

Connecting Movement

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In 2085, The Department of Human Remembrance sets out to resist against the reliance on AI, recognising the technological takeover has led to a decline in human movement and disregard for the environment. The technological world has completely consumed individuals, leaving their surroundings to diminish. The Department of Human Remembrance is dedicated to preserving human ingenuity and practical skillsets. Inspired by the Orrery, the concept of movement, and the process of artificial photosynthesis, the site offers four spaces: documentation, connection, observation and experimentation, designed to reconnect individuals with their natural environment. Participants who value the significance of human motion and environmental awareness will engage in the cultivation of vegetation and the generation of energy through artificial photosynthesis, directly supporting the site's spatial and functional needs. Through these acts: tending to growth, harnessing sunlight, and responding to the rhythms of nature, the project reaffirms the enduring relationship between human capability and the living world, ensuring that our ingenuity and connection with the environment remain.

Design Re-use

The proposed intervention aims to repurpose the existing Papplewick Pumping Station by transforming the engine house into a space dedicated to documenting information derived from the site's evolving vegetation and the energy processes associated with artificial photosynthesis. The design preserves key architectural elements of the original structure, including the queen post trusses, entablature, and supporting side columns. The boiler house is reimagined as a space for cultivation and growth, with its original walls preserved through the continued use of English bond brickwork, subtly referencing the building's historic function. Bricks removed to create additional window openings are repurposed as planters, integrated throughout the site. The proposed extension follows the current footprint of the station, seamlessly integrating with its external form, retaining the details of the palmette capitals and reeded pilasters.



