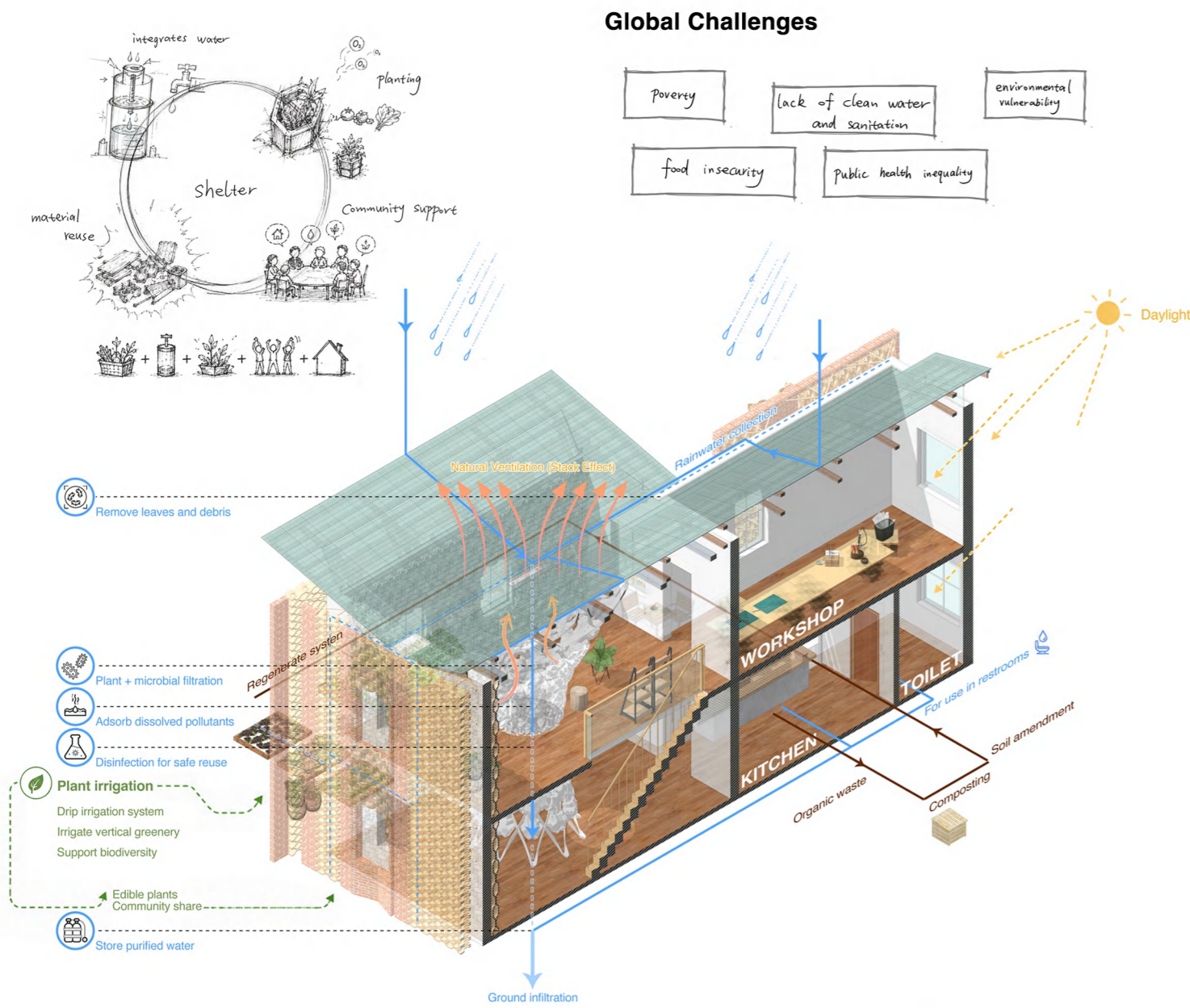


Mycelium Pulse Workshop

I began this project from a belief that design should respond to basic living conditions, dignity, and access to essential resources, rather than only visual experience. Mycelium Pulse Workshop reimagines the safehouse as a living ecological infrastructure rather than a static shelter. Through rainwater harvesting, filtration, planting, and bio-based mycelium material experimentation, it links environmental performance with everyday community care. Dense, porous, and perforated mycelium-brick prototypes explore construction logic, moisture behaviour, modular repair, and future reuse. The project demonstrates how interiors can address environmental and social vulnerability through sustainable material resolution and tactile, human-scale spatial experience.



"Pulse" refers both to the purification cycle of water and to the vitality of mycelium. It also suggests that local economic and community activities flow like a pulse.

