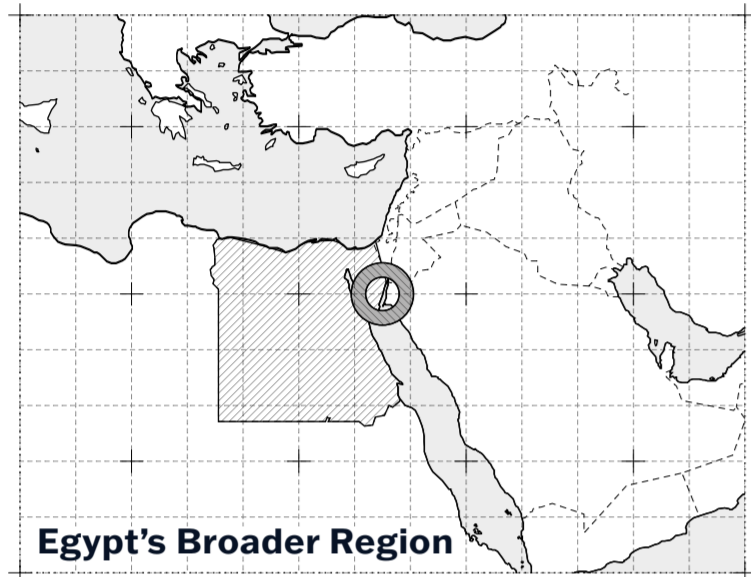


# DESCENSION //

by Tommy Nagy



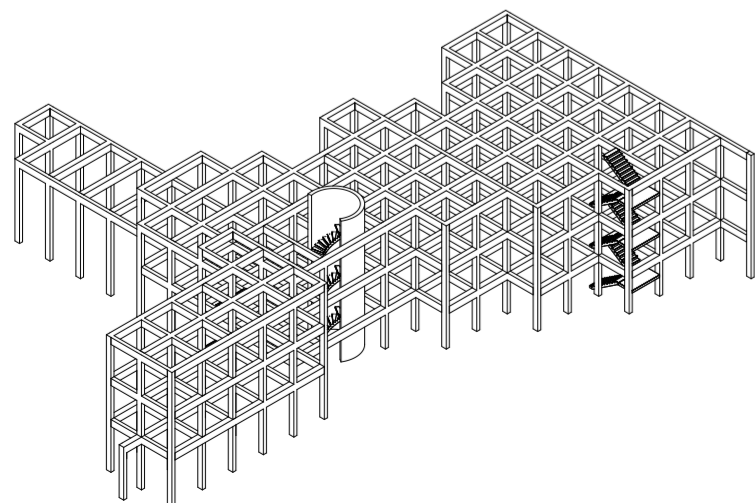
Dahab's popularity among scuba divers is due to its unique dive sites. Unfortunately, these dive sites have various problems. For example, the Blue Hole is the world's deadliest dive site, with 8 to 14 deaths per year. Furthermore, many of the reefs have significant coral damage; this is due to various issues such as the overcapacity of divers and the lack of proper training facilities in town to educate divers and their instructors beyond the basic levels.

## Building

To combat the various issues in Dahab, the project's chosen site is a building which is left ruined due to the unstable history of the region.

