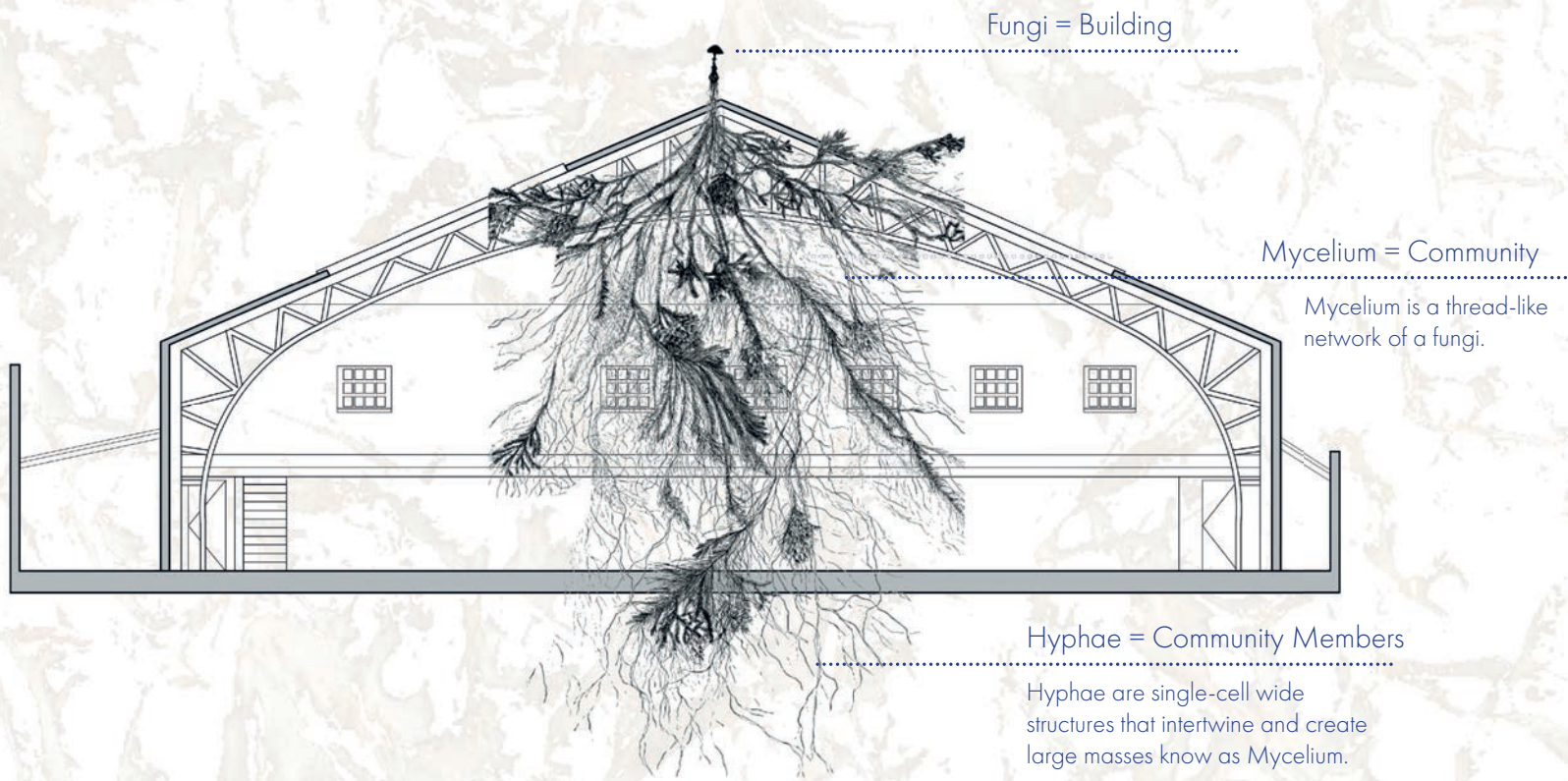


Weaving Roots

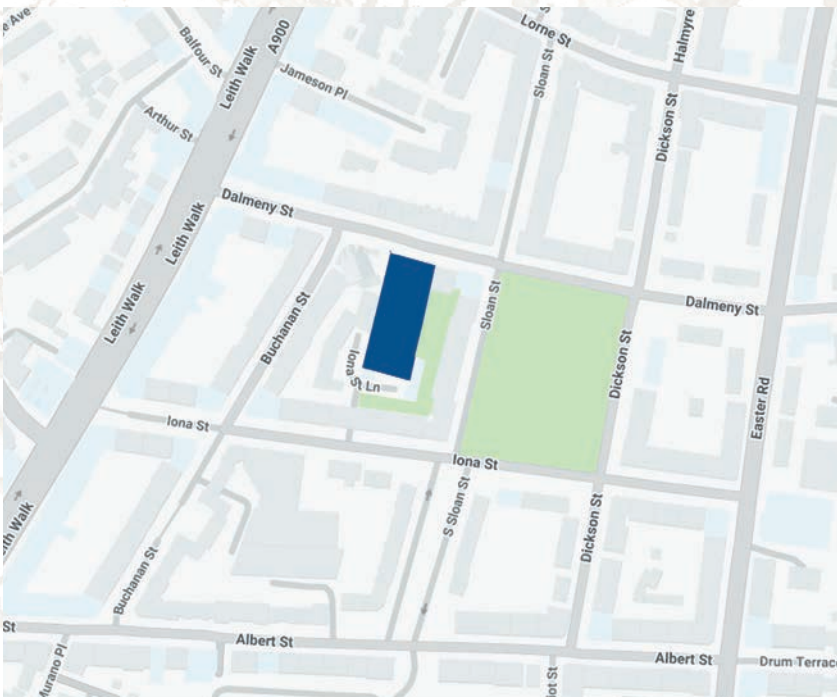
Co-living

Weaving Roots is a multi-generational Co-living Community located inside the Drill Hall in Leith; that welcomes Edinburgh's residents affected by the UK Housing Crisis that aspire to live in their own homes, closer to the city centre, at more affordable rates. This is accomplished by fostering a Co-living community - in which members share facilities like laundry or co-working spaces and live in private units that are smaller but unique to each resident -; and by retrofitting an empty commercial building that is already part of the urban fabric.