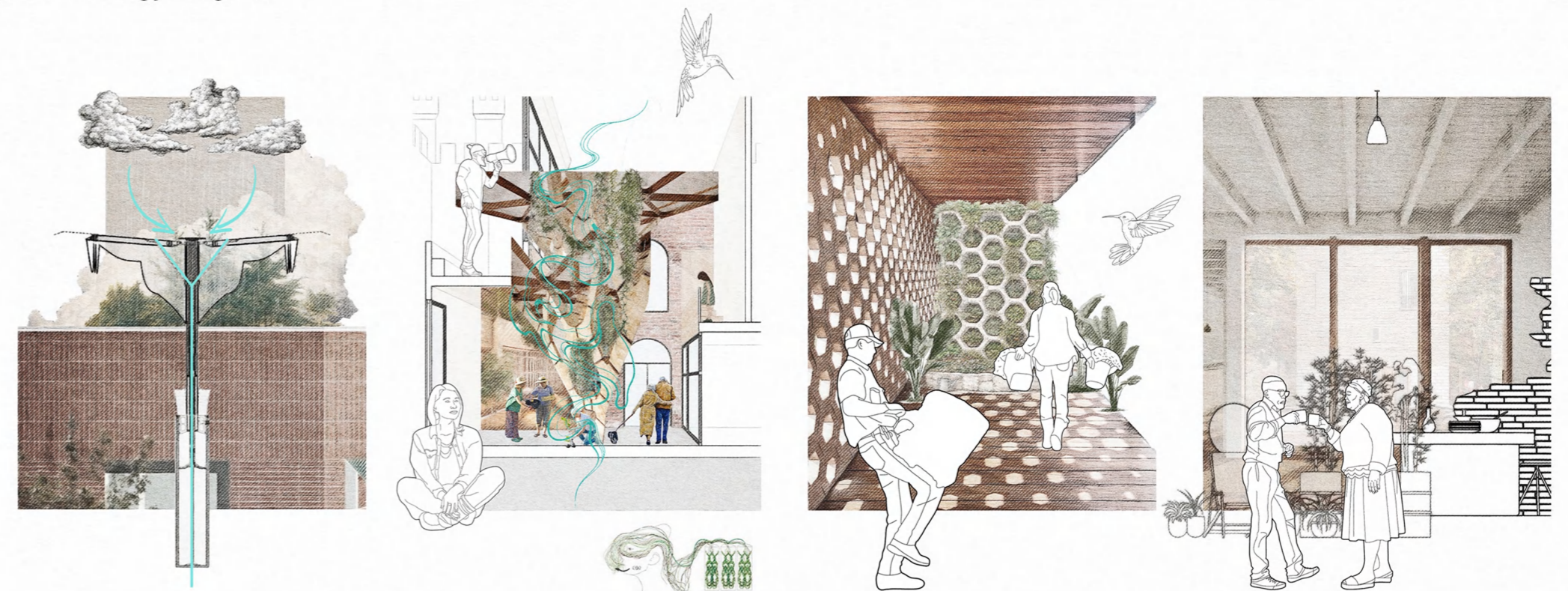


SDGs

- | | | | |
|--|-------------------------------------|--|--|
| 1 NO POVERTY | 2 ZERO HUNGER | 3 GOOD HEALTH AND WELL-BEING | 4 QUALITY EDUCATION |
| 5 GENDER EQUALITY | 6 CLEAN WATER AND SANITATION | 7 AFFORDABLE AND CLEAN ENERGY | 8 DECENT WORK AND ECONOMIC GROWTH |
| 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 10 REDUCED INEQUALITIES | 11 SUSTAINABLE CITIES AND COMMUNITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION |
| 13 CLIMATE ACTION | 14 LIFE BELOW WATER | 15 LIFE ON LAND | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |

This project translates sustainability from abstract goals into spatial ethics, linking water, planting, material reuse, and community care through a living interior system. Rather than treating the SDGs as external references, the design responds to them through low-cost, repairable, shared, and circular strategies embedded in everyday space.

Spatial Strategy Diagram



Roof: water collection surface

Centre: purification core

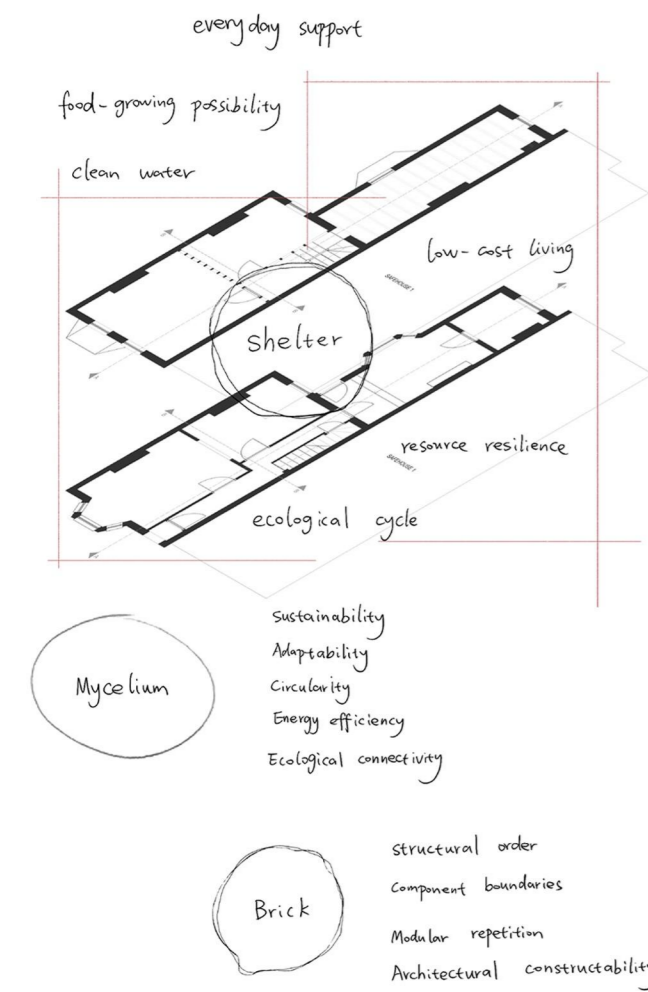
Wall: growing / productive wall

Open zone: shared activity space

Mycelium brick experiment

The mycelium-brick experiment was developed to connect biological growth with architectural application, turning circular material research into a spatial system for support, water, and resilience.

The project tests dense, porous, and perforated mycelium-brick prototypes to explore construction logic, moisture behaviour, assembly, repair, and future reuse.



Evaluation Matrix



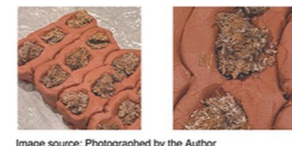
Dense Brick

- Integrity — High
- Moisture behaviour — Medium
- Texture — Medium
- Aesthetic potential — Medium
- Form stability — High



