



POLITECNICO
MILANO 1863

SCUOLA DI ARCHITETTURA URBANISTICA INGEGNERIA
DELLE COSTRUZIONI
SUSTAINABLE ARCHITECTURE AND LANDSCAPE DESIGN

BACK TO THE BLUE

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I would like to use this opportunity to express my gratitude to everyone who supported me throughout this project. I want to thank my advisor prof. Vives for his aspiring guidance, invaluable constructive criticism, and advice during the reviews.

I am sincerely grateful to my husband, Gabriele, who has been my constant source of support and continuous optimism, it was absolutely impossible to finish this without having you by my side.

This work is also dedicated to beloved my parents, Abolfazl and Sedighe, and my dear brother, Hamid, who have always loved me unconditionally and whose good examples have taught me to work hard for the things that I aspire to achieve.

I am also sincerely thankful to my dear Carlo and Claudia who always believed in me and supported me.

This accomplishment would not have been possible without all of you

Thank you,

Sara Alimardani

Abstract

Water has been always one of the most essential needs of human beings, either as a survival purpose or just as a sanctuary element to turn to when we want a little piece of nature.

The Maldives has become a very popular destination for beach lovers that want to taste this exotic feeling of being surrounded by crystal clear blue water. This huge amount of request come certainly with consequence. Local islands have recently drawn the attention of the tourists since they are suitable places to spend the vacation near the traditional life of the locals and still benefit from the blue ocean. However, local islands are still not prepared for this amount of tourism which make them more vulnerable than the resort islands. Ukulhas is one of the local islands that has become a popular destination recently. Visiting the island myself, I noticed some defects in the social and ecological aspect which I decided to focus on as my thesis subject and bring the water, island and human back in peace and harmony.



Introduction

Ukulhas is one of the inhabited islands in Maldives. The tourism started in this island in 2008 and got the attention of many tourists since then. Talking to the other tourists and asking them about their reason for choosing this island (or other local islands), I understood that rather than the breathtaking view, they were also looking to experience another culture and take in the REAL Maldives. Just like the thing I was looking for. However, this need for cultural experience did not take place. The lack of extra activities is another thing that affects both tourists and locals. Another thing that drew my attention was the beach condition that was poorly monitored in some areas.

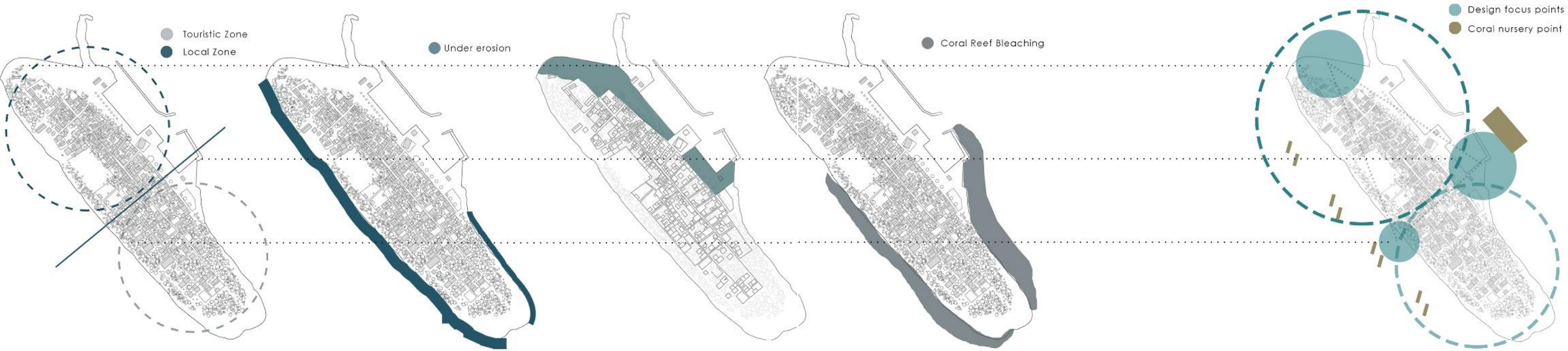
So this project aims to provide a solution in these three aspects: social, architectural and ecological aspect.

