

SYMBIONTS

PROJECT INSPIRATION - RECONNECTION VIA SOUND

By 2086, engineered stratification has reshaped humanity, prompting a search for authentic, unmodified identity. This project responds through an innovative design process centred on the Echolith (speaker) - an instrument that transforms breath, resonance, and environmental vibration into natural sound patterns. These frequencies were captured, analysed, and translated into spatial and material strategies, forming an alternative design methodology rooted in organic geometry rather than synthetic optimisation. The Homo Purus rise in this Symbiont generation, demonstrates how experimental sound-based processes can generate new architectural languages, offering a critical, future-focused approach that reconnects human experience, wellbeing, and spatial identity in a hyper-engineered world.

BUILDING FUNCTION

The building exists as a sanctuary free from synthetics, a place where a new form of Ascendura can be experienced. The Homo Purus transforms the government's synthetic-polluted products into a purified substance: a gold liquid that can be safely consumed. The Homo Purus use the frequencies of sound to extract the synthetics.

The user moves through the building, following the same upward path taken by the transforming synthetics. The ascent mirrors the journey the user takes to reach Ascendura. With each level risen, breathing is cleaner, the natural sounds of the plants are heard, and the Echolith's amplified frequencies guide toward clarity.

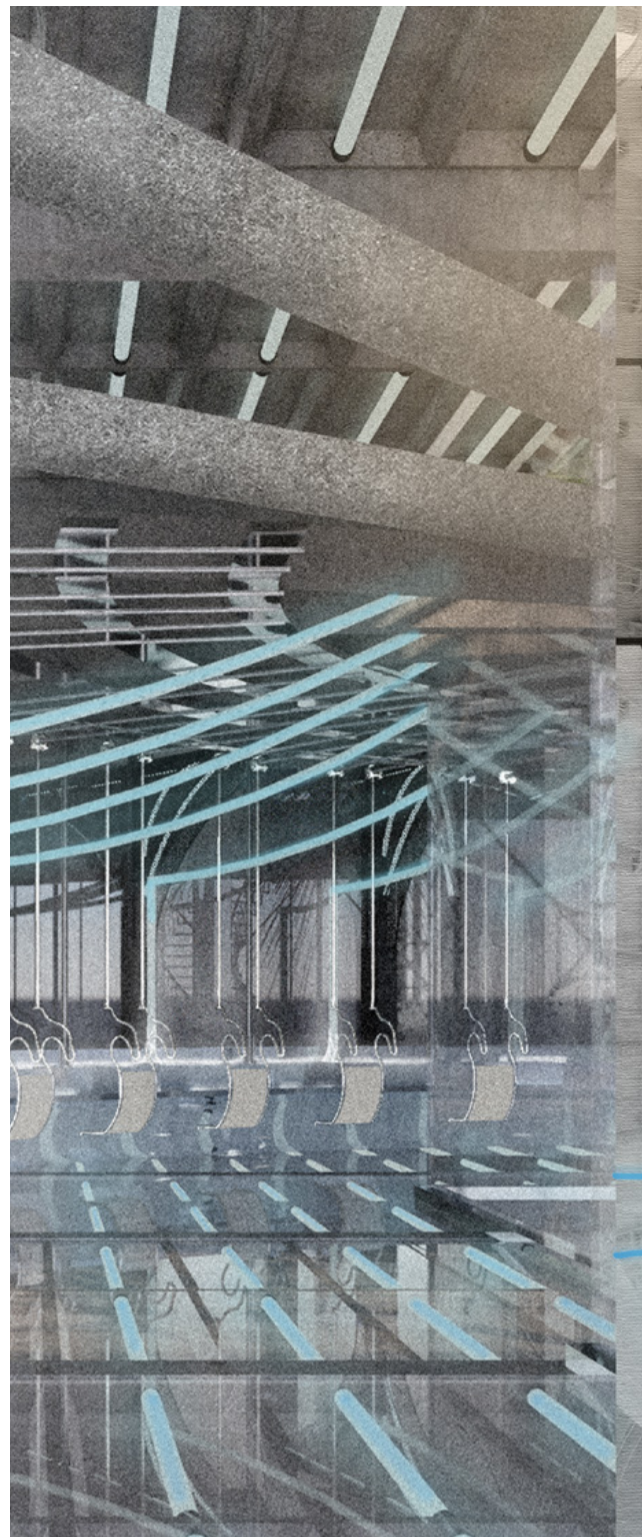
At the top of the building, the synthetic air finally condenses, cooling into a golden liquid ready for consumption. Here, the user is invited to recline, absorb the purified liquid gold, and reflect on the state of Ascendura they have achieved.





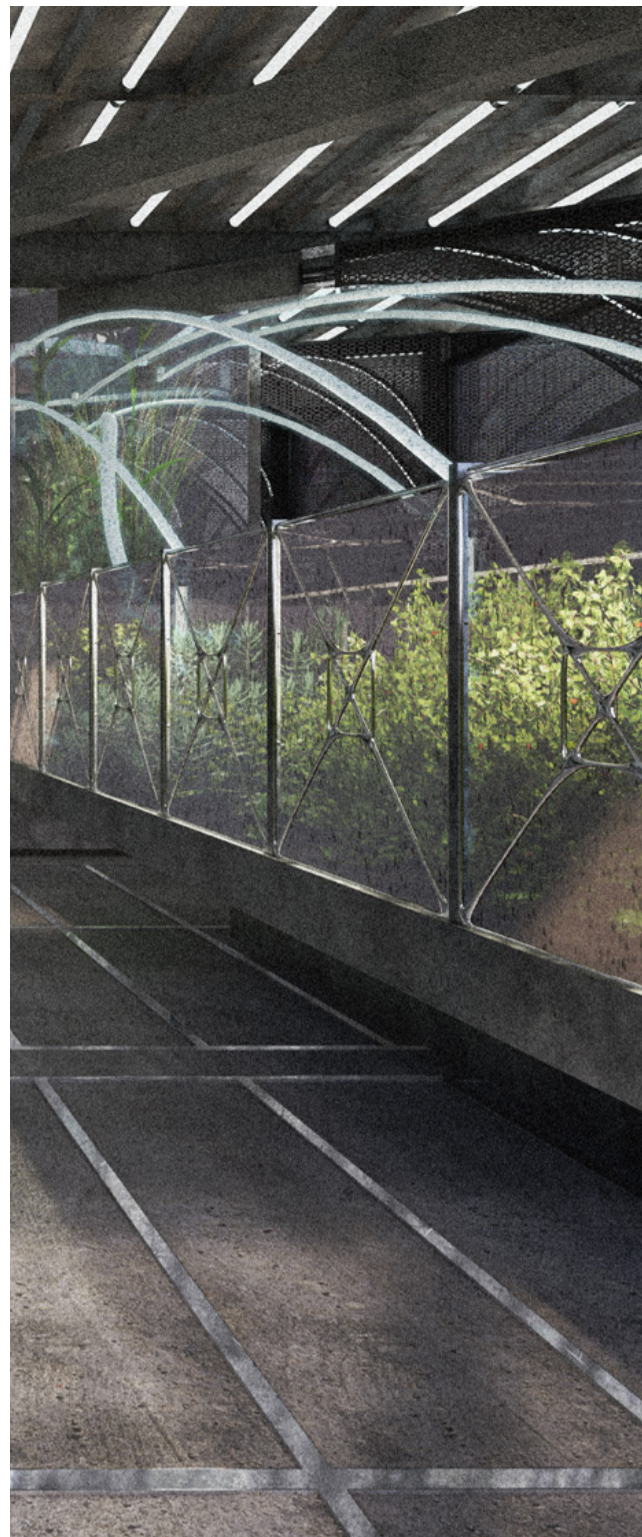
ASCENDURA

Synthetic consumption dominates society. People are consumed with the ideals of their appearance. The top level of society known as the A Class represented in blue.



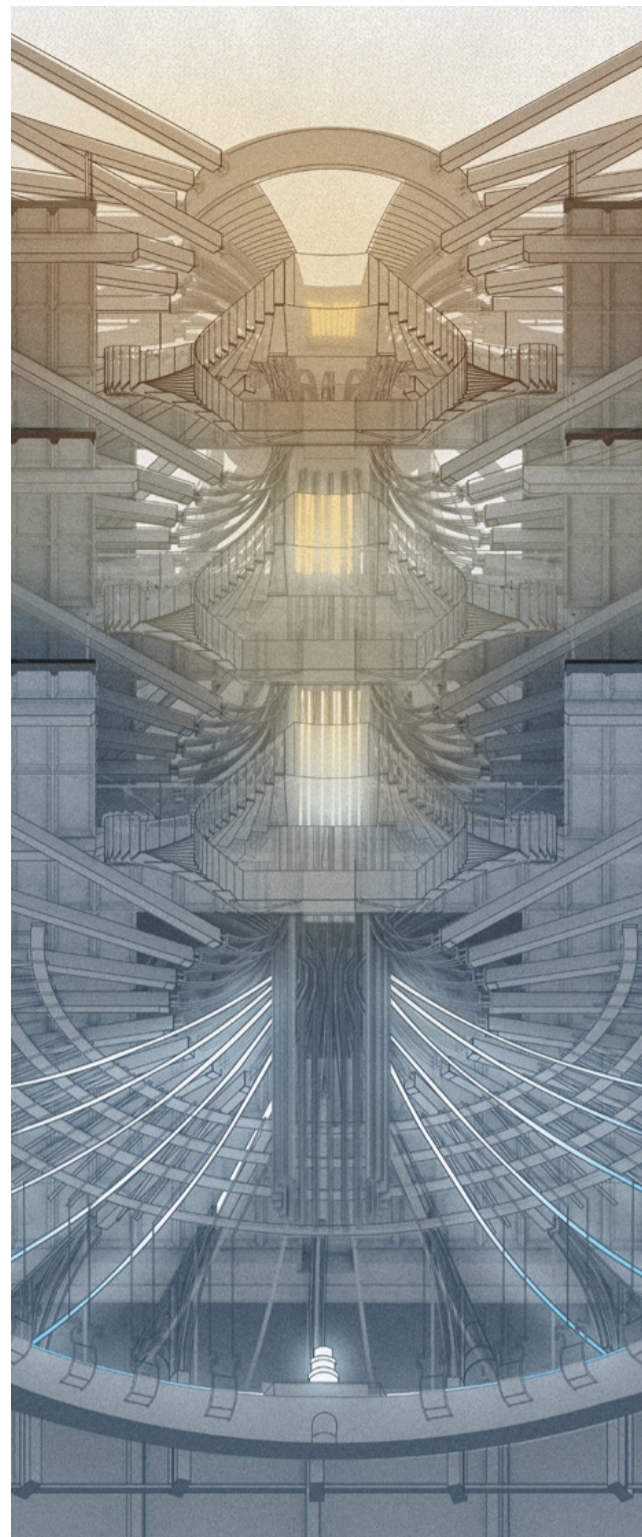
THE LABORATORY

A sealed laboratory receives raw synthetic particles from the exterior and begins converting them into a cleaner, more stable form of matter.