Base Plate



Top Plate



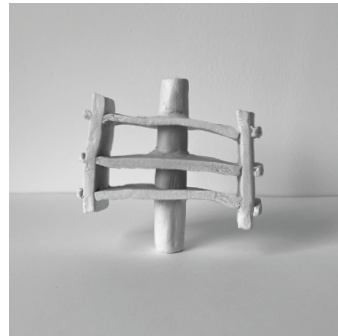
Crank



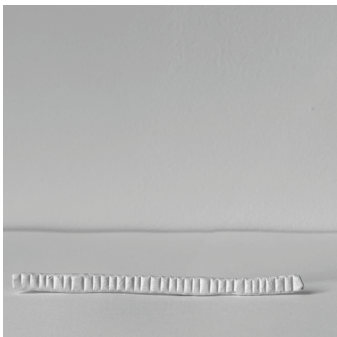
Dry Track



Gear 1/6



Rod with Support Plates



Crank Chain



Ornamental Support



Ornamental Support



Armature with planet sphere

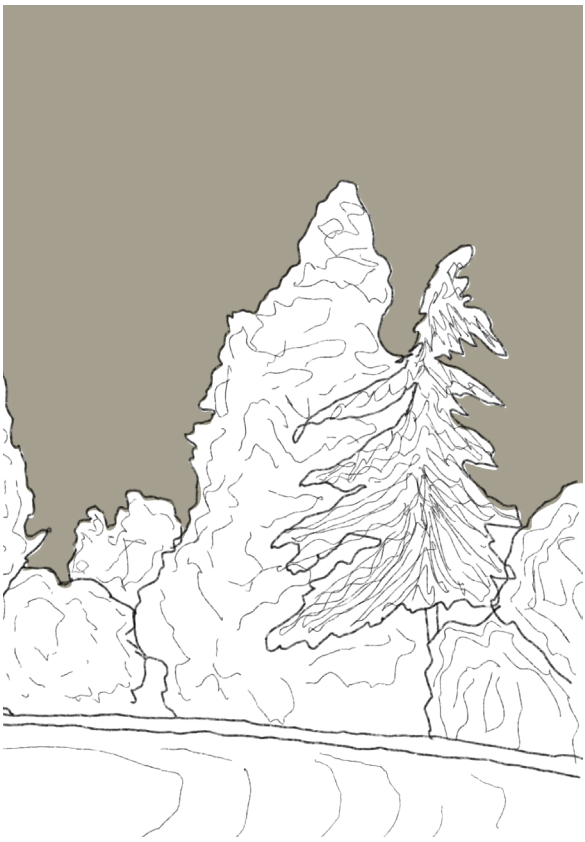
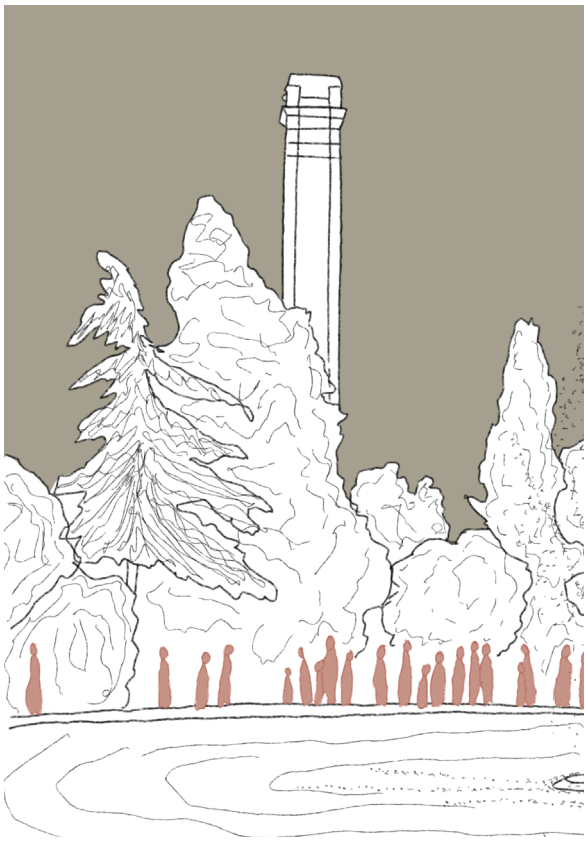
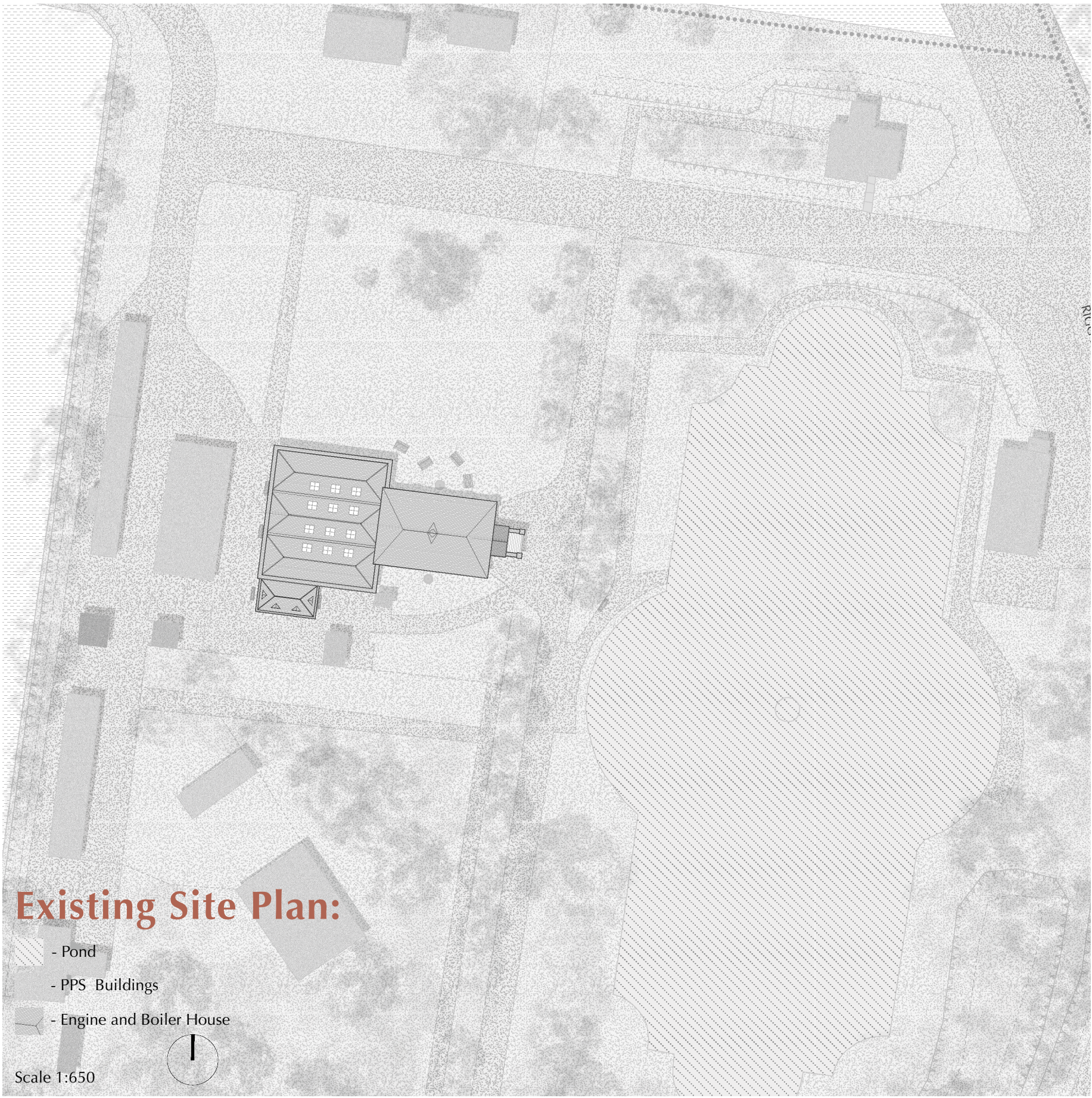