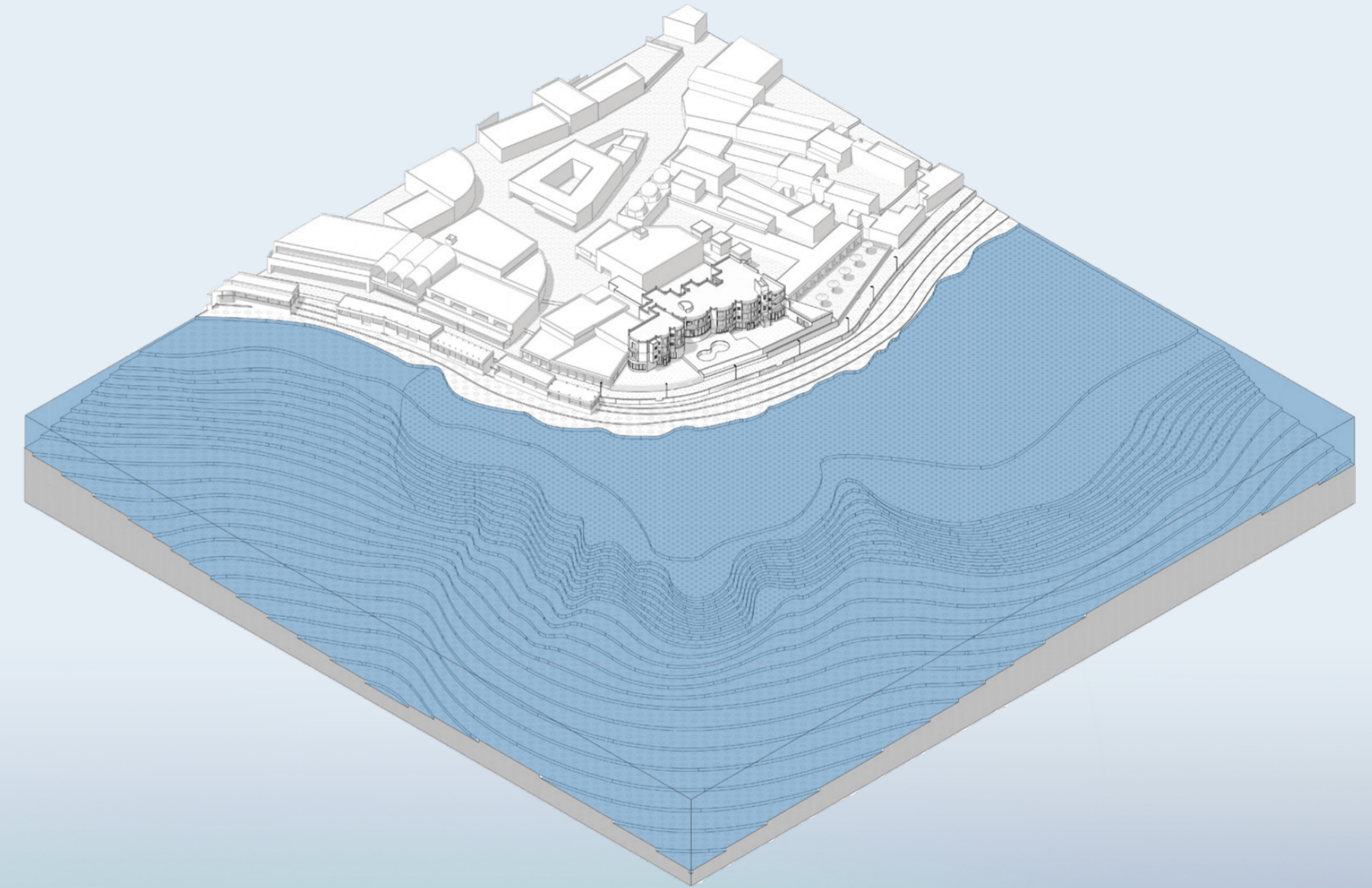


Due to fluctuating tourist numbers in Egypt, there are a high number of incomplete and abandoned hotels and resorts. The site chosen for this project is the ruin of one such hotel. Once the first hotel to be built in Dahab, it was the centre point of the town. Unfortunately, in the early 2000s, Dahab was hit by suicide bombings and the hotel was illegally occupied by the same Bedouin people, which forced its closure. However, even though the building lies in ruins, it still attracts many people to explore it.



The first step of this intervention was to decide the degree to which the host building would be stripped back. The original layout was analysed to find that it existed out of 2 main components; its concrete grid structure and brick walls to create the hotel layout. However, since the purpose of the building has changed and the brick layout would no longer benefit the new purpose, the strategy is to strip the building to its concrete grid, removing all brick walls. This would allow the new purpose of the building to be fitted in.

After Israel handed Sinai back to Egypt in the eighties, the seaside town of Dahab rapidly changed from a small fishing village into a significant scuba diving destination. The city now thrives on tourism, through this quick change brought with it various problems. This project aims to help regenerate Dahab's tourism sustainably through an architectural intervention.