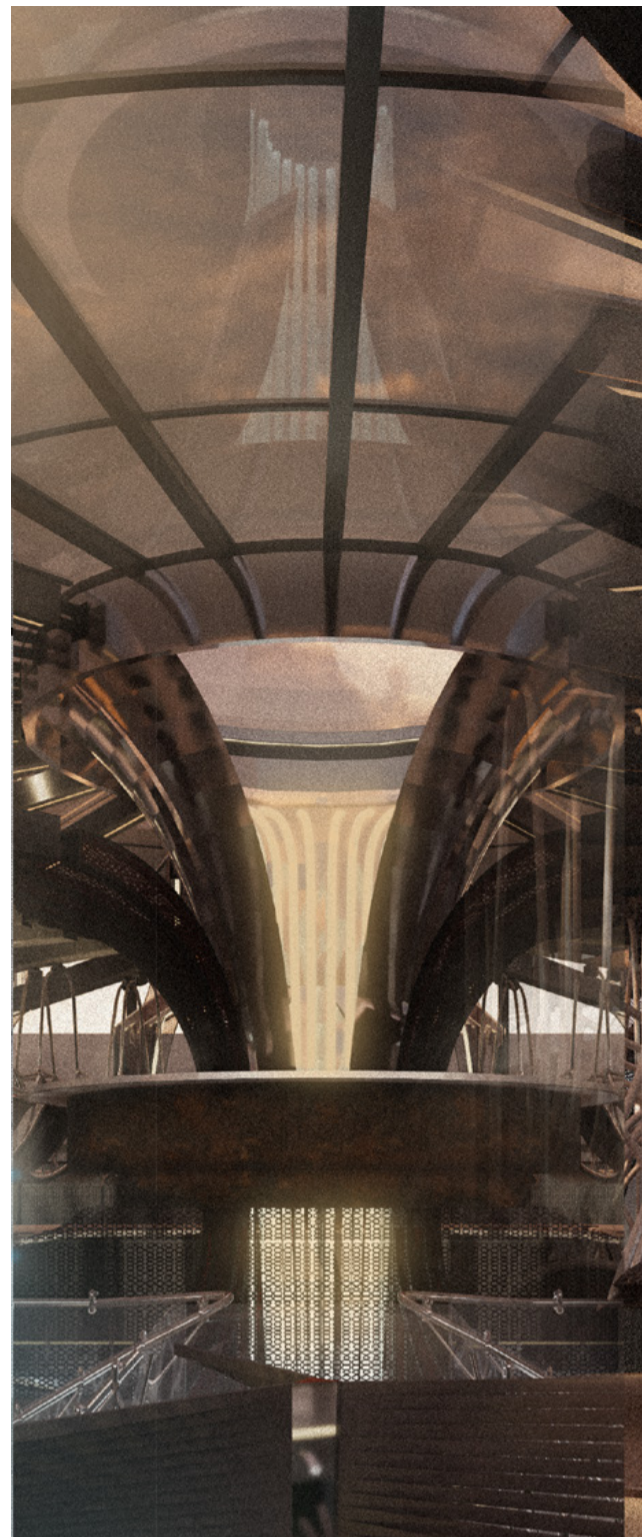
GROWING SOUND

The processed synthetics rise, the Echolith frequencies stimulate plant development. The plants own sounds feed back into the speaker, forming a continuous natural cycle.



THE RISE

Refined particles are pushed upward through the tubing system, moving toward their final transformation at the Ascendura level.



THE SHIFT IN ASCENDURA

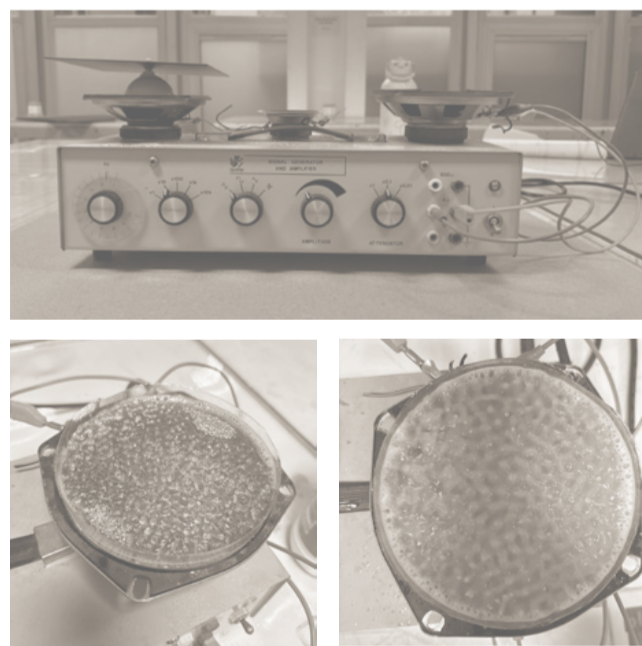
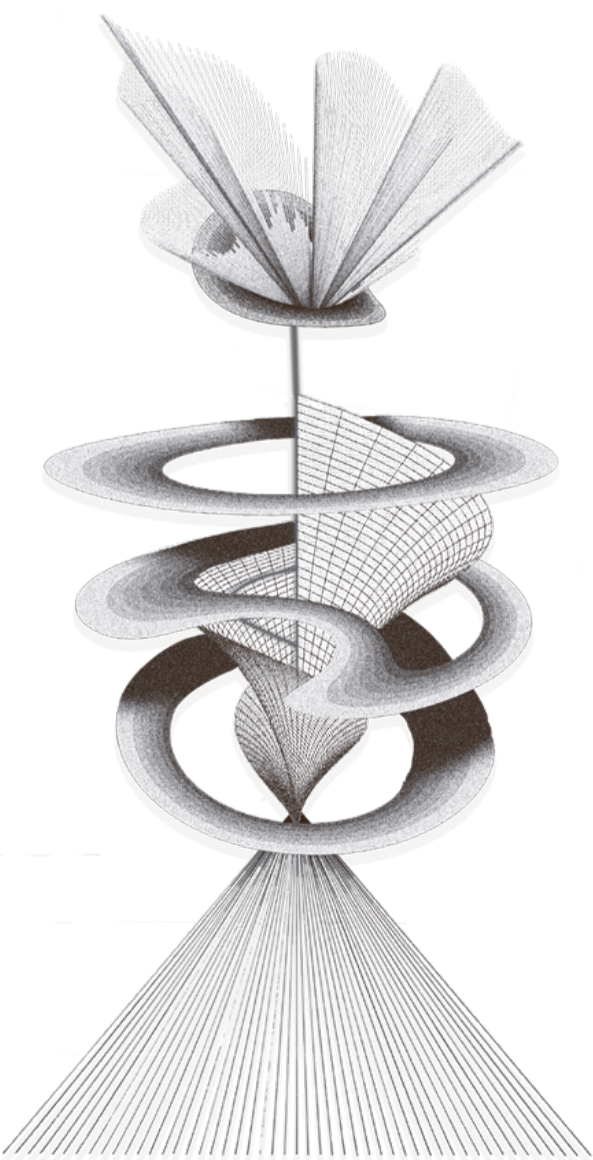
The particles shift from artificial blue to gold. Pressurised heat meets a cold funnel, causing the particles to condense into liquid form.



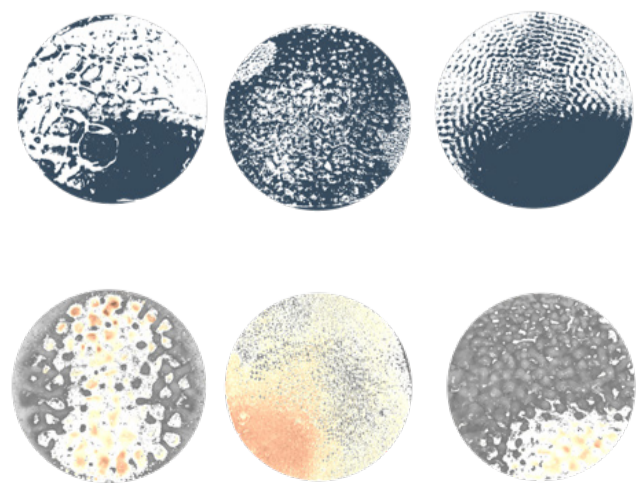
CONSUMPTION

The Homo Purus recline in custom seating and consume the condensed liquid gold, completing their ascent and achieving the highest state of Ascendura.

THE ECHOLITH (SPEAKER)



