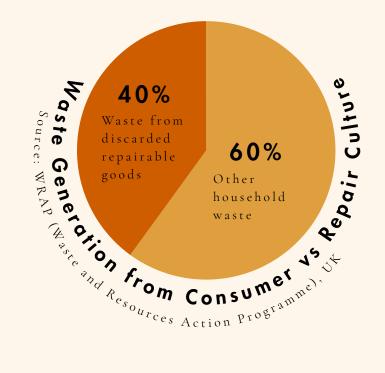




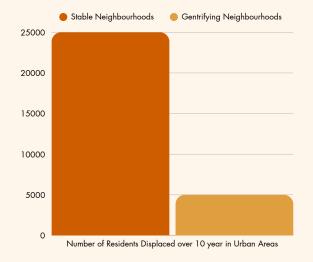
Poor-quality homes (e.g., poorly insulated) account for 30% of UK residential energy

While, well-insulated homes account for 70% of energy use but are more efficient per household.



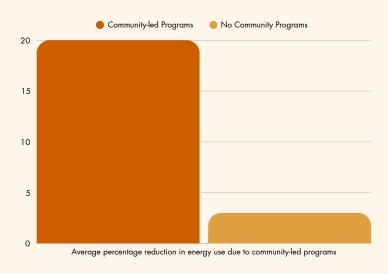
40% of household waste comes from discarded goods that could be repaired or reused.

While, 60% of waste comes from unavoidable sources or items that are difficult to repair.



# Impact of Gentrification on Displacement

Source: Studies from Joseph Rowntree Foundation or UK housing inequality reports



# Community-Led Energy Savings

Source: National Energy Foundation or UK community energy initiatives reports

You can't separate people from the planet. True sustainability supports both environmental health and social wellbeing because how we live together shapes how we live on Earth.

Environmental and social challenges are closely linked with poor housing quality that not only drives up emissions but also weakens the community's ability to live sustainably. At the same time, wider changes like gentrification and rising energy prices are putting pressure on the low-impact lifestyles that many Hulme residents rely on.

To understand the full picture, it's important to look at how housing conditions, social change, and climate impacts all interact to shape everyday life in the area.

# Demolition & Poor-Quality Housing

In Hulme, poor-quality housing and inefficient infrastructure contribute directly to higher energy consumption.

This increases greenhouse gas emissions, exacerbating climate change while also driving up energy costs.

As a result, residents experiencing fuel poverty often turn to harmful, inefficient heating methods that pose risks to both human health and environmental sustainability.

# Gentrification & the High Consumption Lifestyle

Gentrification and urban change are dismantling community-led practices such as communal gardening, tool sharing, and repair initiatives.

These grassroots efforts have historically minimized waste, reduced material consumption, and fostered a culture of sustainability.

Their erosion leads to increased demand for new goods, accelerated resource depletion, and higher carbon emissions from production and disposal cycles.

# Rising Energy Costs due to Climate Change

Communities like Hulme face heightened vulnerability to the effects of climate change, including heatwaves and rising energy costs.

Strengthening local resilience through shared sustainability projects, like energy-saving programs or emergency resource planning, not only reduces reliance on overstretched systems but also empowers residents to adapt collectively and sustainably.

This connection between people and the planet is especially clear in Hulme, where community resilience has long shaped the area. However, recent waves of gentrification have disrupted local networks, displaced long-time residents, and replaced low-impact habits with higher-consumption lifestyles.

As these changes happen, a quieter form of environmental damage takes place. Knowledge about repairing, sharing, and making do is lost, and everyday waste increases. These community-led practices represent low-impact climate action that can be scaled up and copied in other places.

The climate emergency is not just a sudden event; it is built into the way neighborhoods change and who gets left behind. When gentrification occurs, it is not only homes that are lost, but also inclusive, local, and low-carbon ways of living. These ways of living are exactly the solutions communities need to stay within Earth's limits.