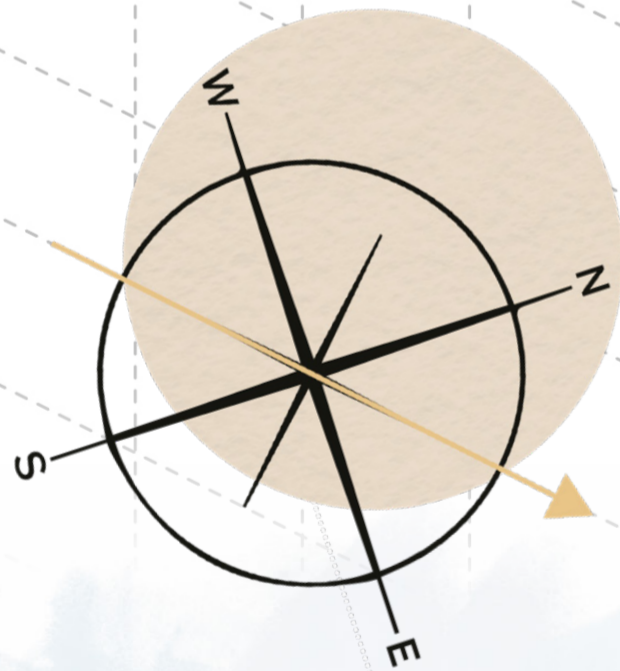


# DESIGN STRATEGY

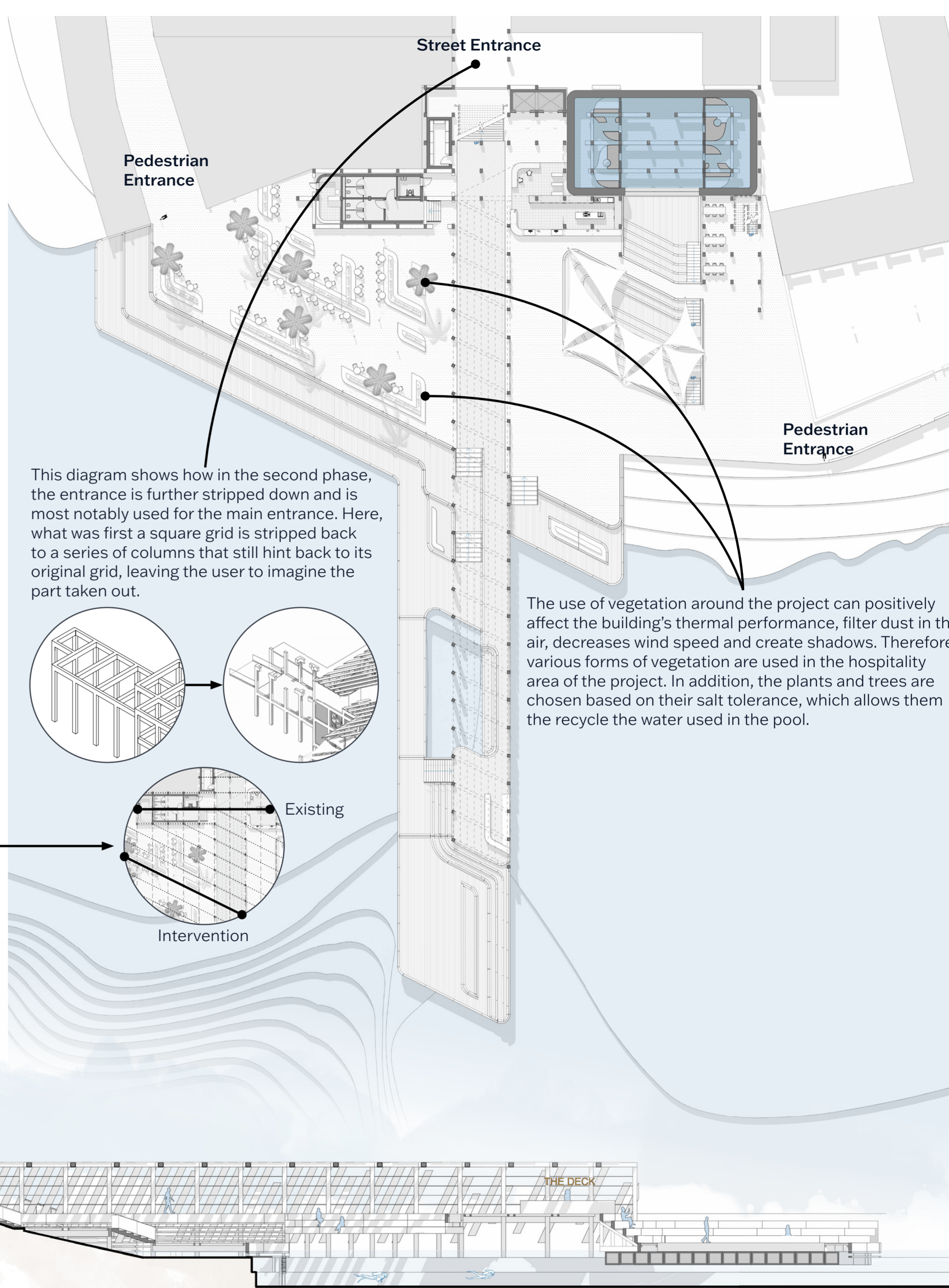
Now the building is stripped back to its concrete frame; this project will treat the structure as a contemporary ruin for the ruined state is what still entices people. The strategy follows three primary sources to inform its design decision; the art of Hubert Robert, traditional building methods and Nabataean architecture.



Hubert Robert painted existing buildings as if they were ruins. An analysis of his techniques and the elements used to make a painting feel more ruined was used in this project. Some of the details and techniques were; reclaimed wood to divide spaces, canvasses hanging among the ruins, vegetation overgrowing the structures, and the way he broke buildings down.



Research into traditional building methods shows that the ideal angle to build in Egypt is from the southwest to the northeast. This angle minimises sunlight while still allowing enough breeze to be felt. Therefore, to create a clear visual distinction between the existing and the intervention, the existing's horizontal gridlines were replaced with this angle for the intervention.



This diagram shows how in the second phase, the entrance is further stripped down and is most notably used for the main entrance. Here, what was first a square grid is stripped back to a series of columns that still hint back to its original grid, leaving the user to imagine the part taken out.

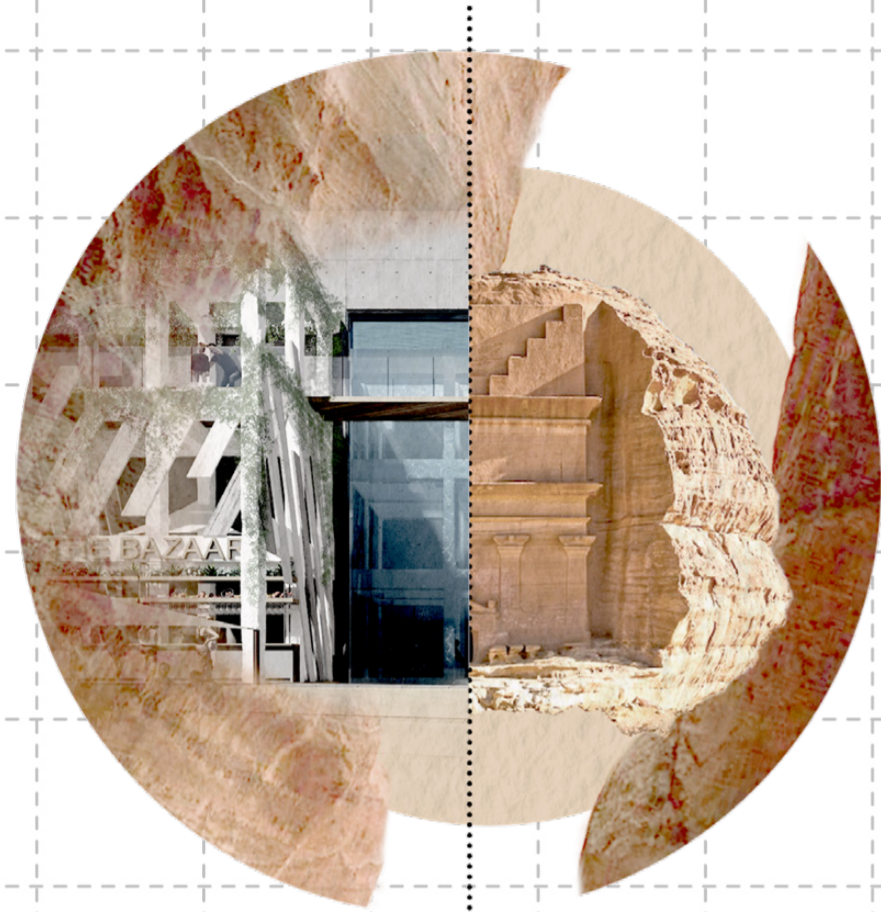
The use of vegetation around the project can positively affect the building's thermal performance, filter dust in the air, decrease wind speed and create shadows. Therefore various forms of vegetation are used in the hospitality area of the project. In addition, the plants and trees are chosen based on their salt tolerance, which allows them to recycle the water used in the pool.

