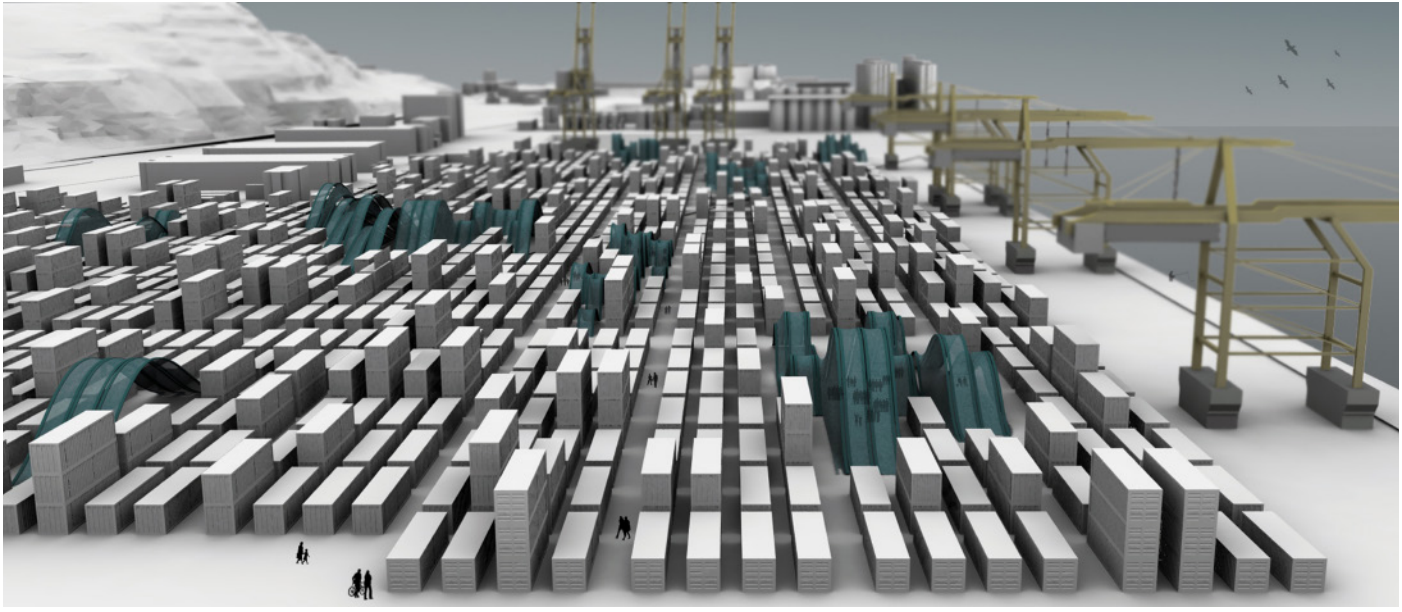
PORTHACKER



Instituto de arquitectura avanzada de Cataluña

_EMERGENT TERRITORIES

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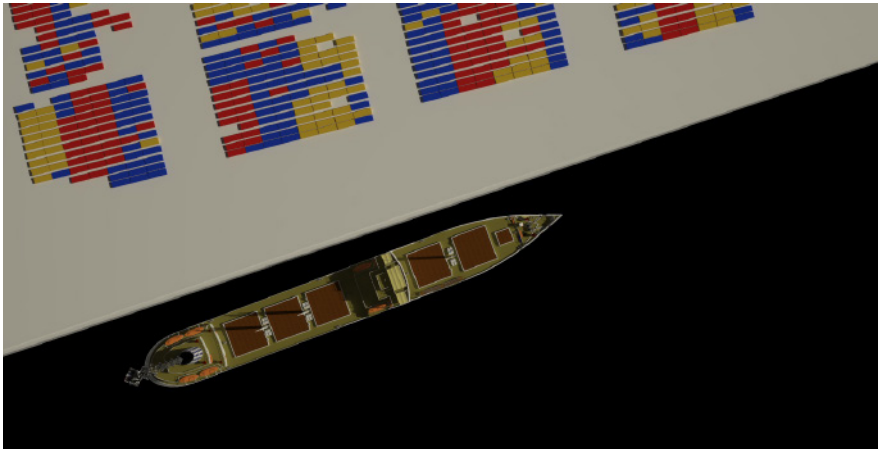
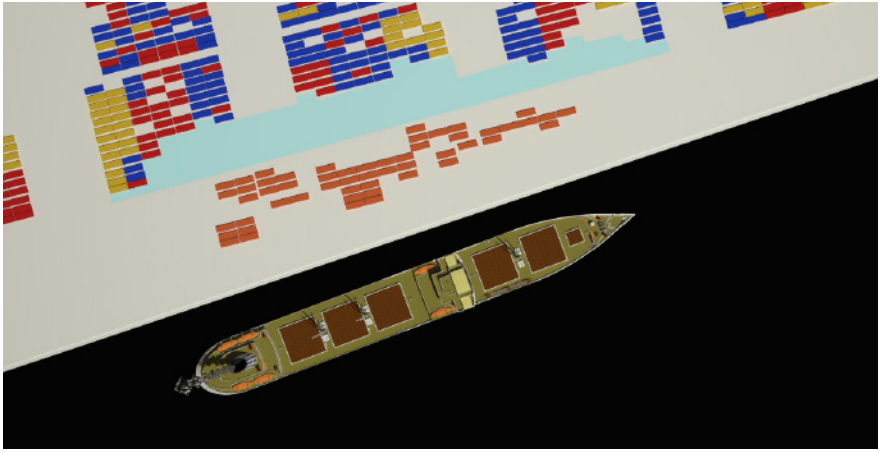
A port area is usually perceived to be full of cruises, containers and people trespassing.
However looking in the other side we noticed the locals and tourists trying to use the empty spaces in Port of Barcelona in their own ways.