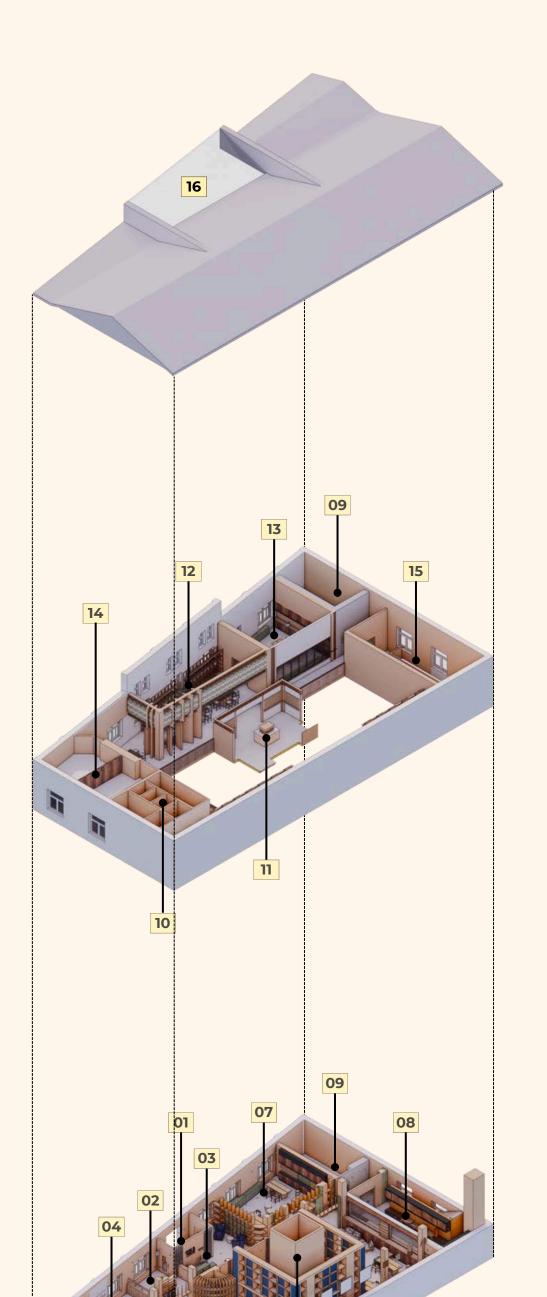
# RESOURCE DEPLETION WASTE-CONSCIOUS MATERIALS PASSIVE/VERNACULAR DESIGN SHARED SPACE + SKILL SHARING FAST REPLACEMENT CULTURE



# Conceptual Collage



# THE FACILITIES



# Mini Lobby



Completed with glass blocks that improve thermal performance

where story Fire Story



To pick up a few items to do your own repairs

Unisex Toilets



Modular and Simple

Revival Shelf





A space for stories, not just sips.





