

# A Touch of Earth

## Introduction

A Touch of Earth is a project that focuses on the creation of a design centre facilitated by a **reclaimed material library**, which aims to spread **sustainable thinking amongst the next generation of designers** by providing the opportunity for them to understand the value of materiality throughout making. The centre would not be a simple library or workshop, however, it would also give creatives a chance to interact with each other and local communities outside of school or work to exchange and foster the ideas that matter the most to them.

The project takes place at **Springburn Park Winter Gardens**, a now forgotten gem in the old industrial North Glasgow area. This building was chosen in an effort to broaden the regular art and design scene of Glasgow, which is concentrated in the city centre and to preserve the history of the place and give an important community space back to the locals.

The main aim of the design was to **preserve the original building** while showing the extensive use and **transformative power of materials** deemed as construction waste enhanced by the **concept of tree rings**, which represent growth and appear as concentric circles intersecting with the major proportions of the building.

## Some Recent Issues of the Creative Industries

Although sustainability is becoming a day-to-day topic in the creative industries an throughout art and design education, the discourse is often still not comprehensive enough to prepare young professionals for the challenges that sustainable creation and making entails.

One could even argue that there is not enough making in general throughout the schooling of young designers and coming into the industry they lack the broad knowledge about materiality. It is certainly agreed however, that the development and experimentation with materials is one of the fastest growing branch of sustainable design efforts, thus the incorporation of more practical learning, making and regular research tasks are essential for the preparation of responsible professionals. Even for those students who are more invested in practice and making, there are limited resources outside of university and it is increasingly hard to have access to certain tools and facilities after graduation. Recently, the pandemic and lockdowns have also shown how reliant we are on these narrow assets and how hard it can be to provide the right tools and help for everyone in order to not hinder the learning experience.

So this project is also a call for attention to strive to work on solutions for these complex problems and make efforts for better education on sustainability, not just for the future of the environment and creatives.

## Sustainability Is More Than Just Being Green

**EDUCATION:**  
Sustainability is about teaching people. In order to understand the complex implications of our current way of producing and consuming, we have to encourage learning.

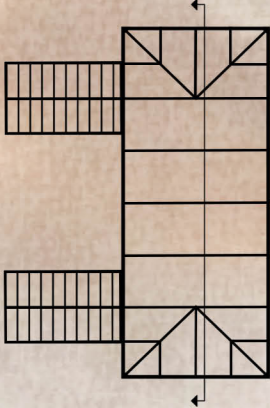
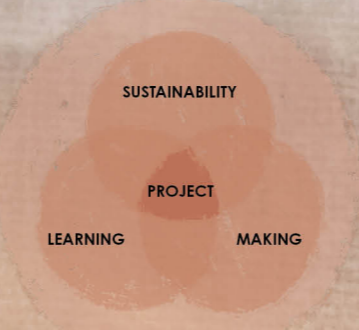
As mentioned before, it is extremely important to teach designers and creatives how to come up with more sustainable ideas and to bring those to life in order to change the industry. This change however, has to be encouraged amongst the public as well via opportunities for involvement and connecting with professionals.

**COMMUNITIES:**  
Sustainability is about making long-term and feasible societal changes towards more equality and understanding.

In a project about sustainability, the local communities have to be considered and involved, especially if they include minority groups and if the social and economic life has been depriving in the area. A focus must be placed on the creation of a design that is useful for the locals, gives opportunities for leisure and brings new people and life in the region.

**CONSERVATION:**  
Sustainability is also about protecting what we already have and using them mindfully and extensively. In my opinion, this preservation has to consider and include anything from natural landscapes, buildings, objects and materials.

When it comes to building conservation and heritage, it is utmost important to showcase and preserve the original qualities, history and cultural significance of a place, while elongating its life by making it more suited for the changes of its context and purpose.



## Research and Development

North-East Glasgow and especially Springburn are considered to be the **most deprived areas of the city**. Although it was once an important and busy part of the town, after the closing of the locomotive industries in the 50s and 60s it began a rapid decline and today doesn't offer many job, entertainment and schooling opportunities, and essentially **became a victim of modern urbanisation**. The presence of creative spaces, such as studios, workshops and art schools is heavily lacking in the area, however, it is **not too remote** from such institutions that the winter gardens could not be considered as a new gathering point for design- and sustainability-related activities. As Springburn Park is a bit more removed from the city centre and the freeway, it is much **more quiet** in general and it is considered to be a **place for relaxation** for the locals, so it would be a perfect spot for hub, where people can come to calm down a bit and focus on their work.

Besides the need for a change in this environment, the winter gardens was chosen for its **architectural uniqueness and cultural significance**. It was **opened in 1900** for leisure activities, such as concerts and exhibitions by the Reid family, but it was built more akin to a Victorian industrial building than in appearance than a glasshouse. Due to the constant deprivation of the Springburn area, the building has been closed and **vacant since 1983** and was classified as an **A-listed structure in 1985** and so far only small maintenance repairs have been done to it despite the immense demand from some members of the local community.

To generate ideas and explore a few possibilities for the concept and scheme design a number of modelling, sketching and zoning exercises were done. Observing different structures, materials as well as natural and artificial lighting in the building, lead to the decision to mainly to work towards the creation of a warm atmosphere, which uses simple organic and circular shapes, utilizes the elegance of the roof and the internal height and preserves the original building as a kind of vessel around the new activities.

