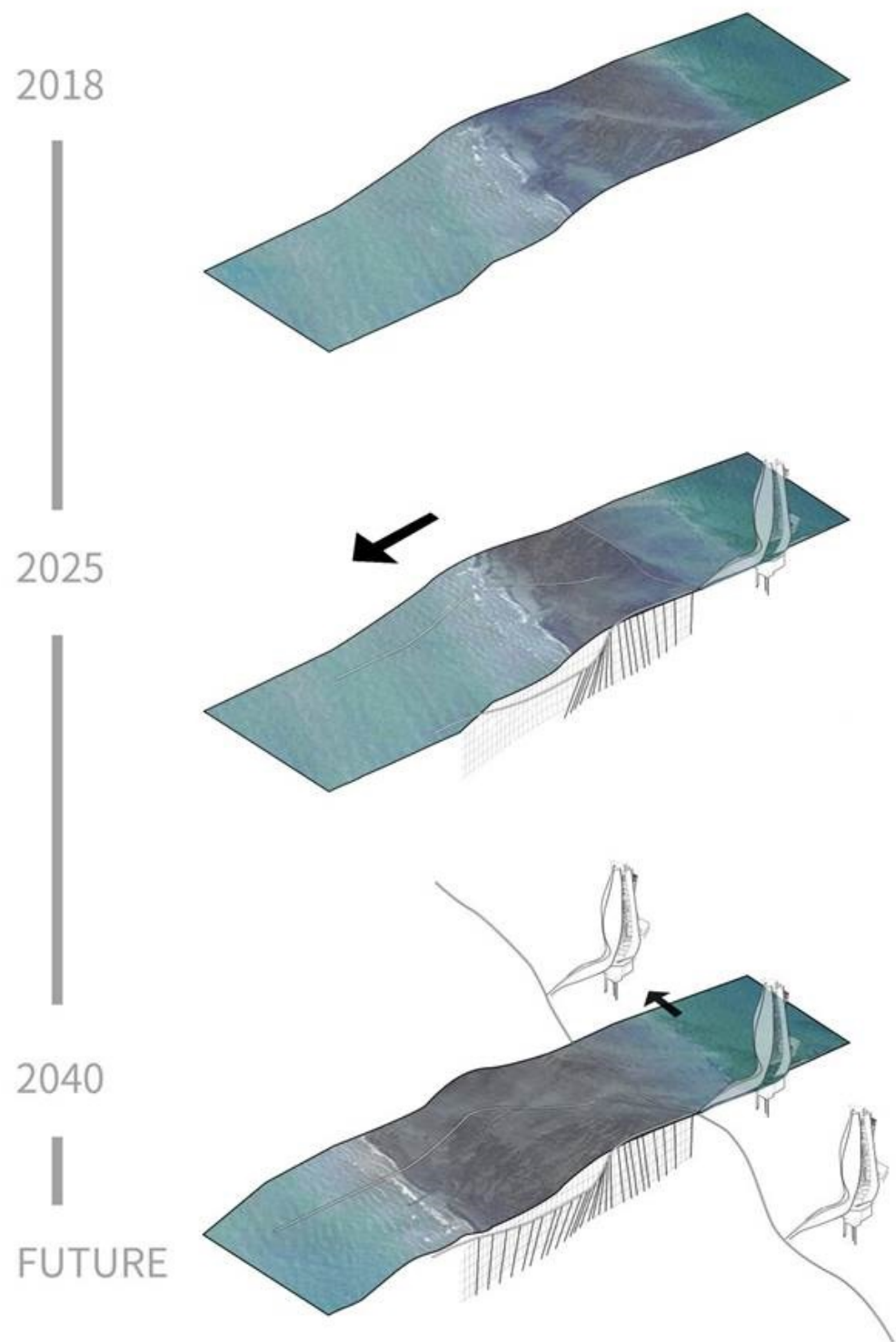
domestic sale quantity



quantity



people amount



The sand bank is demolishing while the sea level is rising. The interaction of wave and wind keep eroding it.