Armature with planet sphere



Central rod with sun sphere



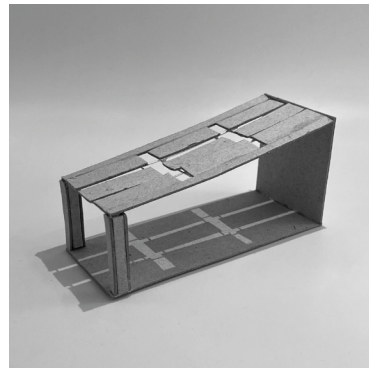
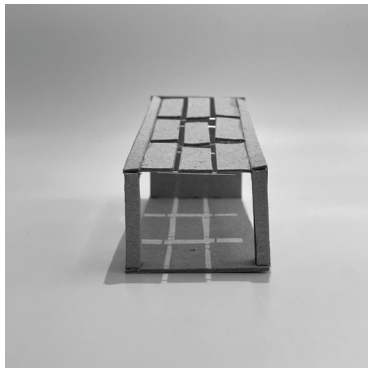
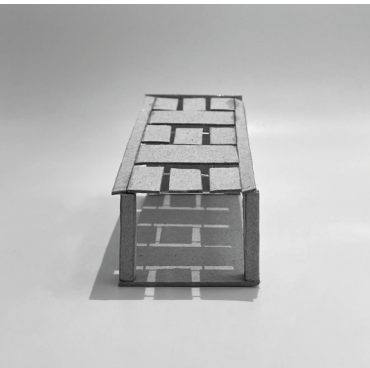