## Site and Context

### MAP OF SPRINGBURN PARK:

- Springburn Park Winter Gardens
- Monuments and places for leisure

### MAP OF NORTH GLASGOW:

- Creative businesses/workshops
- Springburn Park
- Design and art schools



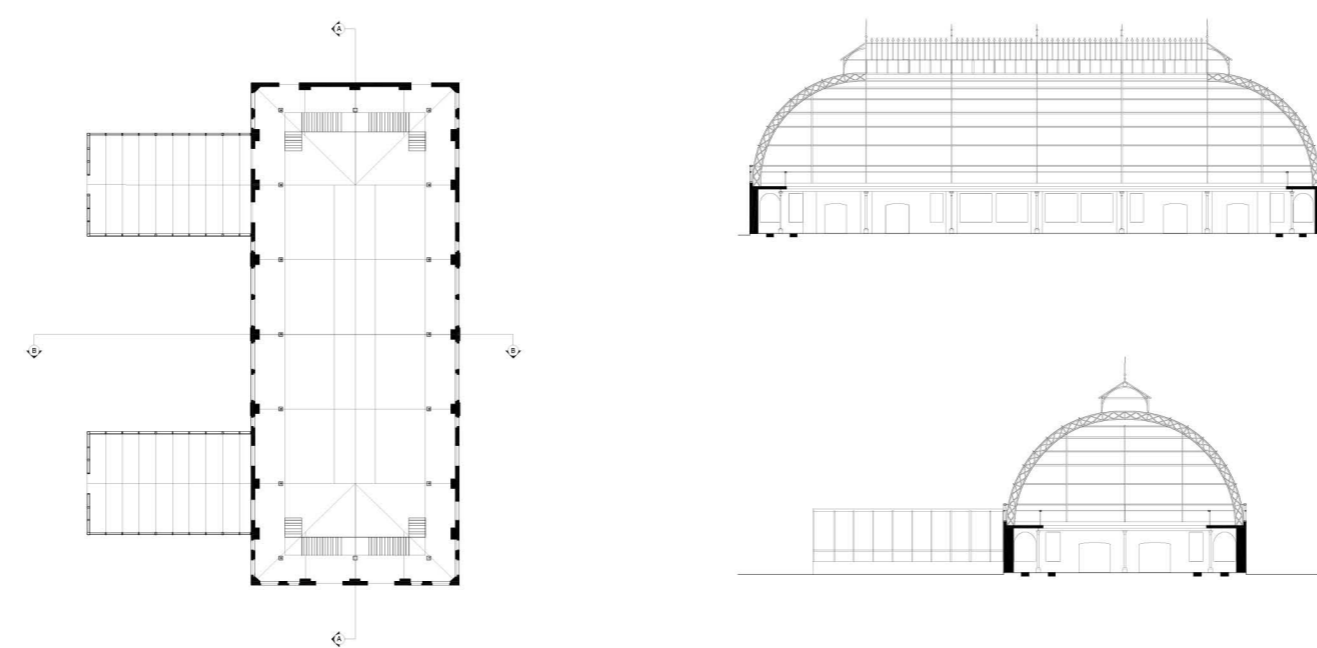
## Proposal

Since the beginning, the goal of the project was to create a hub for design students, young professionals and the locals where they can experiment with ideas, interact with each other and display their creations. All of this would be facilitated by a material and furniture library (mainly composed of construction waste) in a non-institutional setting that is free of the constraints and can provide facilities that might not be accessible for everyone. Also, the incorporation of a green space would allow the target groups to engage with design and learning in a more relaxed atmosphere which could provide some stress relief and contribute to overall well-being.