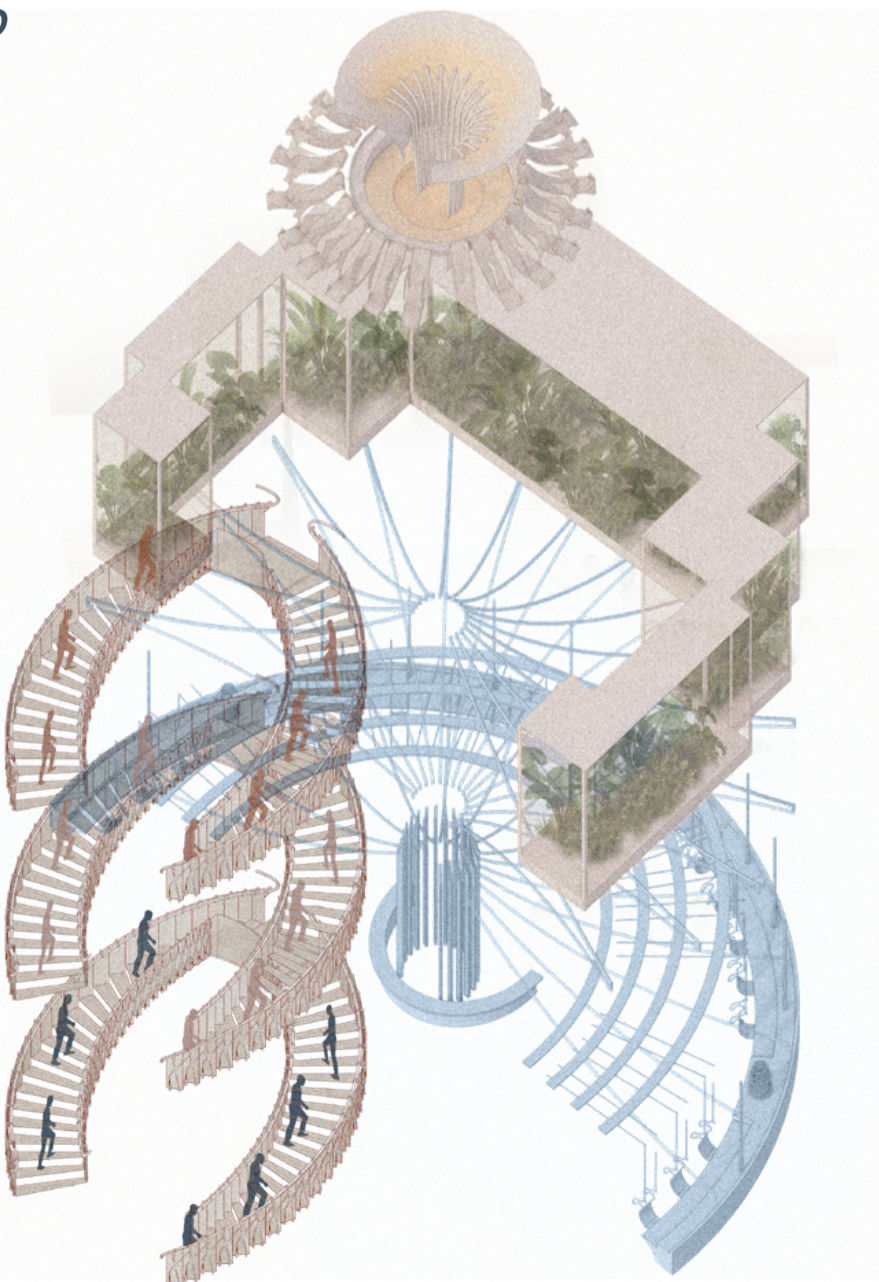
THE CHLADNI MACHINE GENERATING PATTERNS



APPLYING SOUND TO ARCHITECTURE

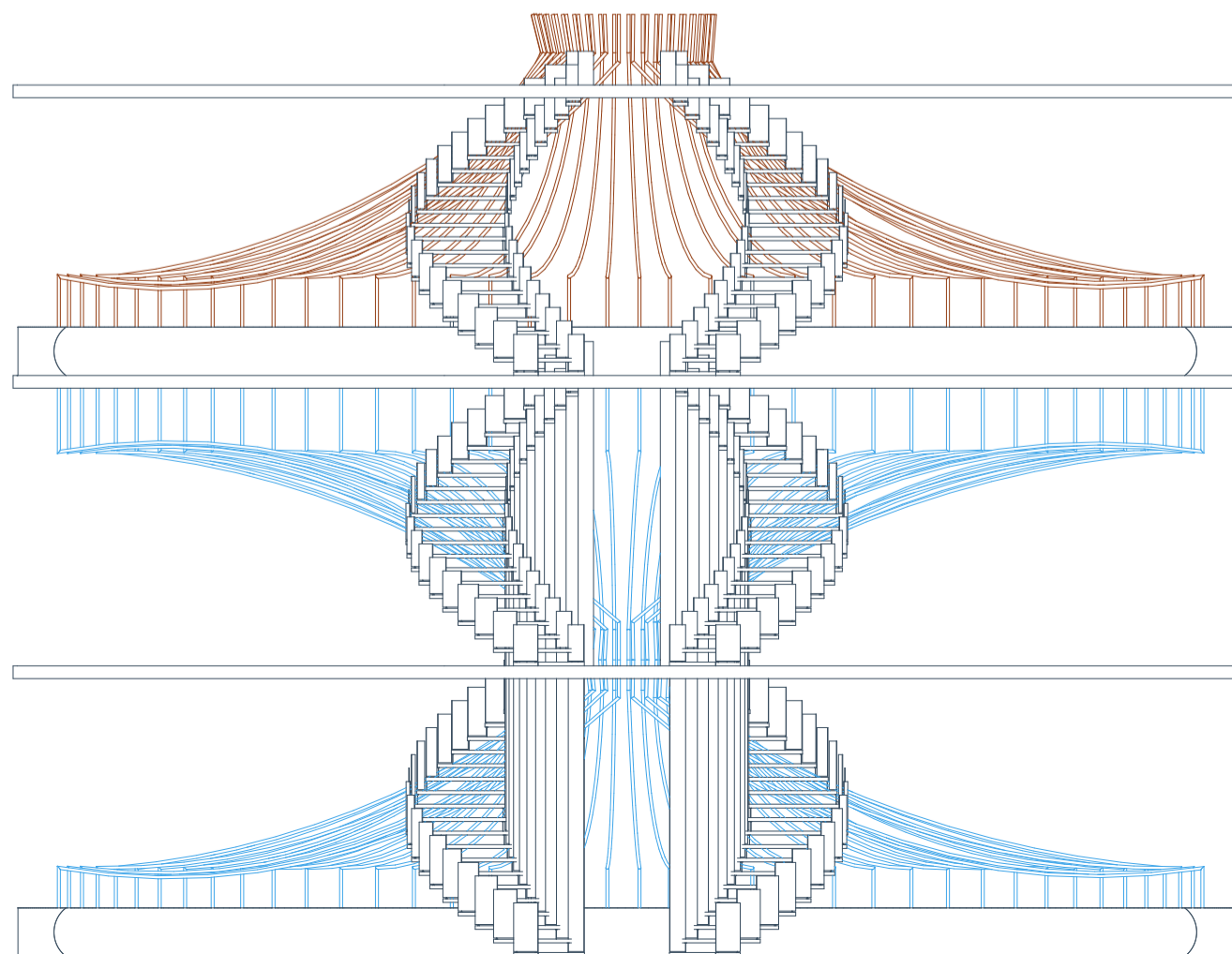
The Chladni machine generates dynamic frequency patterns across the surface of the water, translating sound into visible geometry. Within a world dominated by synthetics, this process becomes a method of reconnection. The resulting patterns became a key spatial and detailing driver within the design.

By photographing and cataloguing these formations, specific geometries were extracted and re-applied to guide spatial organisation, material articulation, and the development of interior elements moving forward.



INFORMING BUILDING FUNCTION

The generated patterns from the Chladni Plate were translated directly into the geometry of the tubes that transport synthetic air throughout the building.

