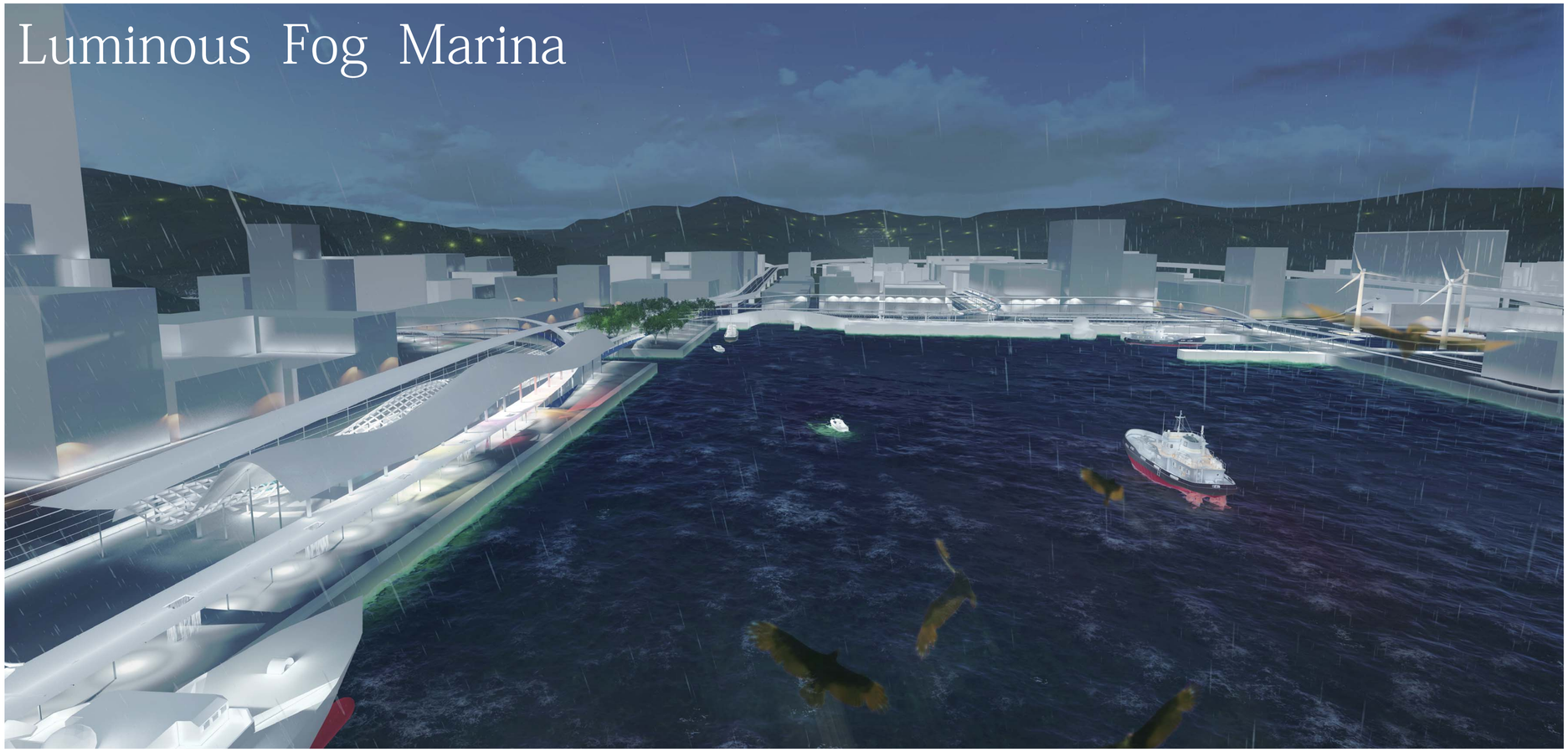
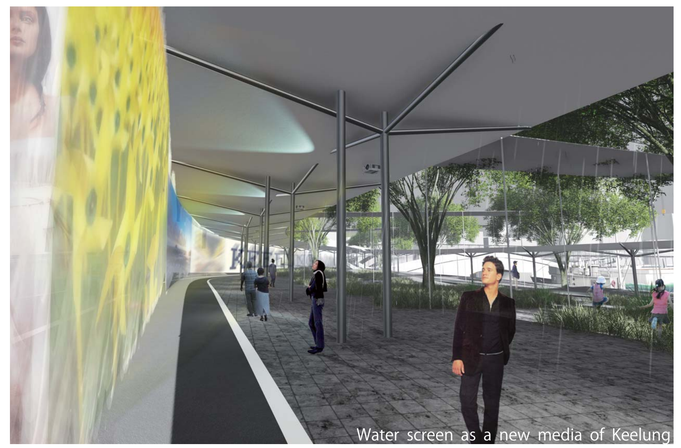
Luminous Fog Marina