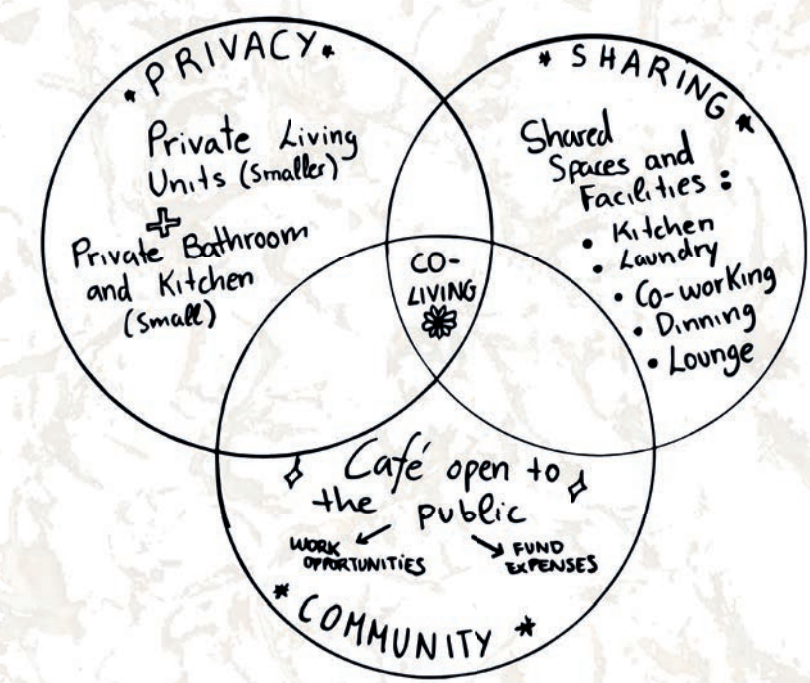
The concept of this project and its narrative are inspired by Mycelium's thread-like structures (Hyphae) and their ever-growing connections. Mycelium composes the largest part of a fungi. I have developed a metaphor around the concept, through which the building where the community lives represents the fungi, the Co-living community represents the Mycelium, and the community members, the Hyphae.



Conceptual metaphor inspired by Mycelium's thread-like structure



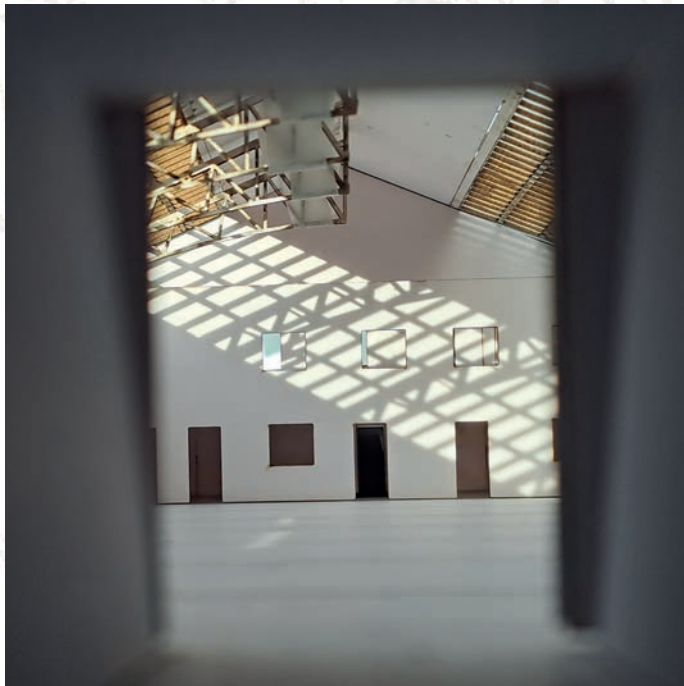
The Out of the Blue Drill Hall, 36 Dalmeny St, Edinburgh EH6 8RG