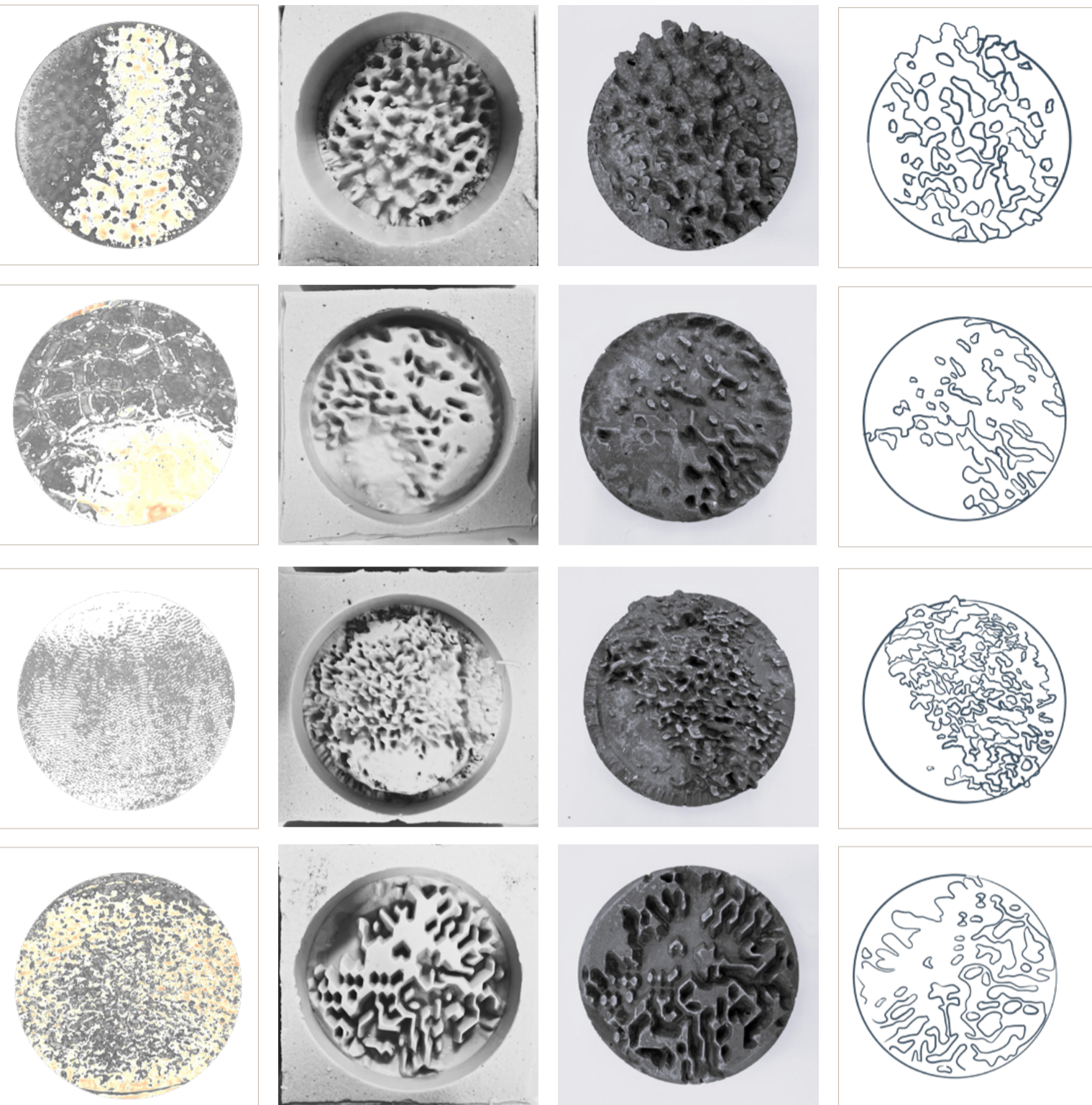


CONCEPTUAL GROUNDING

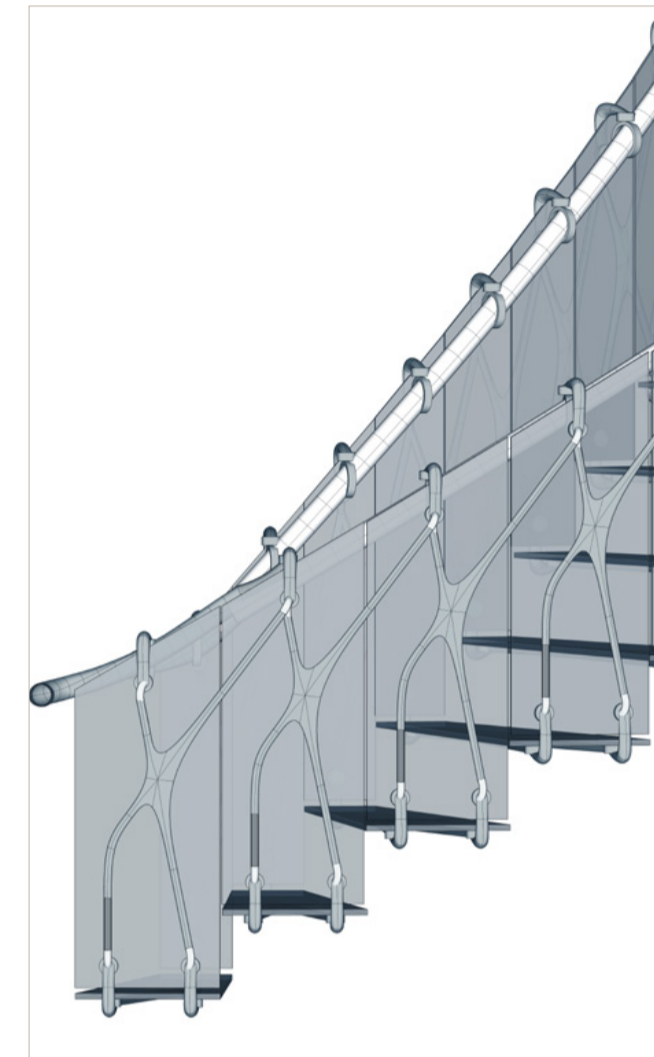
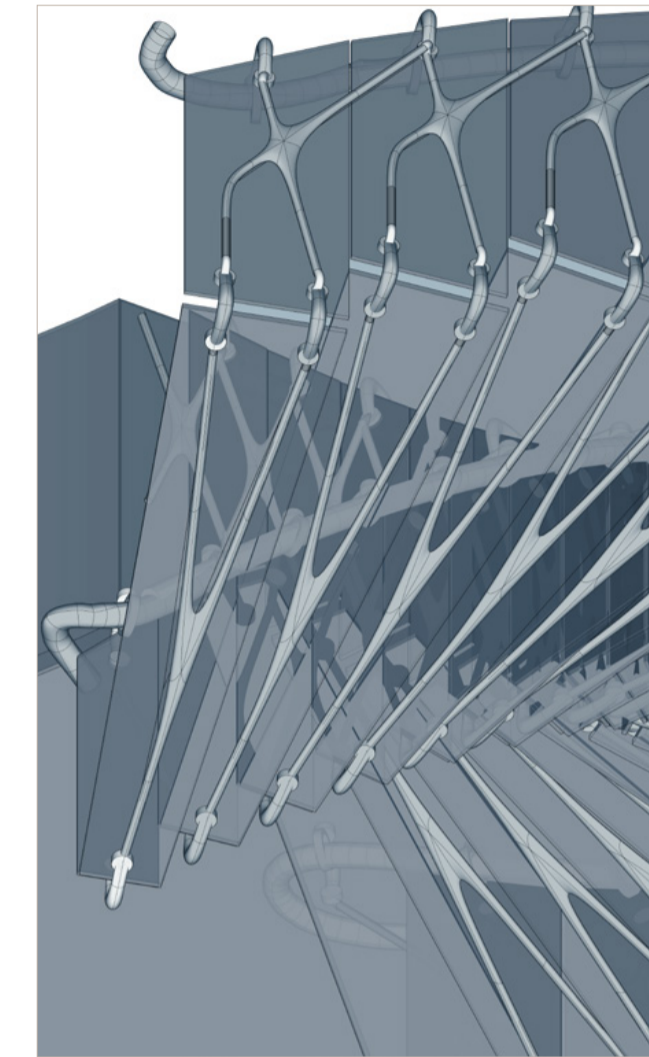
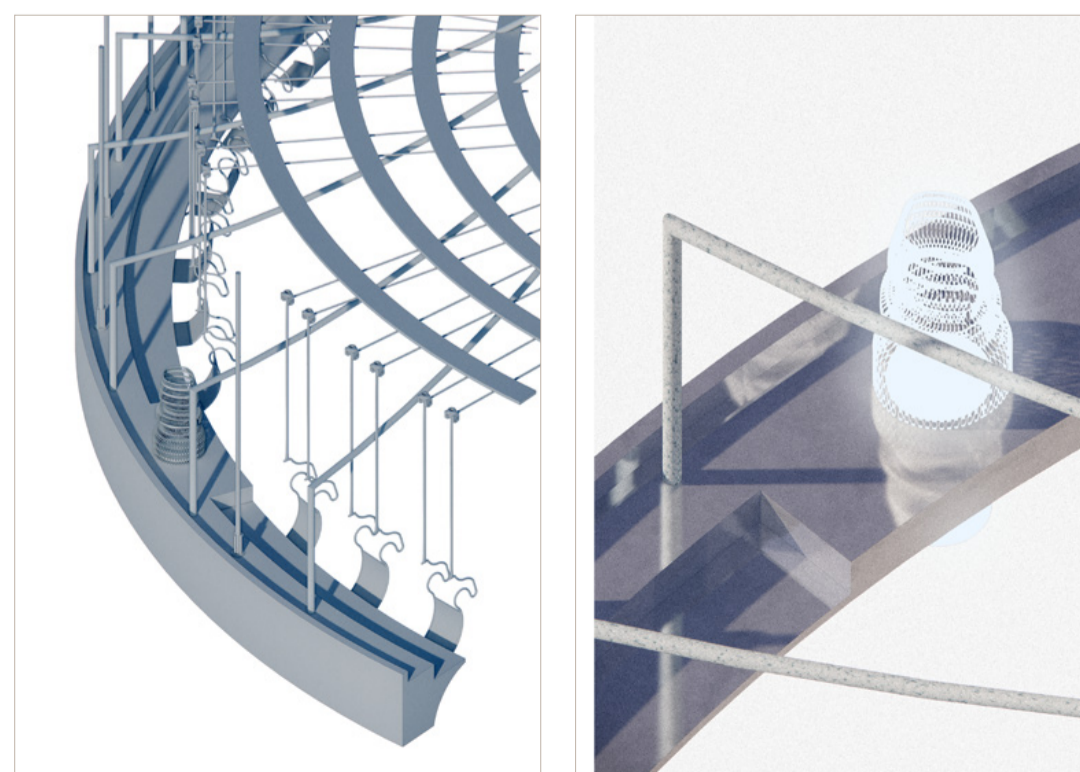
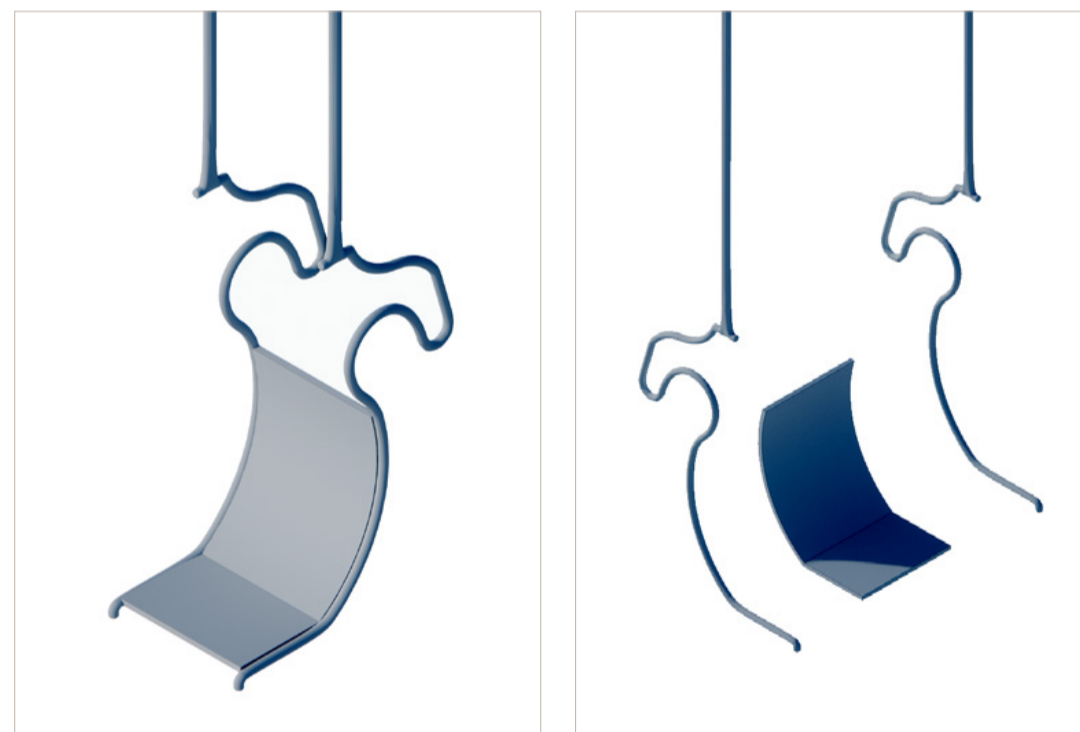
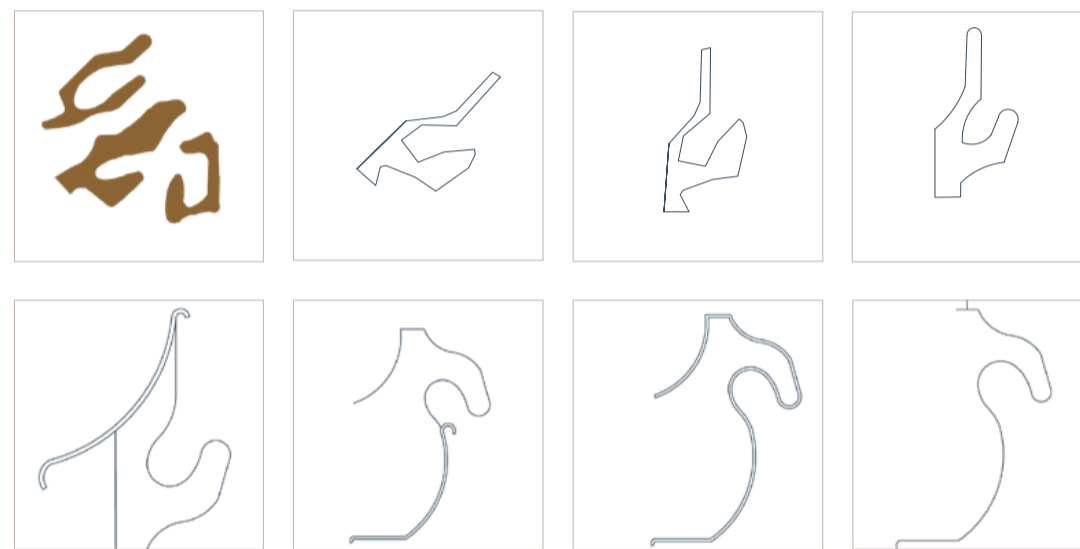
CHLADNI MACHINE APPLICATION

