

THE EMPTY GLASS

THE BRIEF

The Empty Glass

The brief of the project was to allow for free design into a 'Laboratory of Fun'. This was translated into a beautiful yet educational chance for me to explore deeper into what it means to create an environmentally conscious design brief. I wanted to create a project to show that you do not need to compromise the creativity of a project in order to make it sustainable.

The Empty Glass is a highly sensorial ice bar experience which was driven using the 5 principles of sustainability. The bar has been designed using materials and concepts which surround the idea of creating an immersive experience for the user as well as promoting issues such as the climate emergency. This has been demonstrated through the clever use of materials and the creation of atmosphere in the space.

THE CONCEPT

Laboratory of Fun

The concept of the ice bar was derived from creating my own board game called Bonfire which addressed climate change in a unique way through drinking. This was introduced to the idea of the climate emergency and the melting ice caps to create an ice bar which would educate the user about the latter.

The experience of The Empty Glass comes from using the five senses in order to have a fully immersive experience. It is important to use all the senses in the space so there is an element of accessibility.

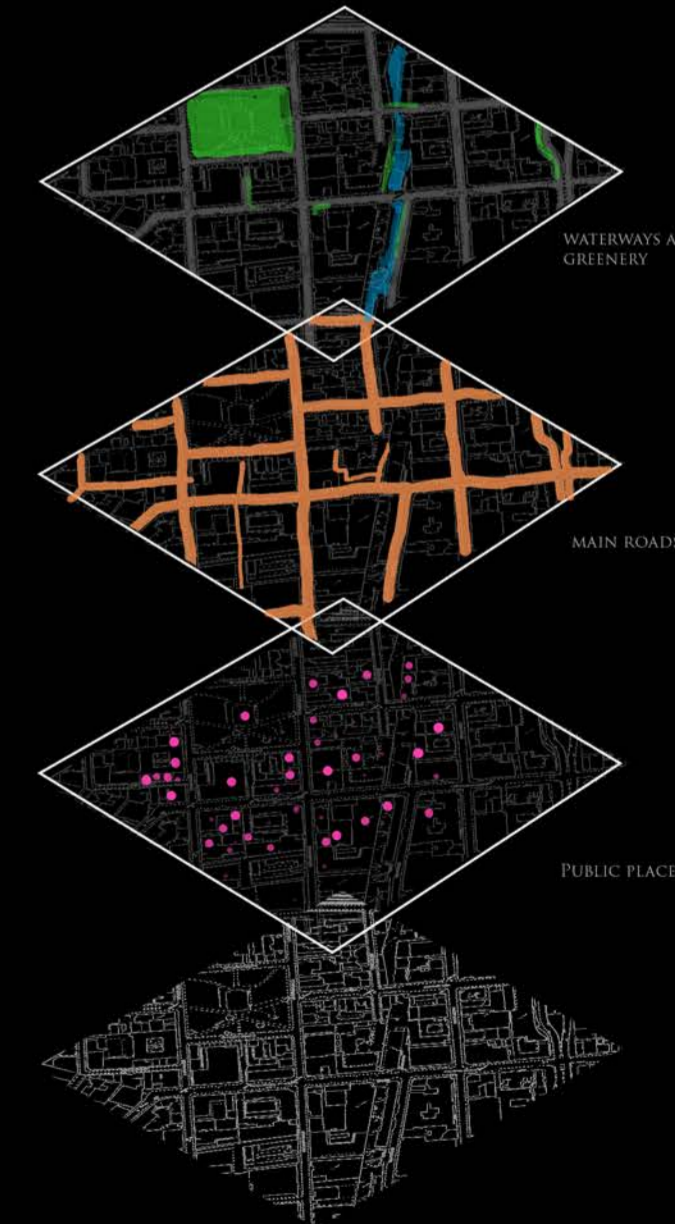


CAN THE SITE LOCATION BE CONSIDERED SUSTAINABLE?

The 2.9km A34 route links the city centre with Birchfield, while the 4.1km A38 route links Selly Oak and the University of Birmingham with the city centre of Birmingham.

The use of introducing these cycle paths allow for a more sustainable travel scheme and encourage people to use the busy main road like the A38 to be able to cycle and help with their carbon footprint.

BY INTRODUCING SUSTAINABLE APPROACHES IN THE BUILD UP OF BIRMINGHAM, IT ALLOWS THE CITY TO BECOME RECOGNISED AS A SUSTAINABLE CITY, THIS IS WANTING TO BE ACHIEVED BY 2033.