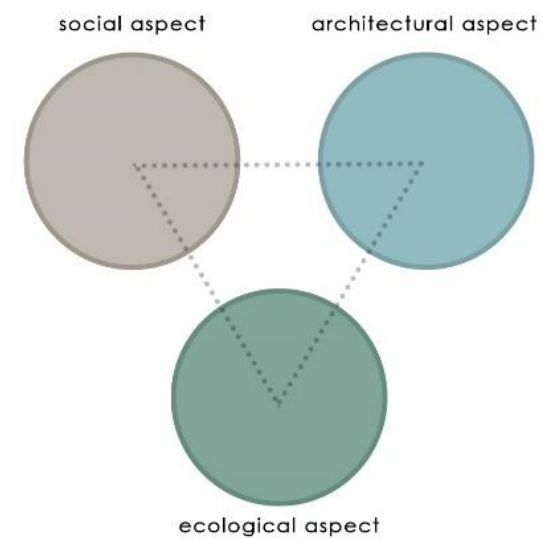
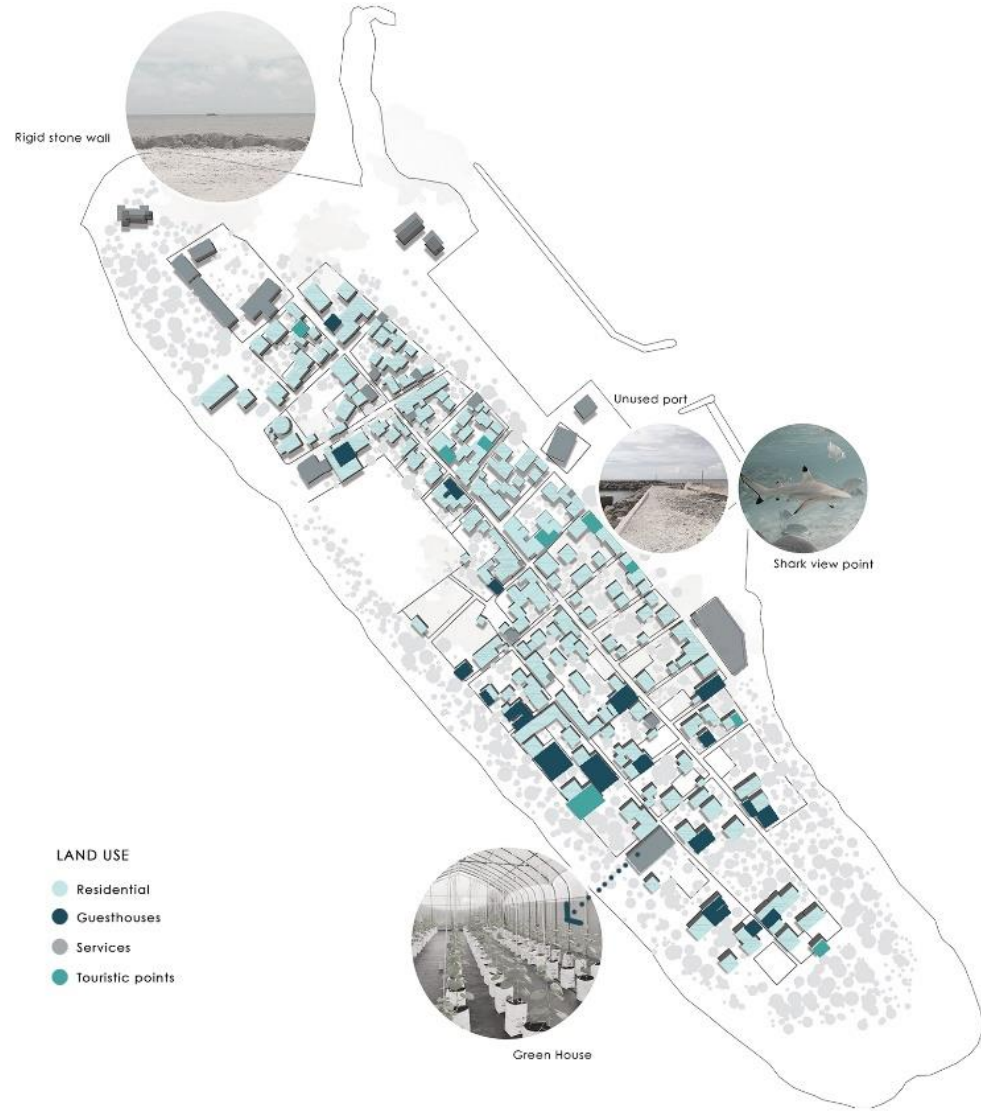
Social aspect: Focusing on a way to bring and make a connection between locals and tourists.

Architectural aspect: To provide a recreational place where people that are surrounded by water all the time can feel a different experience with it, and a place that can also serve as a multifunctional stage for different group activities.

Ecological: To give back what used to belong to the sea, it's beach. It is a proposal for renaturalization of the northern part of the island.