Porous Brick

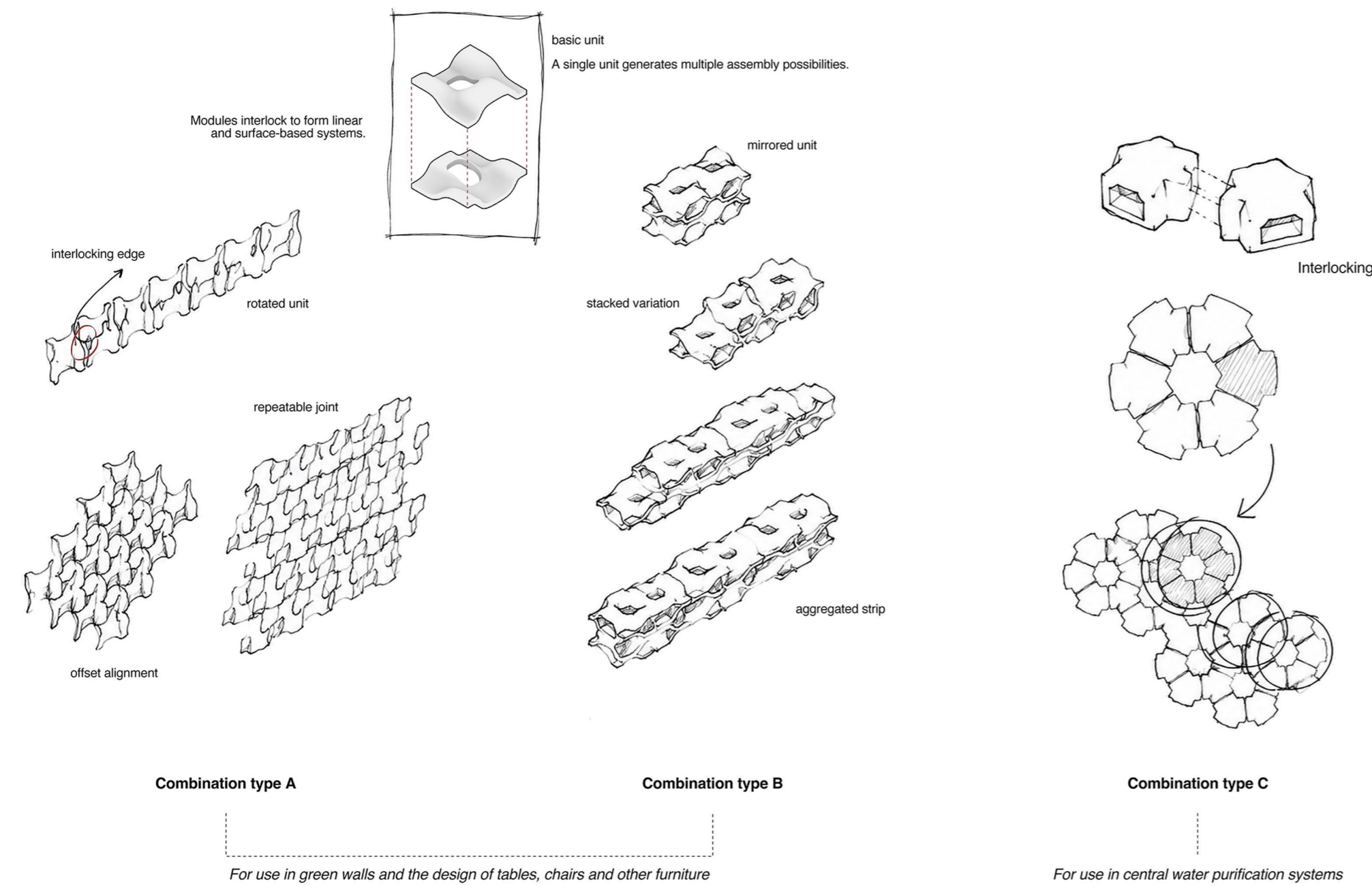
- Integrity — Medium
- Moisture behaviour — High
- Texture — High
- Aesthetic potential — High
- Form stability — Medium



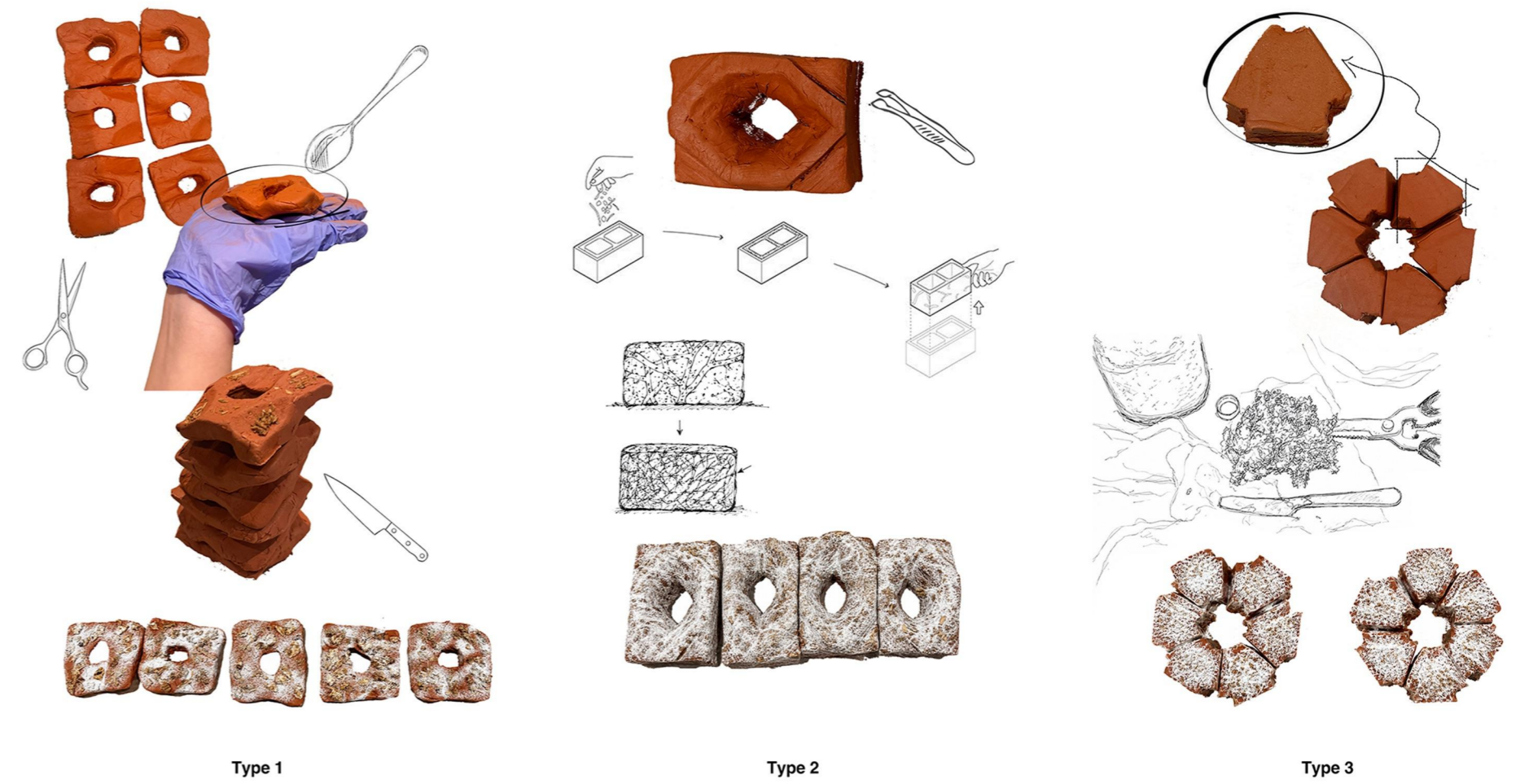
Perforated Brick

- Integrity — Low / Medium
- Moisture behaviour — Medium
- Texture — High
- Aesthetic potential — High
- Form stability — Low