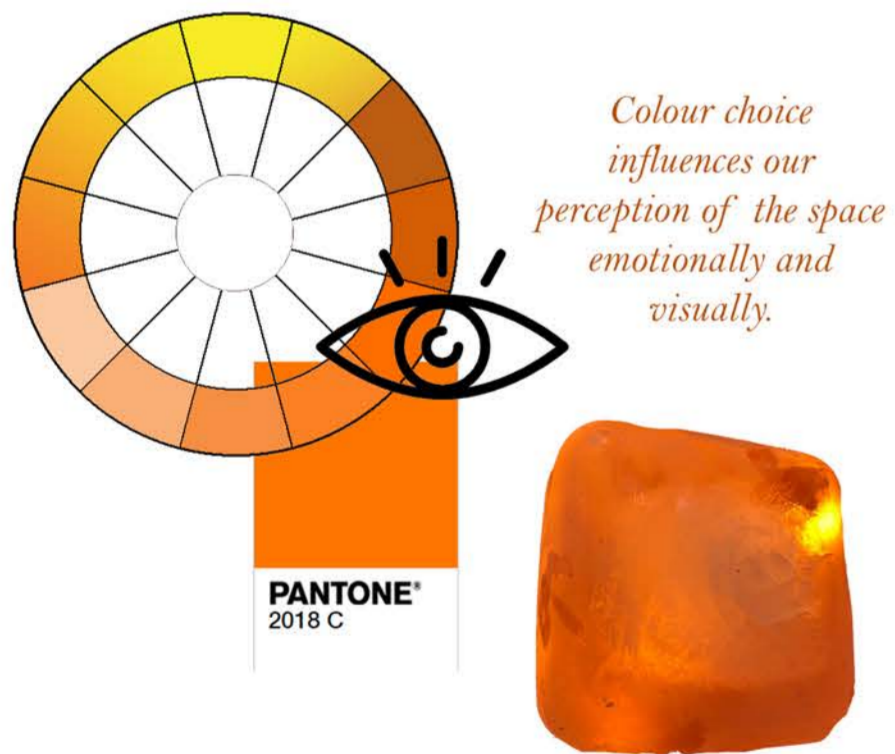
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SUSTAINABILITY

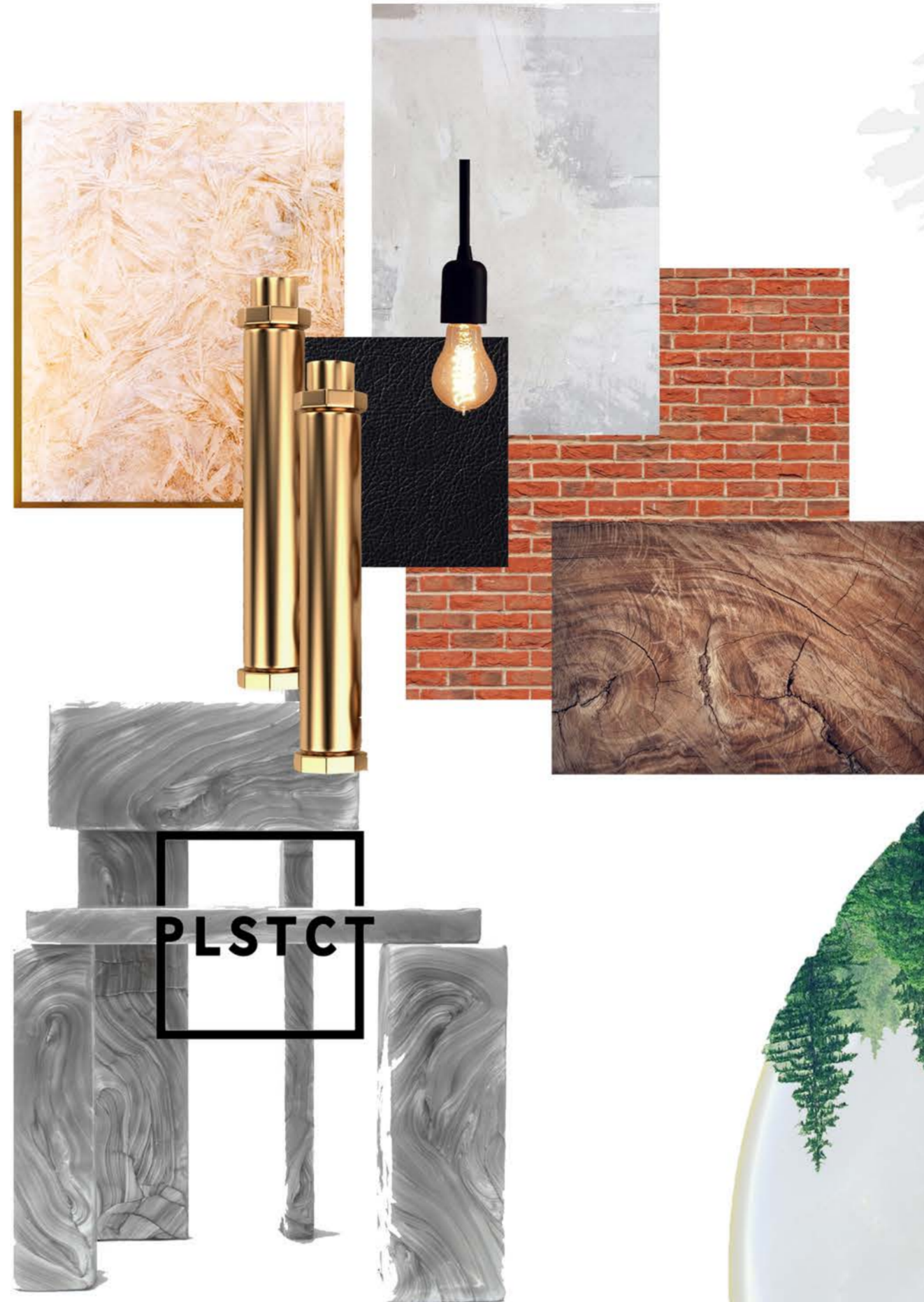
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The Empty Glass addresses sustainability and the climate emergency throughout the project. This has been established through the careful selection of materials, design approach and colour palettes.