Analysis



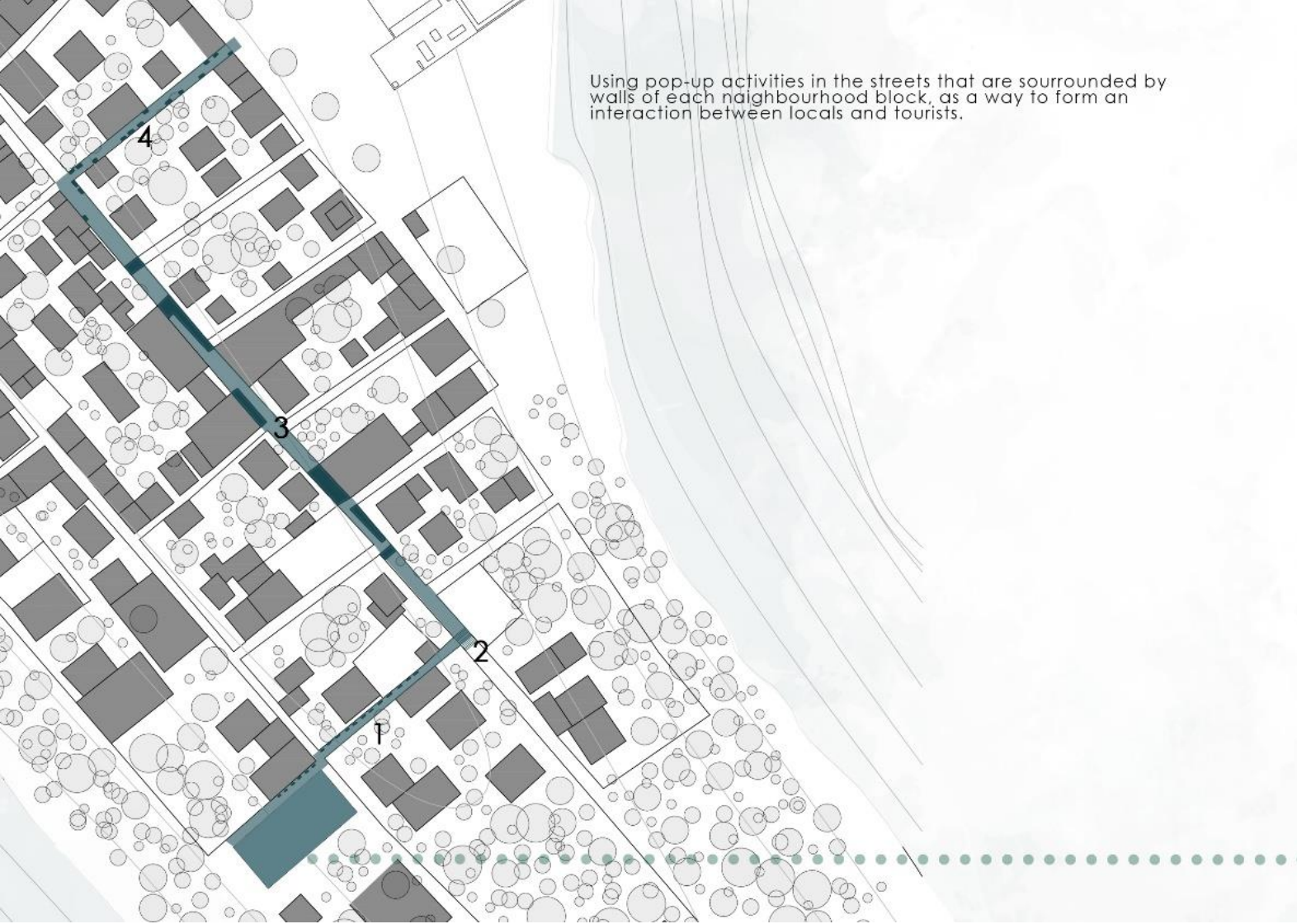


Social aspect



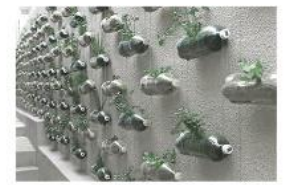
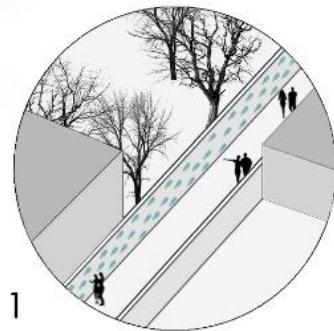
The number of guesthouses is still increasing since 2008 when for the first time tourism took place in the island which leads to island being divided between two zones: local zone and touristic zone.



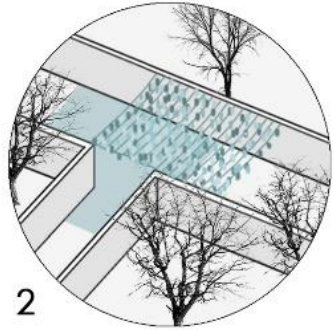


Using pop-up activities in the streets that are surrounded by walls of each neighbourhood block, as a way to form an interaction between locals and tourists.