## The Building

### ORIGINAL PLAN AND SECTIONS

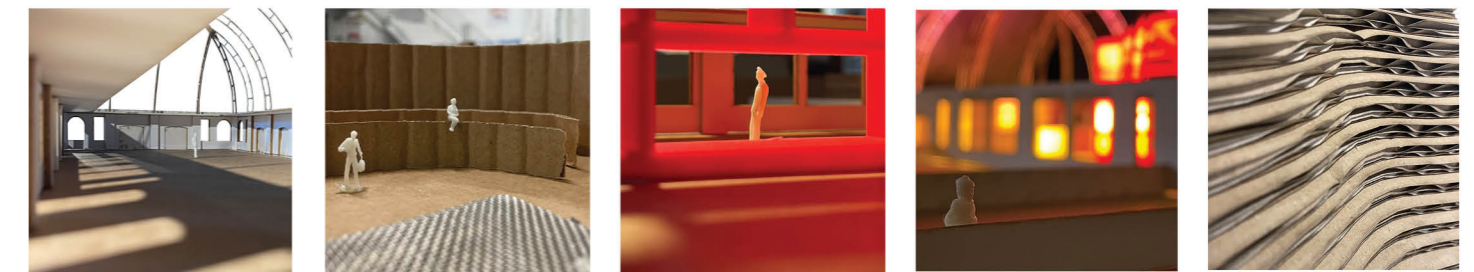


### PHOTO COLLAGES OF THE INSIDE

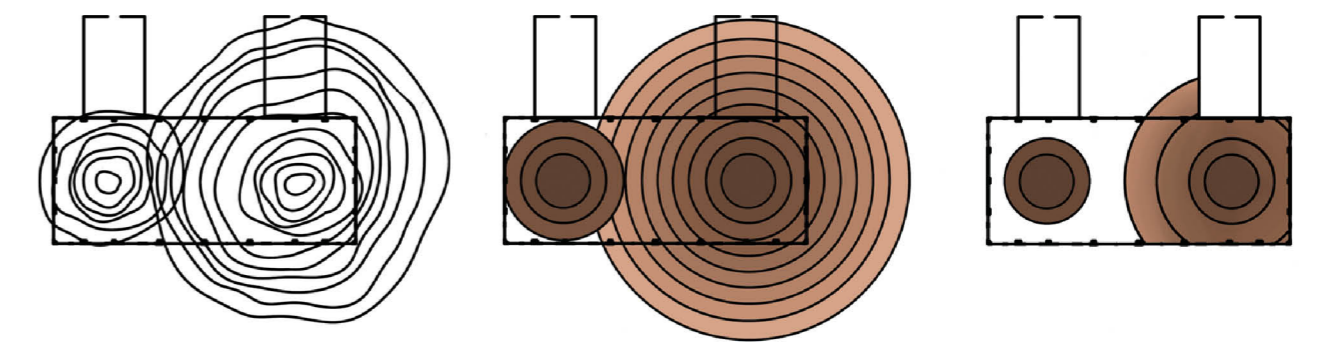


## Concept

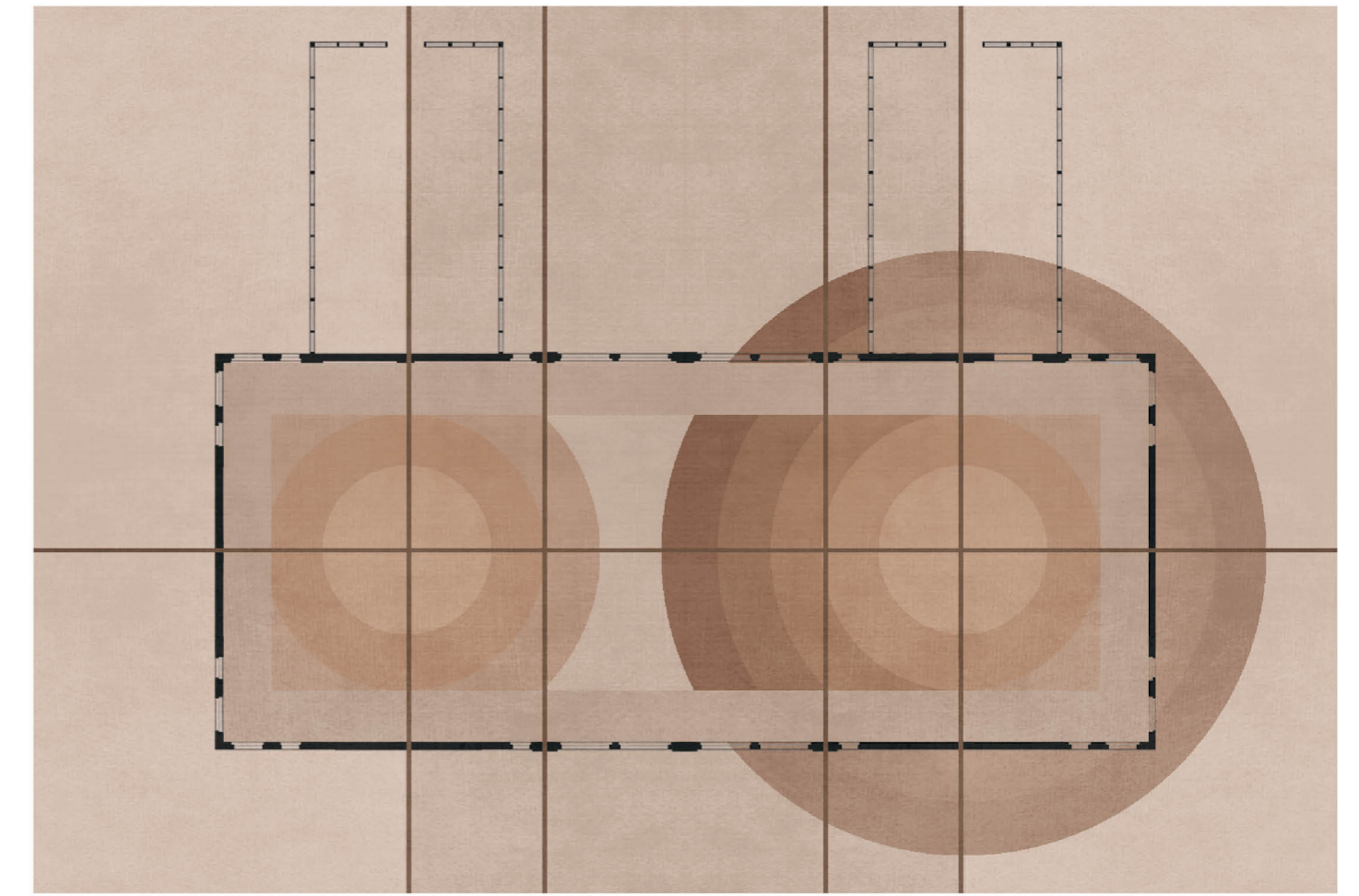
### EXPLORATION WITH MODELLING



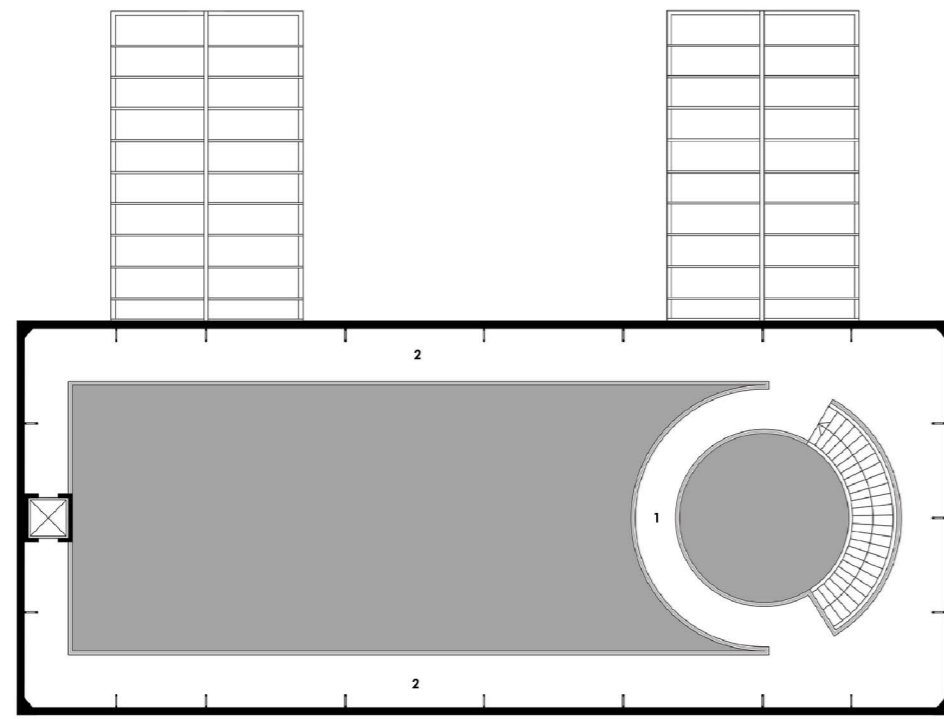