The climate emergency has been educated to the user through the use of colour theory and psychology. The use of the ice bar is very important to promote the ideas of the ice caps melting and how people can be affecting this in everyday life. However the use of the orange light within the material highlights the warning signs the warning population that we need to act now. The orange is not only a perception of warmth but it should connote the emotion of fear for our future.



“Working with the ‘unrecyclable’ waste and developing plastics alternatives to natural materials may reduce demand on the world’s resources”

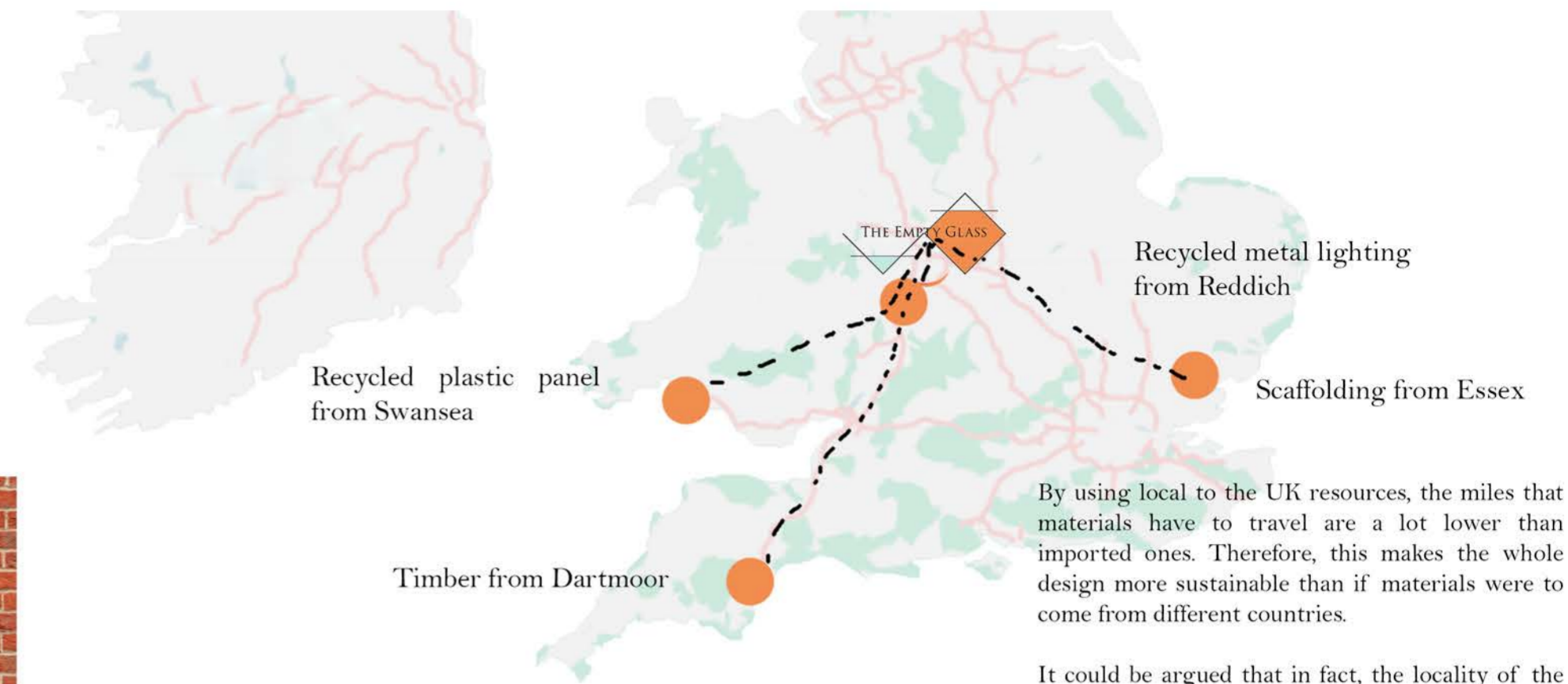


ALTERNATIVE MATERIALS

Ice is not a sustainable material

Ice as an element is not a sustainable material to be using in the space, due to excessive water wastage and excessive amounts of energy needed to cool the building, therefore, it is only right to consider a sustainable alternative to use within the space to get the exact effect as ice.