The seed of an idea was hence laid. Why not give back the port to the city by activating the dead spaces for the people to use, manipulate and design in their own unique ways?

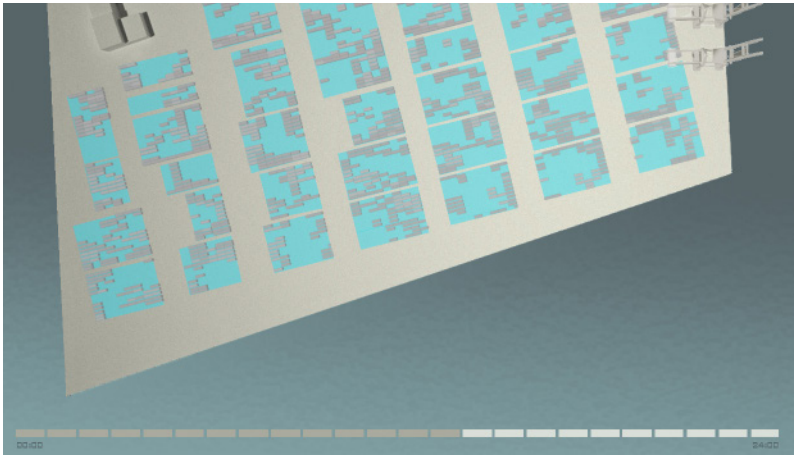
Analysing the logistics of the Port, the loading and unloading of containers, goods, oil and other products, we noticed that every time a container ship is loaded from the port it would leave behind empty spaces that remain untouched for a span of few hours.

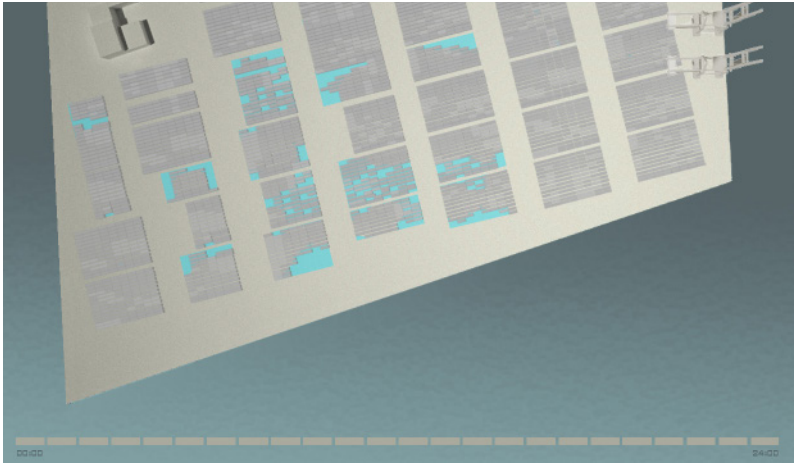
These temporal spaces only helped us strengthen our idea further.