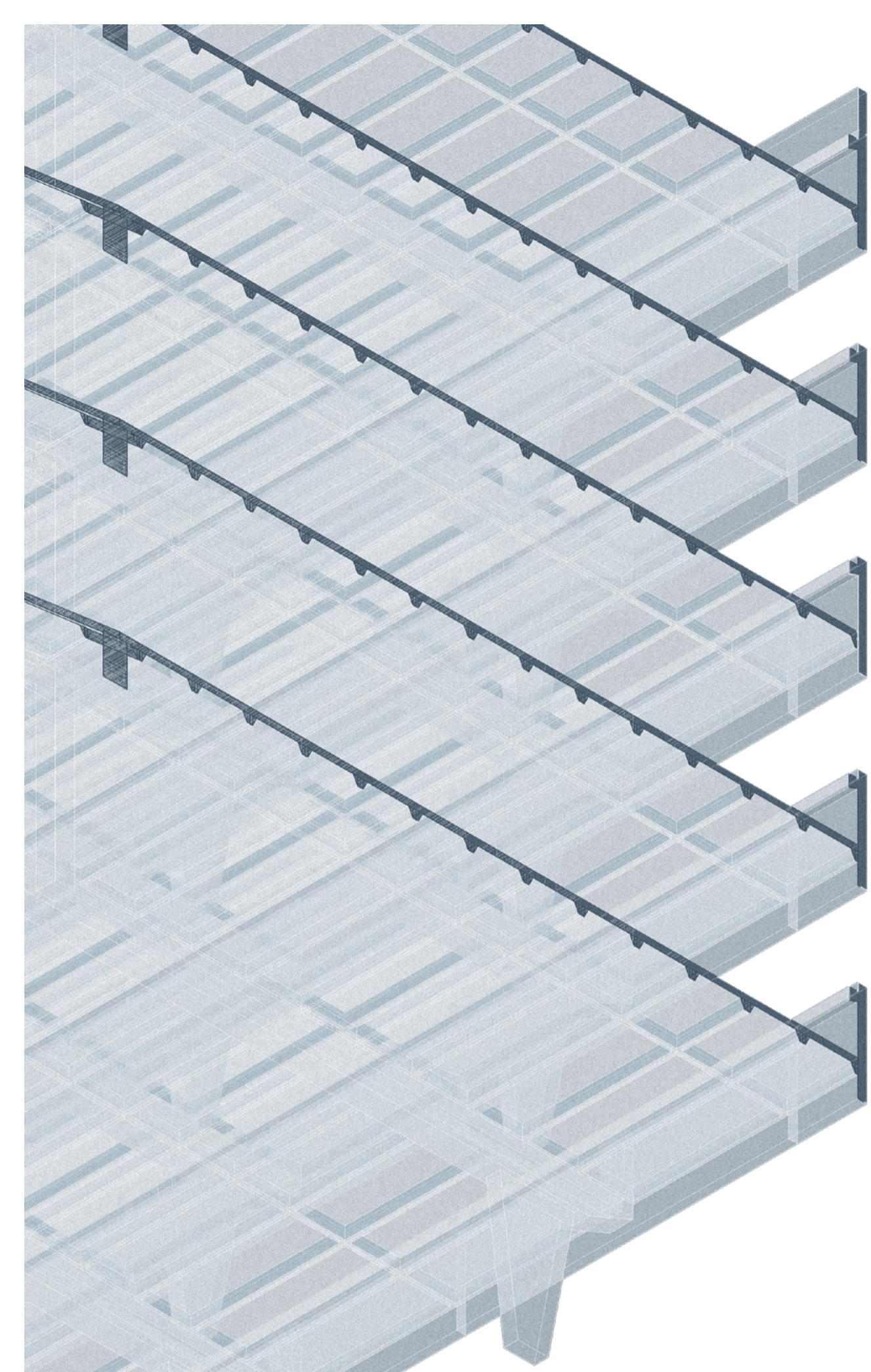
Once the patterns were photographed, I scanned them and converted them into black-and-white JPEGs. Importing these into Fusion, I generated 3D models that captured the impression of each sound pattern. These forms were then 3D-printed and cast in alginate to create negative moulds for plaster. The resulting plaster studies became a key driver in the design process.

From these casts, I extracted the strongest geometries and applied them to fixed elements within the scheme. For example, ergonomic seating that slides along a laboratory track system, and the patterned profiles used in the stair balustrade.



EXTRACTING SOUND PATTERNS





THE SITE

The Lace Market Car Park is a split-level, 13-storey monolithic concrete structure. My adaptive-reuse strategy focuses on retaining the existing one-way joist slab system as a core structural asset. Drawing on a new material-harvesting technique currently being tested in London Euston, I developed a reuse methodology that allows the building's concrete fabric to be selectively reclaimed, re-cast, and reintegrated into the new scheme.

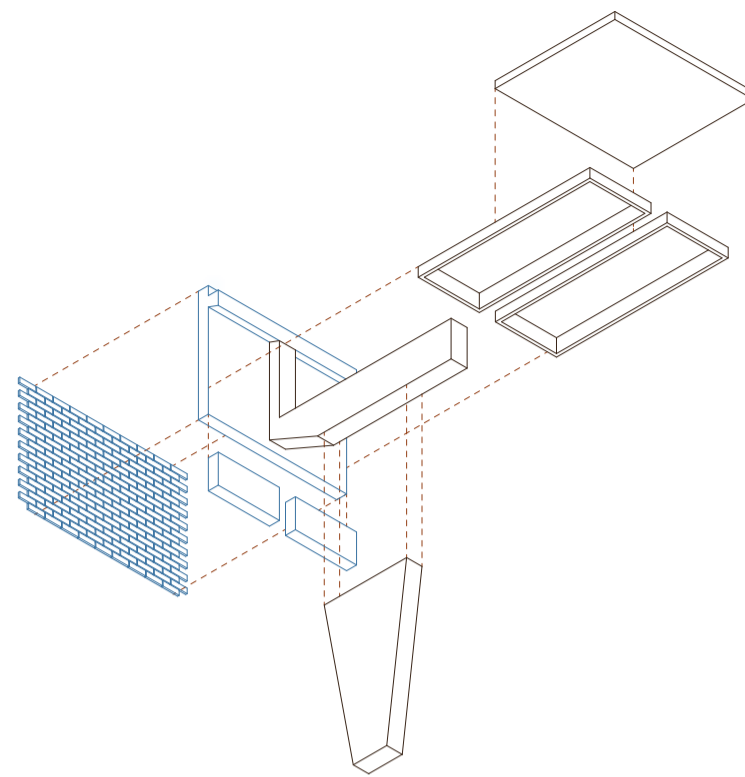
The building can be assessed with three key structural components; primary, secondary & tertiary.

Within the 2086 socio-spatial hierarchy, the Homo Purus operate as the primary structure: the stabilising core of society, rooted in natural human identity.

The B class form the secondary structure, acting as the infrastructural support system the Homo Purus.

At the top sit the A Class, the tertiary components. Visually dominant yet functionally hollow, shaped by an aesthetic-driven culture rather than genuine utility.

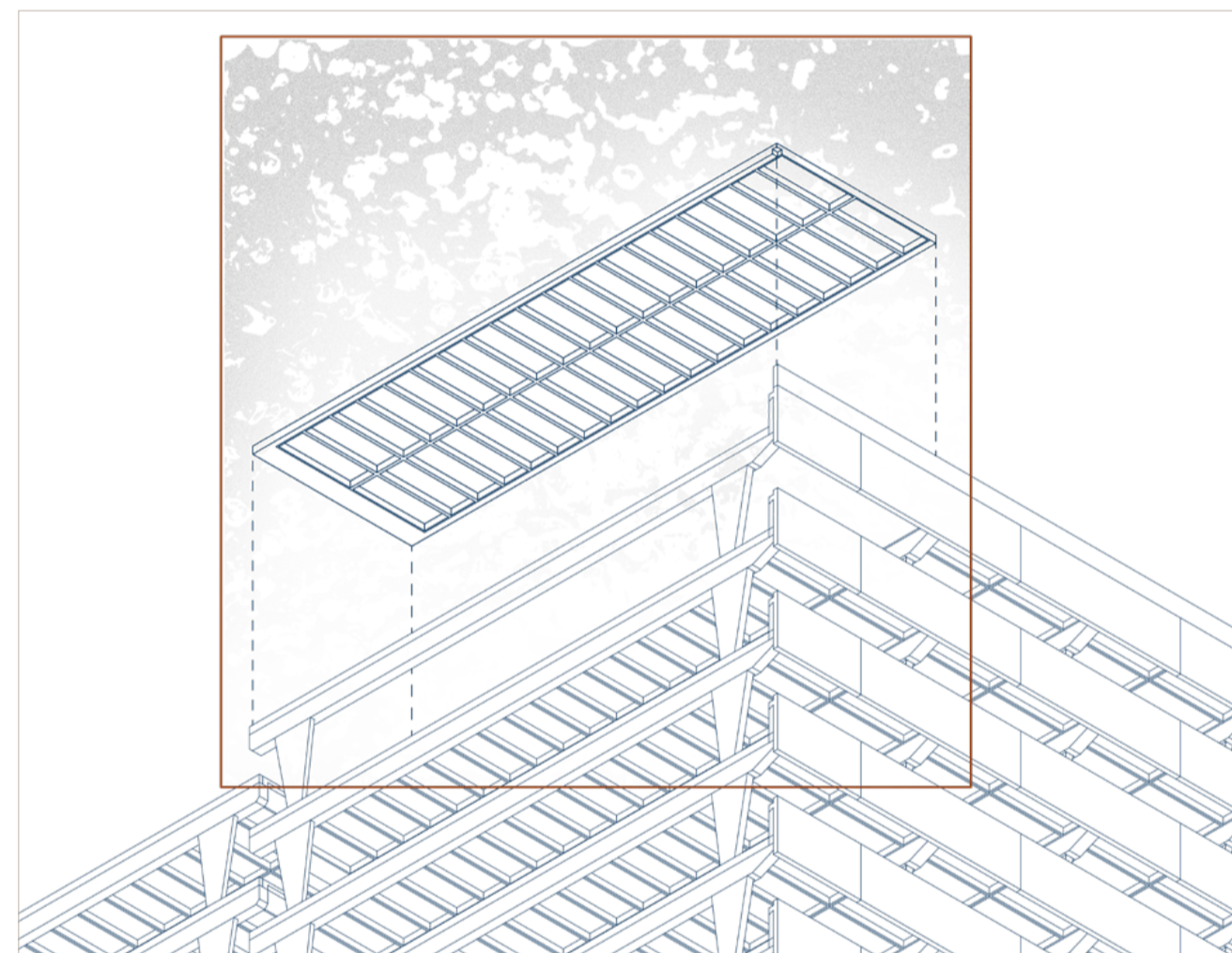
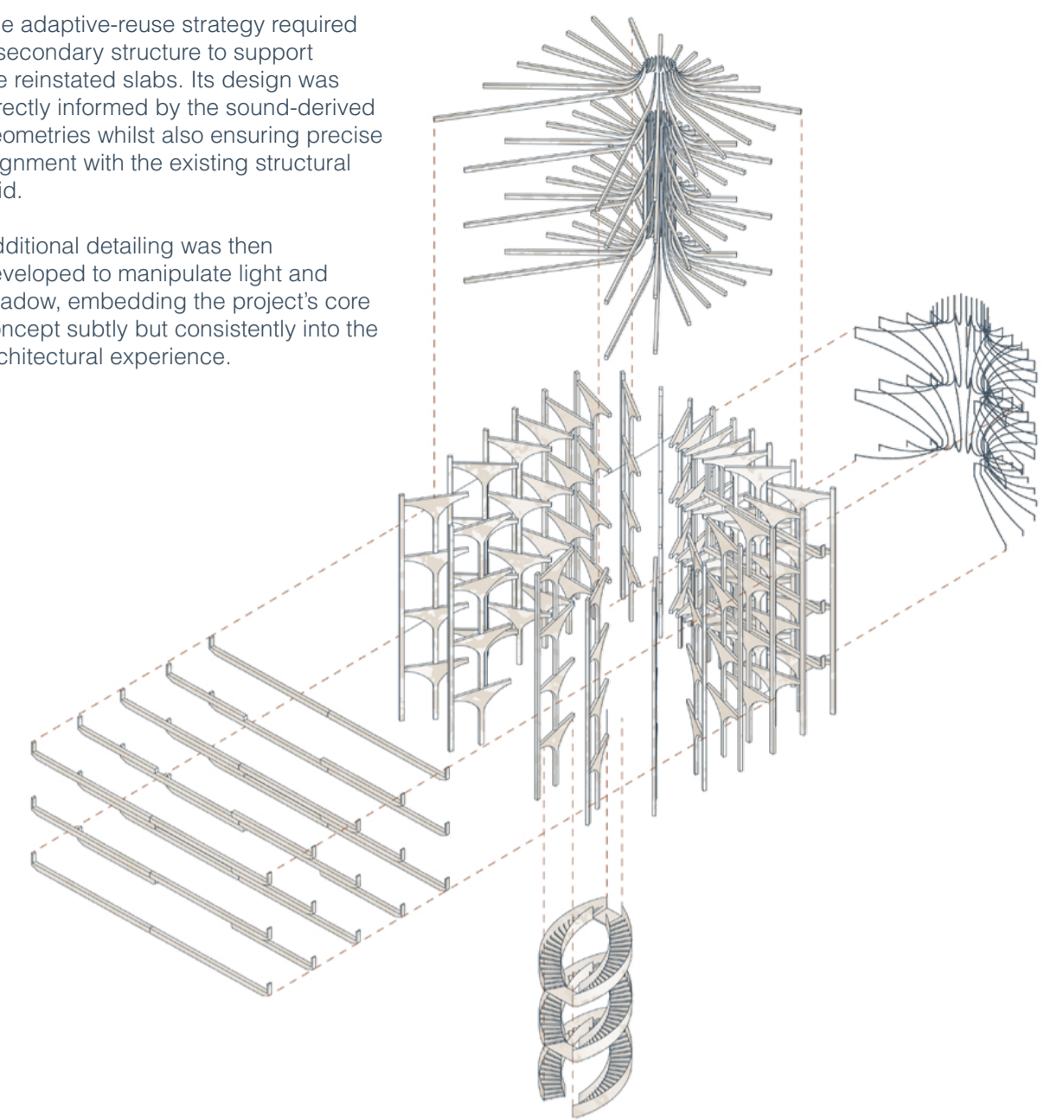
With this understanding the slabs/ Primary structure must be retained and the aesthetic driven features removed.