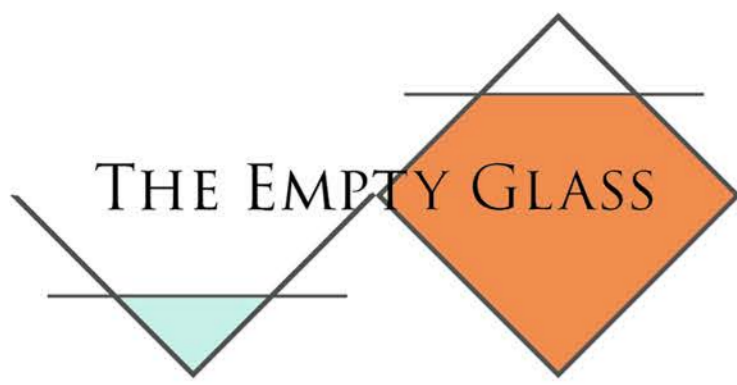
RECYCLED household waste items such as recycled plastic is a really good way of promoting the aspect of reuse and recycle as well as allowing the space to be as sustainable as possible. The consideration of a sustainable electric system to cool down the site will also be explored.



By using local to the UK resources, the miles that materials have to travel are a lot lower than imported ones. Therefore, this makes the whole design more sustainable than if materials were to come from different countries.

It could be argued that in fact, the locality of the resources create a sensitive holistic design that represents the ethos.