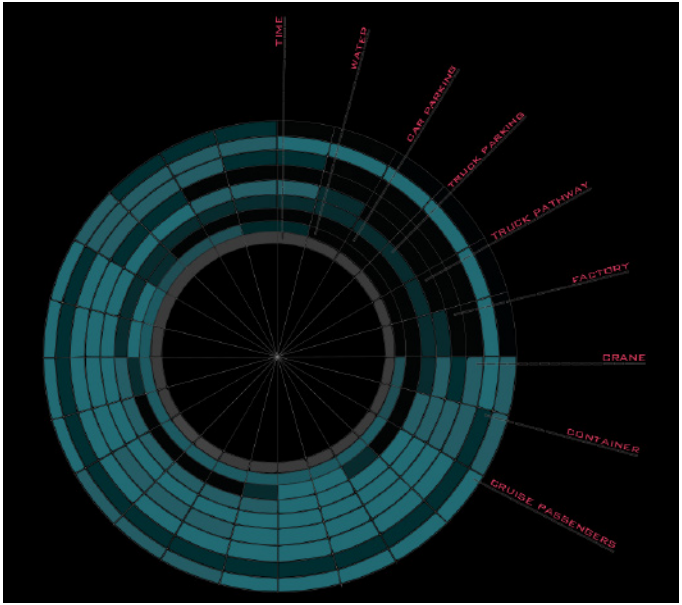


We went on to study these void formations throughout the port in the span of 24 hours, to understand the scale and quality of these spaces.





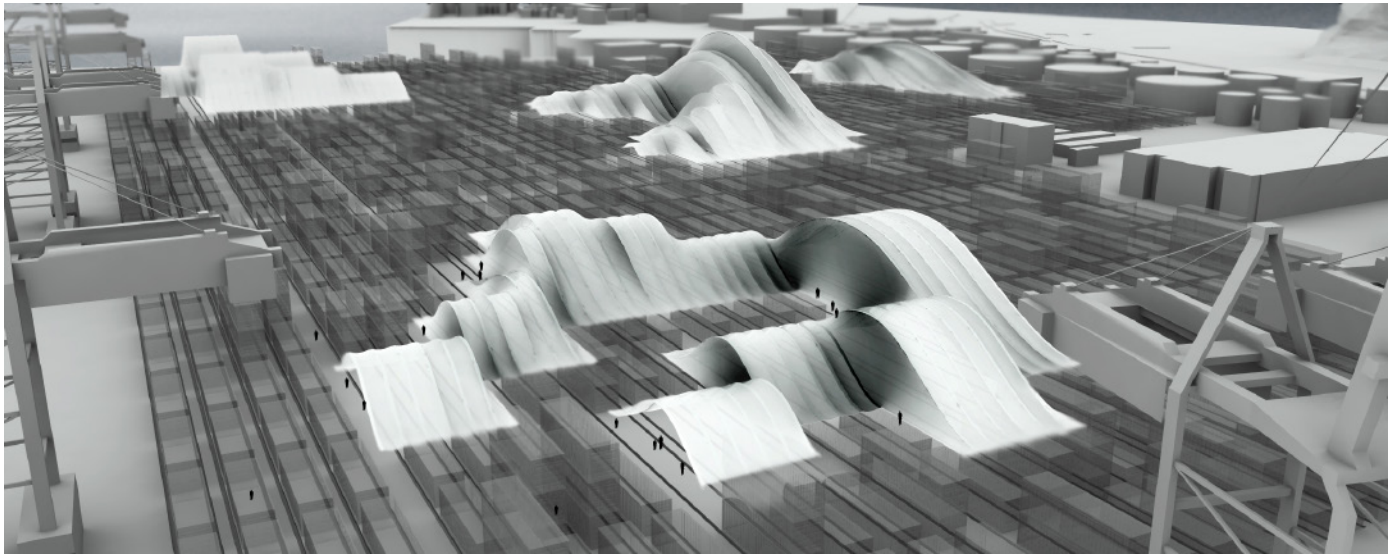
We were able to categorize these voids based on their cause of formation, that is container voids, parking voids, factory voids and so on in a span of 24 hours.