What Is Co-living? - Concept Diagram



Connecting through shared spaces like lounges, patios, kitchens and dining



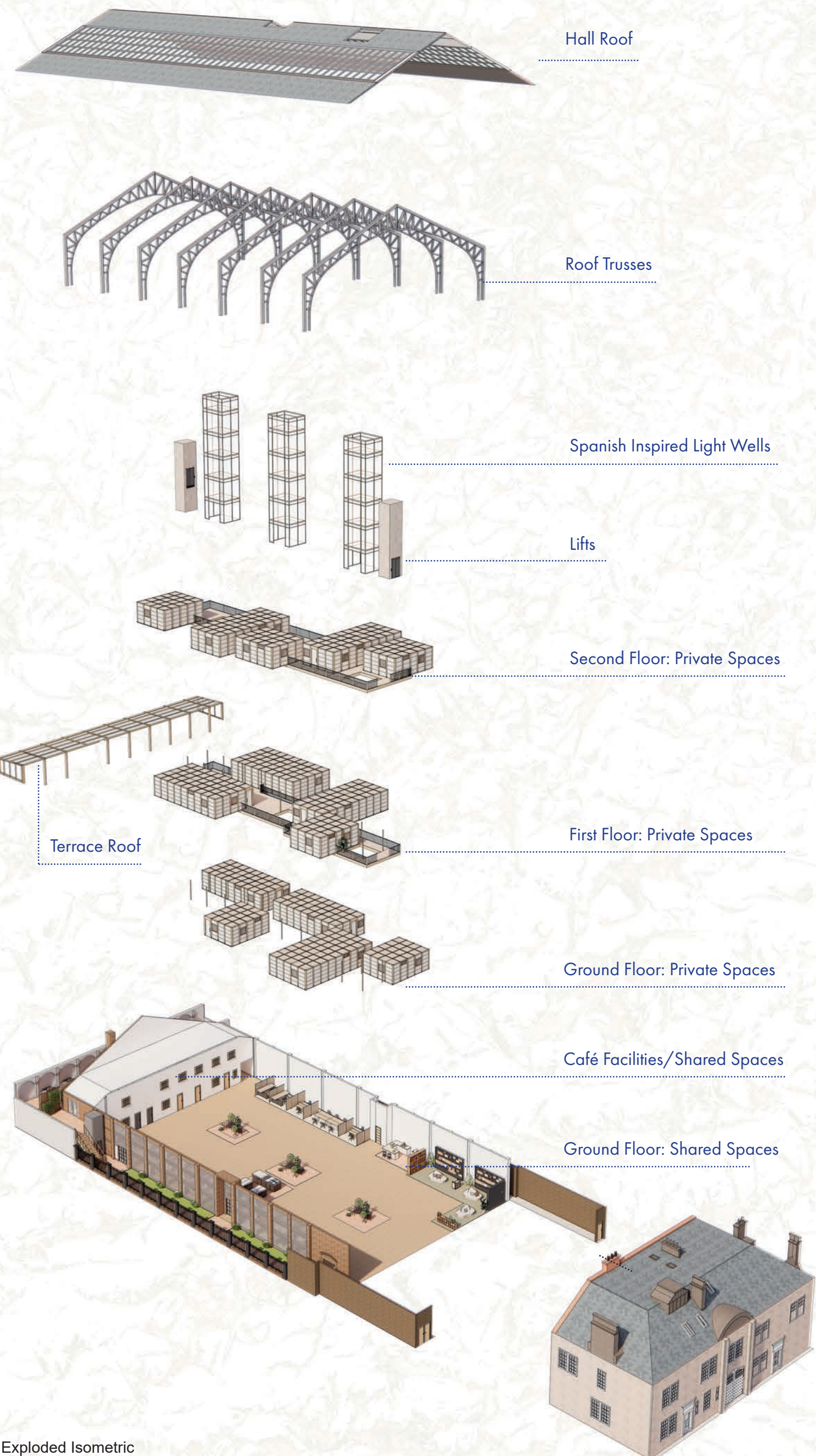
Physical Model: Daylight Studies



Concept Montage: Shared cooking and dining



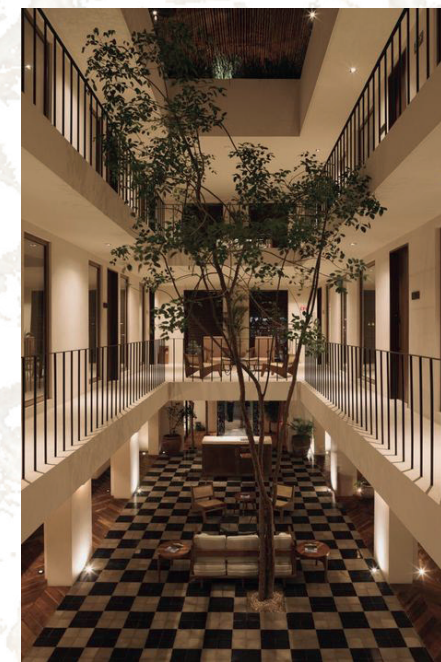
Concept Montage: Connecting the communities



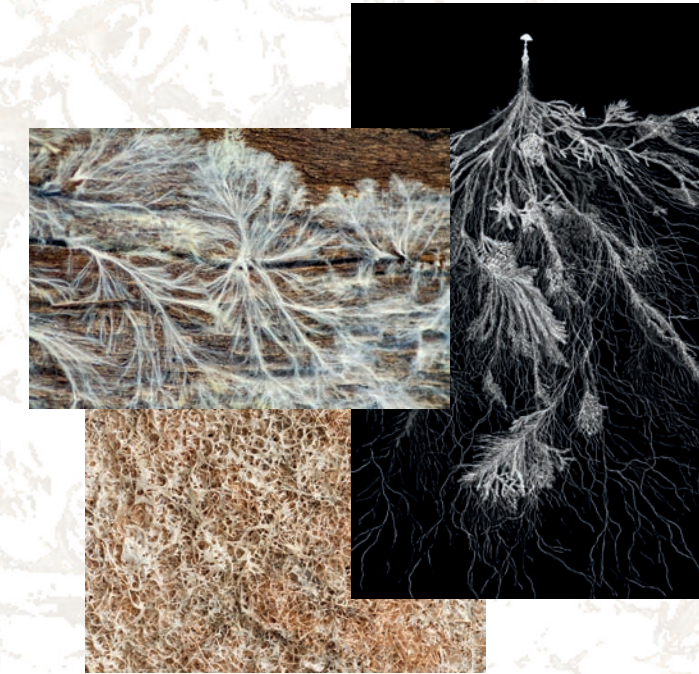
Natural Sunlight

Converting a Drill Hall, industrial building not intended to be used as a residential space, presented the challenge of bringing in more natural light in creative ways. Following natural light site studies, the east-facing façade - that faces the shared garden- was re-imagined as a windows façade, which not only allows more natural light in, but also further connects the community with nature and with the adjacent neighbourhood.