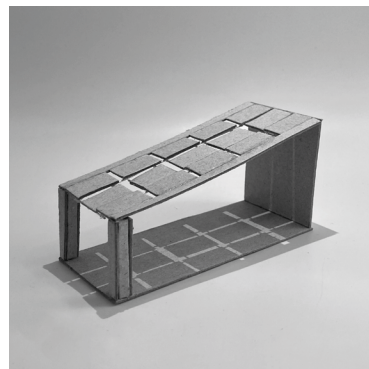
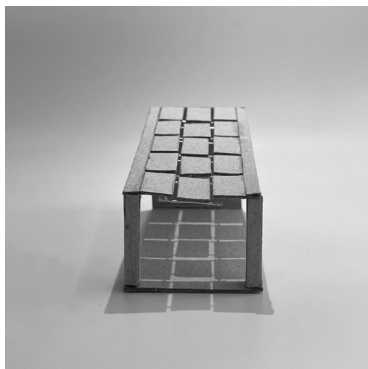
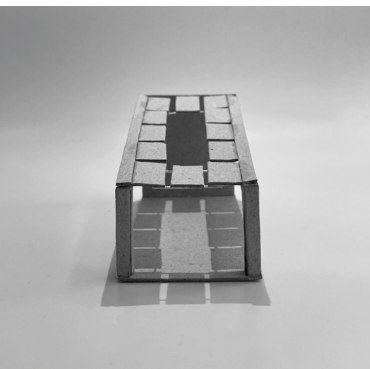
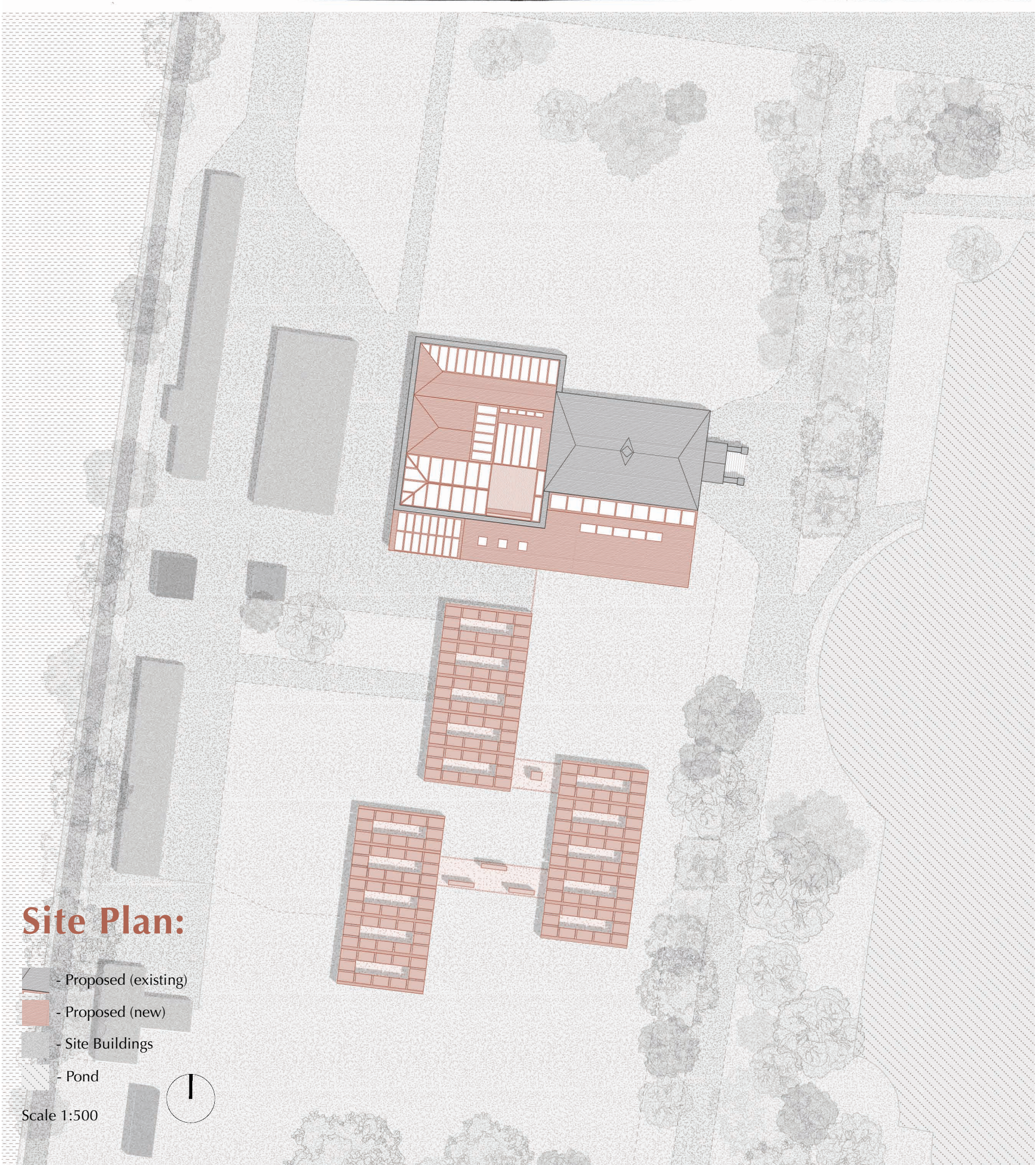
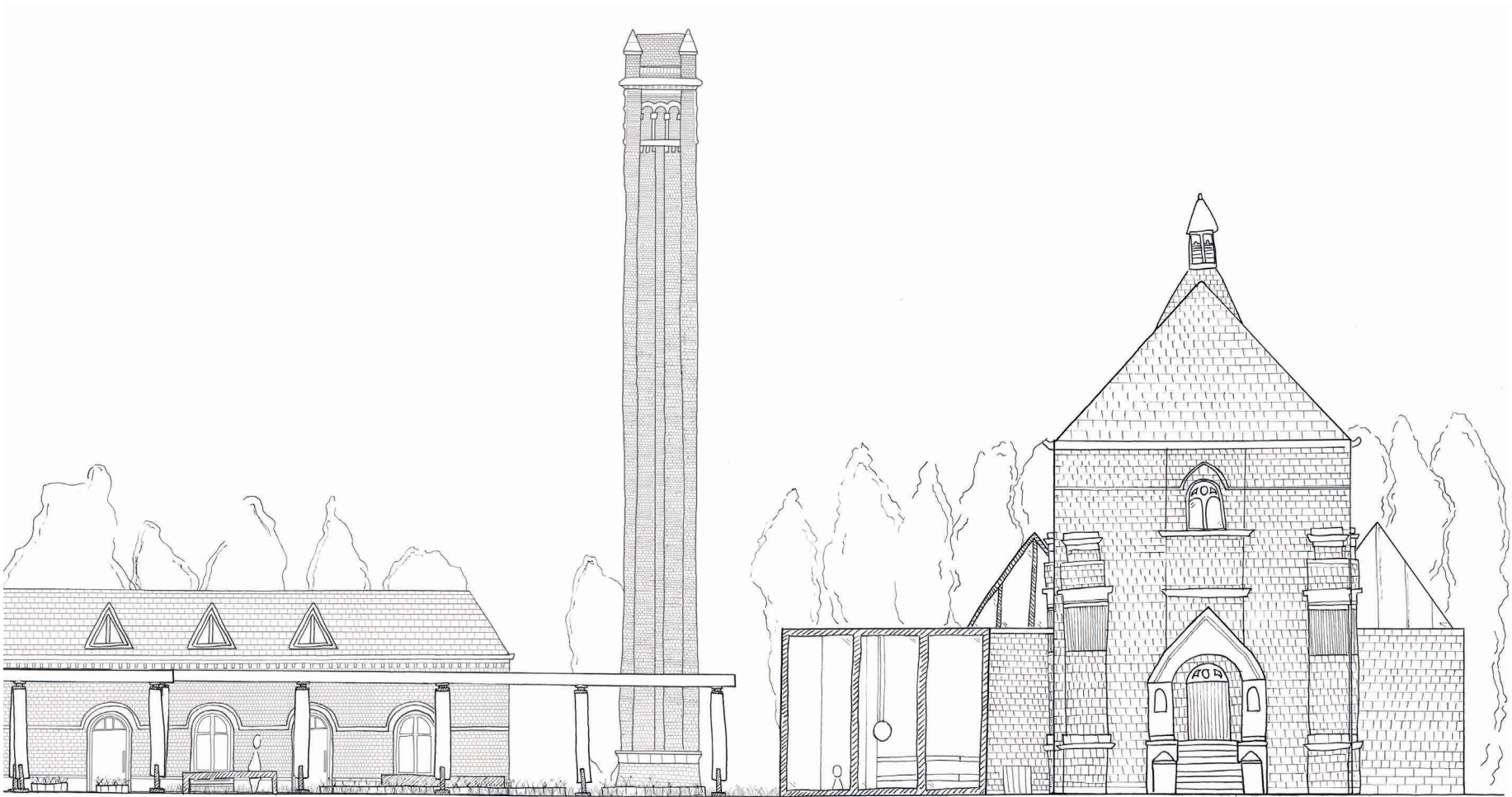