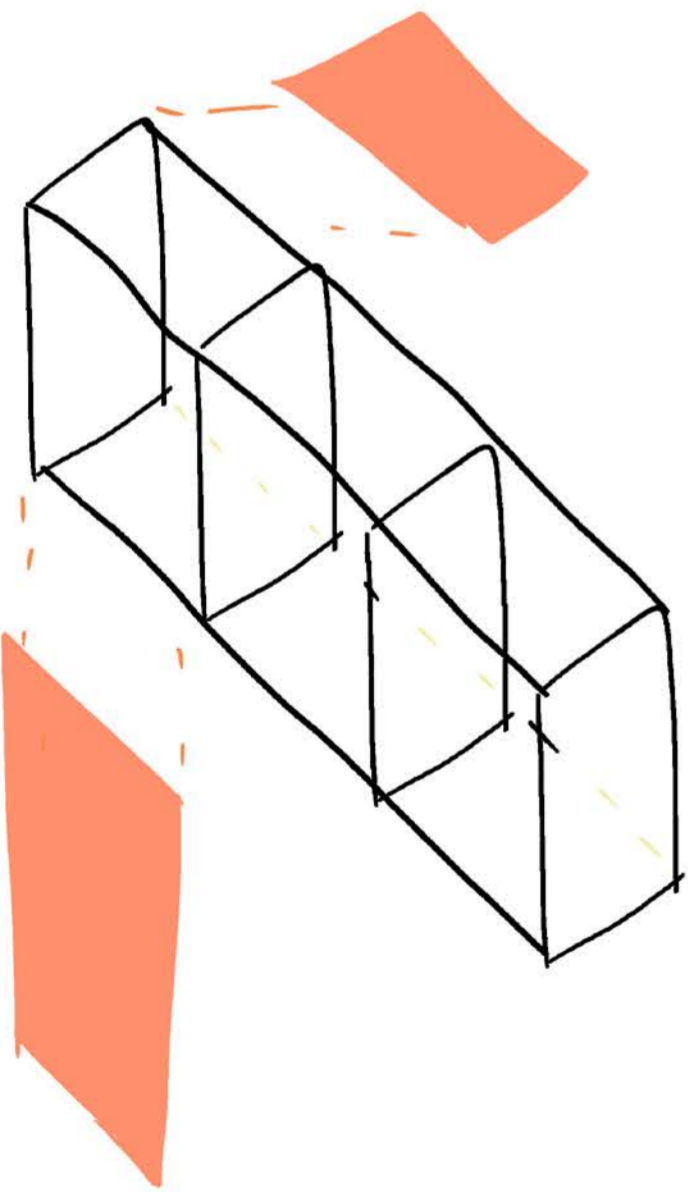


DESIGN FOR DISASSEMBLY

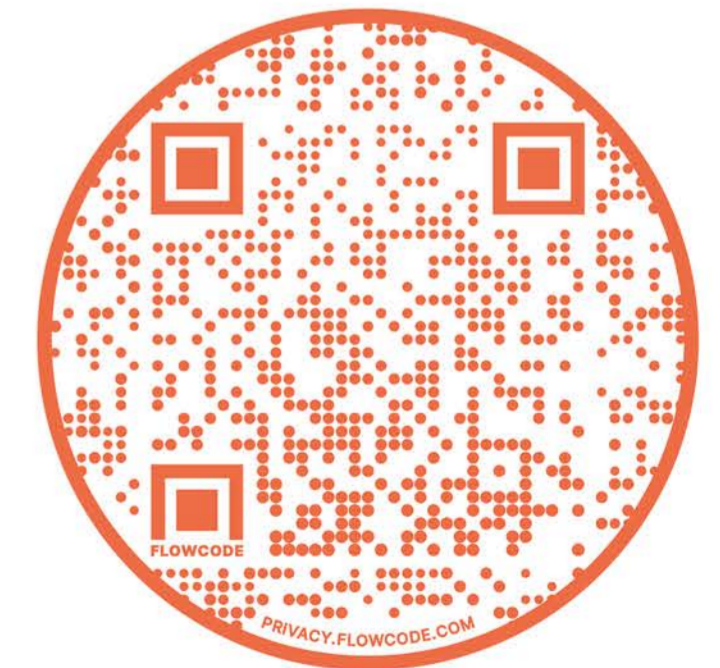
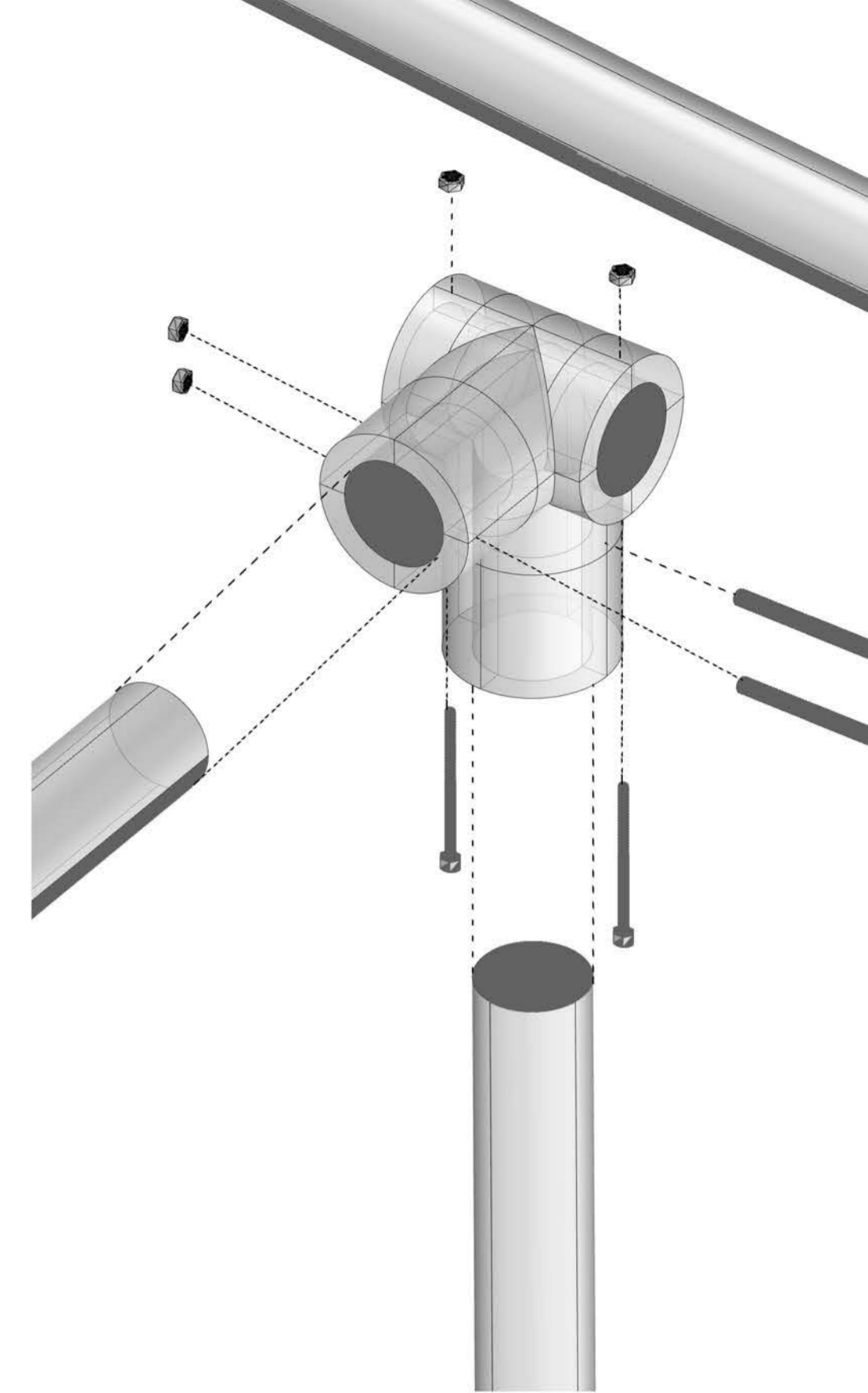
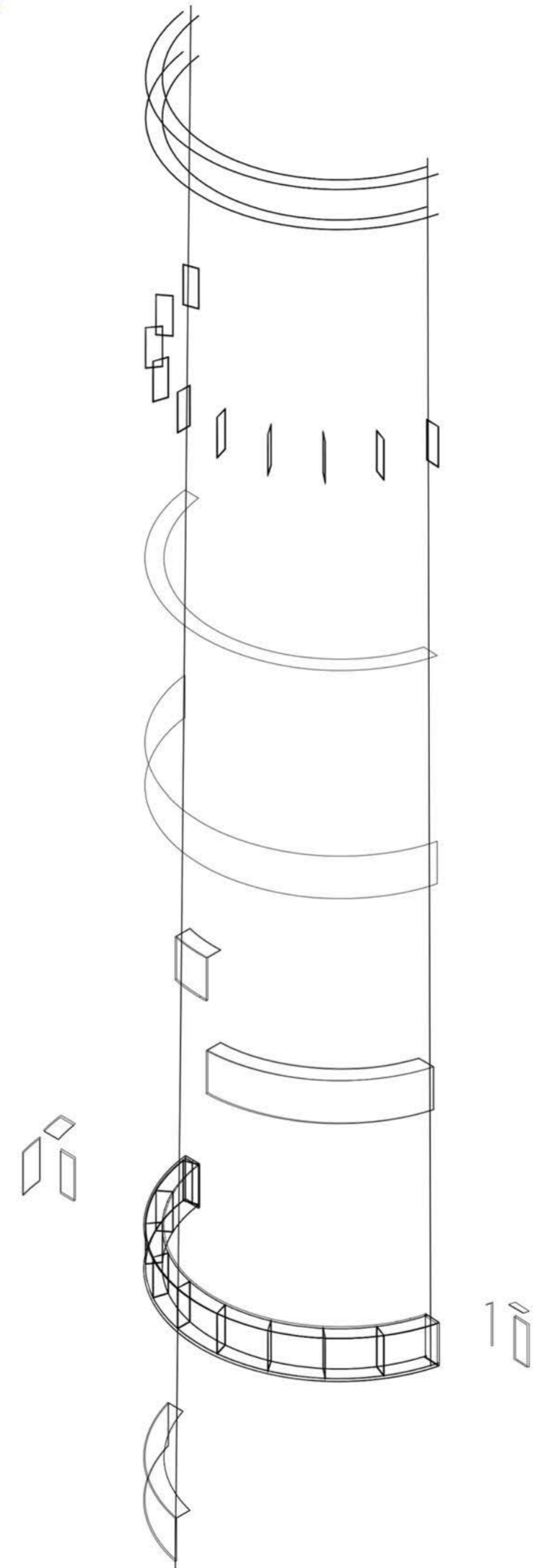
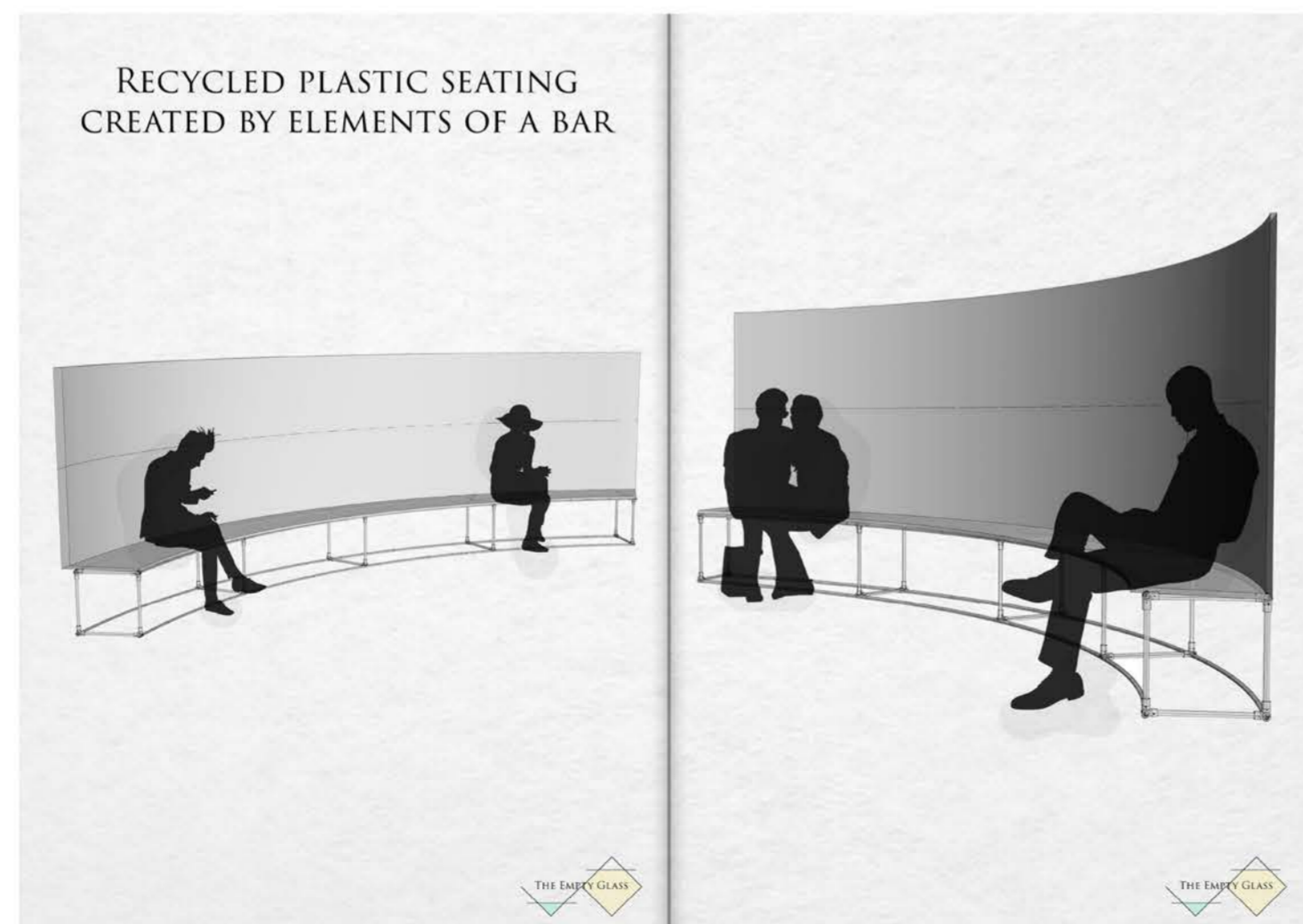