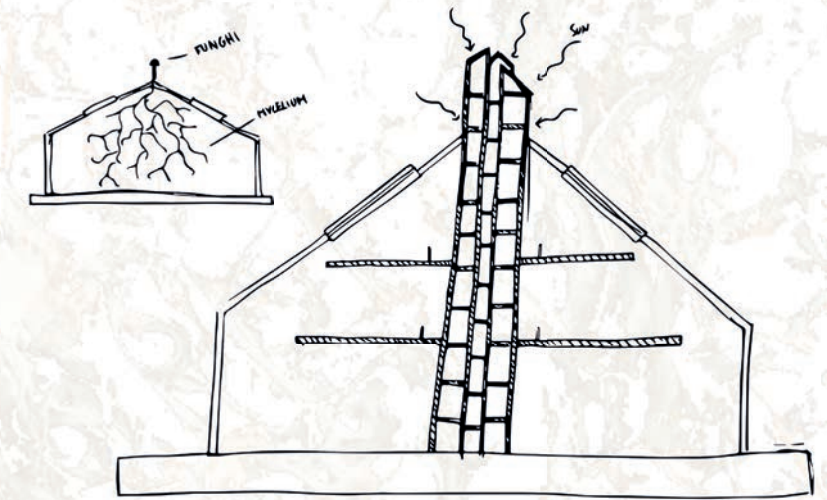
Additionally, the sealed skylights were re-opened and lightwells were run through them that connect the sky with the ground, allow airflow and light in, and create an opportunity for interior gardens at the bottom.



Downtown Tulum Hotel - México



Mycelium Structures and Textures



Architectural form resembling Fungi structures: introducing lightwells and new floor-plates



View towards shared spaces and garden from the first-floor mezzanine

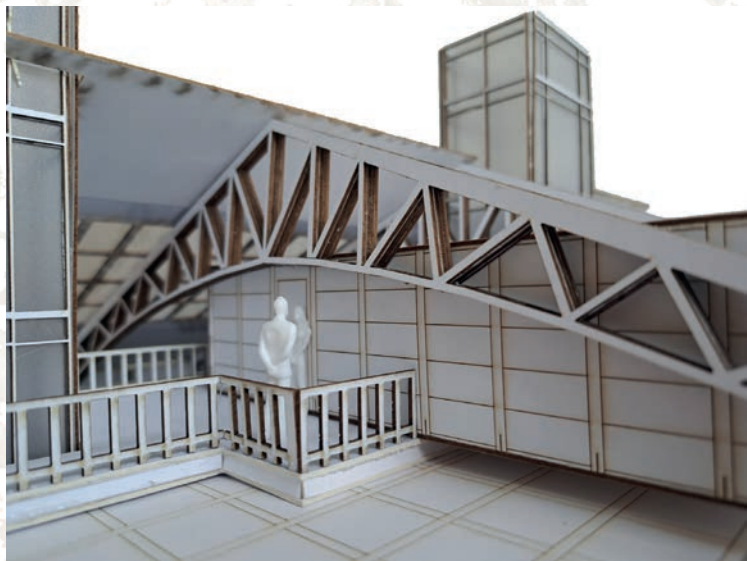
Welcoming Community

The surrounding perimeter of the building is re-imagined as a shared garden that helps further connect the adjacent neighbourhood with the co-living community, by lowering the brick walls that visually and physically divided them.

Including a community café that is open to the public alongside with a shared garden transforms the building partially into a permeable public space that presents new ways to navigate the area.



Casual encounters in shared spaces like the library and entrance lobby



Physical Model: Second floor, community members interacting



Co-working spaces with access to printing facilities and a coffee maker



Physical Section Model: garden view into the community



Rendered Long Section - not to scale

Community Size & Café

The community size starts at 14 living units (23 people). Three standard living unit sizes and floor plans are provided as a starting point:

- 1 Bed / 1 Person Units
- 1 Bed / 2 People Units
- 2 Bed / 2 People Units

This size allows enough space for the community to grow overtime, up to 24 units (36 people).

