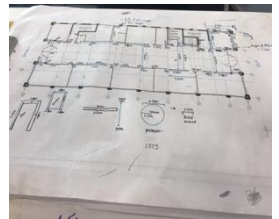


Eco-bricks project

Our group project was based on creating a simple yet devised idea that had to incorporate “eco-bricks” to create a sufficient shelter, which was safe and liveable, that would then be incorporated into the structure plan for the National Museum that we were very fortunate to work alongside with. Throughout my project I have learned many things that include new skills, group work and many other things that I will describe in more detail later on.

During the first week and the introduction of our project, we have been introduced to different drawing exercises which included things like free hand sketches, 3D drawings and ideas of our initial plan. Including this time period, we had to be split into groups, and decide on our roles which included things like the designer, the model maker, etc. Within the first week there were 4 people within my group, which would without our knowledge change very soon. We all had different specialised set of skills that we were better at than the others therefore we chose to concentrate on those.

The second week we were set to look at a building that we then had to survey which we were going to present our shelter in. Within our groups we each decided upon our roles of how to survey the building of choice. The building we surveyed was the library, our team consisted of different roles, I was the one in charge of taking all the measurements down, three of my teammates measured the different walls, windows, doors, columns etc. and the other person oversaw the measurements, making sure they were right, before I took them down. We were very concise and organised during this surveying, however we did run into some issues when converting our surveying into elevations and sections as they weren't as accurate as we hoped for. We then corrected that mistake by discussing this with other groups to better our measurements and therefore have more accurate floor plans. Our whole work was set to be on a 1:50 scale drawings and had to come with window, ceiling, door and column drawings to ensure that our plan was detailed enough to show where our shelter is going to be located within the library.



The following week, as a group, we planned all our work out by sketching initial designs of the different types of ways we would present the eco-bricks. We did this by contributing and weighing out all the pros and cons of each design and make a rational decision of which one was the most appropriate to use within our shelter with the consideration of stability and accuracy. This included a lot of sketch ideas within our books to show that we have thought about our options. From these sketches we as a group decided on an idea and made rough models of what the bottles are going to look like and how they will sit within the chosen shelter idea. There were some problems within this week because we started to see that there was a divide in the group and therefore didn't make it easy for us to decide on anything.



When finally agreeing on an idea of presenting the “eco-bricks” we then looked at how we were going to structure it to make it a fully usable shelter. A decision was made to incorporate some more materials within the shelter to make it more stable and durable. Which included glue, chicken wire and cardboard. The glue would have been used to stick any materials together to make it more rain resistant, the chicken wire would have been used to add more structure to the bottle design we



chosen and the cardboard would have been used for holding the bottles together and in making of the roof. We planned a few roof ideas to find the best one that would suit the type of shelter we were going for. As a group, we decided on having an octagonal shaped shelter which made sense to have an octagonal cone shaped roof.



Since it's based on the idea of eight sides, we decided on naming the shelter an octa house. This is where a lot of the problems with our group arose as a two people thought we weren't including themselves enough in the process of our work, and their decision was then to leave our group and make their own.

Another problem we had to think about was waterproofing our shelter. There were multiple methods we talked about some of which were things like putting honey wax all over it to stop any water getting in, another option we discussed was to spray it with a waterproof layer of spray. Both of these options weren't that long lasting, and we found out that the disadvantages outweigh the advantages, therefore we decided to go for a foil based layer on top of the cardboard roof and sides which we decided was the most effective way of keeping the shelter dry and away from the water.



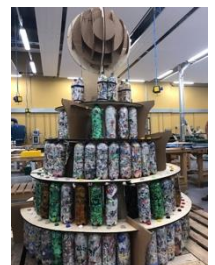
Week after, we were faced with yet another challenge of making it work alongside some ideas of the National Museums requirements of a structure that was to be put up within the museum. One of the remainders of our group, from the ideas we discussed, designed a sphere-based structure that was then later chosen by our lecturer and the museum team and was used as a finishing touch onto the top of the structure then presented in the museum.



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From all this research and model making we did; we had the clients from the museum come in and had to present our ideas to them. From these presentations they have decided to combine a lot of our ideas together to make the one structure that was going to be put up into the museum. The structure that was decided to be put up looked a lot like a cake with each layer of a round



bottles getting smaller in each layer as they went up, finally presenting it with our globe idea at the top, and fairy lights to give it the “Christmas tree” look.



There are a lot of things I have learned throughout this experience which include many skills like team working, overcoming a lot of difficulties along the way and dealing with those issues in a sensible manner, experiencing in building the actual structure and developing my knowledge of elevations, floor plan designs, sketches, model building and surveying. All of which are going to be very useful in any of my upcoming pieces of works.

References/ Bibliography:

-My own images, V. (2019)