### ABSTRACTION OF TREE RING CONCEPT



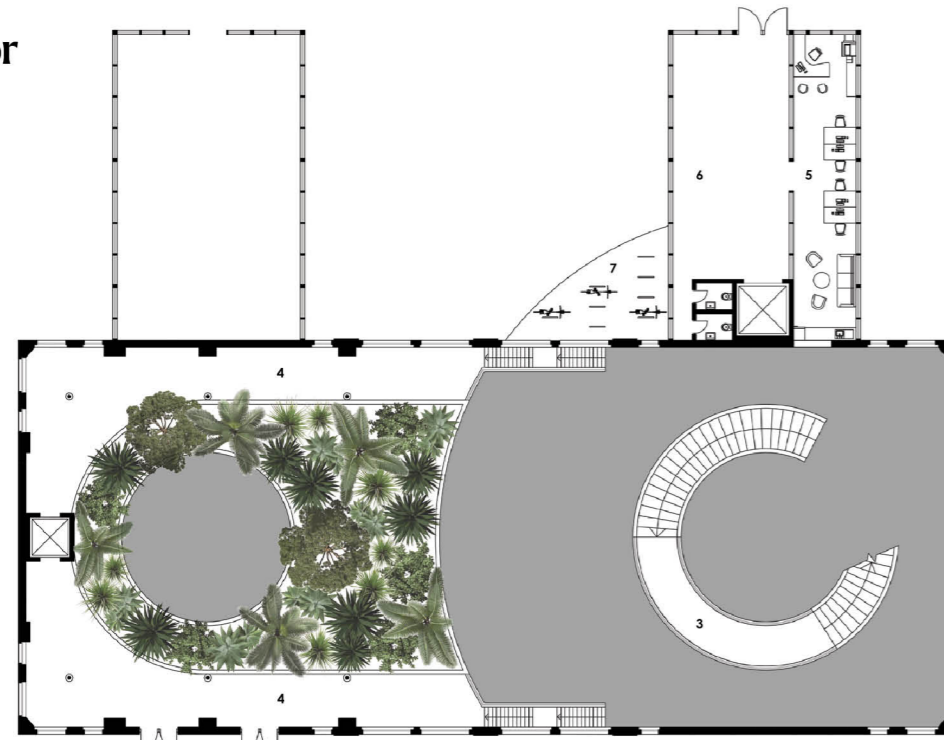
### FINAL SCHEME PROPORTIONS



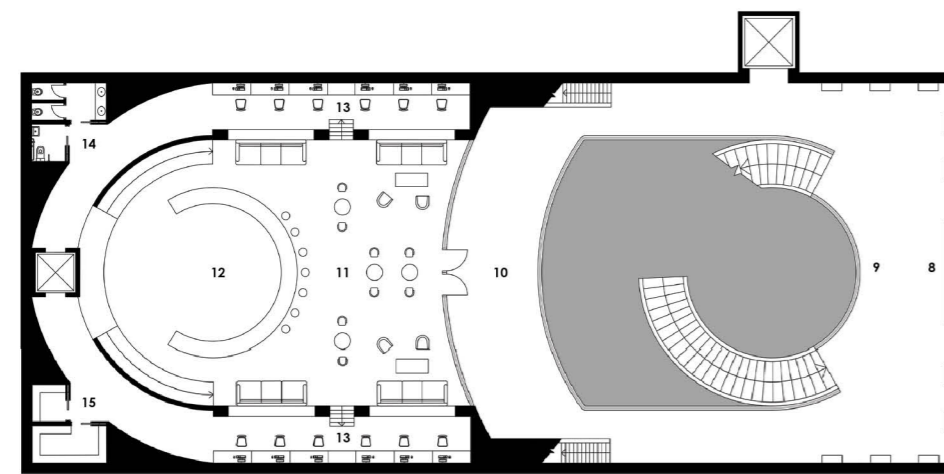
## Gallery



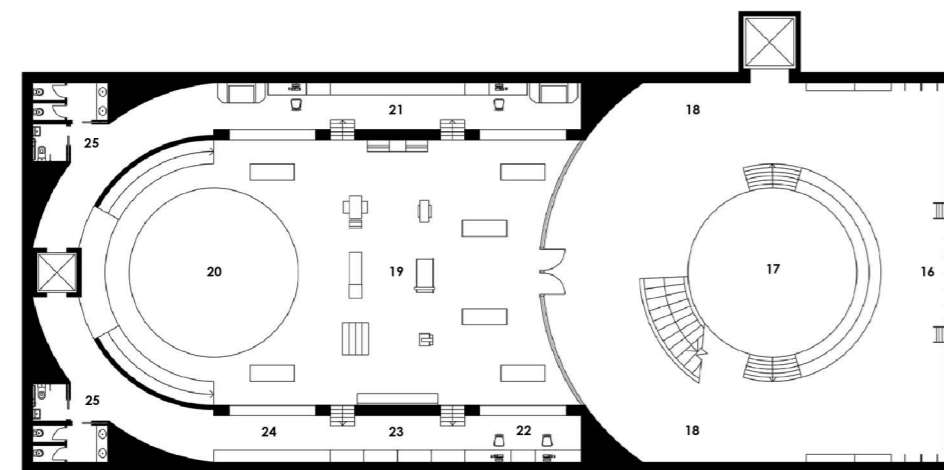
## Ground Floor



## -1 Floor



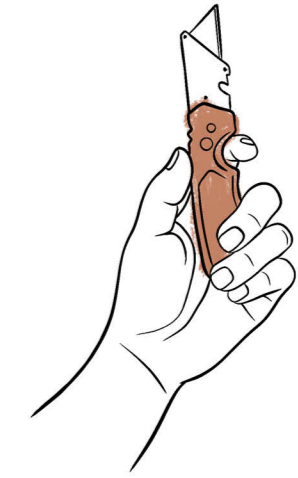
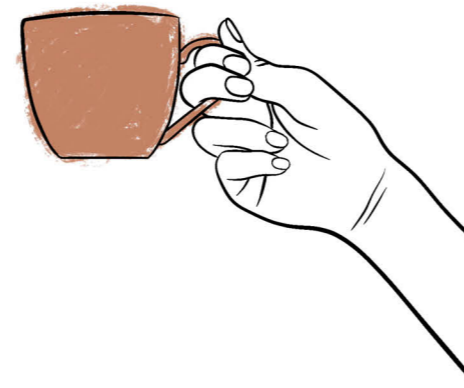
## -2 Floor