Canvasses are used as a sunshade

Reclaimed wood is used to divide spaces and to moderate wind and sunlight

# NABATAEAN

Even though Dahab is in Egypt, it has no ancient Egyptian ruins. However, it does have traces of its Nabataean heritage. Therefore this project looked at the vernacular architecture to further inform its design.



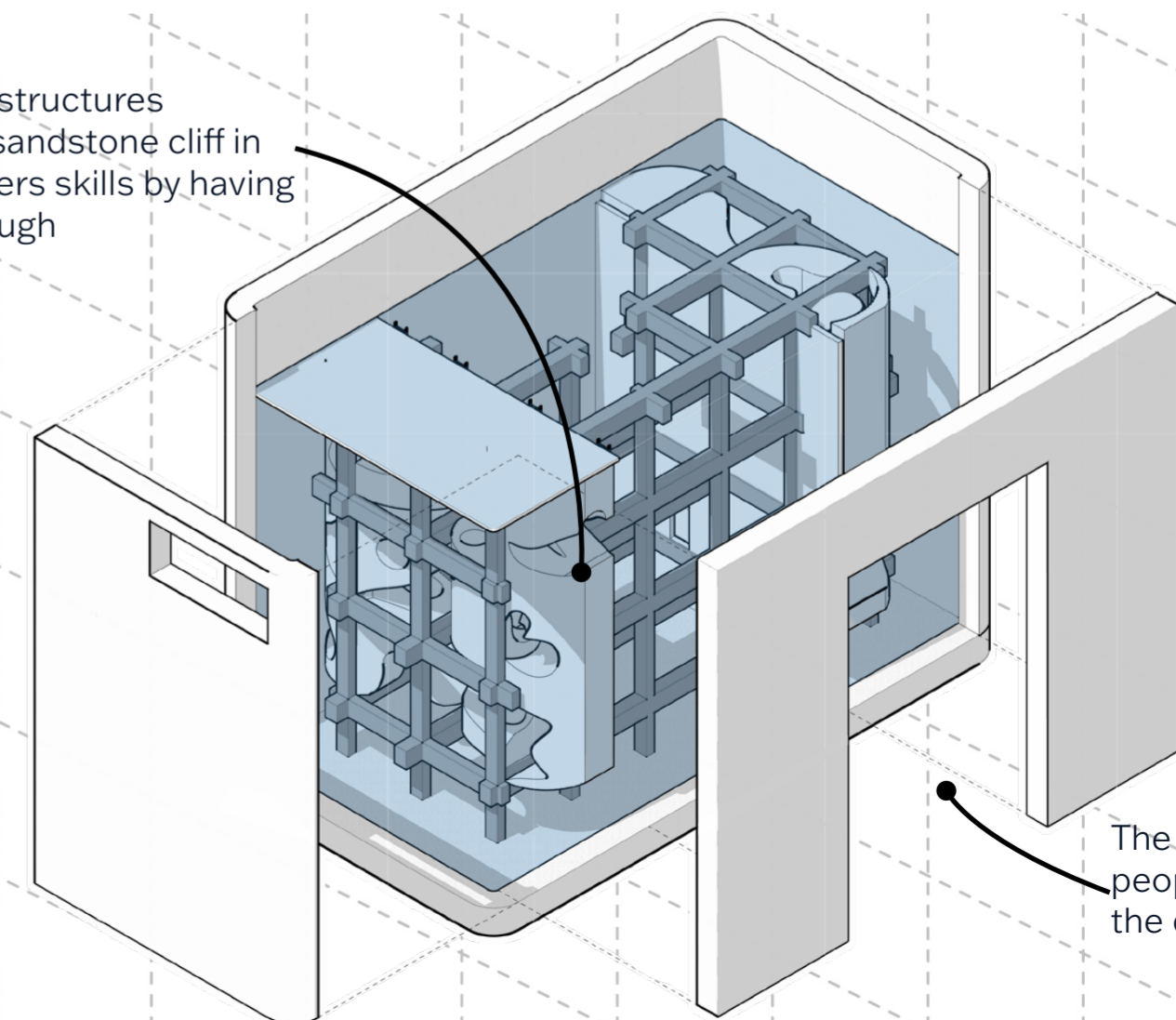
The pool entrance is placed at an angle; this approach is similar to the Treasury's entrance in Petra. The angle won't allow the visitor to see the destination till the very last moment when it is close, thus



The project's central intervention is the Abyss; a large SCUBA practise pool that allows divers with various skill levels to train away from the sea. The pool design follows a parallel approach to Nabataean tombs design; it is carved out of the existing structure to create an enormous facade.