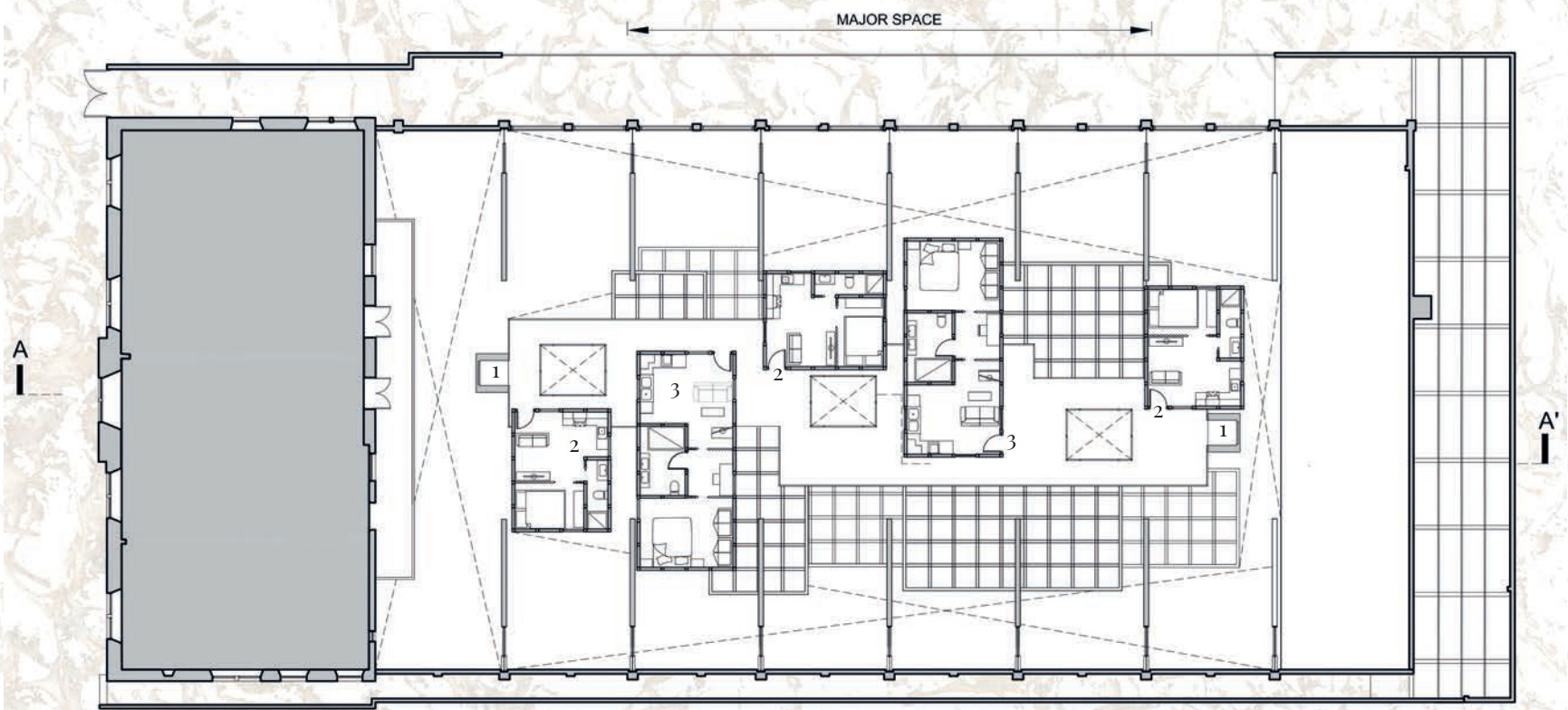
The community runs a Café which allows to bring together the co-living residents and the community of Leith. It also offers work opportunities for both and helps fund community expenses. The Café includes a new exciting space: an enclosed terrace that can be used all year round, and which transports customers to a traditional Spanish terrace.