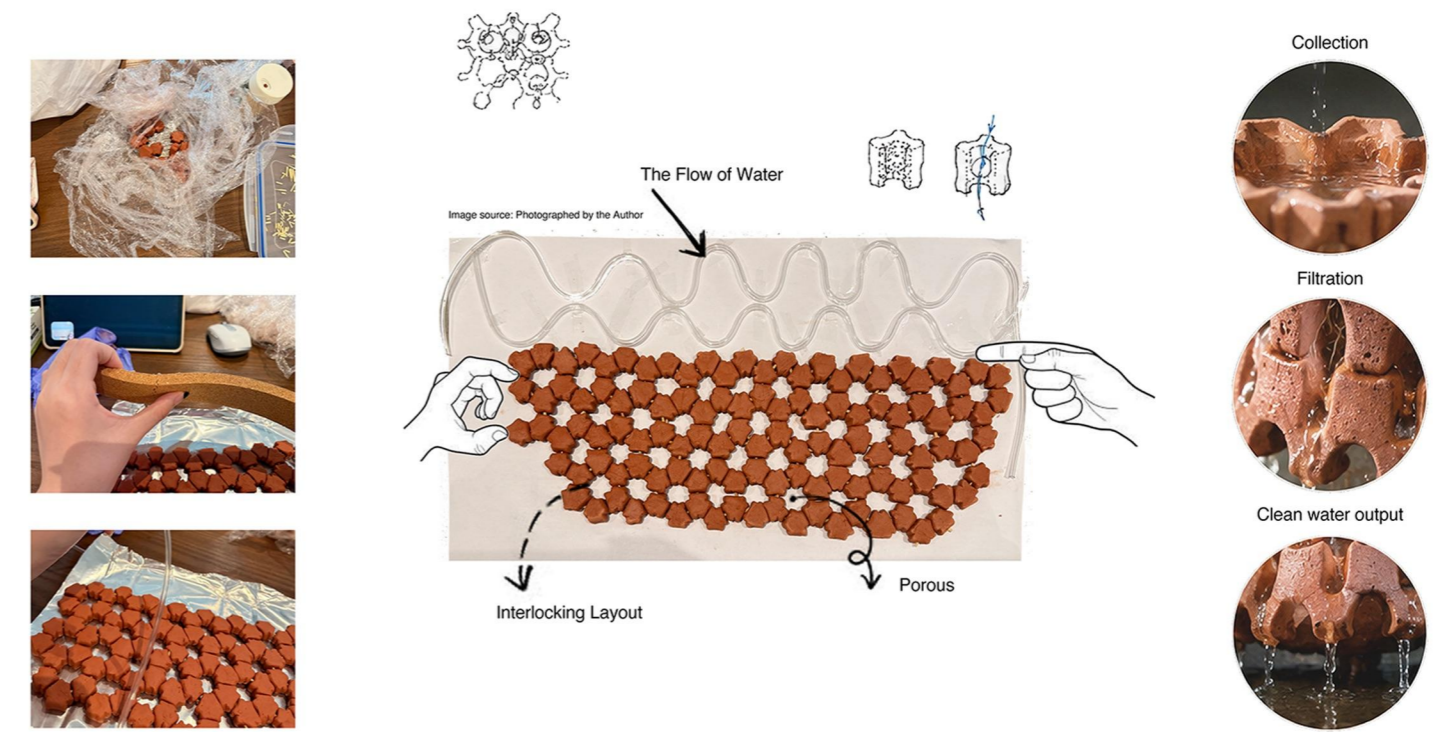
Prototype Assembly Logic



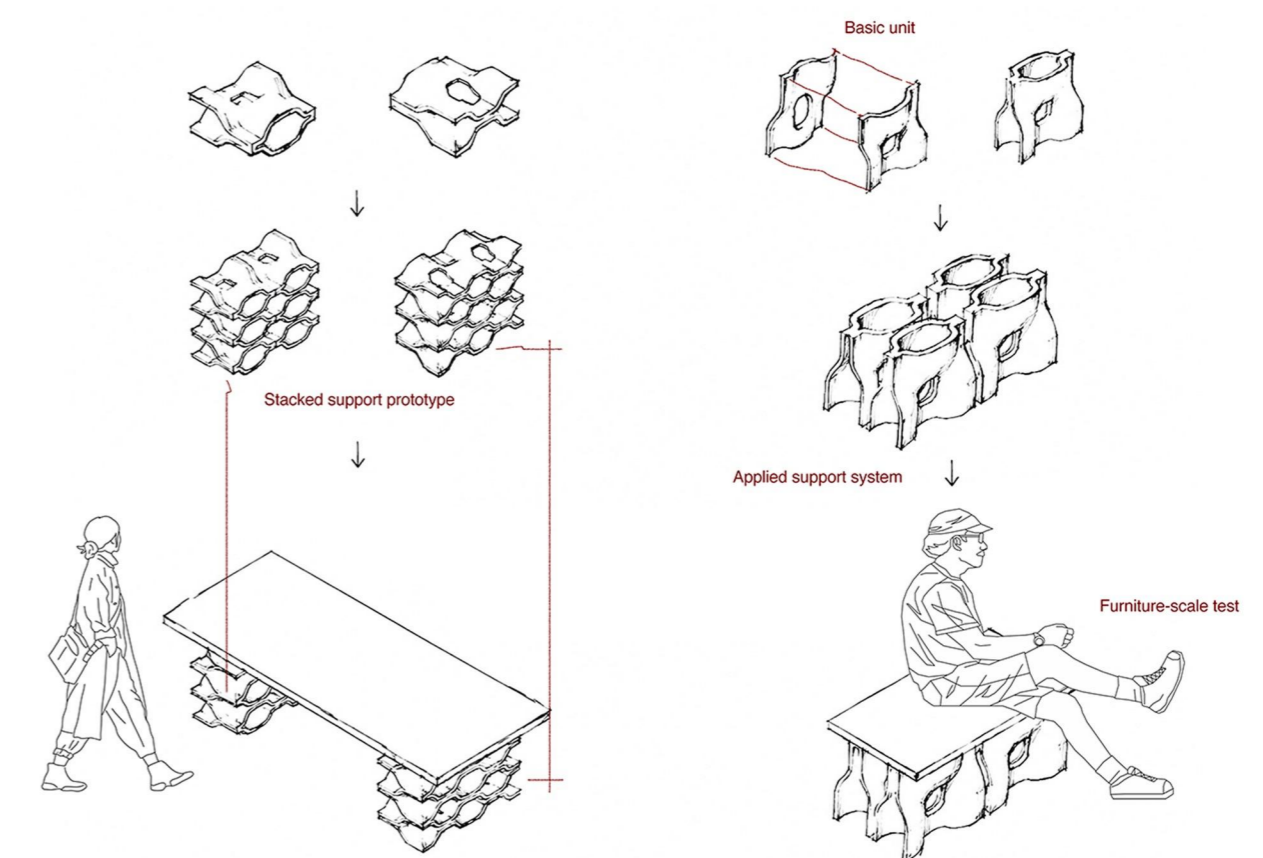
Further Exploration Of Prototype