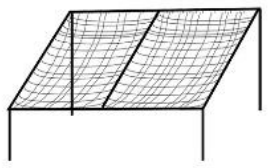
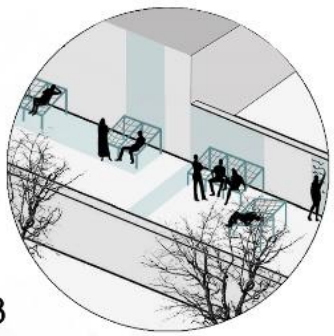
Seed planting in the waste plastic bottles



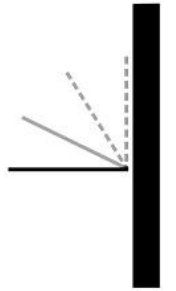
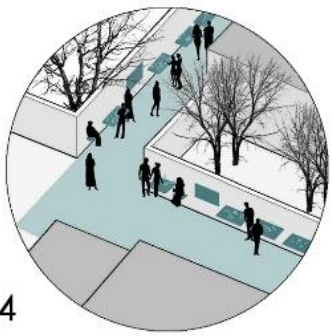
Intersection attractio point (use of plastic waste)



Communication route (use of existing furniture)



Street Local market



choose the green house as the starting point of the pop-up rout (cooperation between locals and tourists in the greenhouse)

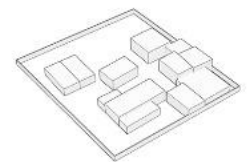


Greenhouse

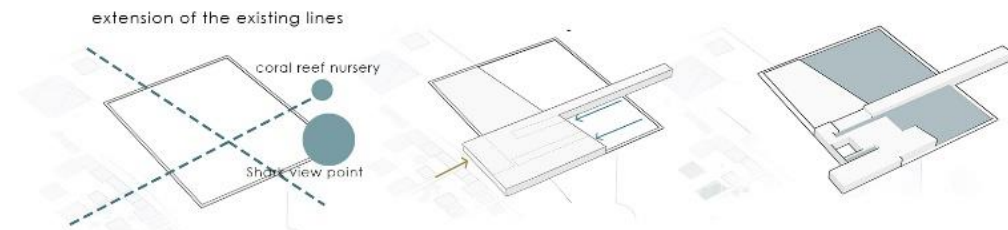
Architectural aspect



Using an unused port and make a connection between water and the unused open space to create a recreational space for evening group activities. Also taking in account the already existing attraction (shark view point)



prototype of local blocks



water and land extending into each other



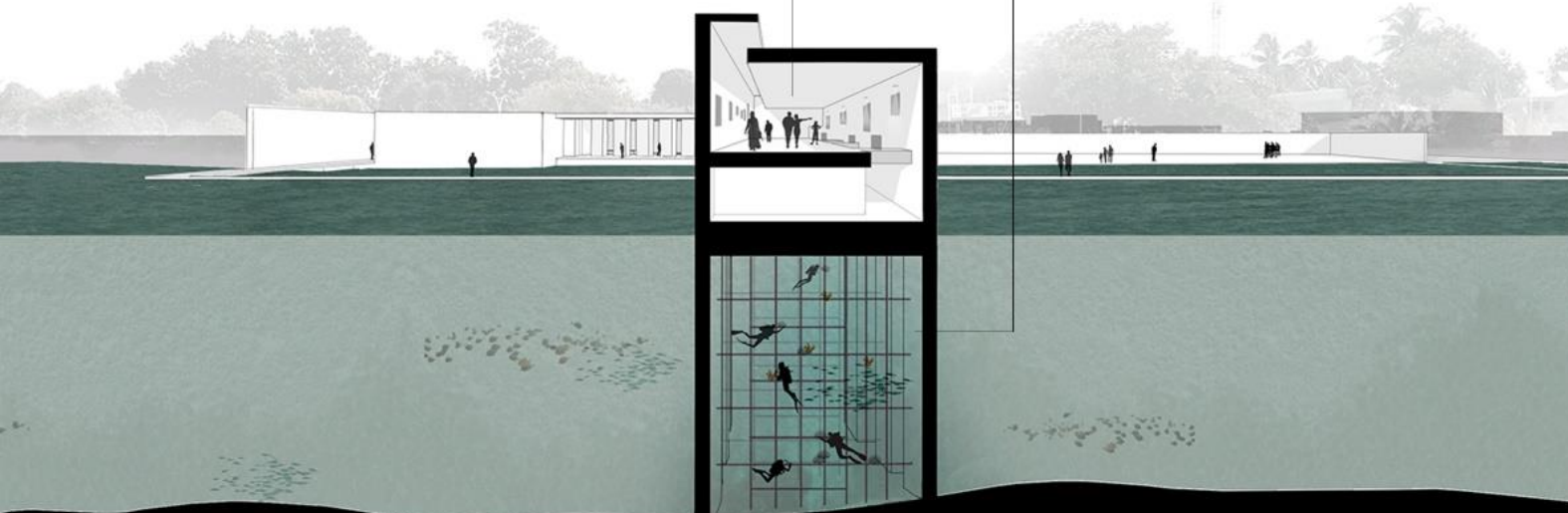
People are walking between the walls inside the streets and since the overall idea comes from the neighbourhood blocks, I tried to keep the same feeling inside the project. Being surrounded by walls and have different perception of water. It brings the water inside and demonstrates different views of the water other than the ocean we see every day.