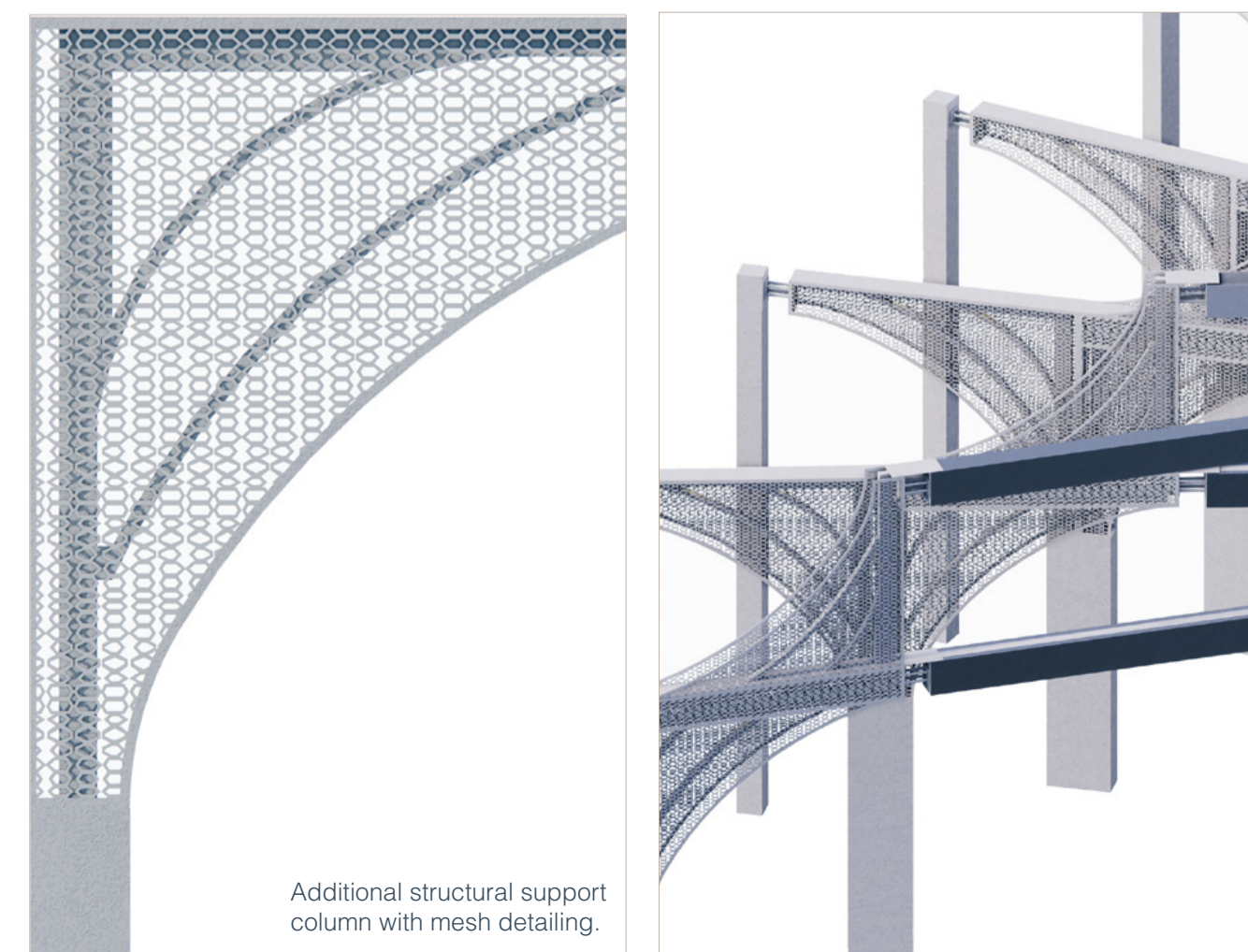
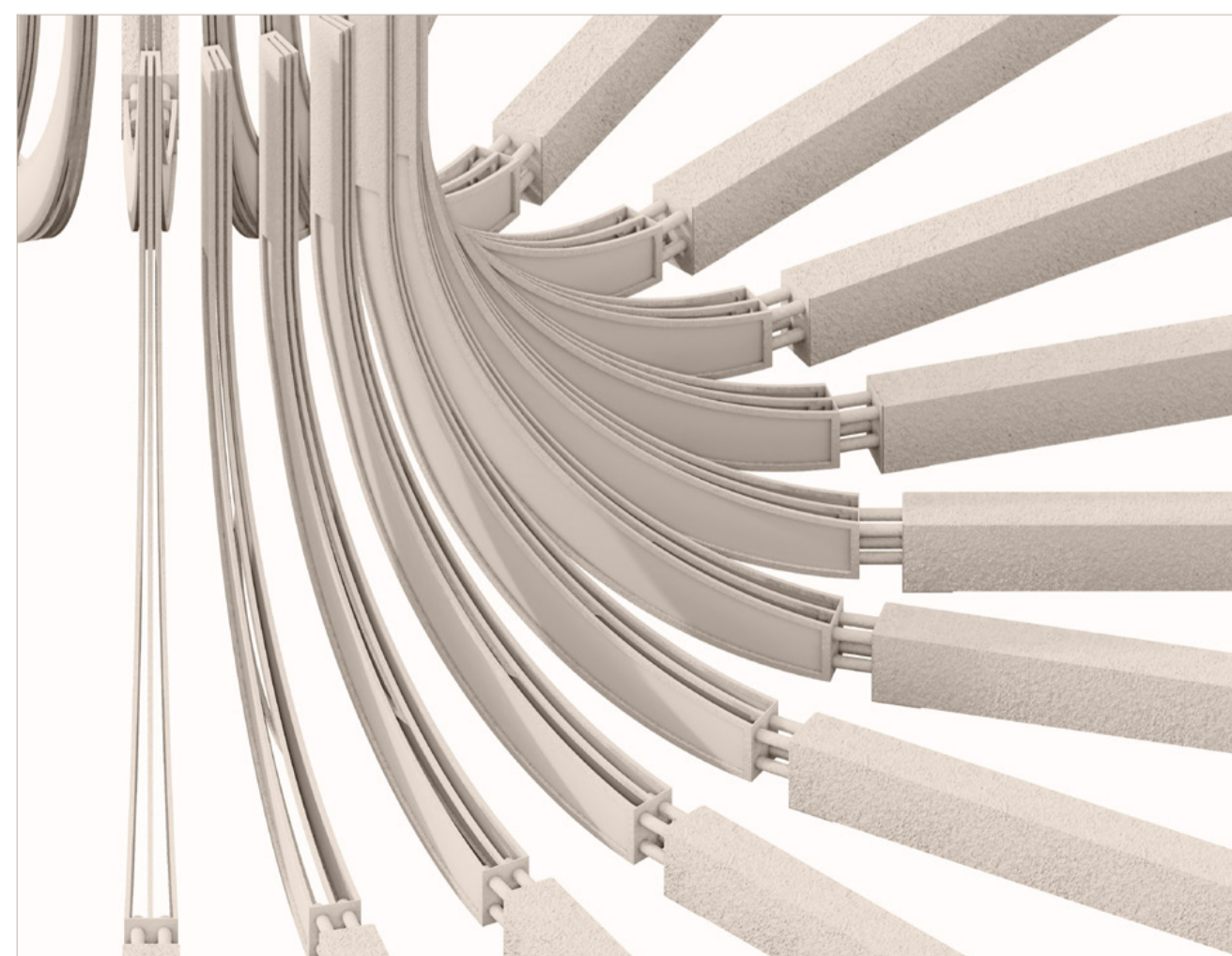
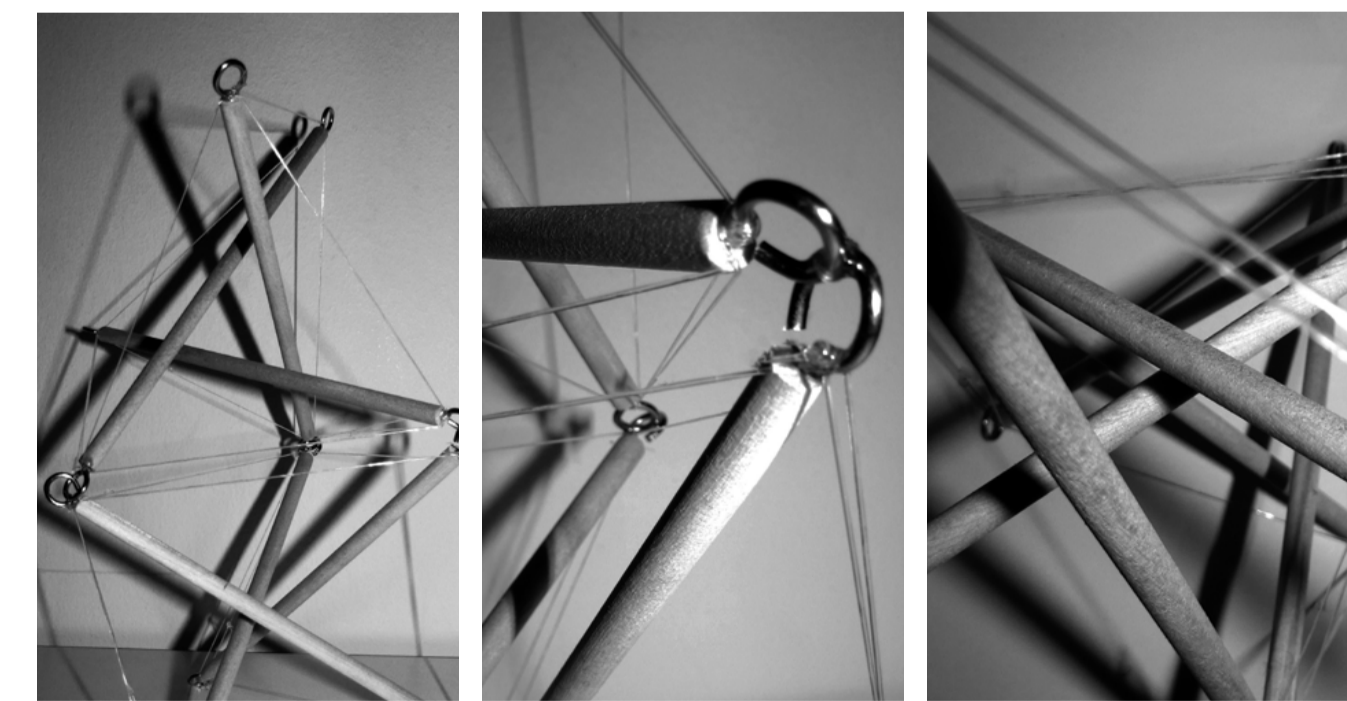
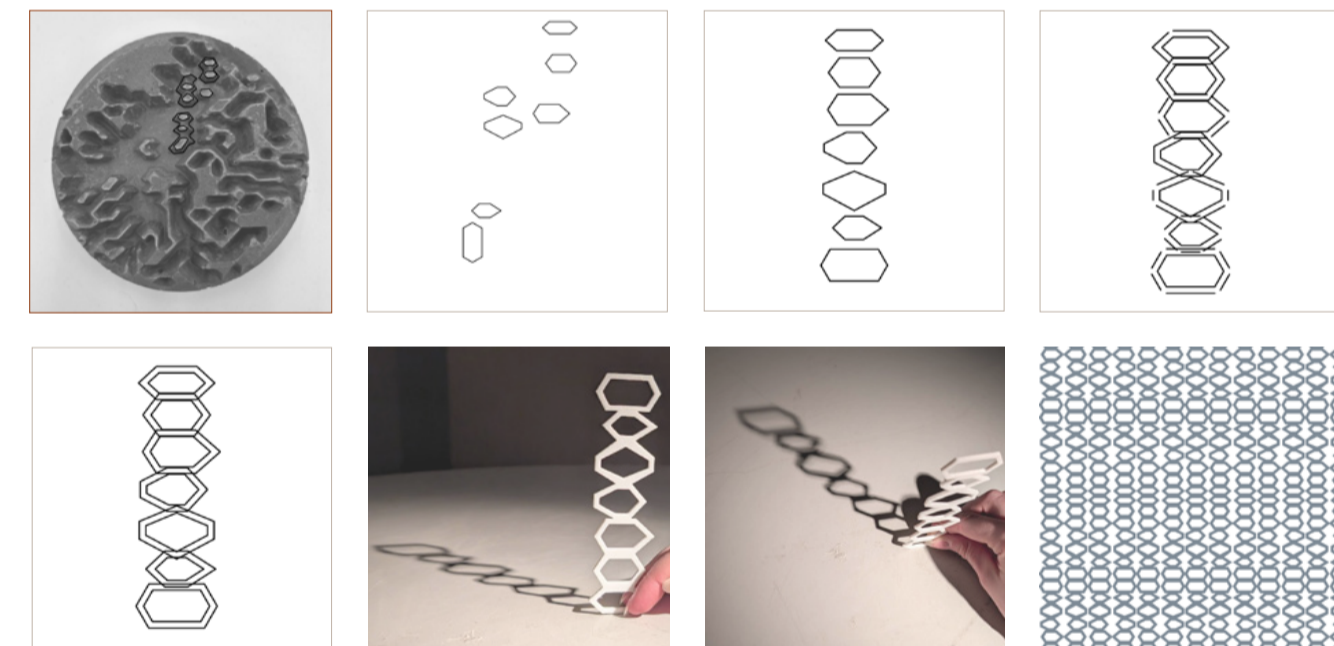
STRUCTURE