Prototype Documentation

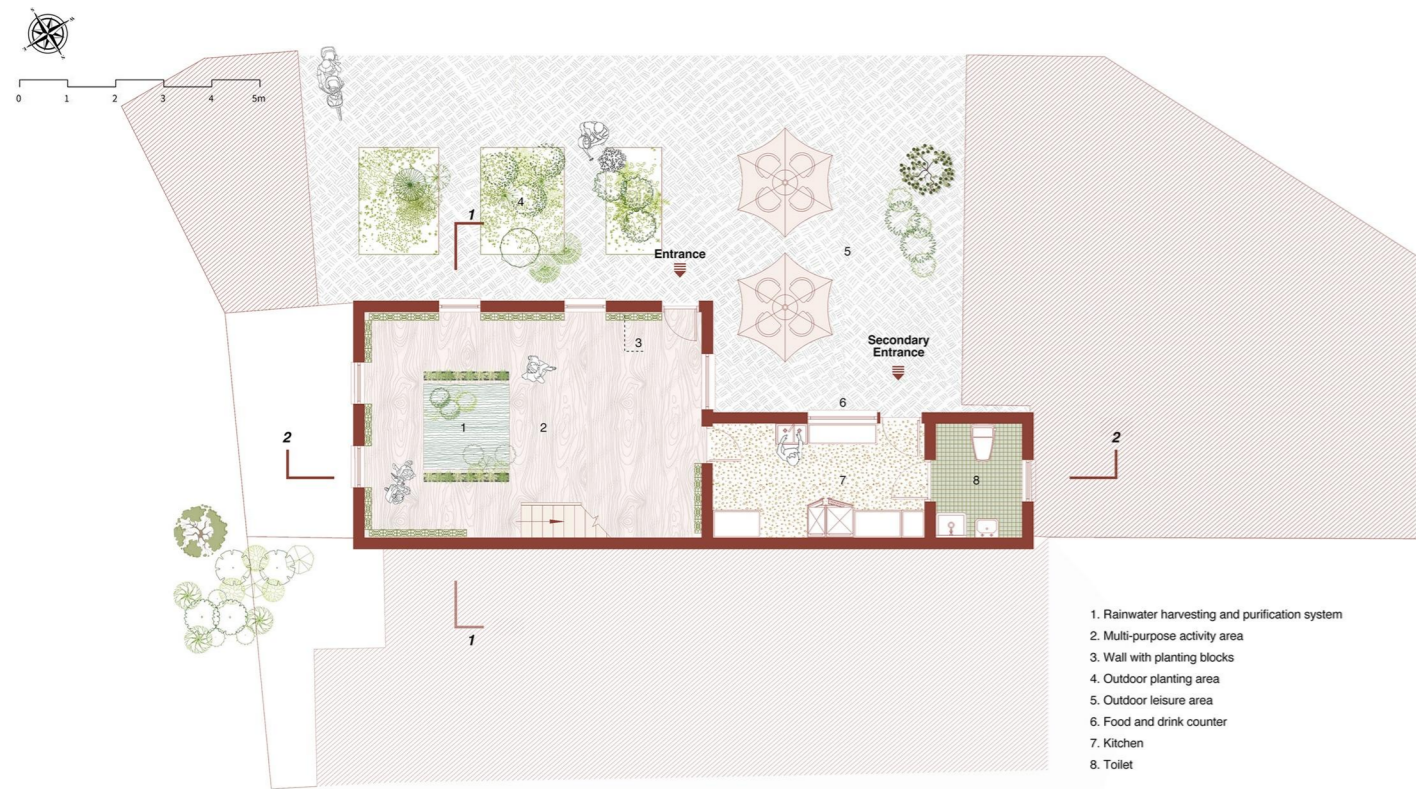


Prototype Documentation Of Interior Furniture



Final Proposal

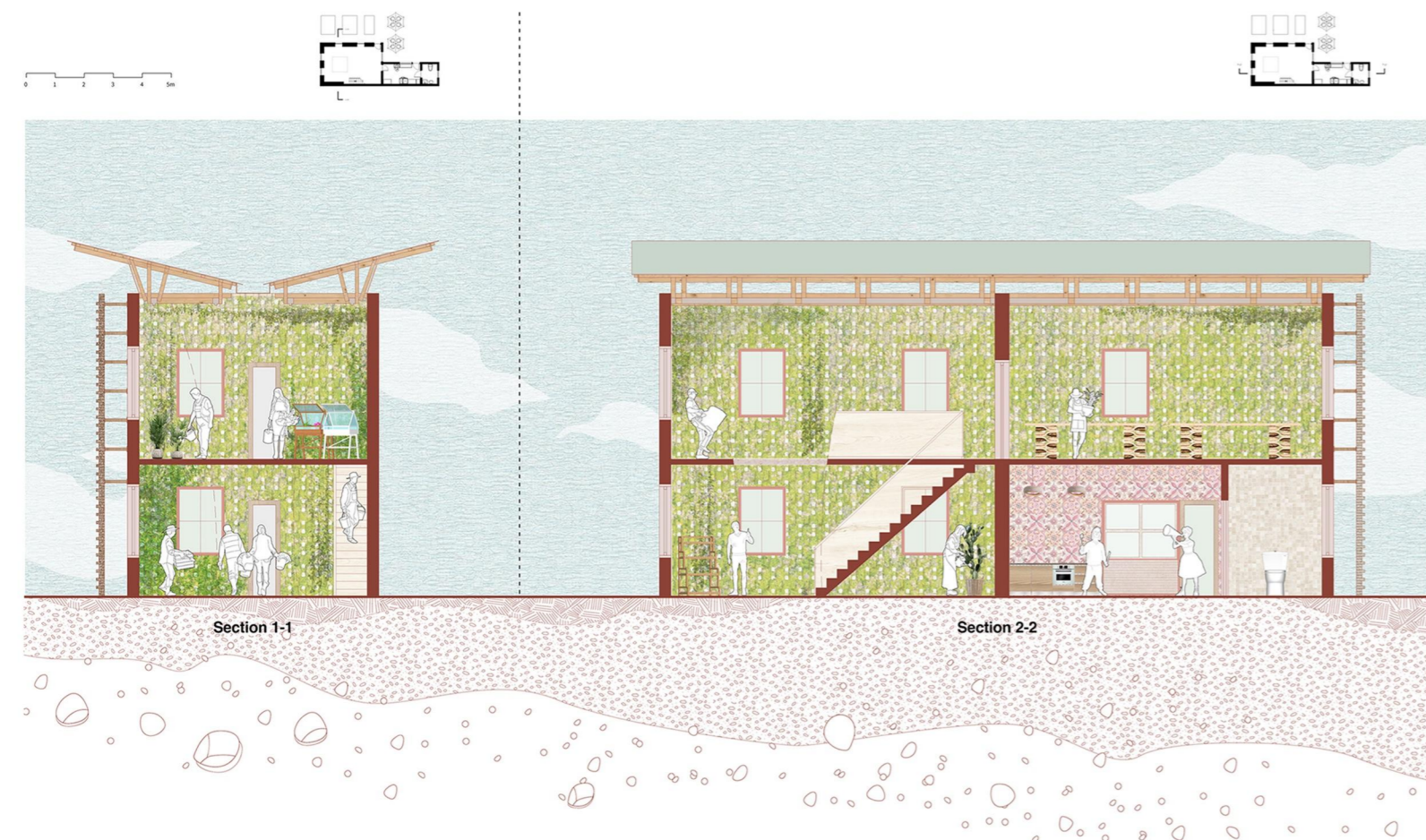