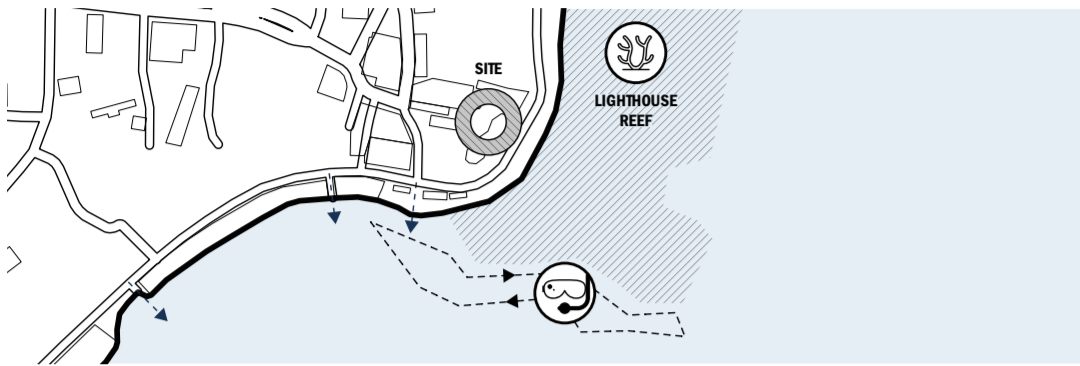


Weighted foam structures inspired by the sandstone cliff in Petra train a divers skills by having to navigate through

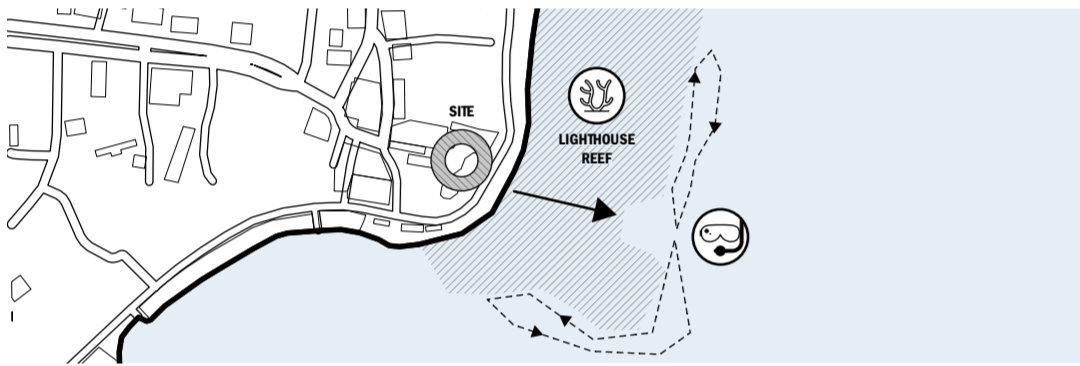


The large acrylic panel allows people to observe and learn from the divers and instructors