Papplewick is currently owned by Severn Trent Water and managed by Papplewick Pumping Station trust. It's a place for people to get out of the city, discover the past of engine pumping, attend events, explore the reservoir and surround themselves with the natural, rural environment that is just 10 miles from the city centre. The illustration above displays the cooling pond in front of the main Engine house amidst the vast amount of trees emphasising that the site sits within a natural environment.



Tapestry: The Department of Human Remembrance.

The composition establishes a tactile and visual connection between humans and their surroundings, drawing inspiration from the intricate mechanisms of the orrery and the principles underpinning artificial photosynthesis. Through the interplay of mechanical and organic elements, the scene symbolises the reimagining of human interaction with systems of growth, connection, and environmental stewardship.



The current Papplewick Pumping Station pumped water out of the ground leading it to be a prevalent aspect on site. Using artificial photosynthesis as my energy production allowed the continuation of waters importance. The pavilion structure design, as seen in the visual above, went through a panel process to identify which would be most suitable for light penetration and catalyst reaction.

The illustration depicts the east elevation of the proposed site highlighting the pavilions in front of the existing cafe building and chimney.

The proposed site plan displays how the proposed new connects to the existing along with the pavilion positions.

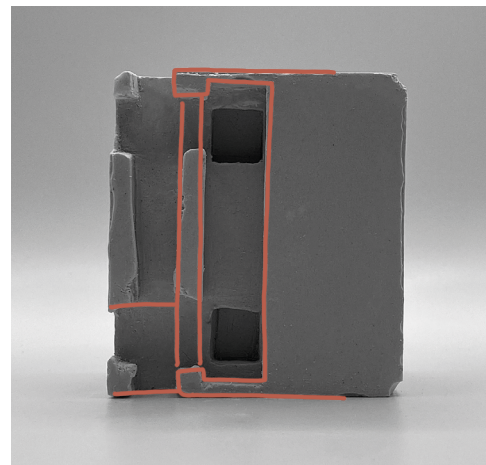
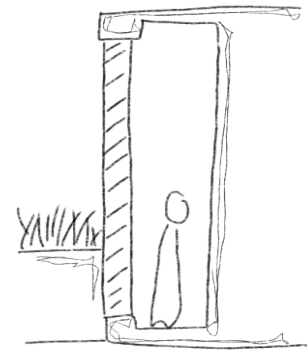
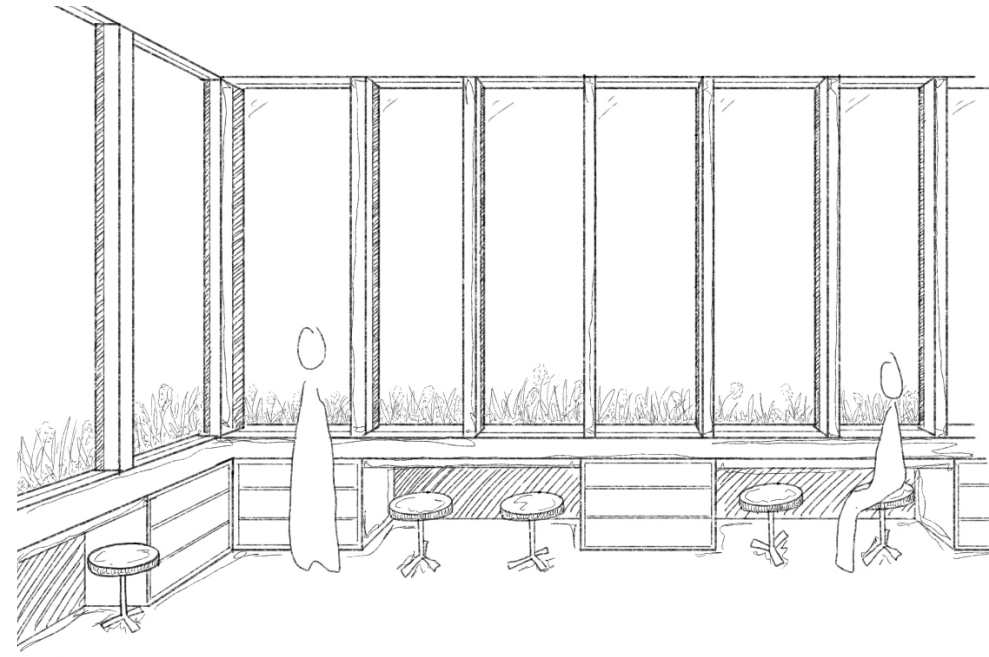


Ground Floor Plan:

Not to scale

Key:

1. Connection space
2. Observation space (aof)
3. Experimentation space
4. Documentation space



The illustration above portrays the experimentation space. Inspired by the concept model, the design aligns the desks with the external ground level, strengthening the connection between the spaces. This emphasises the project's focus on the natural environment and reinforces the integration of scientific study within a context that highlights ecological awareness.