The opportunities generated from these were numerous and of unique characteristics.

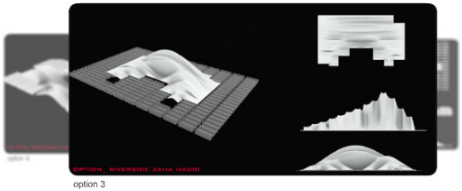
Hypothesis:

a space may be defined by its usage, environment, volume and time. Port de Barcelona is one such space being characterized and having unfathomed attributes of the same, yet to be explored. An orchestrated play of such spaces may be constructive, liberating and help redefine the fundamental concept of port spaces.



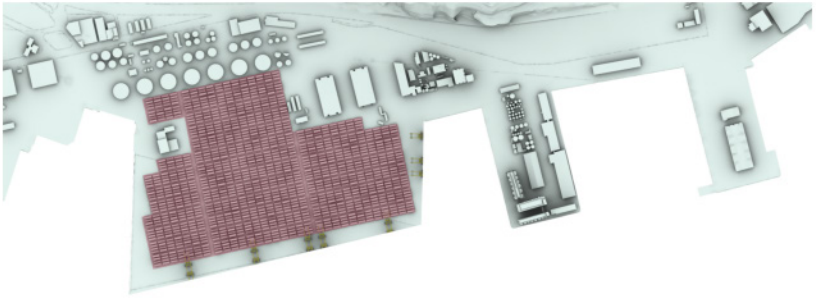
Void optimization would only be possible if the user (like you and me) would be able to access them with ease.

The concept of simple user interfaces could help achieve this.

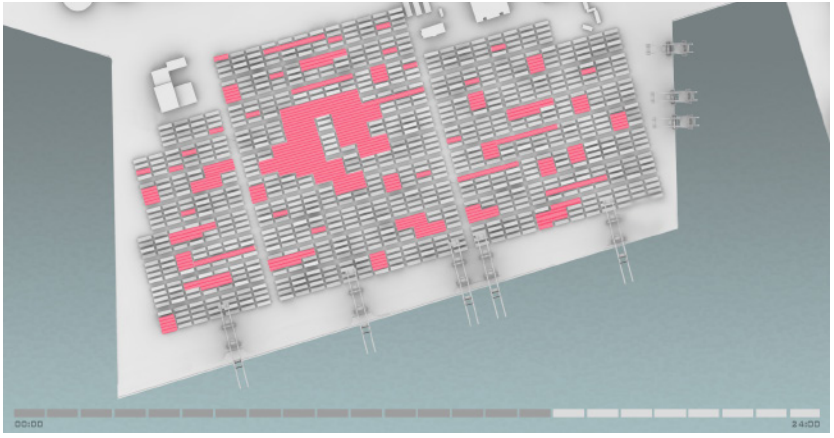


Our site intervention concentrates on the container area of the port.