The adaptive-reuse strategy required a secondary structure to support the reinstated slabs. Its design was directly informed by the sound-derived geometries whilst also ensuring precise alignment with the existing structural grid.

Additional detailing was then developed to manipulate light and shadow, embedding the project's core concept subtly but consistently into the architectural experience.



LIGHT & SHADOW

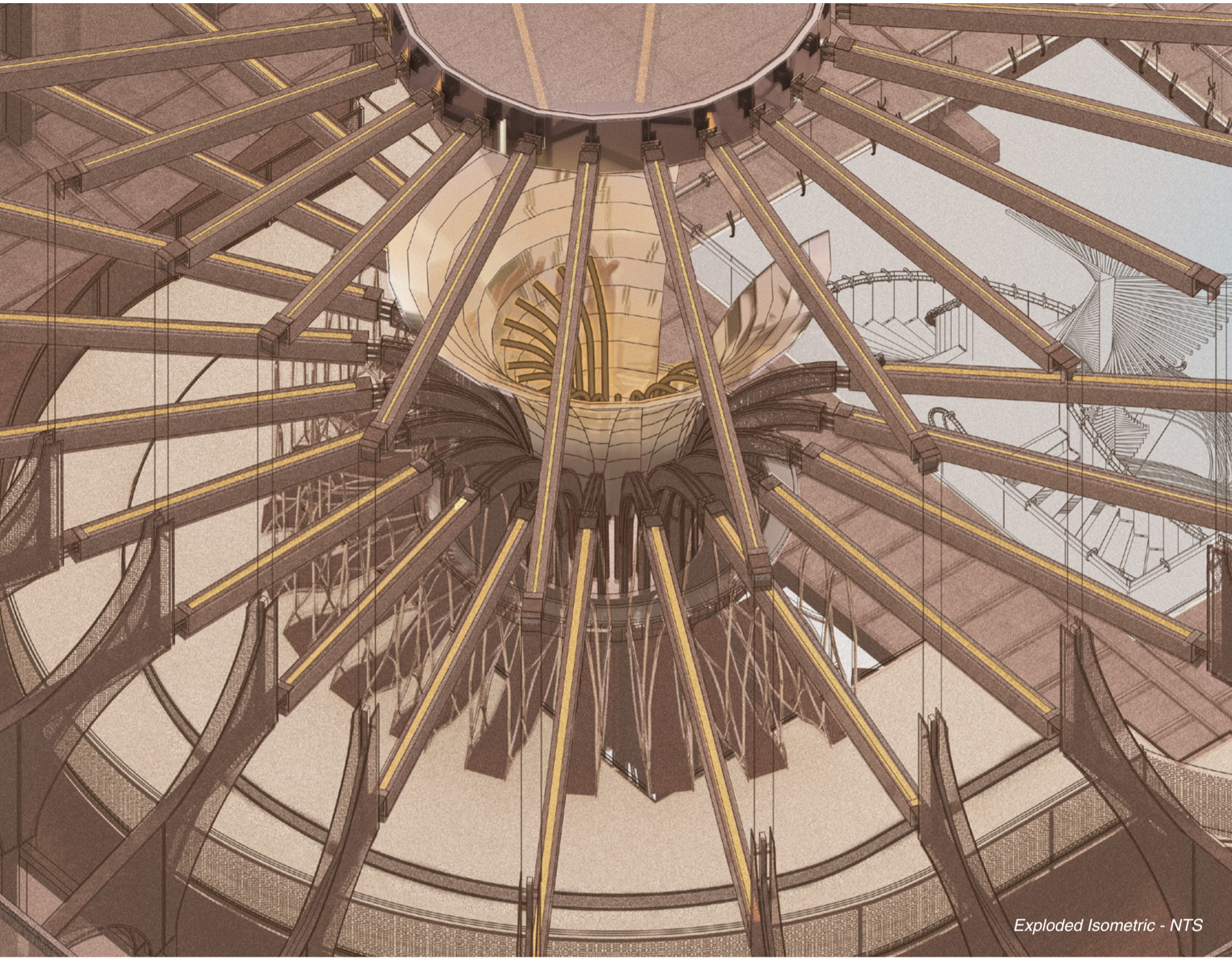
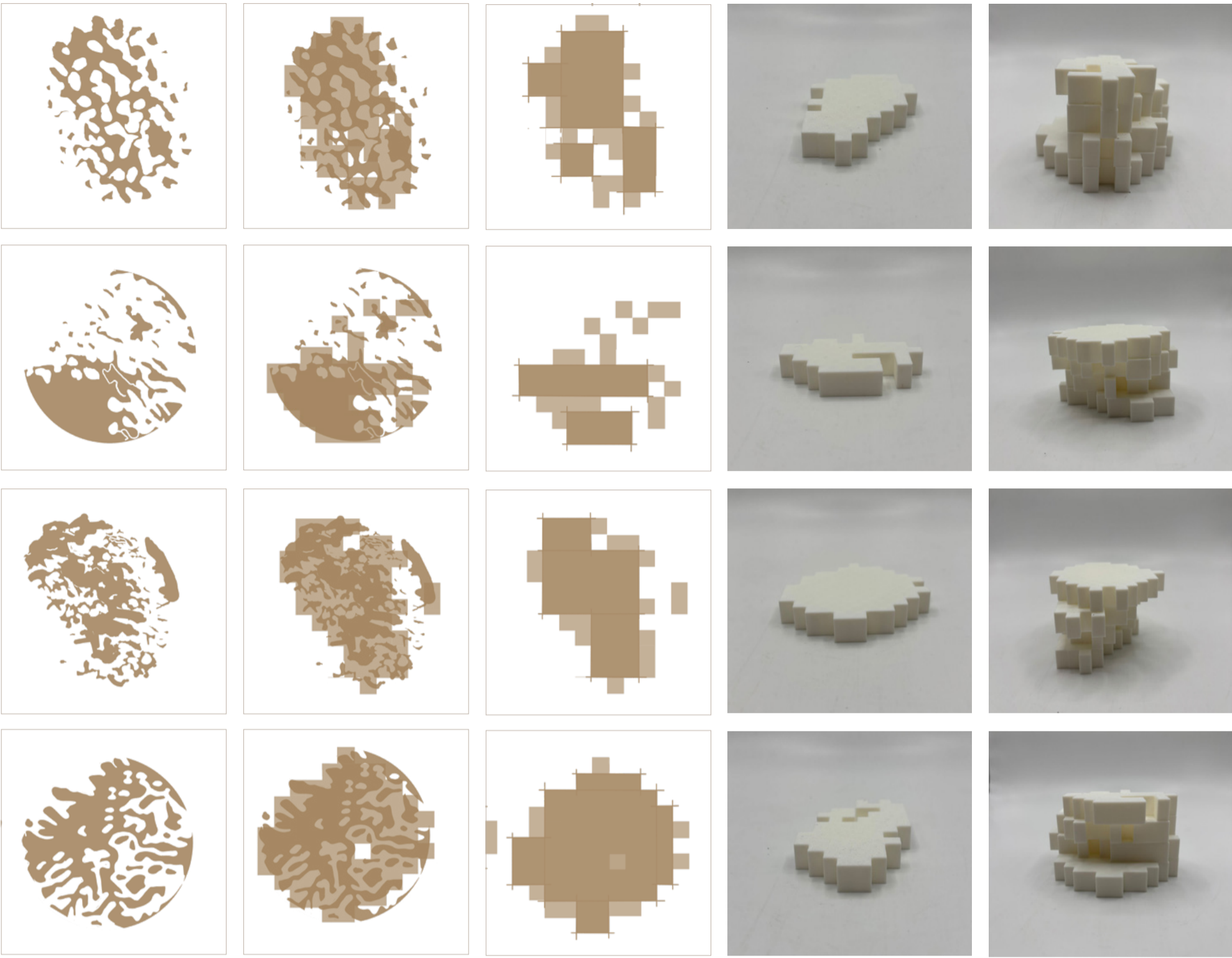