Where broken items are mended with care



For larger repairs that need more attention



The backbone of Patch & Pour

# open Workshop



Where repaired items find new meaning, and personal stories are recollected

A hands-on space for learning, making,



Flexible spaces that can be used for different needs

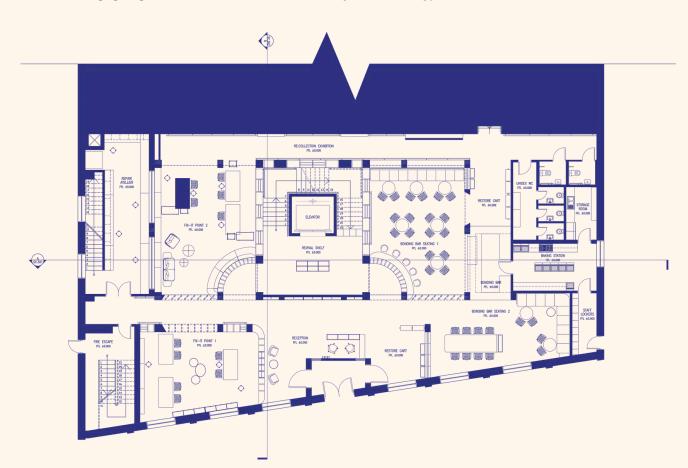


Flexible spaces that can be used for different needs



SPATIAL LAYOUT

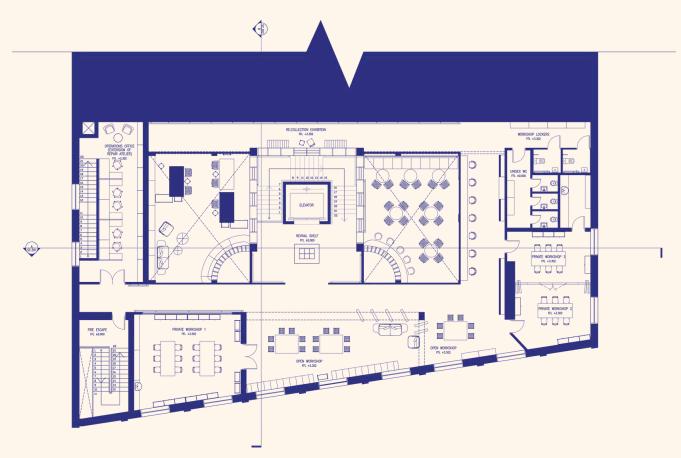
At Patch & Pour, spatial design becomes an act of climate care. The open-plan layout encourages natural air circulation, reducing the need for energy-intensive ventilation while mirroring the movement of people, ideas, and shared skills. The space isn't just built to be used, it's designed to keep people comfortable while using less energy.



**GROUND FLOOR GENERAL ARRANGEMENT PLAN** Not to Scale



These strategies work with and not against, the environment. By using natural airflow, sunlight, and selective intervention, the space stays bright, breathable, and low-impact, proving that climate resilience can be simple, adaptable, and built into everyday experiences.