AREA OF INTERVENTION

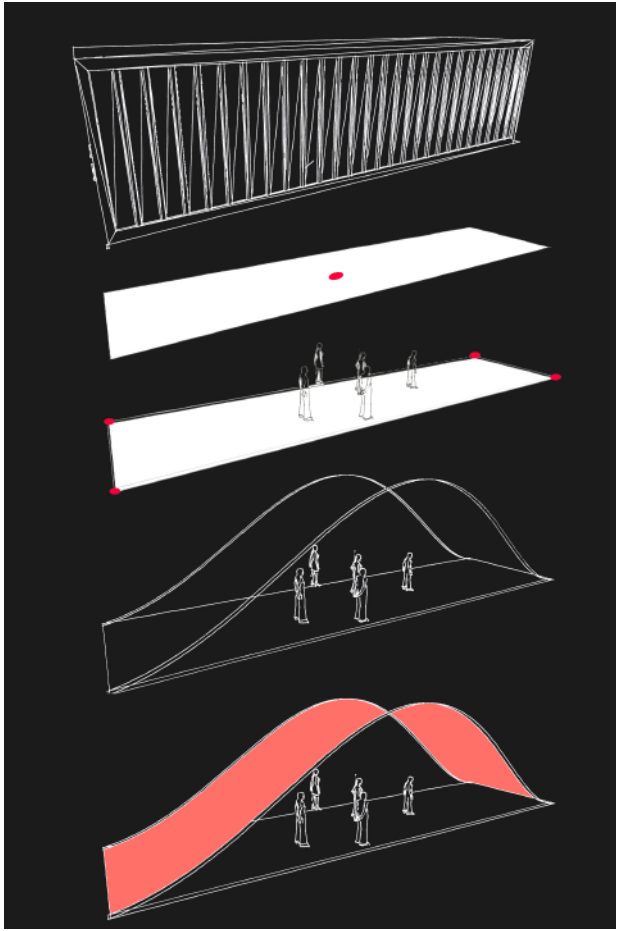


We rearranged and grouped the existing voids to create optimal formations.



The concept of our system deployment is based on existing real-time data collected at the port.

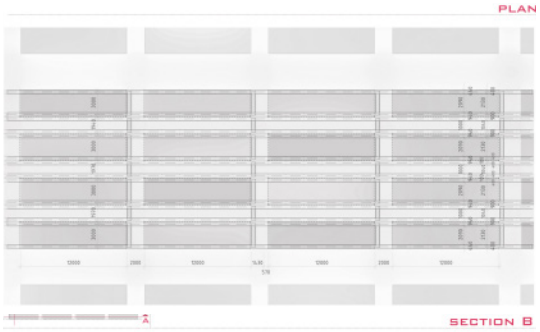
From these sensor detecting voids, anchoring points for the infrastructure can be defined.

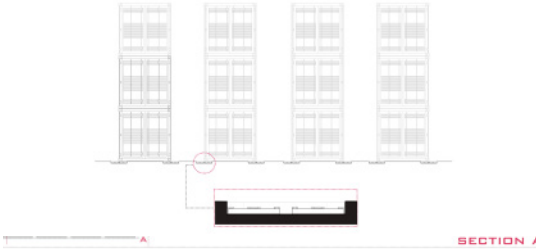


A panel of 14 bending components sits in an area of 12 by 4 containers.

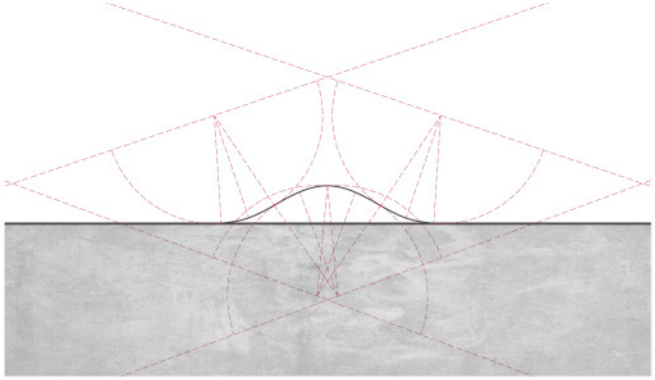
The former mentioned anchoring points are realised with the help of locking systems placed at container length intervals.

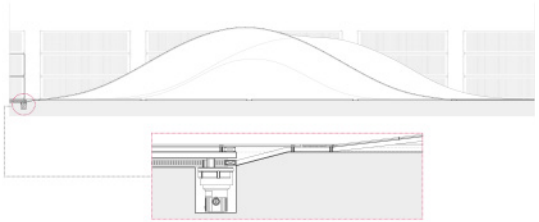
Pushing systems exist at the end of each component to achieve the infrastructure.