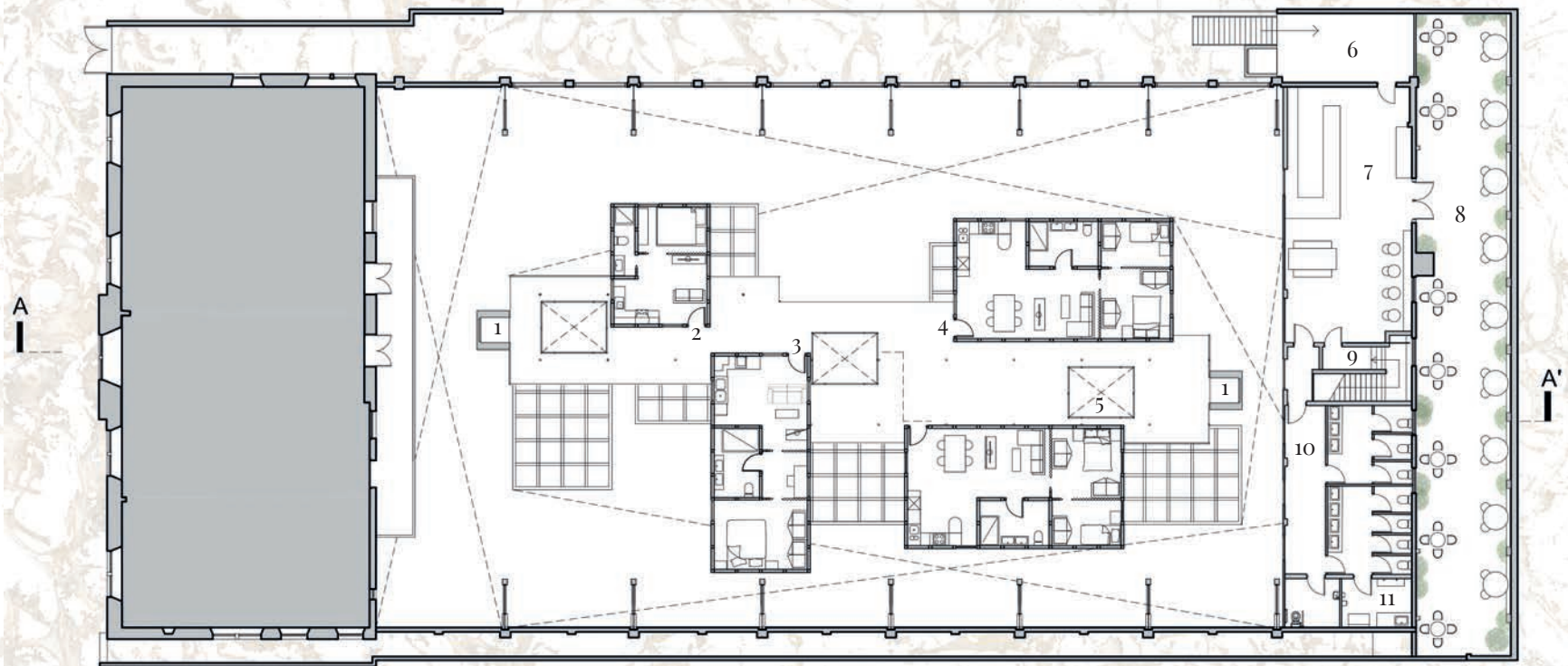
Shared garden and Café public access



Community Café Spanish-inspired Terrace



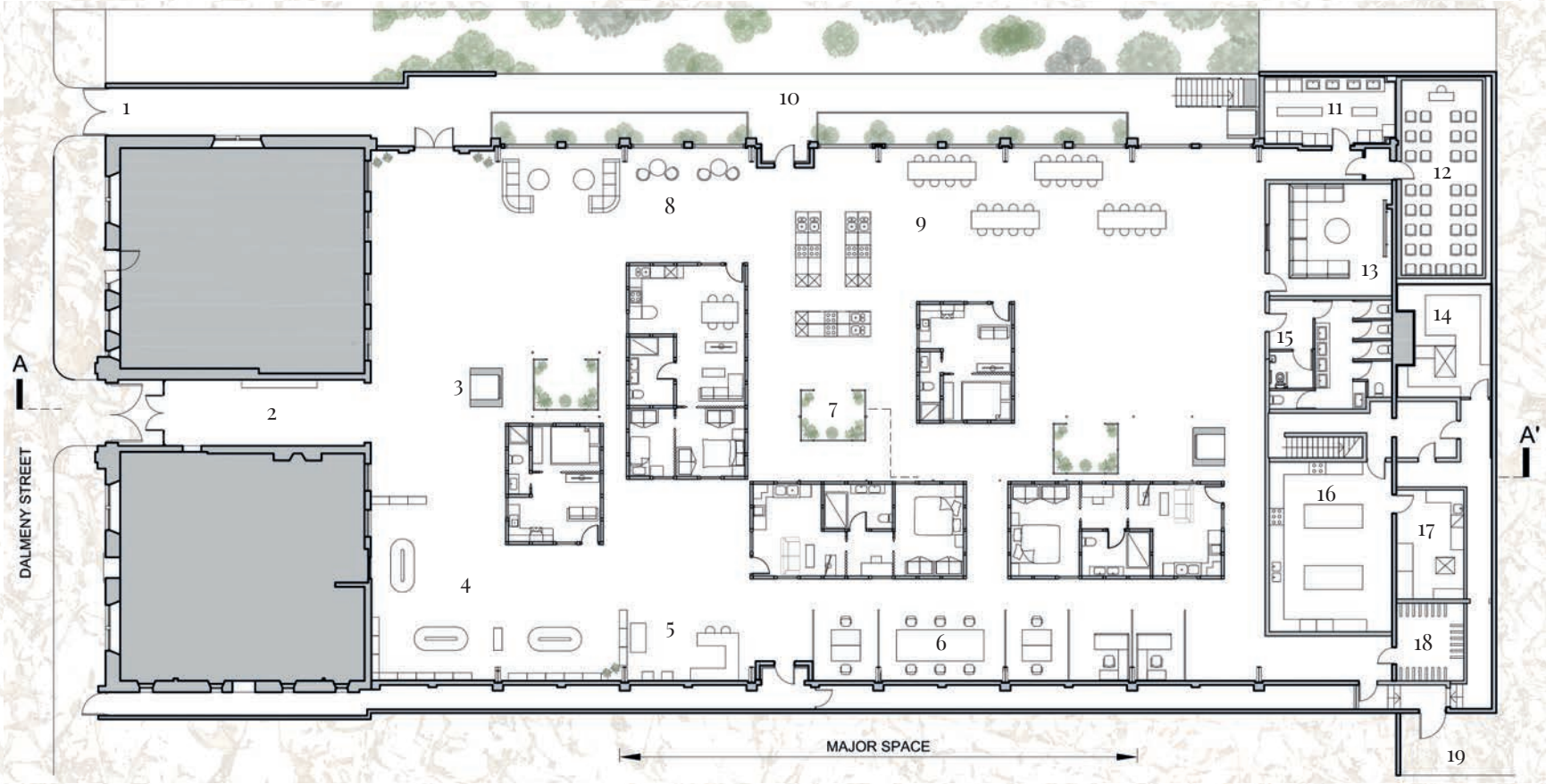
Second Floor Plan



First Floor Plan

FIRST & SECOND FLOOR

1. Lifts
2. 1 Bed Small Living Unit
3. 1 Bed-2 People Living Unit
4. 2 Bed-2 People Living Unit
5. Lightwells
6. Café Entrance
7. Community Café
8. Café Terrace
9. Stairs to Kitchen
10. Customer Toilets
11. Baby Changing Facilities