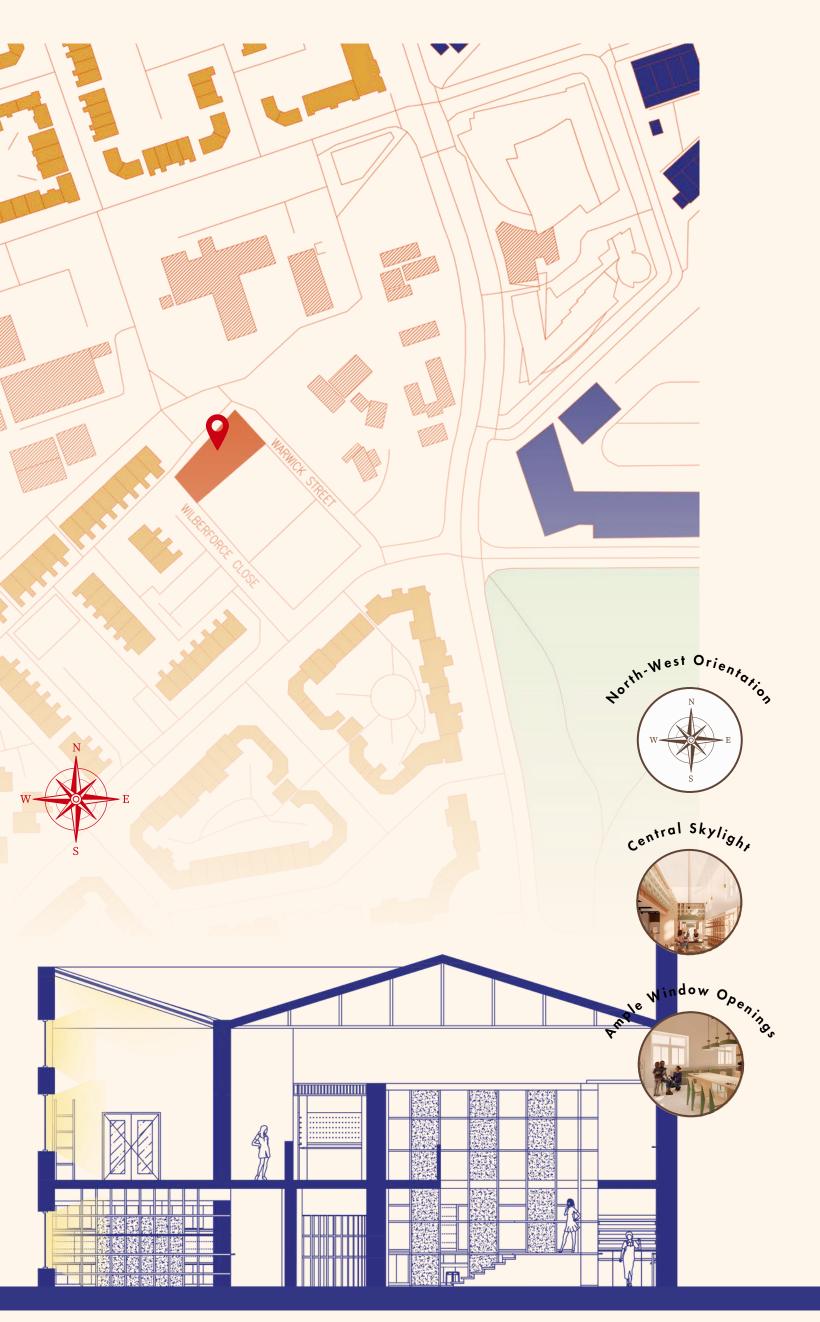




**SECTION A** | Not to Scale **SECTION B** | Not to Scale

### THE LIGHTING

Set on a north-west facing site, the space makes use of soft, indirect afternoon light while avoiding excessive heat gain. A central skylight pulls daylight into the core, reducing the need for artificial lighting during the day. In areas where lighting is needed, like the main double-height void and the ground floor, energy-efficient COB LED spotlights provide targeted, low-energy illumination without over-lighting the



### THE MATERIALITY

Material choices prioritise reuse, locality, and longevity, forming the foundation of a low-impact and resilient design approach. Terrazzo crafted from demolition waste sourced on-site reduces landfill contributions and the need for virgin materials. FSC-certified wood veneer supports sustainable forestry and ensures renewable resource use. Eco-friendly, air-purifying paints enhance indoor environmental quality without harmful chemicals, while glass blocks improve daylighting and thermal performance, lowering energy consumption.

Together, these materials reduce embodied carbon, minimise waste, and demonstrate how thoughtful selection can align construction with the Earth's natural limits.



Locally Sourced FSC Certified Satin

Terrazzo Tiles Made from Walnut Wood Veneer

Recycled and Waste Marble Materials

Locally Sourced FSC Certified Natural Oak Wood Veneer

**07** Navy Acoustic Paneling

Recycled Polyester Upholstery (FR)

Terrazzo Floor Tiles incorporating 08 Demolition Waste from Site

Terrazzo Tiles Made from Recycled and Waste Marble

Terrazzo Floor Tiles incorporating Demolition Waste from Site

Low-VOC Eco-Friendly Purifying Paint

Glass Blocks that improve Thermal Performance

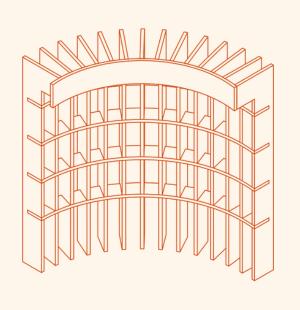
## THE JOINERY

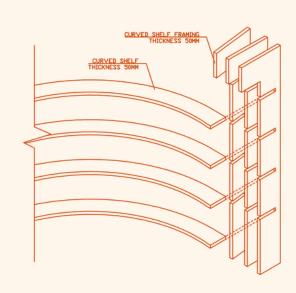
Using traditional carpentry joints reduces reliance on metal fasteners and adhesives, materials that typically involve energyintensive production and can complicate recycling or repair. These joints are designed to fit together precisely, creating strong, stable connections without the need for additional chemical or metal components.

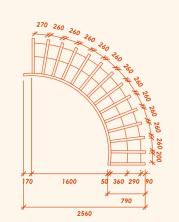
Because they can be easily disassembled, this method supports ongoing maintenance and repair, allowing parts to be replaced or adjusted without damaging the surrounding structure.