### KEY:

- |                            |                          |                        |
|----------------------------|--------------------------|------------------------|
| 1. Look-out                | 10. Terrace              | 19. Workshop           |
| 2. Gallery and projections | 11. Café space           | 20. Paint area         |
| 3. Spiral staircase        | 12. Bar                  | 21. Modelling space    |
| 4. Indoor garden           | 13. Individual work area | 22. Technician's desks |
| 5. Office                  | 14. Toilets              | 23. Break area         |
| 6. Material drop-off       | 15. Storage              | 24. Lockers            |
| 7. Bike storage            | 16. Reclaimed materials  | 25. Toilets            |
| 8. Exhibition              | 17. Presentation space   |                        |
| 9. Spiral staircase        | 18. Furniture stock      |                        |

## Users



### LOCALS, VISITORS AND GENERAL REQUIREMENTS:

- Green space
- Cafe space or lounge
- Exhibition space
- Presentation space/auditorium
- Storage or service room
- Toilets
- Wide pathways, openness
- Main entry point and different ways for circulation, disabled access

**200-300 sqm floor area minimum** (depending on no. of users)

### DESIGNERS:

- Material and sample access
- Computer and tool access (e.g. printers, laser-cutter, 3D printer)
- Work desks with more privacy
- Communal gathering space
- Exhibition space
- Large storage
- Ample lighting
- Proper ventilation

**50-200 sqm floor area minimum** (depending on no. of users)

### MAKERS:

- Material access and sample access
- Hand-held tools and machines with safe space around
- Work area with benches
- Free floor and/or wall space for painting and sculpting
- Office for technicians
- Large storage
- Ample lighting
- Proper ventilation

**50-200 sqm floor area minimum** (depending on no. of users and machinery)



## Material Strategy

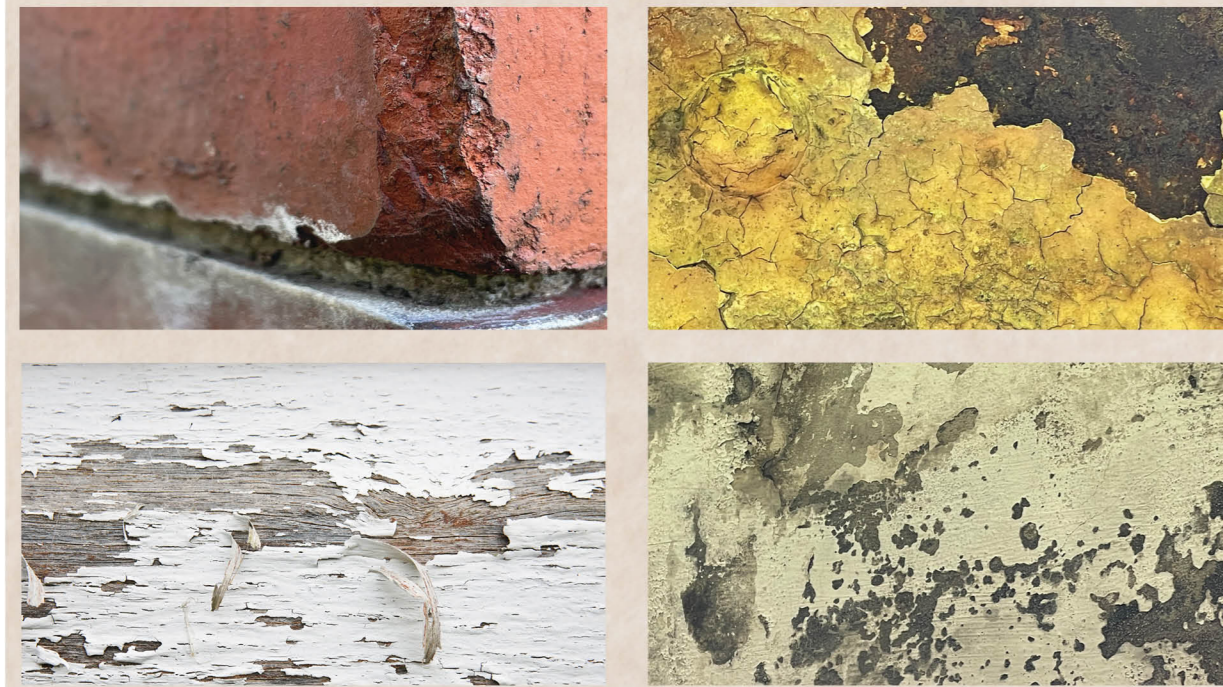
Since the whole aim of the project is to teach sustainable material use to creatives and the locals, it was evident that all materials used for the design had to be **efficient, durable** and mostly **reused or recycled** in order to inspire people and showcase how these materials could still be used extensively.

As **conservation** was another important aspect of the project, it essential to consider the **original materials** of the building, which were mainly brick, timber, steel and concrete (also glass before glazings were removed) and pick materials that matched or reused them.