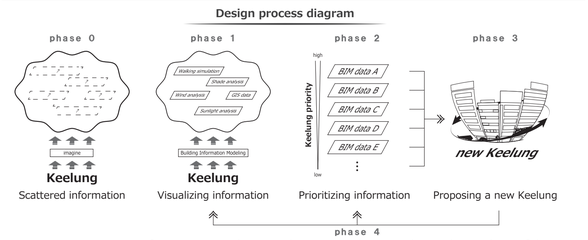


Pedestrian space



Water screen as a new media of Keelung

1 . Proposal -A new way of tourism in keelung-



We propose a new way of tourism in Keelung. And tourism is the act to know the working of the city residents. Keelung has a background that life of residents has been made up by the logistics and harbor. Among them , Keelung came out the need to reform the urban structure .
If a international passenger terminal will be built, Keelung will be more and more becomes a tourist destination .So our aim is how tourists touch the life of the city. We visualize a peculiar information of remote location using BIM, and we design new Keelung, integrating variety information.

2 . Proposal -A media harbor that using rainwater, and the pedestrian space-

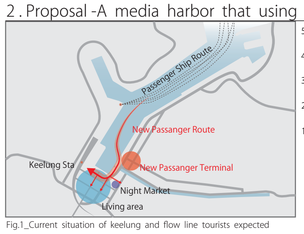


Fig.1_Current situation of keelung and flow line tourists expected

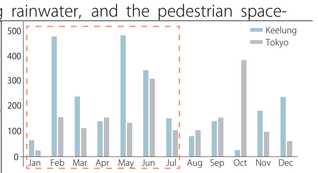


Fig.2_Amount of rain water in Keelung and Tokyo

Red dotted frame of the above graph indicates season when it rains especially much in Keelung.

We focus at 2 problems to Keelung. First, Transportation network of Keelung is a major border that inhibit the flow line of the pedestrian. Second, Keelung is a town with a lot of rainfall. Rain for this city are negative point to restrict people's activities.
In addition, there is the redevelopment plan that can build the new passenger terminal complex at the east side of the Keelung harbor. And it is expected by this plan to be able to a chance to increase a flow of the tourist who visits Keelung (fig1). We propose the space for pedestrian where a person is flowing to the Keelung city fluidly and rain is changing the scenery that attracts people along this redevelopment plan.

3. Overall plan

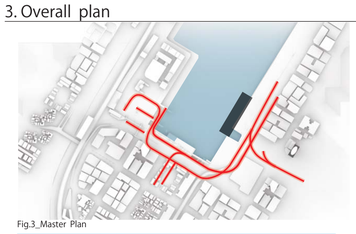


Fig.3_Master Plan

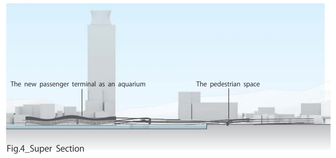


Fig.4_Super Section

We propose the three-dimensional walking space which expands a possibility of Keelung.That functions as a new view spot as well as the function of the pedestrian deck.
For example, we utilize landscape of harbor , mountain and rain to get a view.
So we propose that it creates a new scenery and new activities in Keelung, and a new tourism resources.
We plan the new passenger terminal as Aquarium, which also serves as a water storage.
Pedestrian space extending from the aquarium, that is spreaded around to the night market, the living area, and Keelung station.

4. Circulation system of water

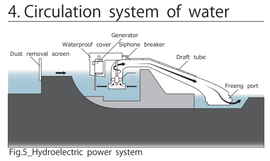


Fig.5_Hydroelectric power system

There is a river on the east side of the keelung harbor. As a system for generating power by circulating water in the river and the use of microhydropower. Micro Hydroelectric power system is a system for generating electric by using a variety of water flow. There is a merit , reducing the load on the natural environmet and the cost.