The building has also an educational aspect. Since there is a coral nursery at the end of the linear volume of the building, it provides a perfect opportunity to teach people about coral situations and let them be a part of planting new ones to protect the coral life.

Linear Gallery

Coral nursery

With the help of scientist, locals and passionate tourists, The coral nursery can become a very important factor to preserve the coral reef and prevent future possible floods and it also can act as a live underwater museum.



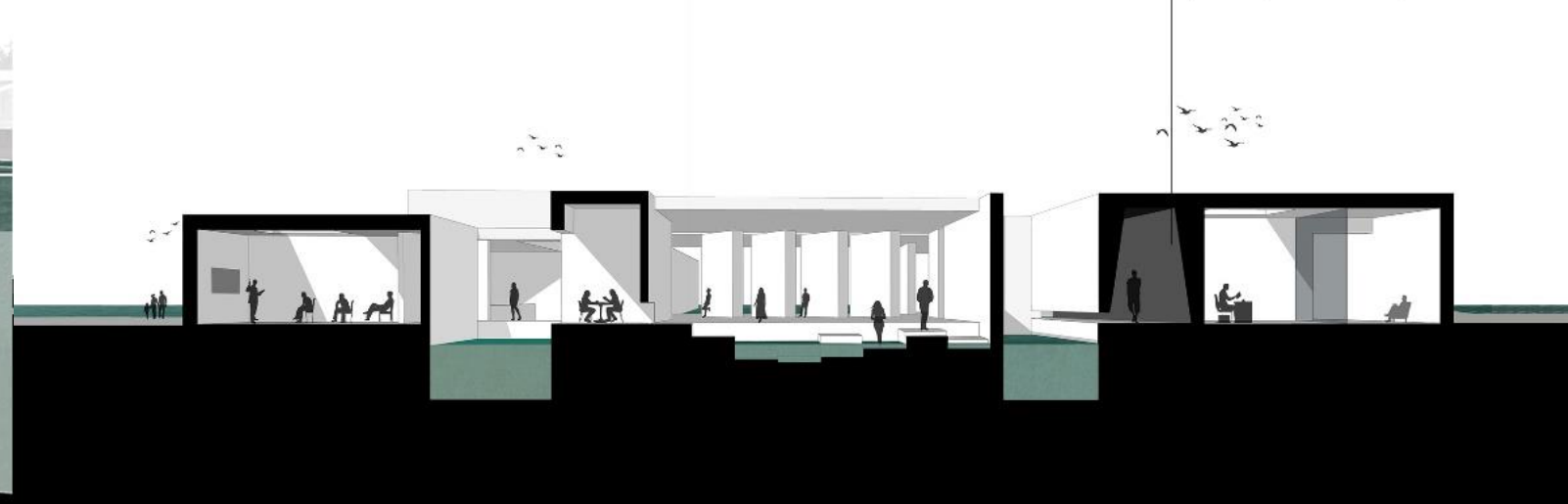
Sec C-C

Caution room

This place acts like an awareness element about water level rising. Each cube represent the assumption of the level that water is going to reach that year

Blindness path

let you focus on the sound of water by walking in a semi-dark path.



Sec A-A

The finishing material of the upper part of the facade is a local technique: plaited coconut leaves plastered with earthen mud and painted in white which gives facade a nice texture and also keep the project in harmony with the other buildings in the island.