According to national surveys, the construction industry produced **138 million tonnes of waste** in 2018 and these numbers are increasing by the year. And although around 90% of these materials are recovered across the UK, they are still mostly downcycled and not used to their fullest potential. Hence the final selection of the main materials are in-line with the original ones and representing and using the **biggest groups of construction waste**, them being concrete and other aggregates, brick and stonework, wood products, glass and metals (steel primarily).

One of the main challenges after designing the scheme however, was to resolve the amount of construction work and soil waste throughout the making of the underground levels. This was also an important statement to make, as around **60 million tonnes of construction waste comes from excavation** in the UK and only around 44% of it is recovered, which is also usually transported across long distances. Thus the excavated earth had to be used in situ and abundantly to create the least amount of excess materials. The first idea was to use the soil to use it in the surrounding landscape as windbreaks, but settled on using it as poured for the walls, which not only meant that less construction material has to be transported to the site, but also the soil is used in a very unique and visible way.

## ORIGINAL MATERIALS IN THE BUILDING



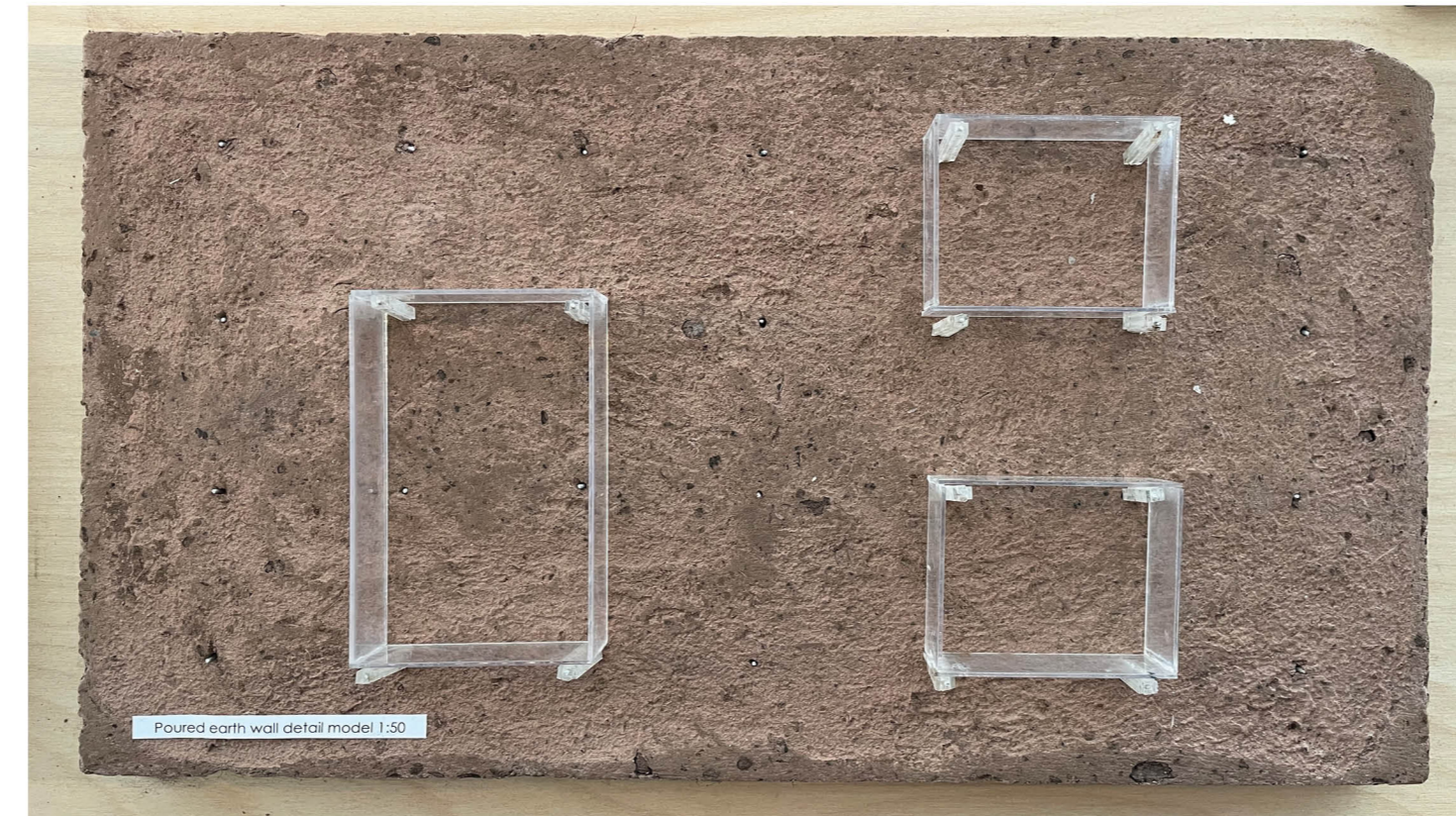
## SAMPLES FOR THE DESIGN



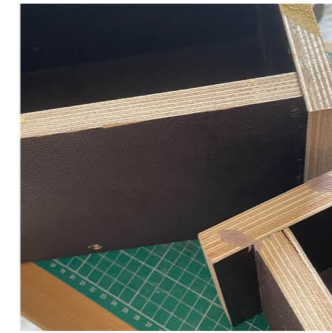
### KEY:

- 1. Reclaimed timber
- 2. Salvaged plywood
- 3. Recycled glass
- 4. Poured earth
- 5. Recycled concrete
- 6. Steel rebar