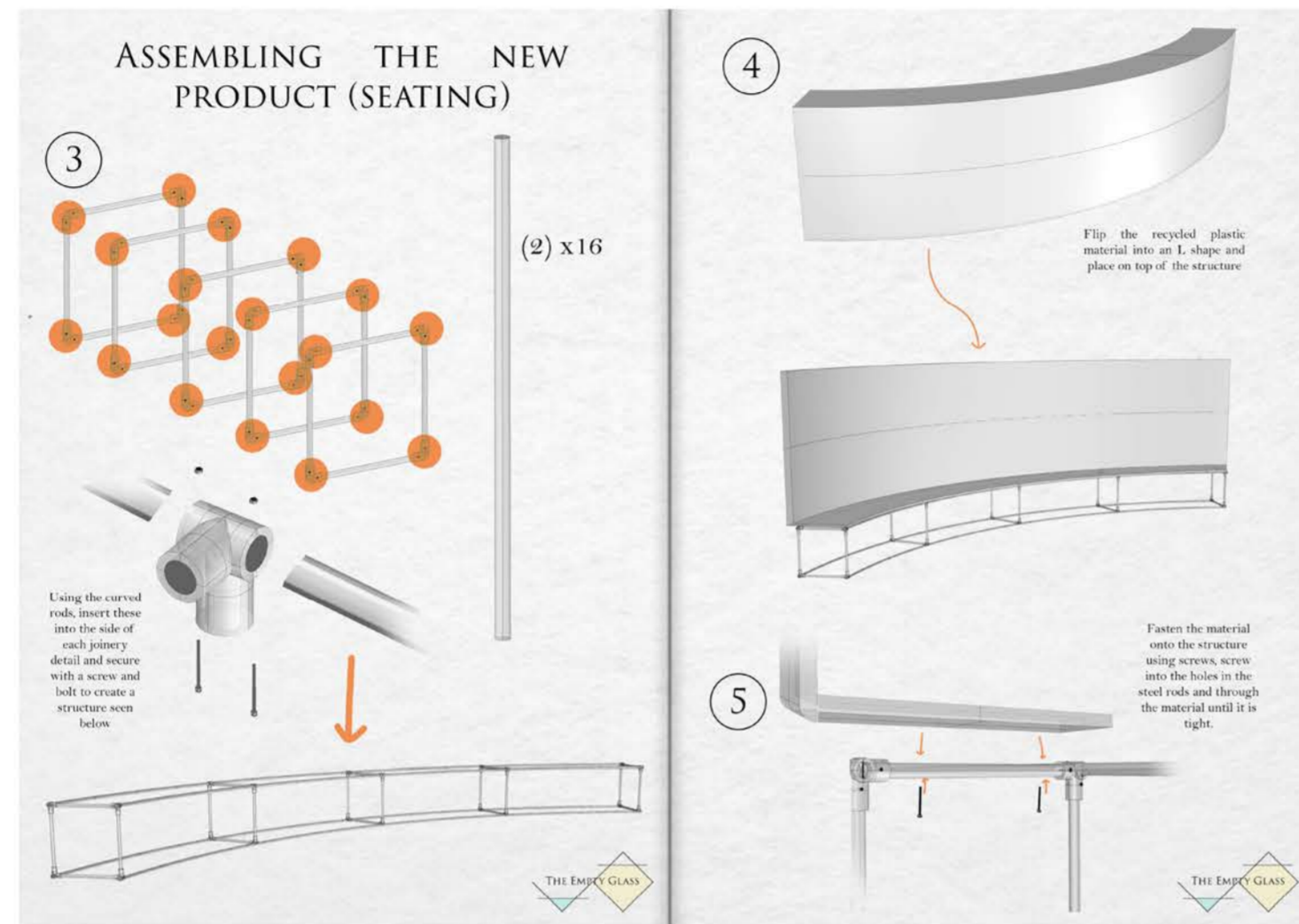
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DfD is the design of buildings and products to facilitate future change, global warming and the eventual dismantlement for recovery of components and materials. This design process includes developing the assemblies, components and materials, construction techniques to eventually be reused in a different manner at the end of its life.