5. Wind-power generation

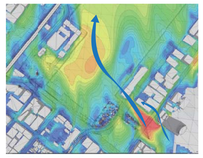


Fig.6_Wind simulation in summer

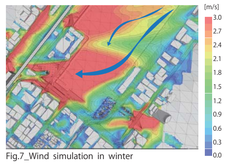


Fig.7_Wind simulation in winter

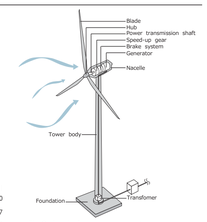
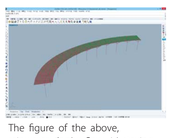


Fig.8_A wind power generation

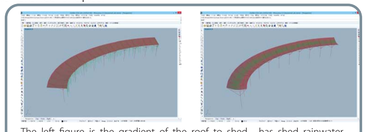
In the Keelung, flows the strong wind. We found the area that flows are more strongly. We set up a wind power generation. (Fig.8)

6. Simulation of rainwater

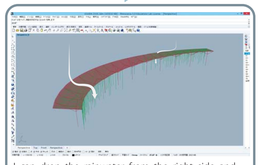
We verify the flow way of rainwater on the roof with using the Rhinoceros and Grasshopper. We can use defference shapes.



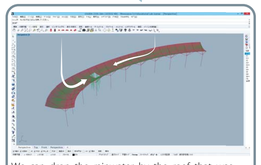
The figure of the above, rainwater don' t flow. It' staying on the roof.



The left figure is the gradient of the roof to shed , has shed rainwater. The right figure is recessed the roof, it has attracted the rain water in the center. We will use the two of design for the form of roof.



I can drop the rainwater from the right side and the left side on the roof.



We can drop the rainwater by the roof that was recessed a central. Furthermore ,we can collect the rainwater at a point and drop from the roof

Fig.9_Studying flow way of rainwater

7. Features of the roof

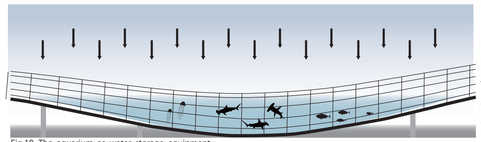


Fig.10_The aquarium as water storage equipment

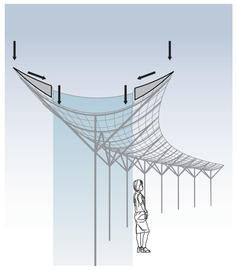


Fig.11_The roof as drainage equipment

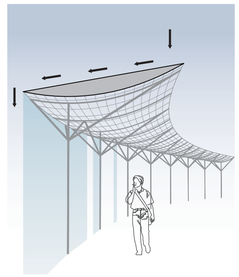


Fig.12_The roof as water screen

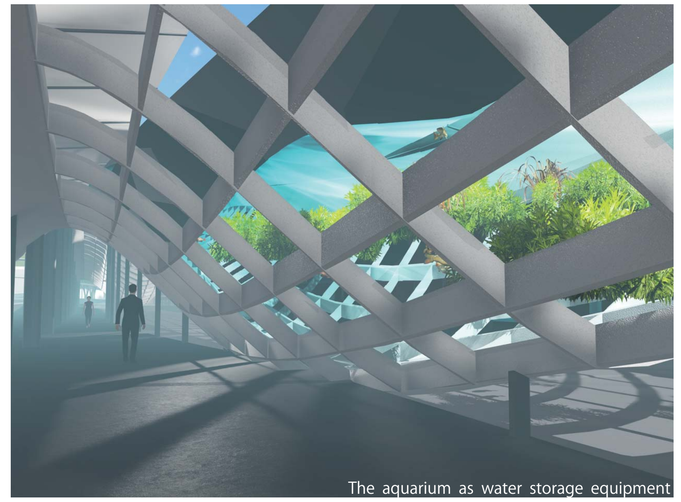
Finally, we decided the three roof shape.

1) An aquarium and water storage equipment (Fig.10)
This roof, provided on the new passenger terminal that becomes the entrance of the tourist. The aquarium that can save the rainwater make a fun space, and excitement of the trip.

2)The roof as a drainage device(Fig.11)
The roof, which is provided in the area and directed to the night market, prevented that the ground becomes waterlogged when it rained. By dropping tha rainwater near the drainage ditch that dotting the road, it will be able to carry out an effective drainage. In addition a sunny day is opened for inserting the light of day, you can see also Bustle.

3)The roof that make a water screen(Fig.12)
We provide the roof on the elevated side and south area. a water screen is used as a new media of Keelung instead of the signboard.

Night market



The aquarium as water storage equipment