platted coconut leaves



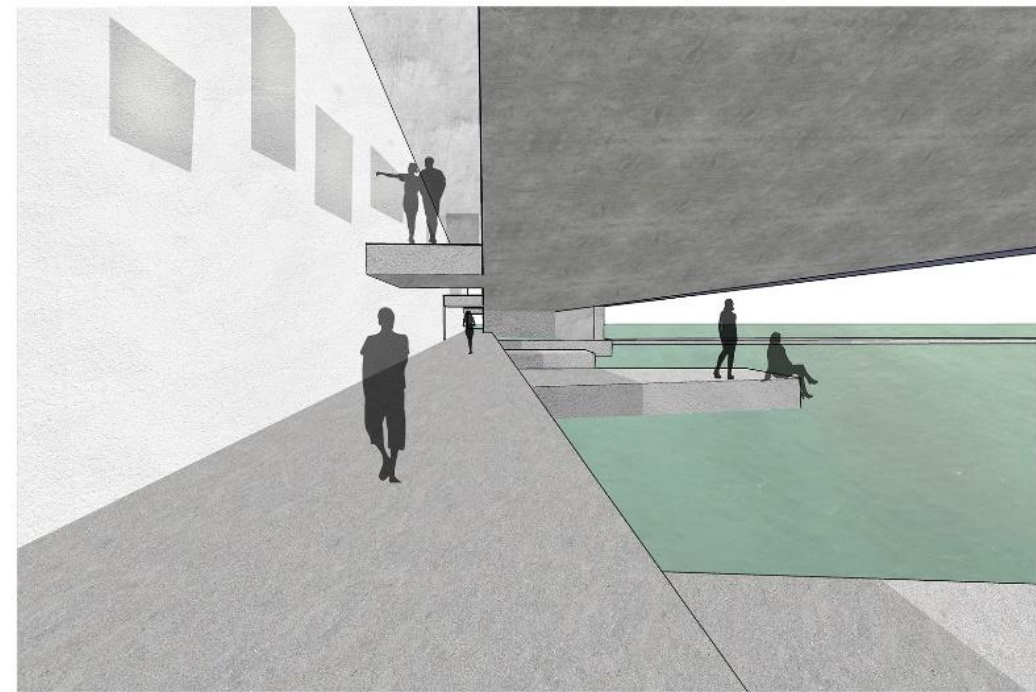
earthen mud

white concrete

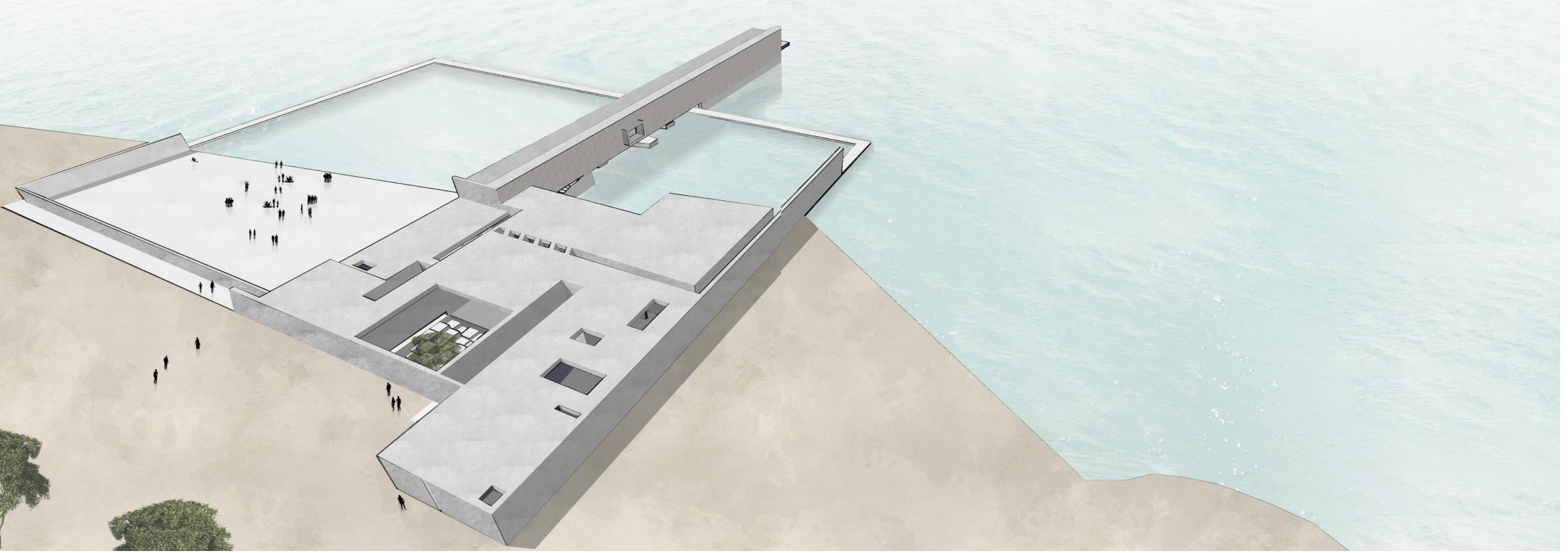




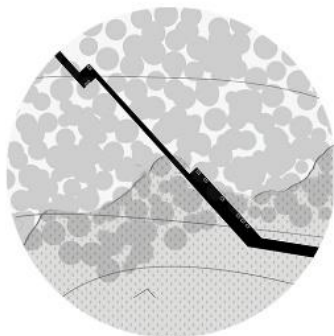
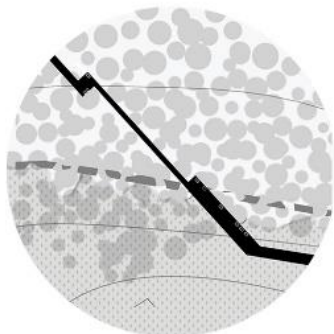
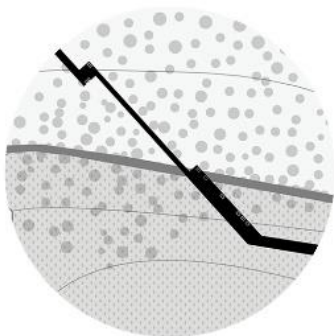