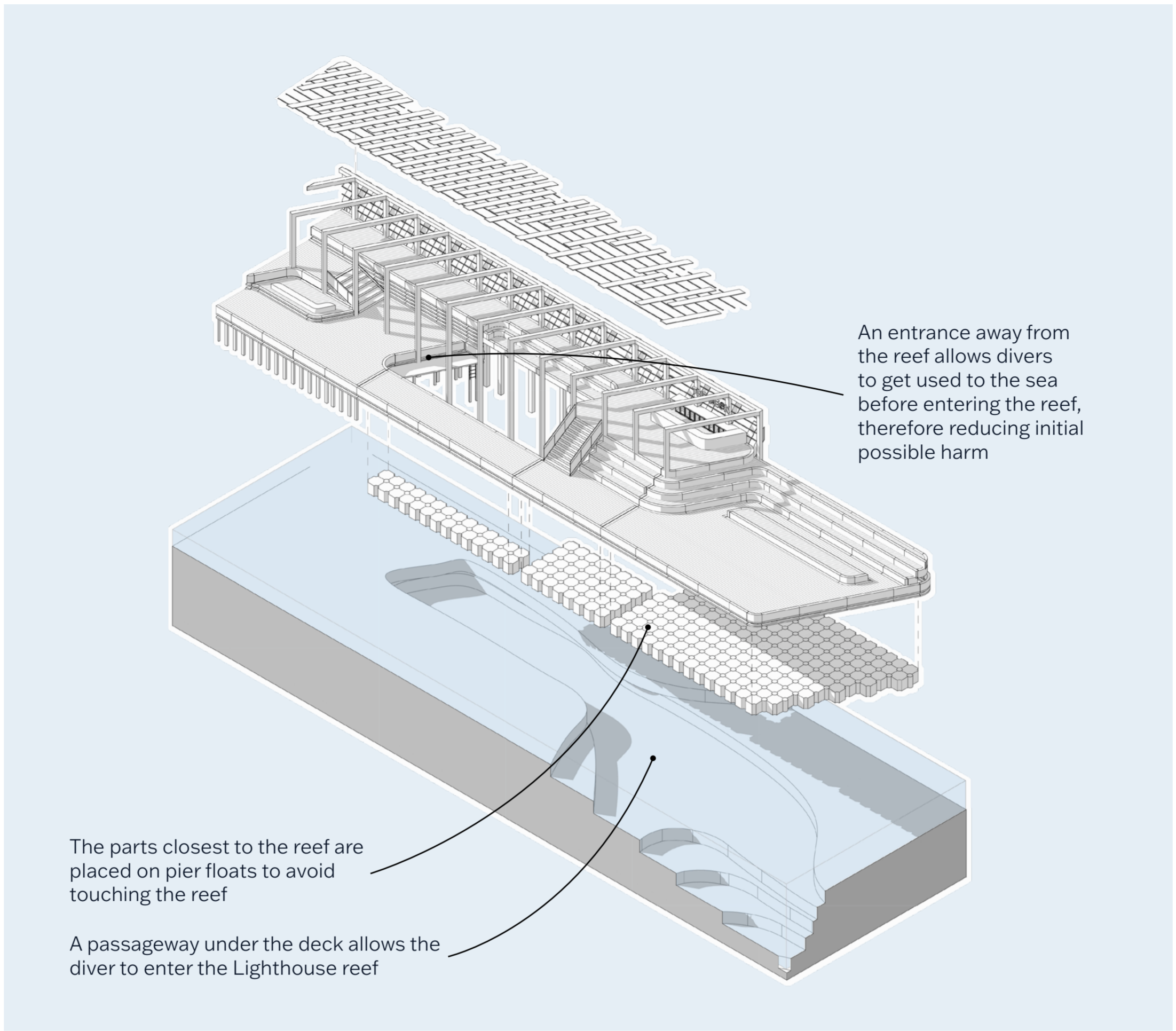
# THE DECK



The chosen site is right in front of the primary dive location: The Lighthouse Reef. First, the reef has experienced an overcapacity of scuba divers for a prolonged period due to its central location. Secondly, the dive centres use it as a practice location for beginners since they don't have suitable facilities, further harming the coral. Lastly, the entrance sea and reef are dangerous, resulting in both divers and the coral being harmed.



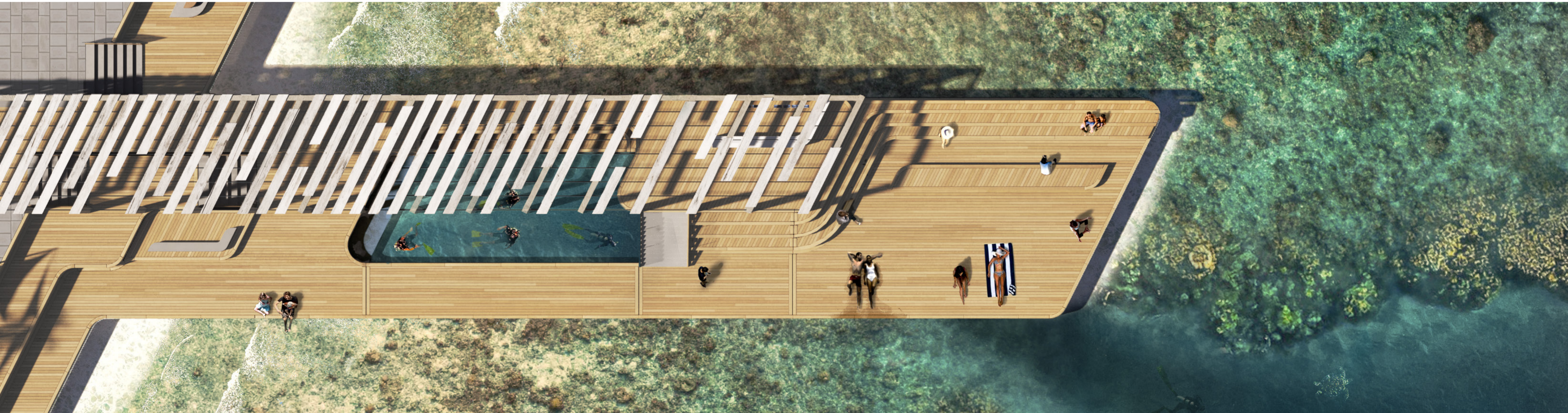
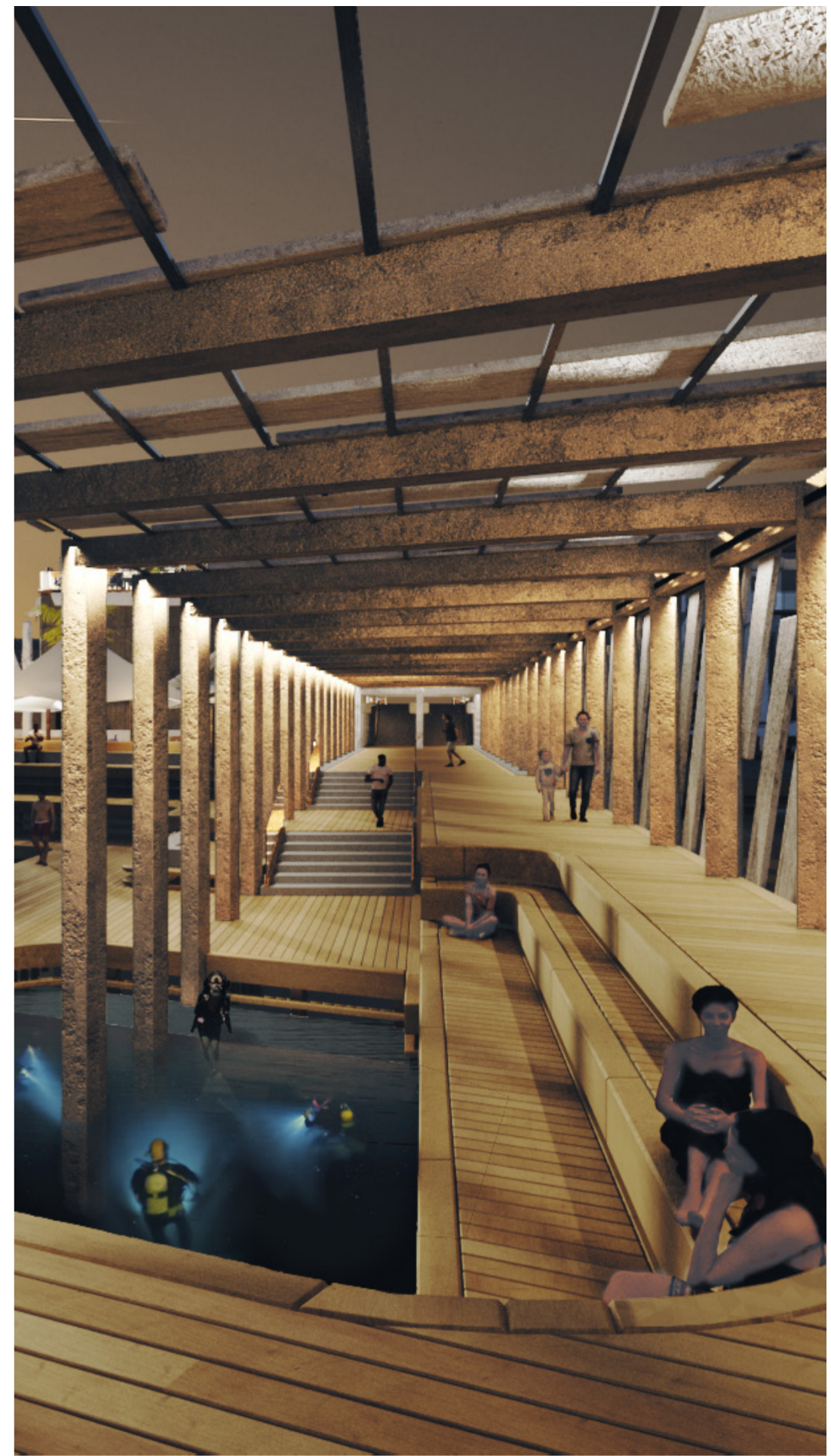
This project aims to help minimise the problems by crating a pier reaching the reef's middle. This will result in a safe entrance and create a larger diveable area that will ease the pressure off some parts and extend its maximum capacity. Lastly, a deep dive pool will allow divers to be better trained away from the ocean under greater supervision.