## Making of Poured Earth



### 1. PREPARING MOULDS



### 2. GATHERING AND DAMPENING SOIL



### 3. MIX IN CEMENT



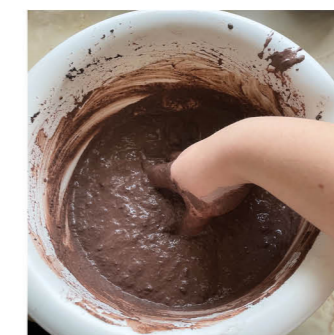
### 4. BLEND IN PLASTER



### 5. ADD CLAY OR NATURAL PIGMENTS FOR COLOUR



### 6. MIX IT ALL TOGETHER



### 7. POUR INTO MOULDS



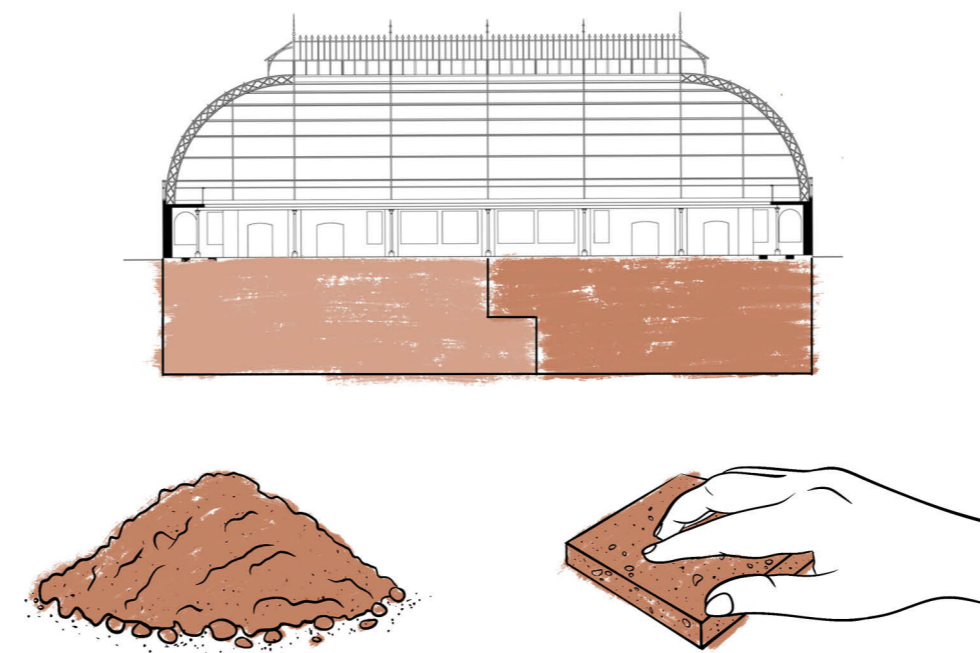
### 8. PLACE ADDITIONAL ELEMENTS FOR CASTING



## Applying Initiatives

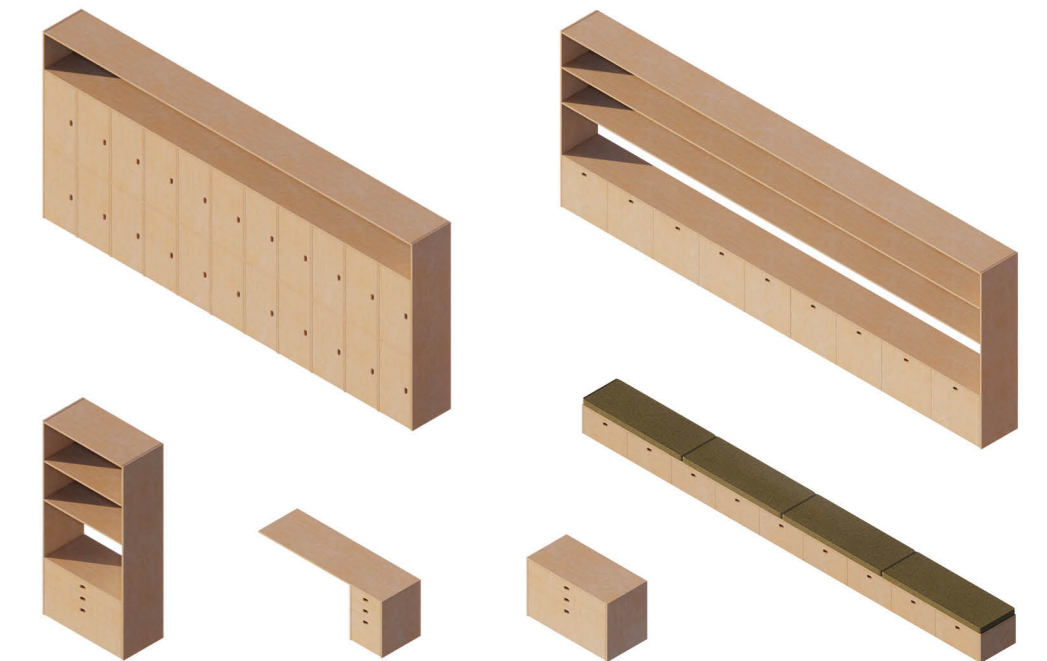
### RECYCLING:

The best example for a recycled material in the project is poured earth which has a very similar construction method and properties to concrete but it requires less machining than similar earthen techniques, such as rammed earth. Poured earth also provides a texturally rich alternative, which adds a tactile element to the design, while clay and natural pigments could be mixed in, so its visual effect on the walls could be changed up, but also kept more consistent at the same time.



### REUSING:

Some of the materials and furniture that are gathered for the library could be used in the design of the building itself, yet again in order to show some potential ways for creatives on how to use them. One example is the use of salvaged plywood and timber to create fitted furniture for the workspaces. Their uniform sizing and modular design also makes their construction easy and they could be rearranged easily if needed, while the texture of the plywood visually separates certain work and office areas.