So first we set up some “lookout towers” on the edge of sand bank. The devices are aimed to keep the sand bank more solid and won’t be eroded so quickly. At the same moment , those residents remains their life like growing oyster and fishing .

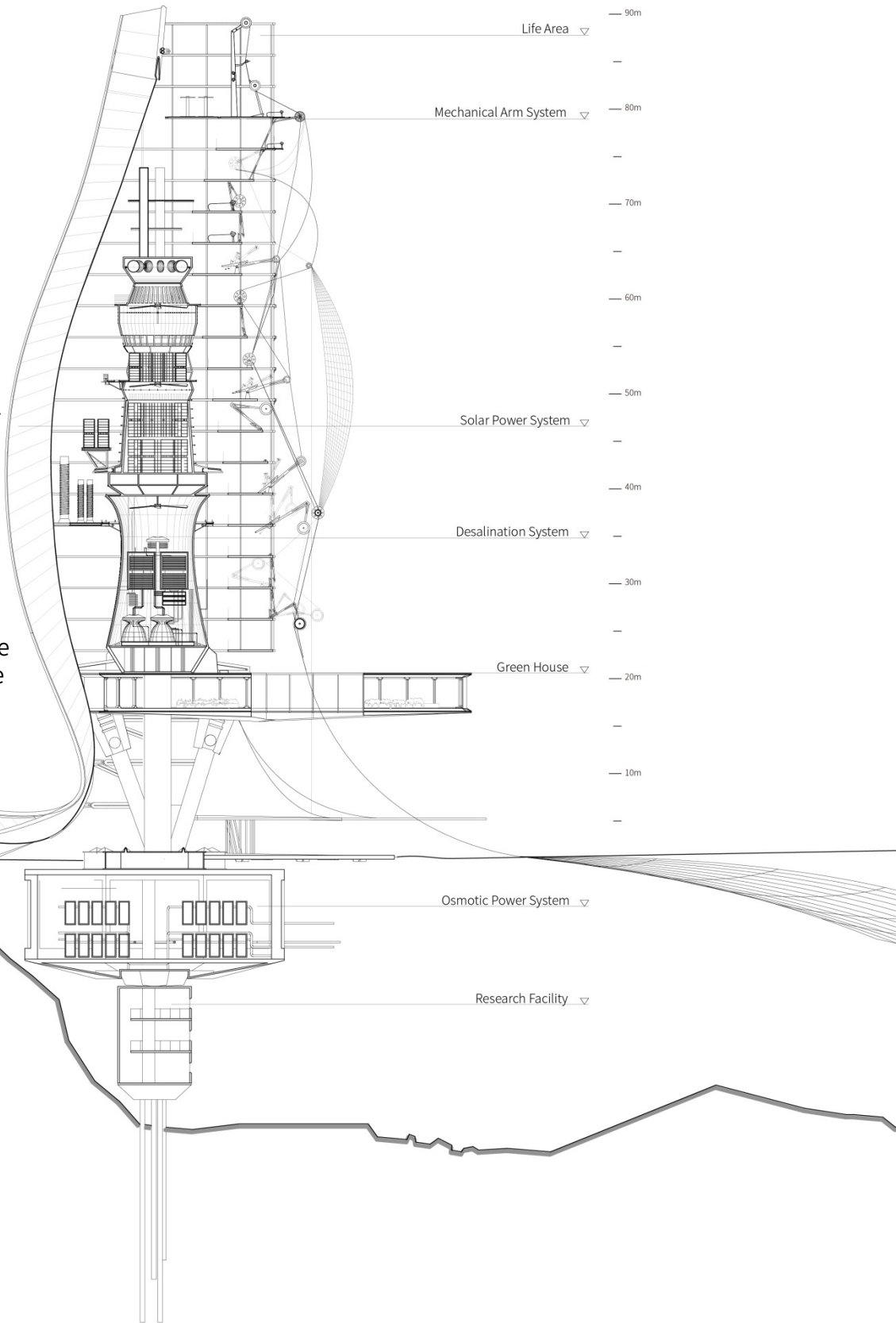
As the sea level keeps going up, since the device is floating on water with an anchor, there wont be a problem of flooding. Also , the net keeps collecting more and more sand so that the sand bank can keep piling up.