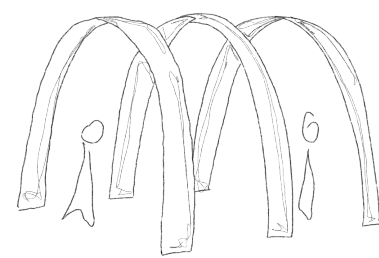
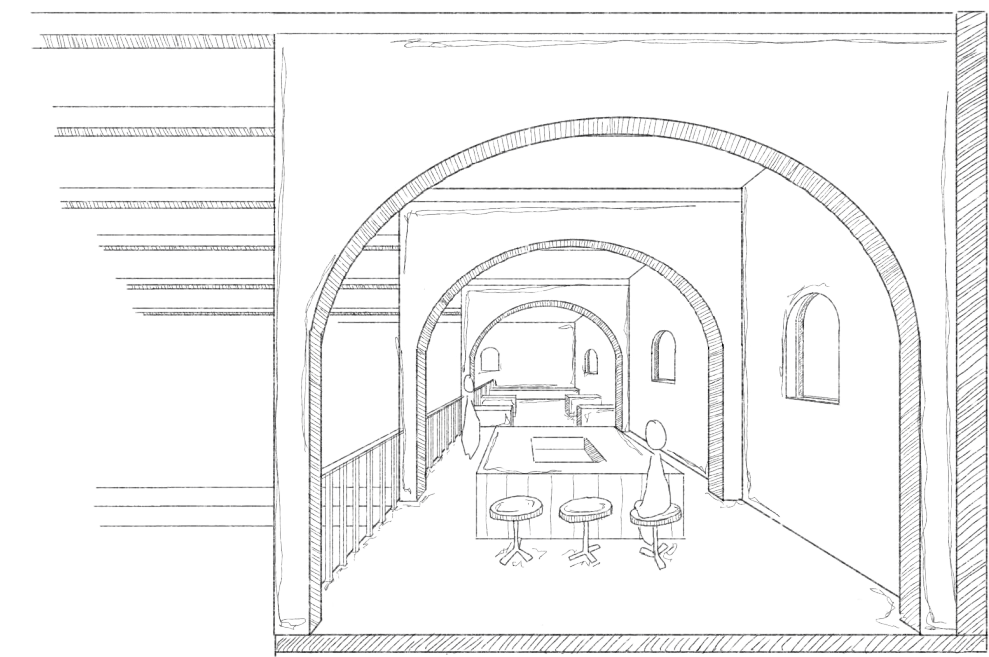


First Floor Plan:

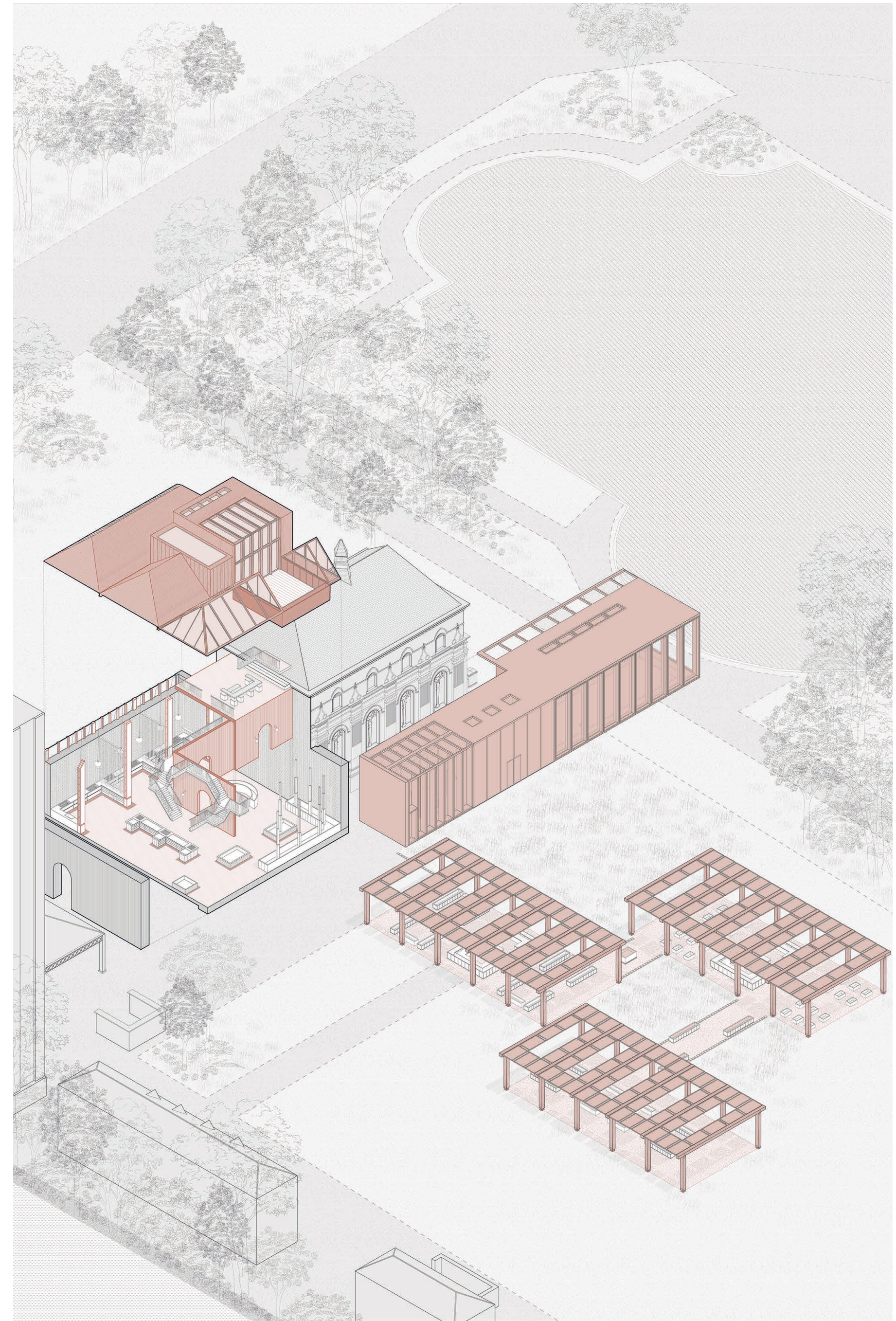
Not to scale

Key:

1. Connection space
2. Observation space (aof)
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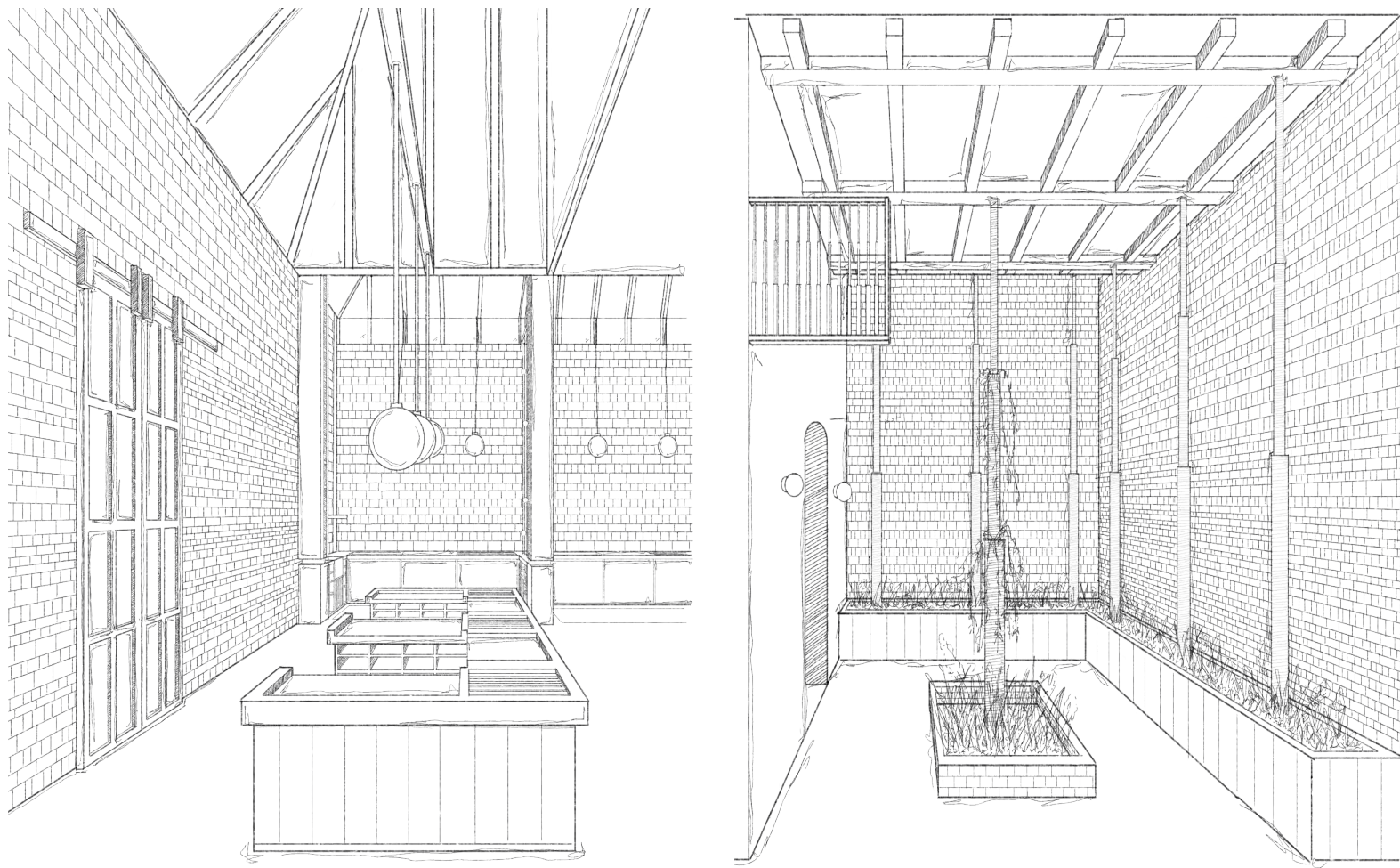
Inspired by the rotation of the orrery handle, the arches are situated above the documentation area. They connect to the existing beams on the queen post trusses extenuating their existence and hinting back to their importance within the space.