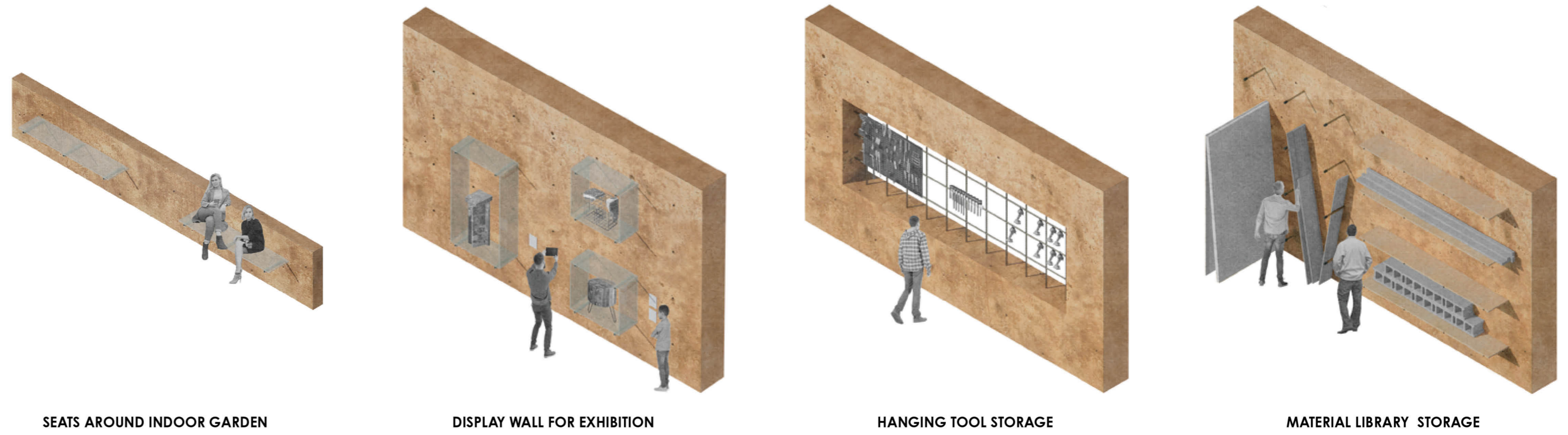
TERRACED SUBTERRANEAN FLOORS



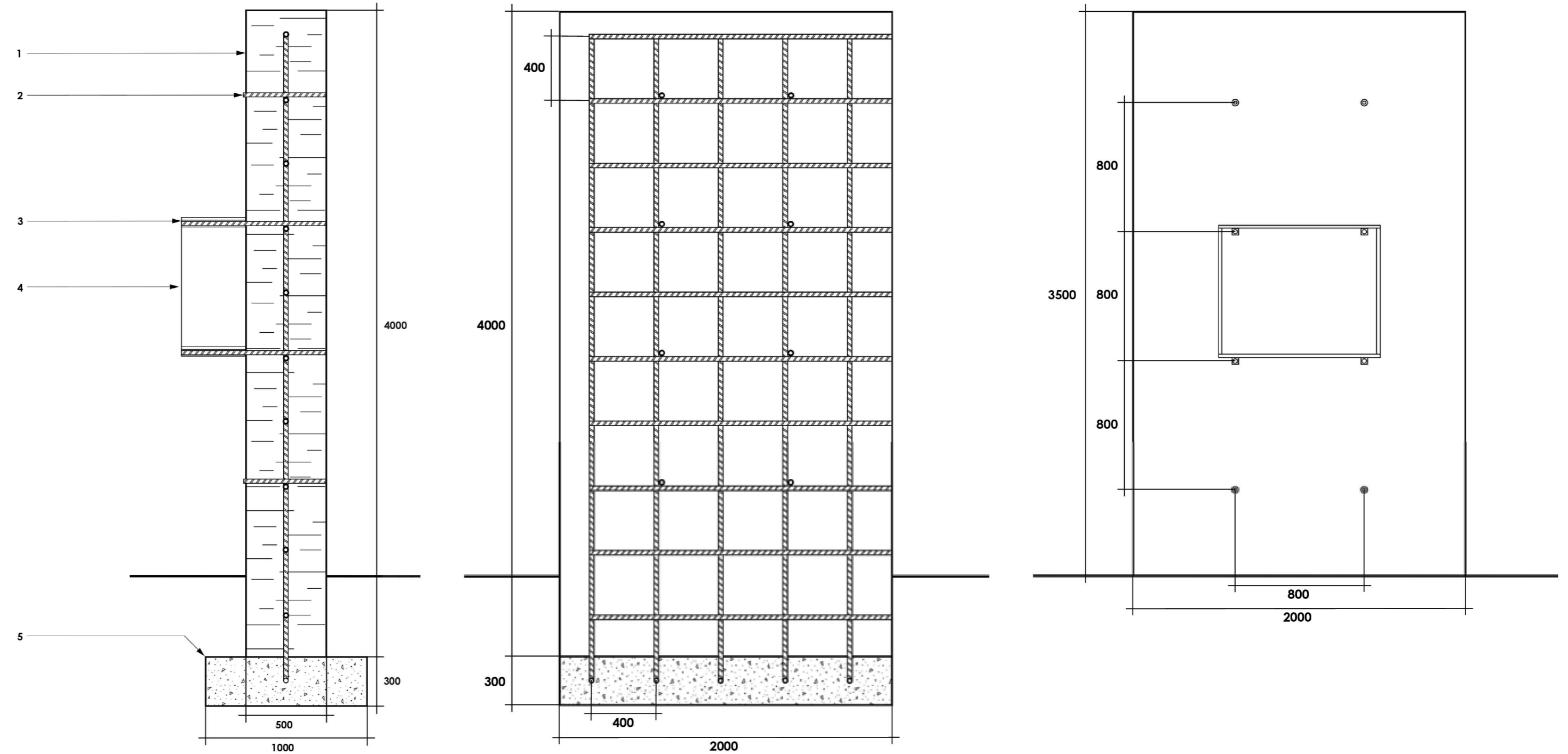
MATERIAL LIBRARY



### Variations of Poured Earth Wall



### Poured Earth Wall Detailing



#### KEY:

- 1., 10., 15. Poured earth wall
- 2. Cut down steel rebar
- 3. Extended steel rebar
- 4. Glass display box
- 5. Concrete foundation
- 6., 11. 20mm glass sheet
- 7., 12. Resin Joint
- 8., 13. 40x40 resin sleeve
- 9., 14., 16. #8 steel rebar
- 17. Rubber end cap