To the lagoon itself, keeping the sand bank stay is so important because it can prevent the shore from big wave and wind , also make sure the lagoon is an essential and suitable place for fishery.

The devices consist of 4 parts; the sand bank stabilize part, the life area, and the mechanical part.. the sand bank stabilize part is consist from a series of net, pile to the bottom of the sand bank. Those part become a system not only to stabilize the sand but also head off sand to make the sand bank goes higher. The life area is composed of 20 units in a vertical way, all of them use the public platform together.

Each of them has a balcony so that the fisherman can do the task, like repairing net or equipment. The life area goes down and link to a big plaza. The plaza supplies function of center square of a village, just like the miao-chun (the plaza before temple in Taiwan)

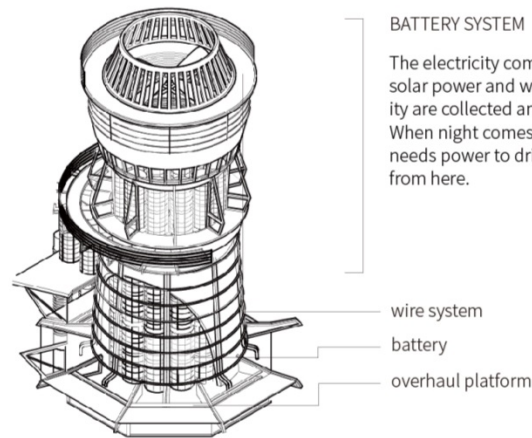
The mechanical part consists of a series of equipment such as solar panels, green house ,desalination part, wind power, etc. those parts are to make the whole device livable like a village on water.



**PART 1: THE SAND STABILIZER**  
 We originally want to maintain the sand bank, so the pile and net are in order to fix the sand not to be washed out. To confront the sea level goes up, the net is mean to intercept more sand to compile.



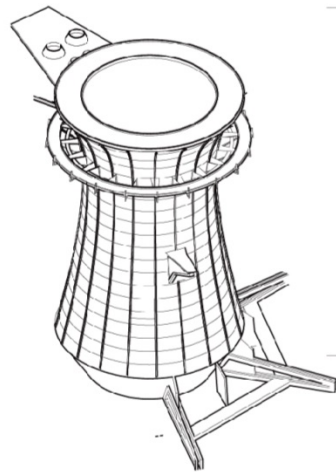
## PART 2: INFRASTRUCTURE



### BATTERY SYSTEM

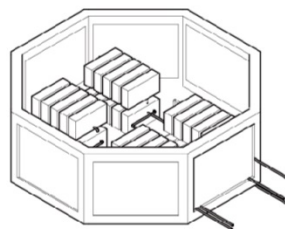
The electricity comes from osmotic power, solar power and wind power. Those electricity are collected and stored in the battery. When night comes or the mechanical part needs power to drive, it can deprive power from here.

wire system  
battery  
overhaul platform



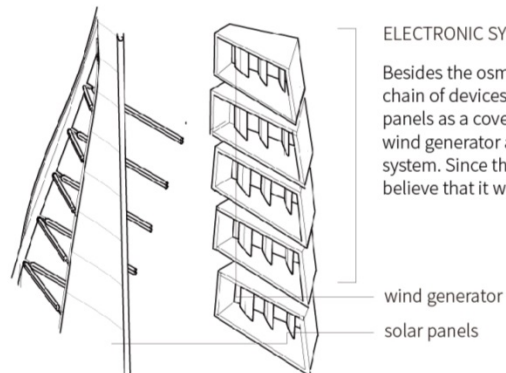
### DESALINATION SYSTEM

The clean water for the whole device is totally from here: we collect sea water and turn them into drinkable water. And also we reuse the grey water as we don't want to pollute the sea.