Caution room



SCuba diving path



Ecological aspect



renaturalization of ocean edge

Years ago a stone wall was build to prevend water from flooding into the island.

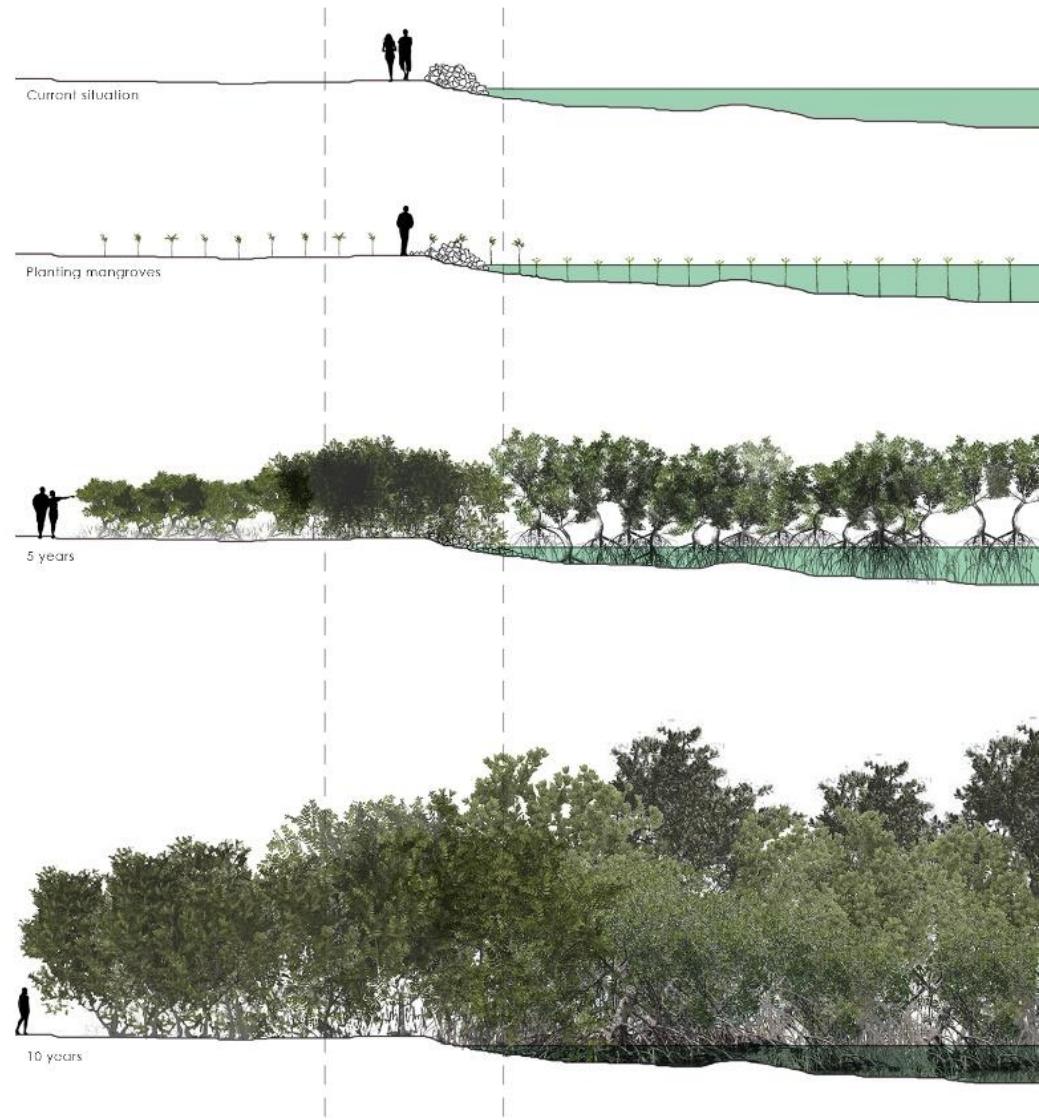
Since then this part of the island has remained unfunctional.