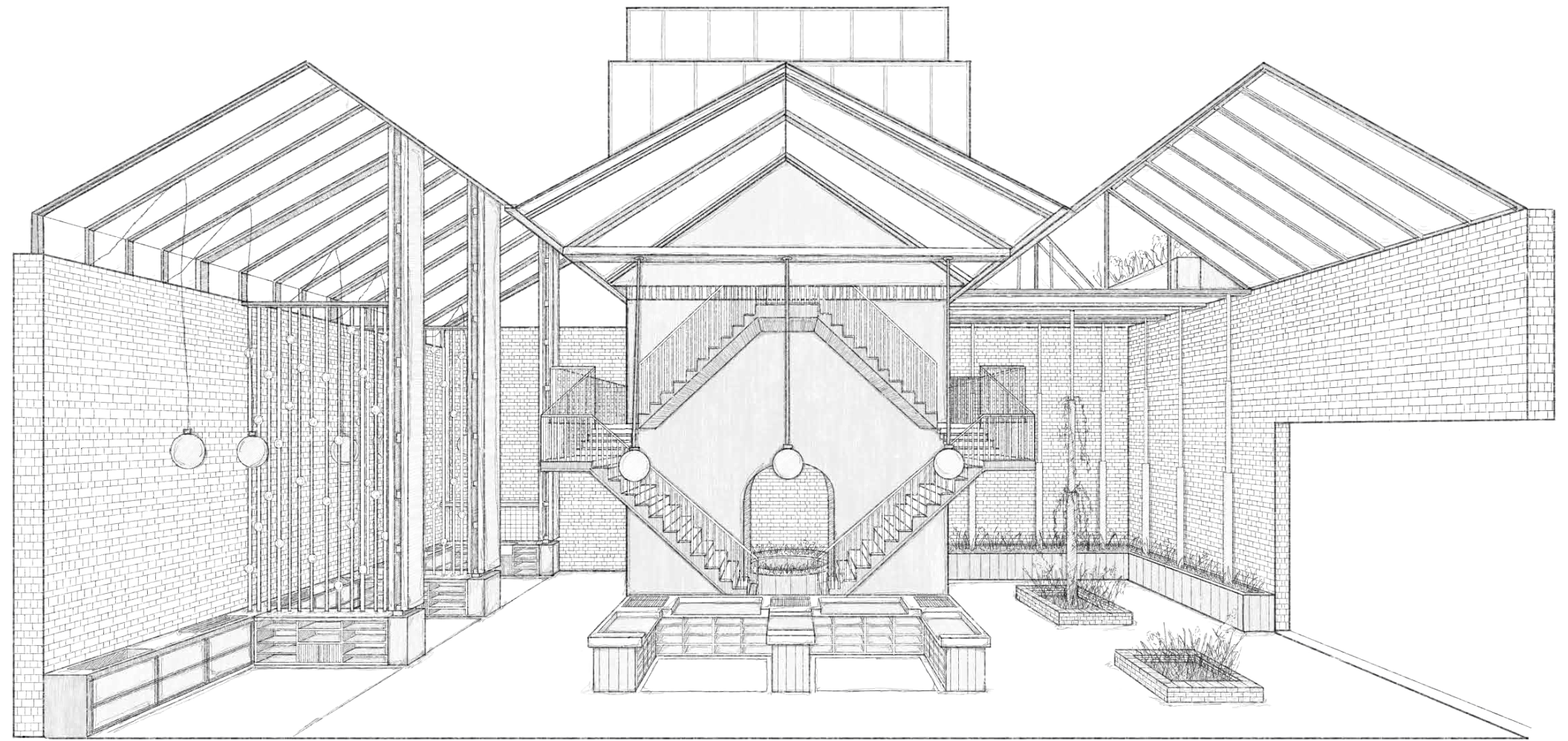
Isometric:

Not to scale

The isometric drawing highlights the artificial photosynthesis energy production pavilions, which make effective use of the site's expansive external space. The use of contrasting colours clearly illustrates how the extension integrates with the existing structure, while preserving the uninterrupted exterior of the Engine house.



Sketches (left) highlighting areas within the proposed space, previously the Boiler house. The illustration (right) depicts the whole of the proposed observation of growth space.



Section aa:
Scale 1:100



Site model:
Scale 1:100

As shown in the section and model, the proposed design utilises the existing layout of the boiler house roof structure. This aspect hints back to what the space was once used for as the high pitched ceiling and open area previously aided in diffusing the fumes created by the boilers. The roof and open space now supports the cultivation, study, and observation of plant life with both biological growth and human engagement with ecological processes.

The existing internal pipes are utilised within the design to support the cultivation process through transferring collected rainwater into the internal sinks. The details presented on the pipes are additionally kept to hint back to what the space was once designed for.