### OSMOTIC POWER SYSTEM

Salinity gradient energy is based on using the resources of "osmotic pressure difference between fresh water and sea water." All energy that is proposed to use salinity gradient technology relies on the evaporation to separate water from salt. Osmotic pressure is the "chemical potential of concentrated and dilute solutions of salt". [10] When looking at relations between high osmotic pressure and low, solutions with higher concentrations of salt have higher pressure

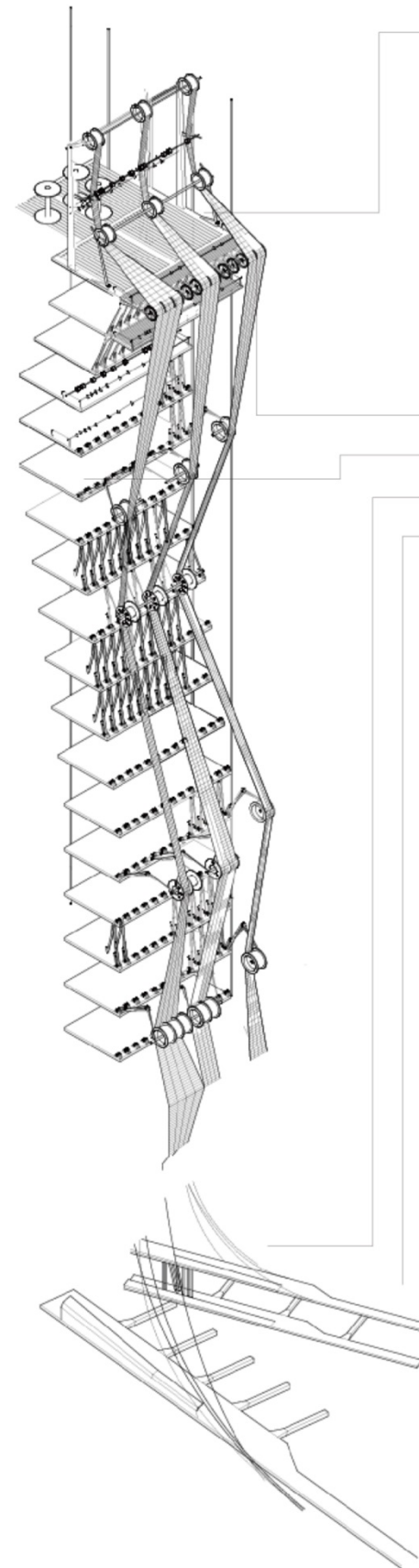


### ELECTRONIC SYSTEM

Besides the osmotic system, to maintain the chain of devices like a small city, the solar panels as a cover on the structure and the wind generator also works as electronic system. Since the location is on the sea, we believe that it would supply a lot of power.

wind generator  
solar panels

## PART 3: WORKING PLATFORM



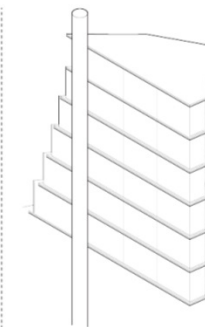
### MECHANICAL ARM SYSTEM

The fishery needs lots of nets, cable and thing so on, so the vertical cable system allows the resident pull up their catch, to process, or to repair their equipment. The system is linked to all the platform thus things are convenient to convey to others.

control point  
platform  
net  
harbour

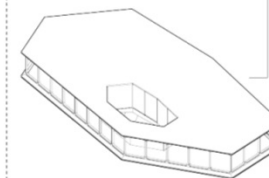


## PART 4: LIFE AREA



### LIVING SYSTEM

We try to create a settlements here, the residents of original village near the shore, now they don't need to worry about getting flooded. In contrary, they work, relax and stay on the device. The wharf downstairs is the gate of transportation.



### GREEN HOUSE

We wish everyone here can live happily, so with the green house, the vegetable can be supplied, also can be a resting place.

# Keep the Coastline



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# Preserve the Industry



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# Developpe the Community



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