An entrance away from the reef allows divers to get used to the sea before entering the reef, therefore reducing initial possible harm

The parts closest to the reef are placed on pier floats to avoid touching the reef

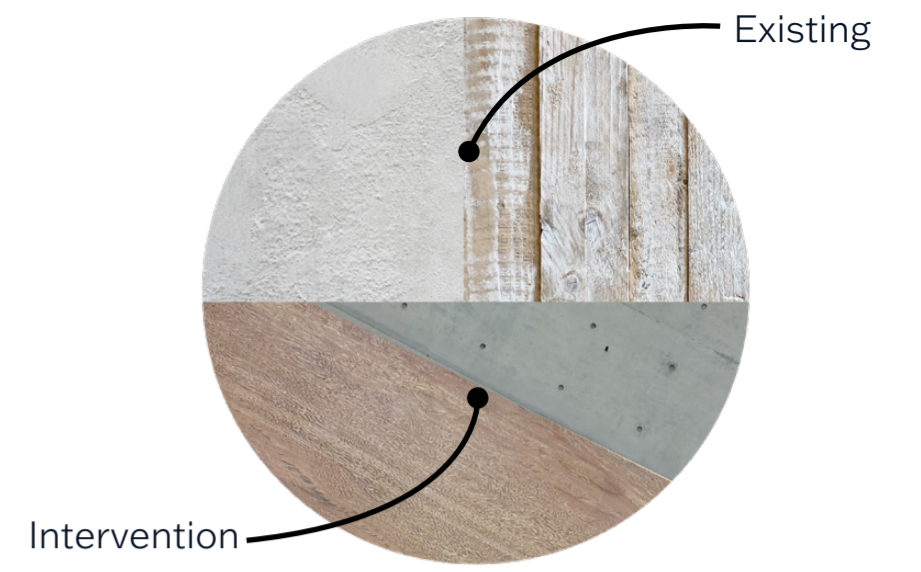
A passageway under the deck allows the diver to enter the Lighthouse reef



# Social Spaces

Behaviour around coral reefs is partially dependent on social norms. These social norms are ever-changing, and change depends on the level of awareness and frequency they are discussed. Divers who observe others better environmental diving behaviour are likely to adopt this behaviour. Furthermore, knowing environmental behaviour can produce social interactions. And therefore, over time, this could lead to a positive change in the social norms. To maximise the potential of these social norms, social environments are proposed that link to the diving facilities. This project will include multiple social areas associated with the various needs of the users in Dahab, Egypt. These spaces include both open and closed social spaces, with some intertwined with the diving experience and co-working spaces for the numerous digital nomads in Dahab.