GROUND FLOOR PLAN 1:100



UPPER FLOOR PLAN 1:100

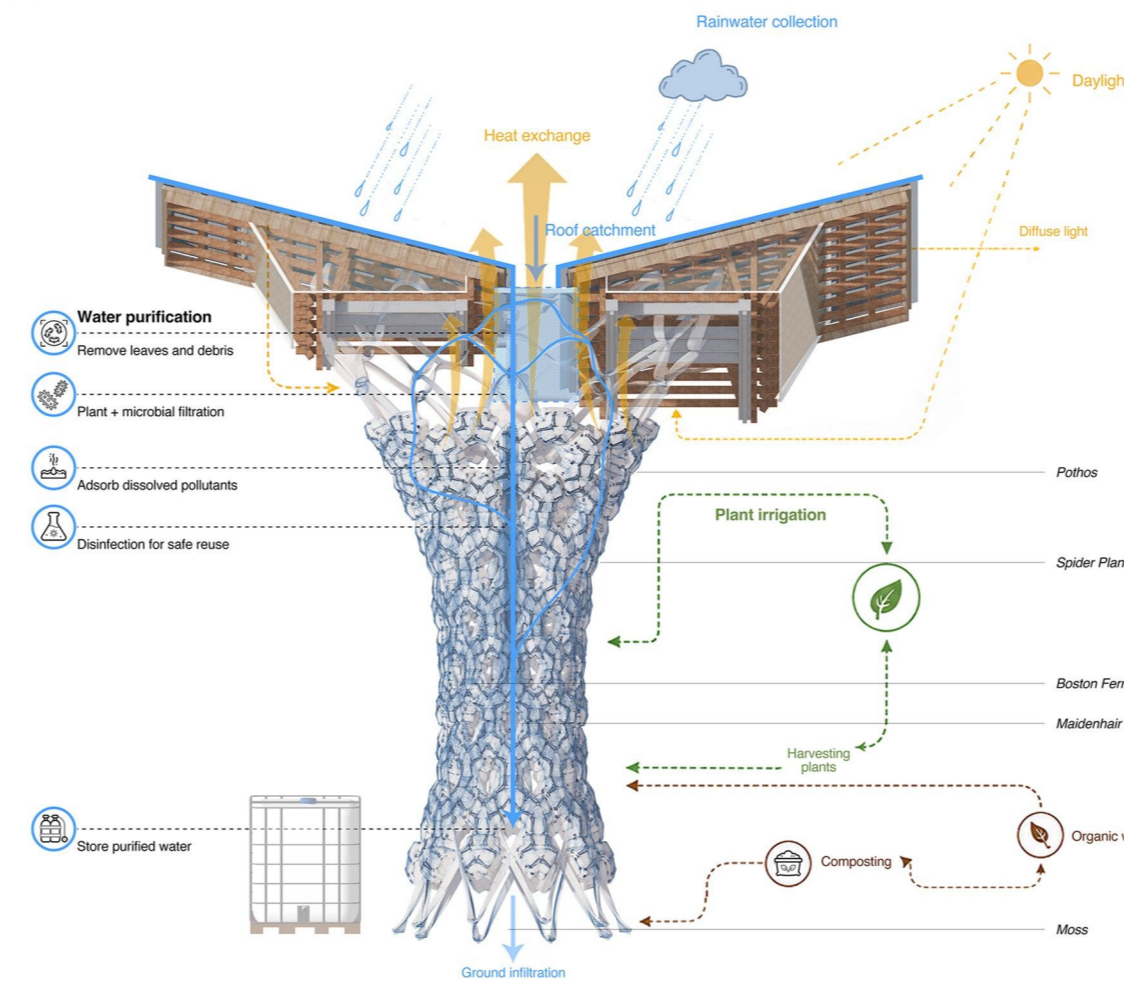


SECTION 1-1 1:100