Ground Floor Plan

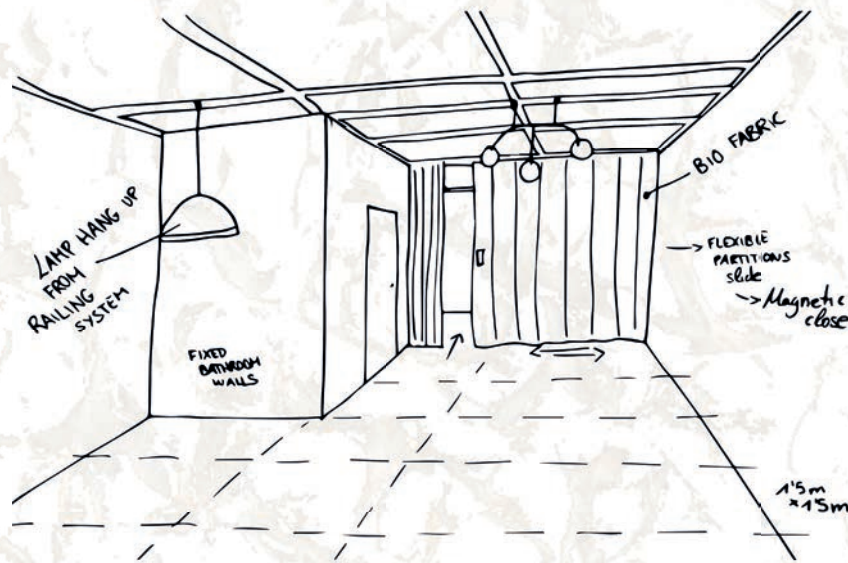
GROUND FLOOR

1. Public Entrance to Café
2. Private Entrance
3. Lift to Living Units
4. Library
5. Printers/Coffee Corner
6. Co-working
7. Lightwells
8. Lounge Area
9. Shared Kitchen + Dining
10. Garden/Café Access
11. Shared Laundry
12. Community Meeting Room
13. TV Lounge
14. Café Storage
15. Shared Toilets
16. Café Kitchen
17. Café Dishwasher/Cold Storage
18. Bike Storage
19. Café Delivery Access

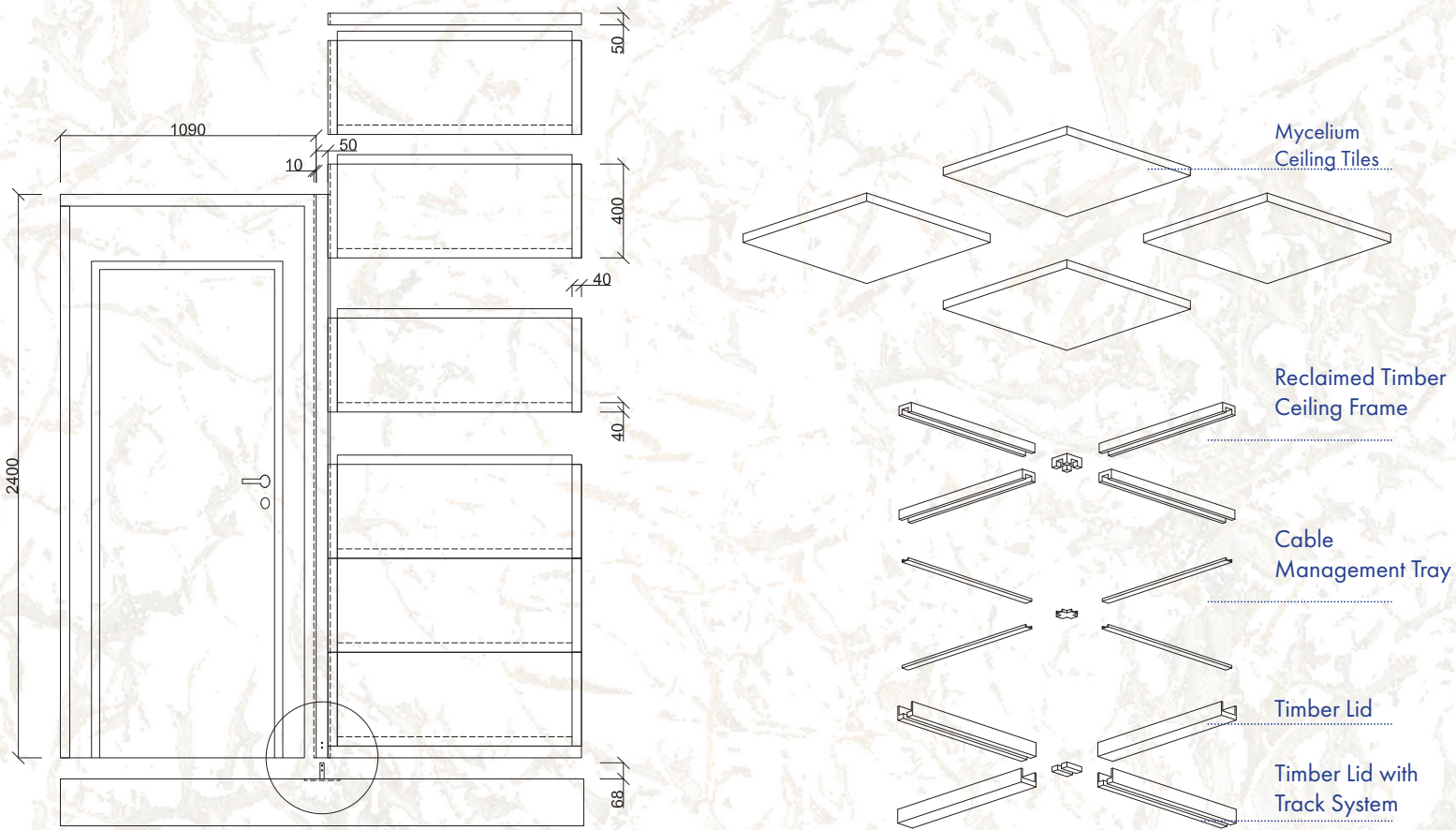
Flexible Mycelium Homes

All living units are highly customisable. A modular building system have been detail designed to allow the units to have different external configurations; alongside with a flexible internal partitions system, which combines sliding internal partitions with a 1x1m ceiling track system grid.