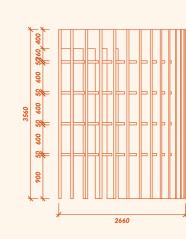
This flexibility not only extends the lifespan of the building but also minimises construction waste over time. By valuing craftsmanship and adaptability, this approach promotes a more circular use of materials and resources, embodying a practical and thoughtful response to sustainable design challenges.

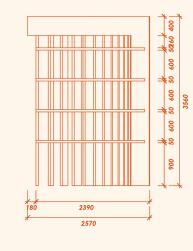






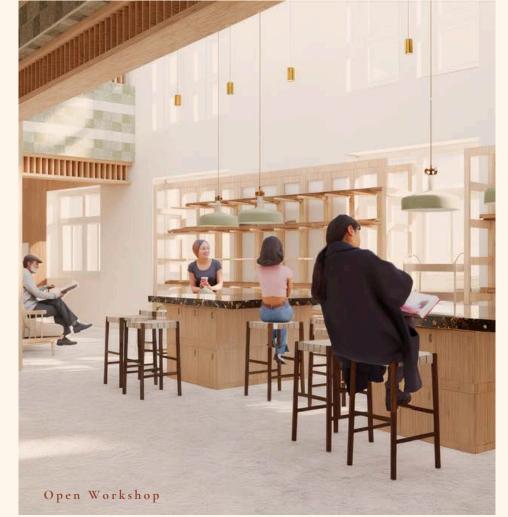


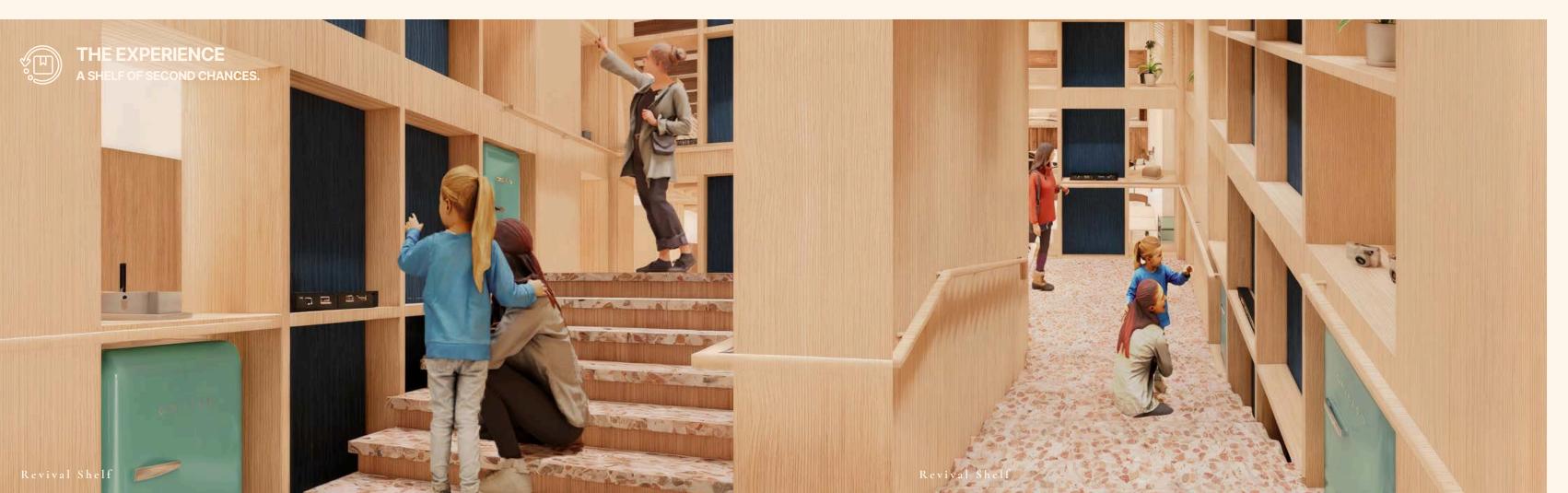












# WITH PATCH & POUR

# WITHOUT PATCH & POUR

Item is used

Item is used









Item breaks or becomes unusable

Item breaks or becomes unusable











Owner discards item















Item repaired and placed on Revival Shelf