Additional structural support column with mesh detailing.

TENSEGRITY

Tensegrity provided a framework for examining how the site's structural components interact, particularly how stability changes when key elements are interfered with e.g. cutting the tension lines that maintain equilibrium.

This physical experiment mirrors the socio-political condition of 2086: a society suspended between resistance and compression, reliant on forces that are often unseen (clear elastic) but fundamentally load-bearing.



Exploded Isometric - NTS

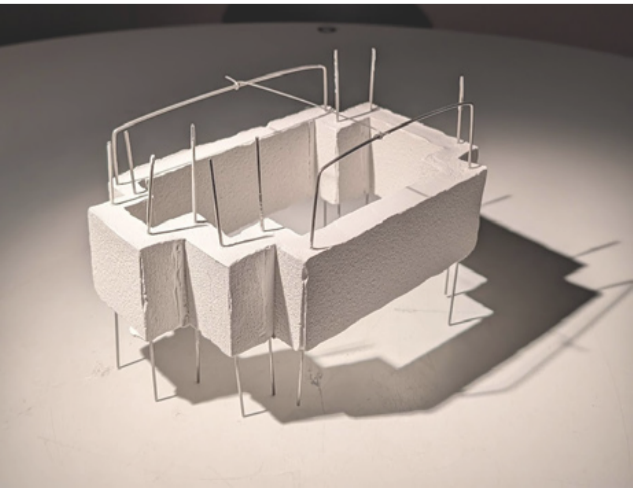
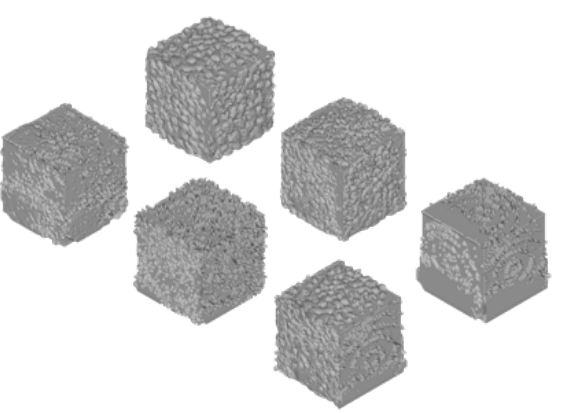
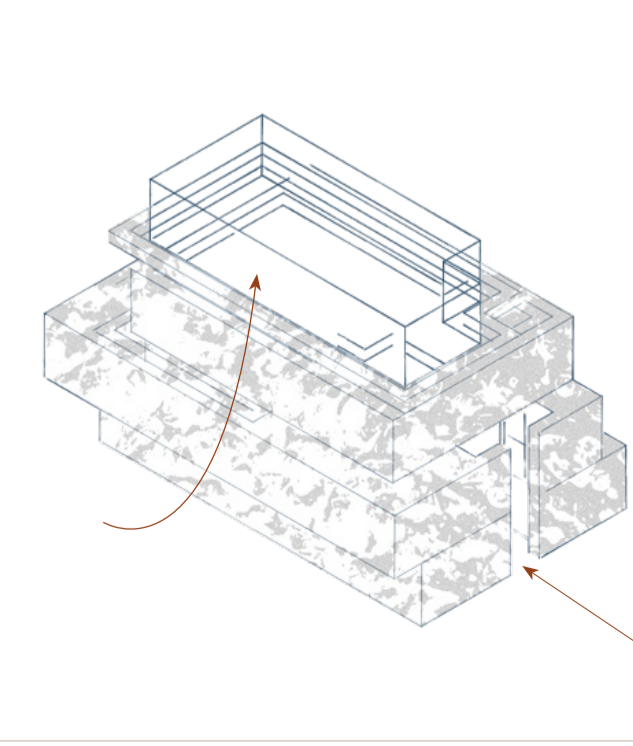
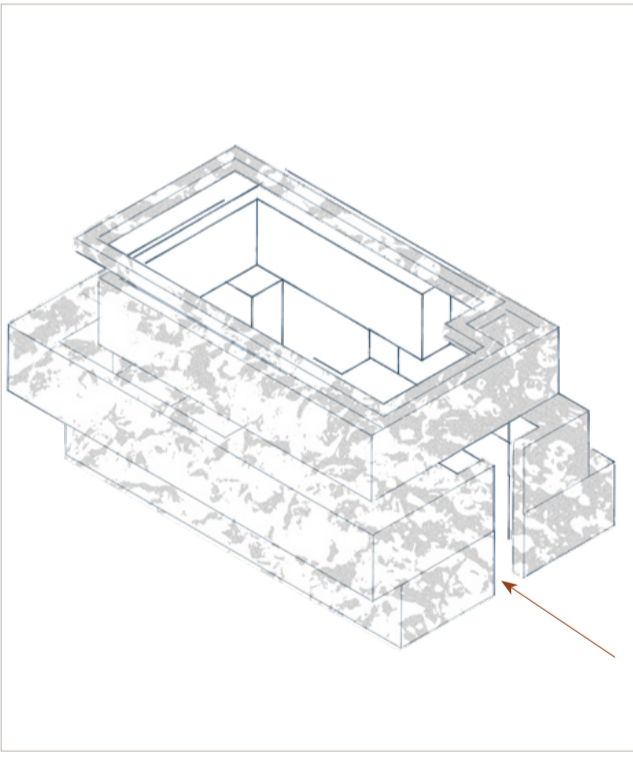
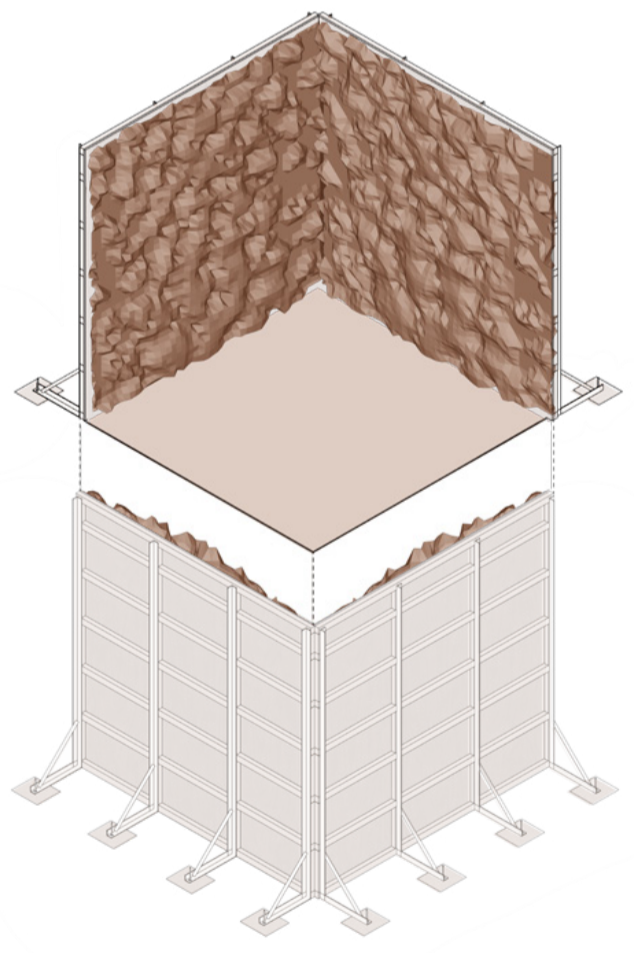
FACADE DEVELOPMENT

HARMONY BETWEEN THE ORGANIC AND RECTILINEAR

Once the key shapes were extracted I started looking at the dominance of the shapes as a whole (hot points of the patterns). To start to generate shapes for spacial arrangements and floor plans I turned the organic shapes into geometric forms.

Modelling the geometric forms allowed a physical exploration of these shapes. Seeing these shapes and the small misalignments and 'imperfections' is something noted that I want to bring forward in the final facade development.

The development of the facade materiality is the other adaptive reuse strategy implemented into the design. The adaptive reuse strategy is a 'crush & cast' system. Crushing down the 'unnecessary' tertiary aesthetic focused features of the existing building and crushing them down to create a brand new block work.



The Facade