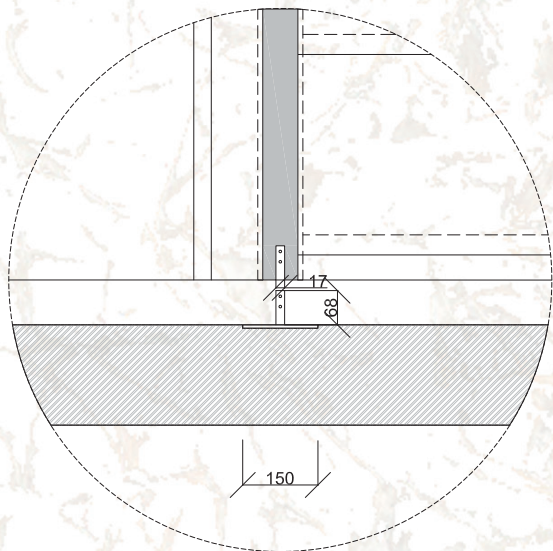
The wall panel size has been designed to be handled by most members of the community. The living units are mainly made of Mycelium wall panels and reclaimed timber frames. Both the outer walls and the inner partitions are flexible within a 1mx1m pre-installed grid on the floorplates, allowing the residents to customize their homes according to their needs and preferences.



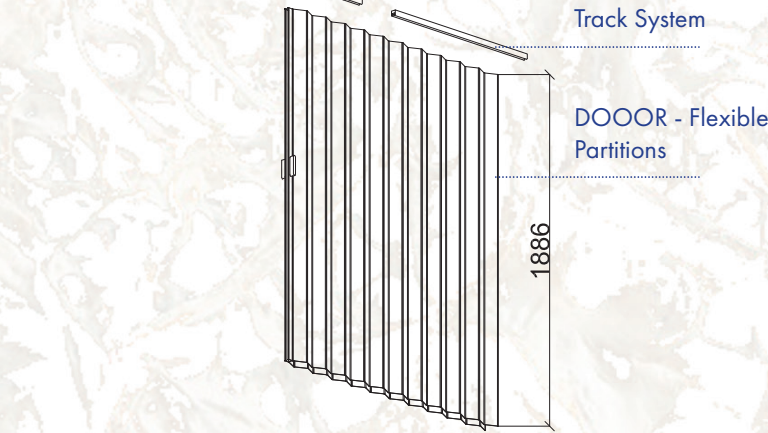
Interior of 1 bed-1 person Mycelium Living Unit



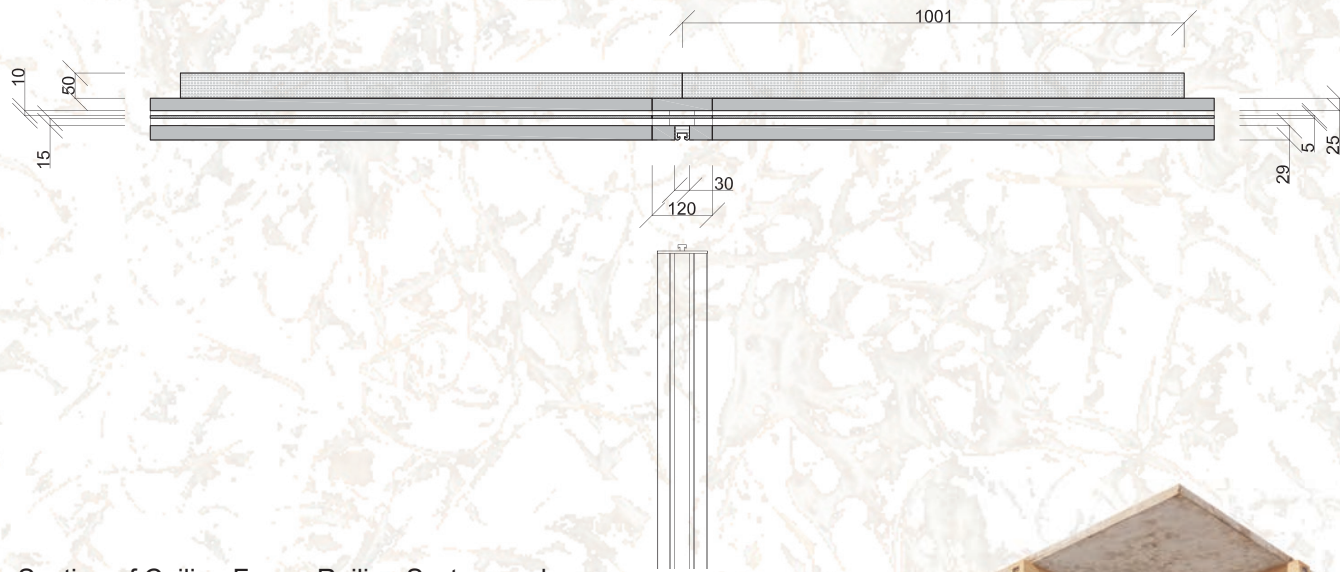
Modular Living Units Building System: Slide-in Method



Steel Column Connection to Floor Plate through an MCB mass timber column base



Exploded Isometric Drawing of Flexible Inner Partitions through a Ceiling Tracks system



Section of Ceiling Frame Railing System and Cable Management



Slide-in Mycelium Living Units



Living Units: Flexible Internal Partitions