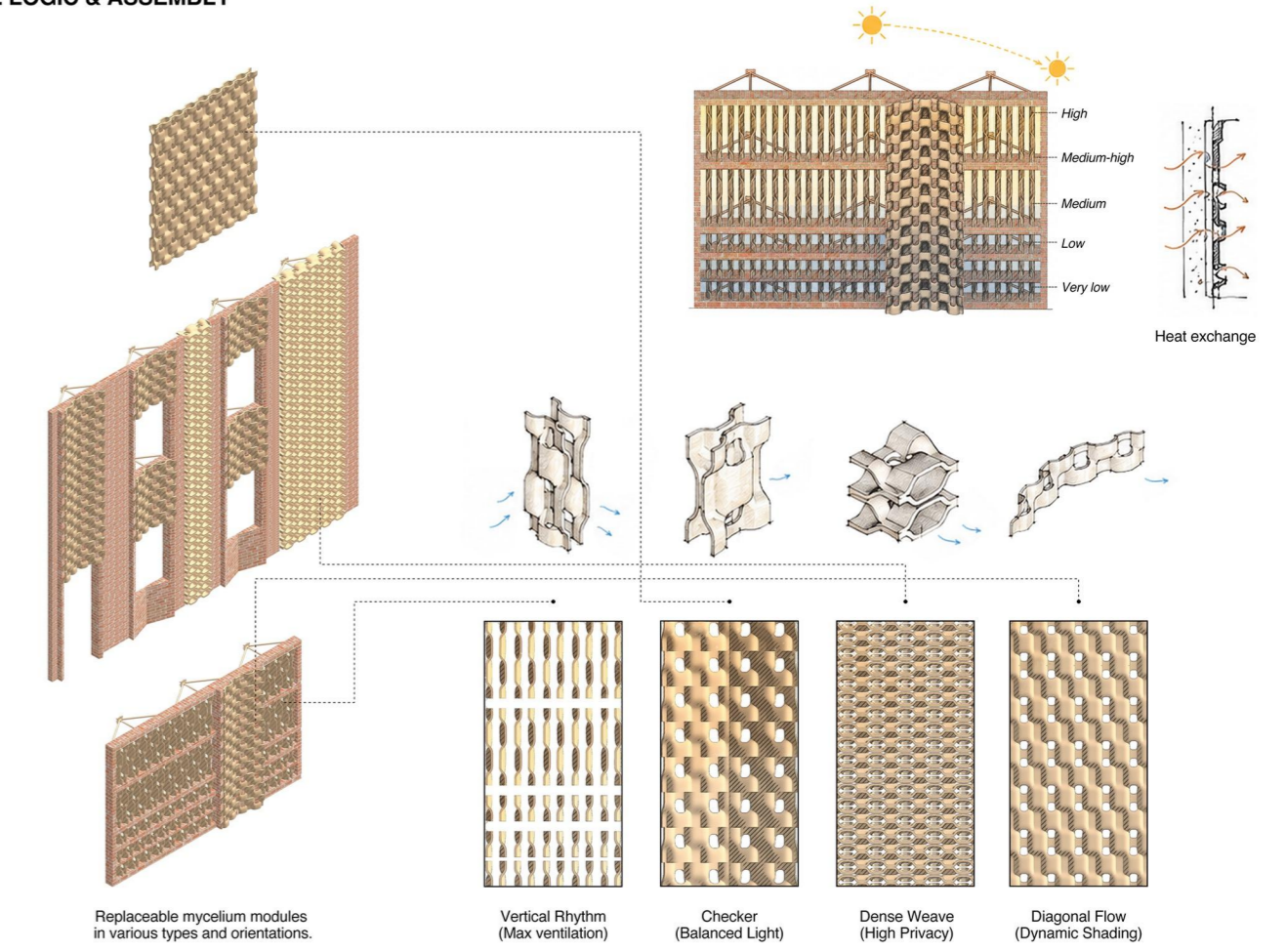


SYSTEM INTEGRATION

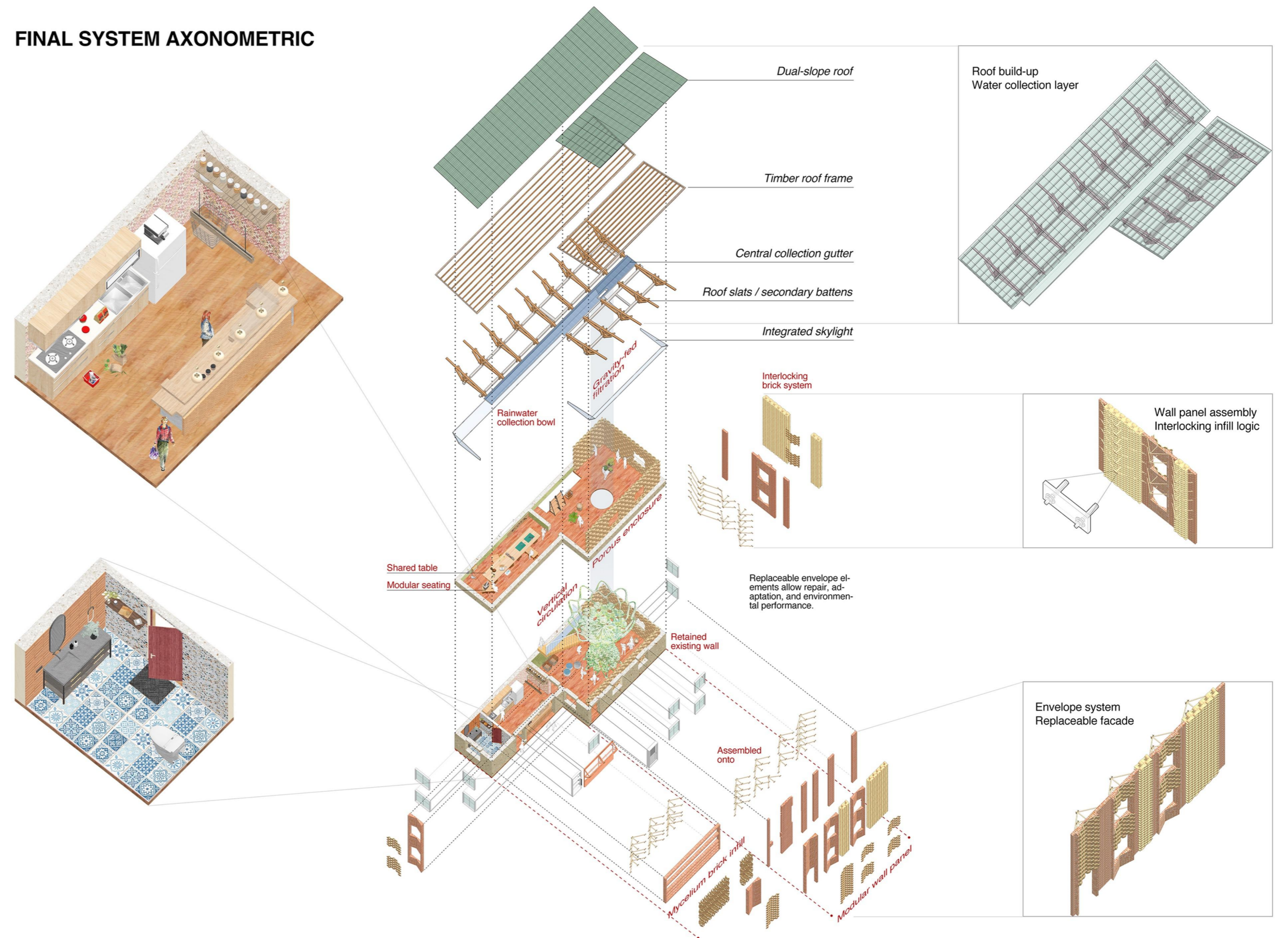
- Water flow
- Energy Flow
- Material Flow
- Economy/food Flow