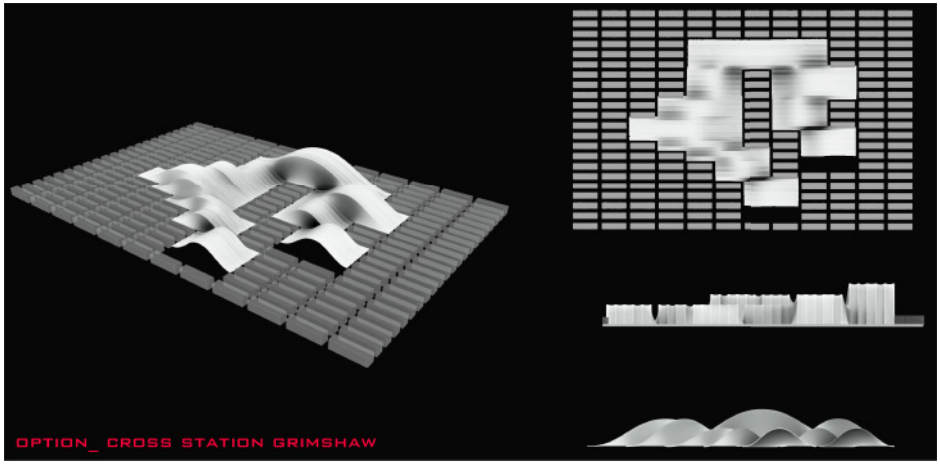


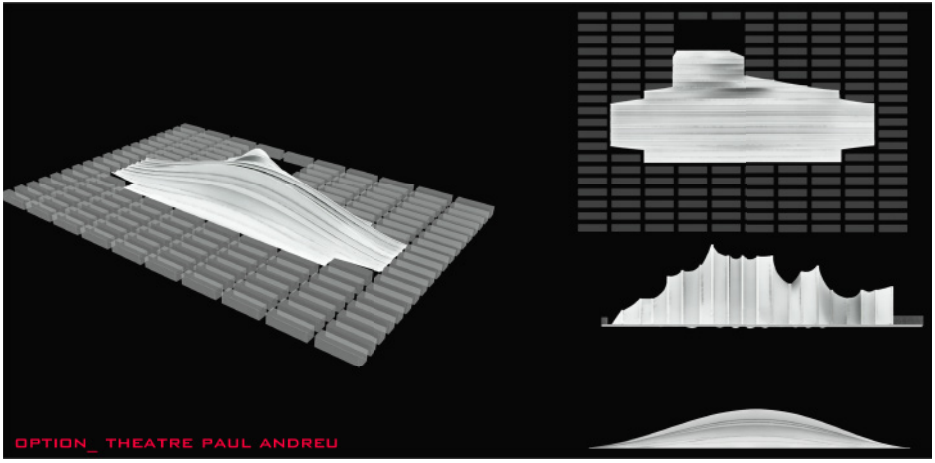
BENDING CURVATURE



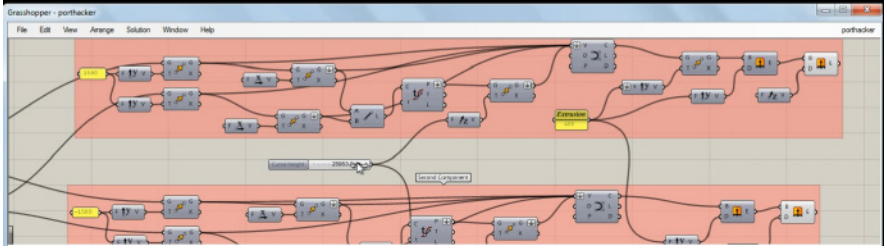


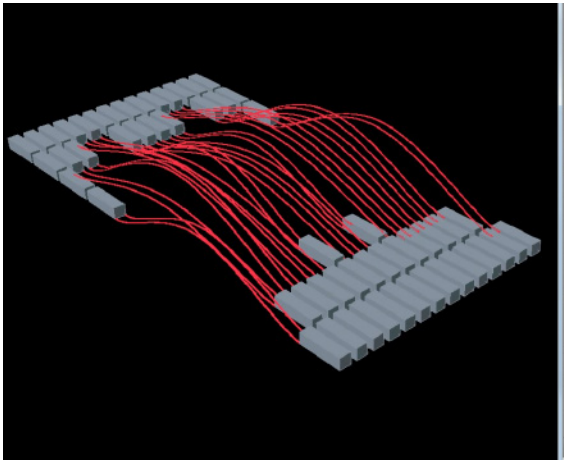
The consequences of our intervention at an urban scale could provide various playful scenarios in the future, leading to new building formations, typologies and so on.