Dahab has a large community of digital nomads, yet, there are no facilities for them to work. Most now work from cafes and bars with cultural and religious limitations. An open-plan co-working space is proposed where users can work in groups, away from the noise and liveliness of the ground floor.



## Materiality

The project's materiality exists of contrasting the old and the new; the old concrete of the ruins versus the new concrete of the intervention and the reclaimed wood versus the new African Ekki timber of the pier and walkways.

The walkways within the existing structure are elevated and inset by 250mm to create a clear visual distinction between the concrete ruin and the timber walkways and highlight the difference between old and new.

## The Bazaar

The approach taken for this project's hospitality is informed by the layout and workings of a bazaar since it wishes to serve a similar purpose. The food and drinks stalls are placed near the crossroads of the leading linear path and the pedestrian walkway and keep an open layout. No table service is offered since this encourages social interaction between users who have to go to the stalls and meet other users, similar to a bazaar.

Street Entrance

Pedestrian Entrance

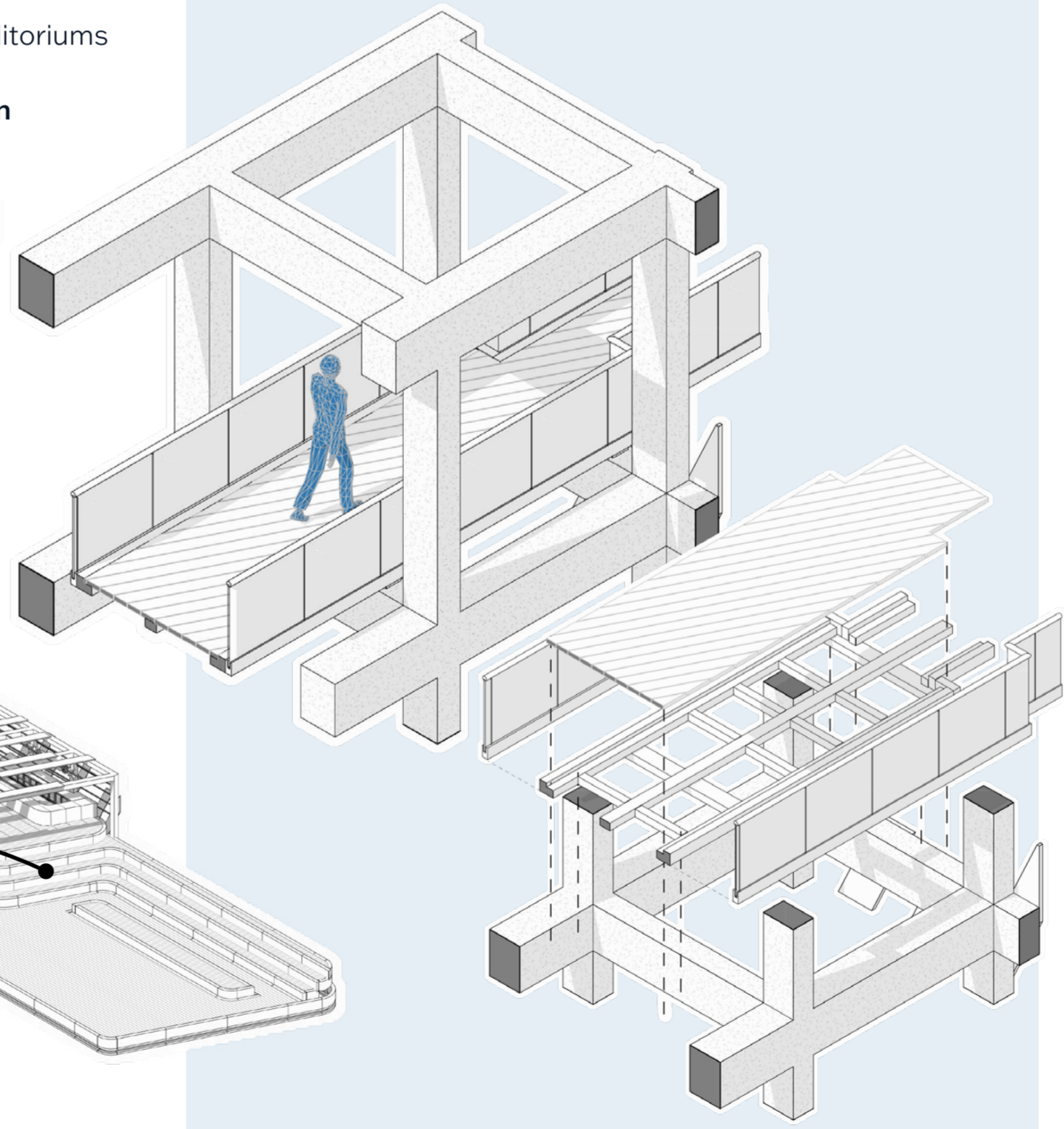
Scuba Diving Auditoriums

Pedestrian Entrance

Co-working

Group social seating

Open social encourages solo travellers to mix due to the lack of defined seating spaces. Furthermore, the seating is designed for groups of people to face each other without necessarily being together and therefore opens the opportunity to engage in new connections.



The walkways are constructed not to show the timber beams that elevated the intervention