DfD is intended to reduce the new consumption of materials and their waste in construction, renovation and demolition. This is used to increase building lives and to create sites that are part of the future building materials.



“The next generation of buildings will have to express more intentionality of the continuous material cycle if they are to be sustainable in the long term.”



Link to Animation on DfD

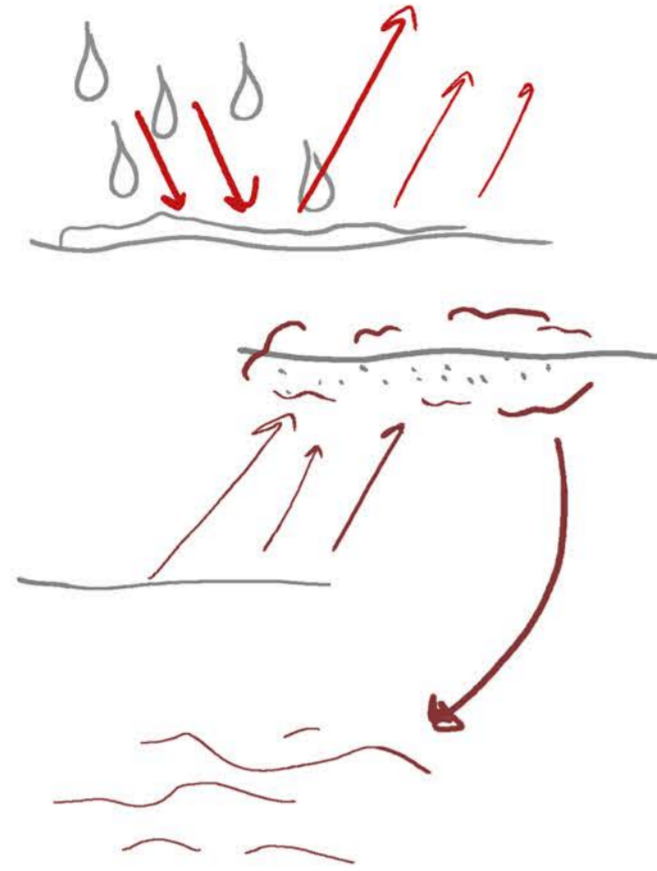
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RENEWABLE ENERGIES

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Because the function of the building is to be an ice bar, therefore the building has to be cold. However, to cool such a large size building would use a lot of energy and be very damaging to the environment. DeVAPAC is a building cooling unit that is consider The most sustainable part about this cooling unit is that they can reduce the usage of energy by around 90% of that used by most air conditioners.

“It combines the cooling effects of evaporation with dehumidifying properties of liquefied desiccants to come up with an air conditioner that can give rise to dry, cold air.”



Render of the central bar



Render of the bar and seating area