FACADE LOGIC & ASSEMBLY

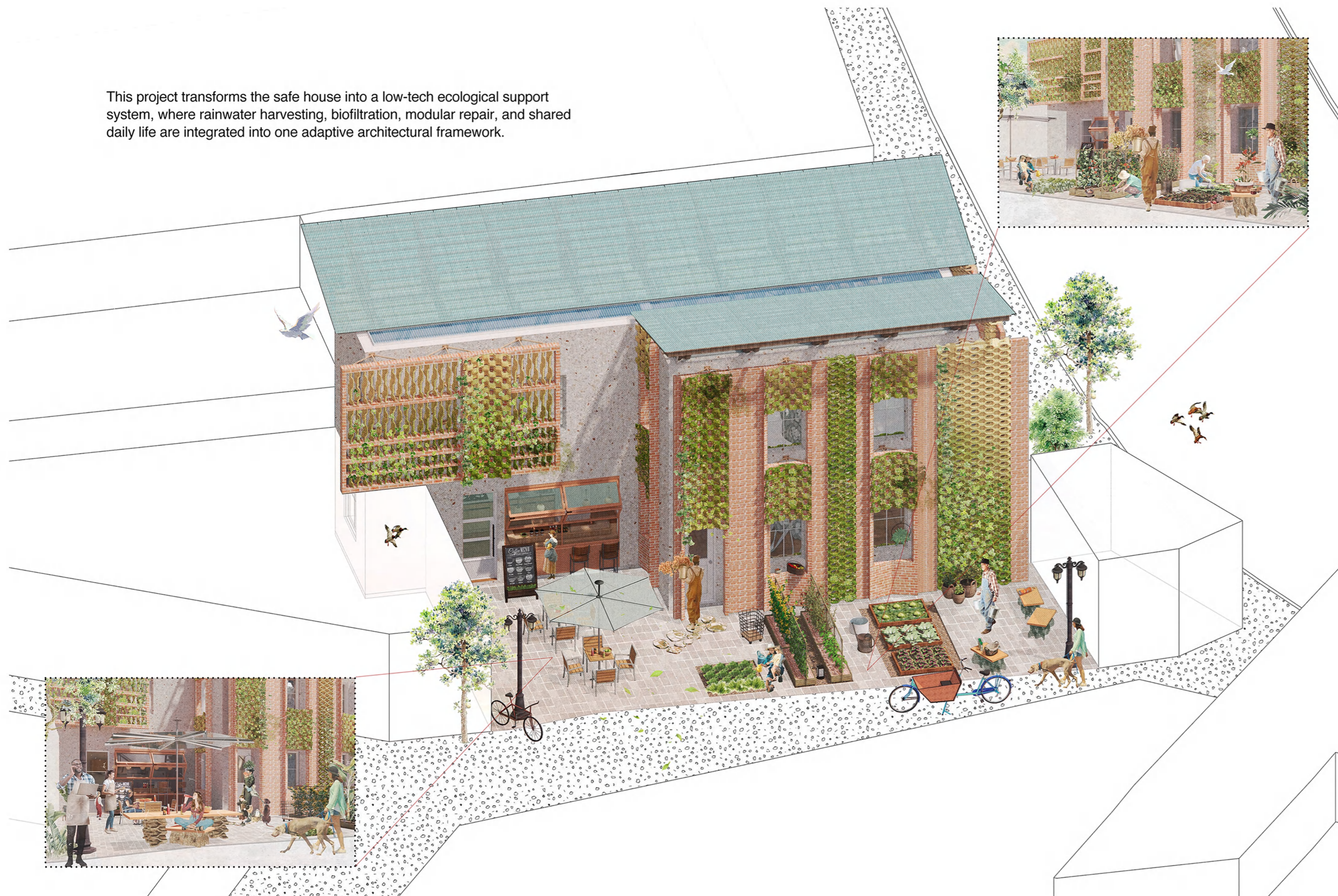


FINAL SYSTEM AXONOMETRIC

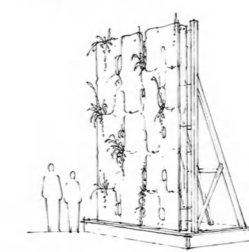




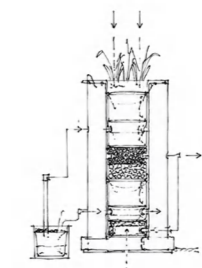
This project transforms the safe house into a low-tech ecological support system, where rainwater harvesting, biofiltration, modular repair, and shared daily life are integrated into one adaptive architectural framework.



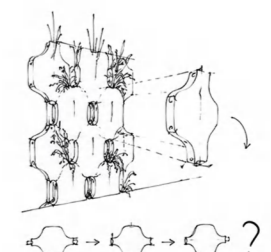
Future Development



Full-scale wall testing



Purification core prototype



Replaceable module development

Future development could focus on refining the mycelium brick system through larger-scale prototyping, improved interlocking and replacement strategies, and more detailed integration of planting, filtration, and long-term maintenance.