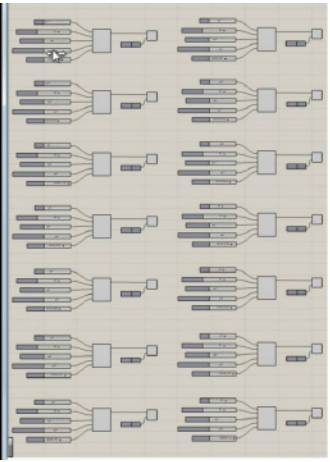


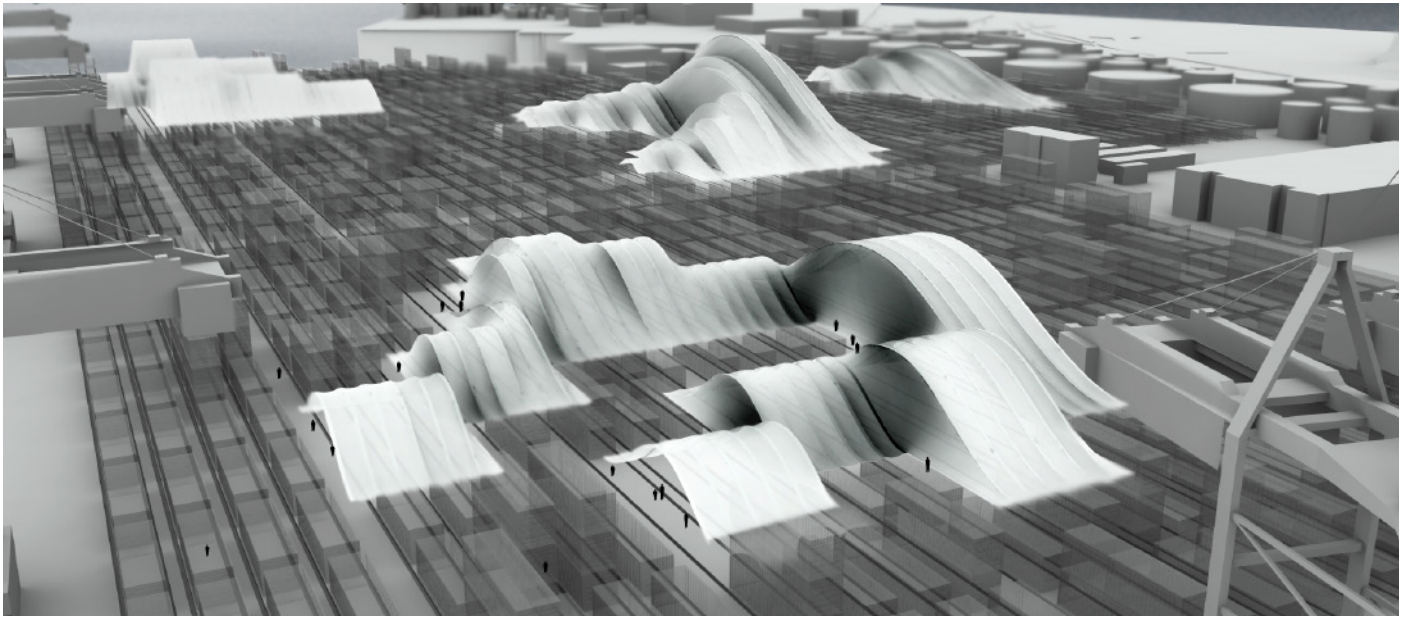


Grasshopper definition







For our prototype, we first tested the bending of wood in 1:1 scale. After joining multiple panels and analysing the merits and demerits of the same, we were able to construct our final prototype in 1:10 scale with manual locking and pushing systems.

Internal scenarios