This proposal is to gradually remove the stone wall and prevent flooding in an ecological way.

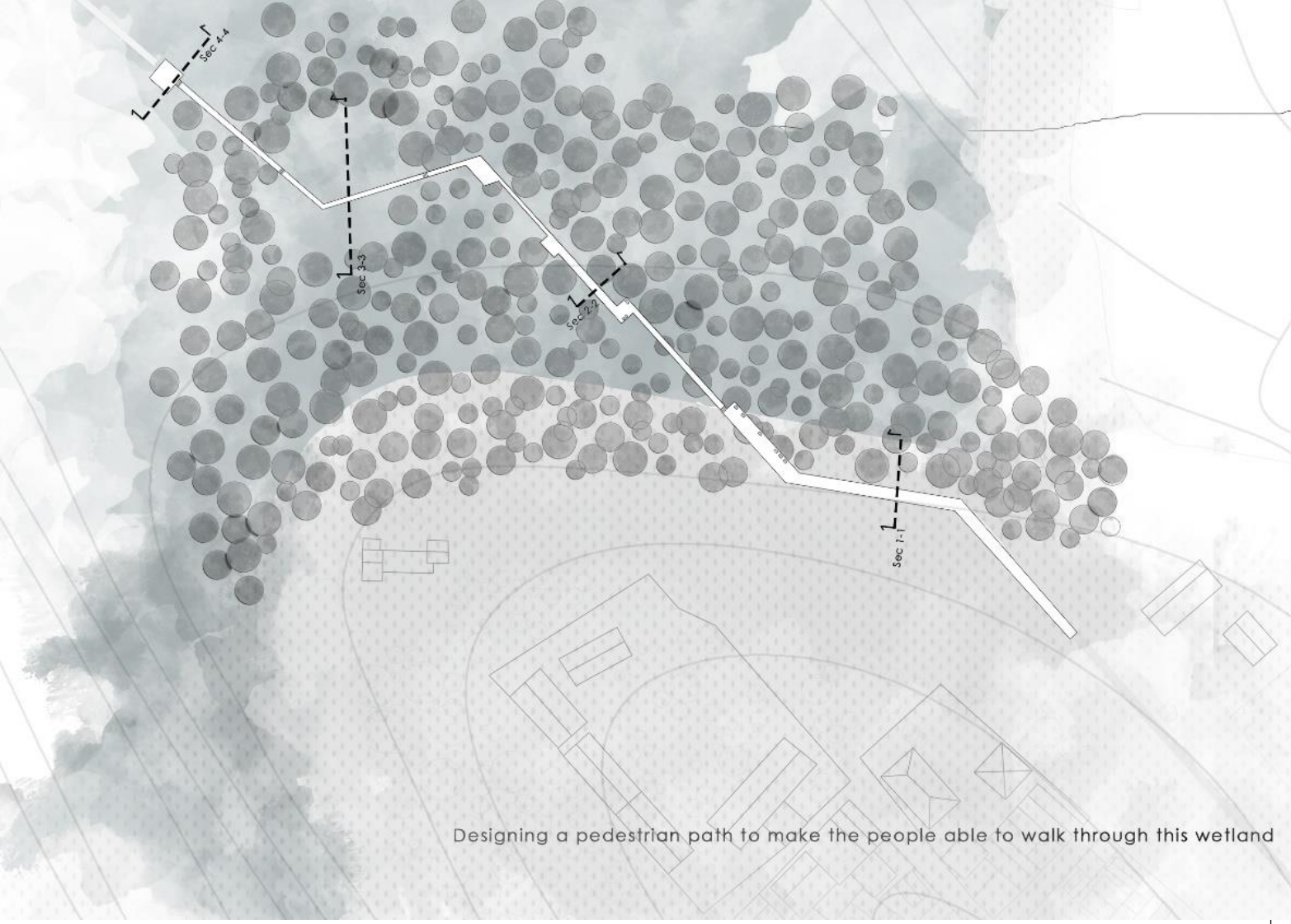
Planting mangroves

(An activity that can be done with the help of tourists and locals)

As the mangroves grow the roots will eventually break the stone wall and they are a perfect species to stabilizing the soil and prevent future water runs.



Different visual perception while walking on the bridge



Designing a pedestrian path to make the people able to walk through this wetland

Sec 1-1



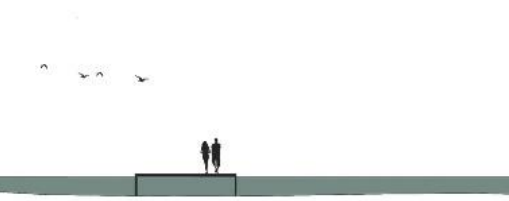
Sec 2-2



Sec 3-3



Sec 4-4



THANK YOU FOR YOUR ATTENTION