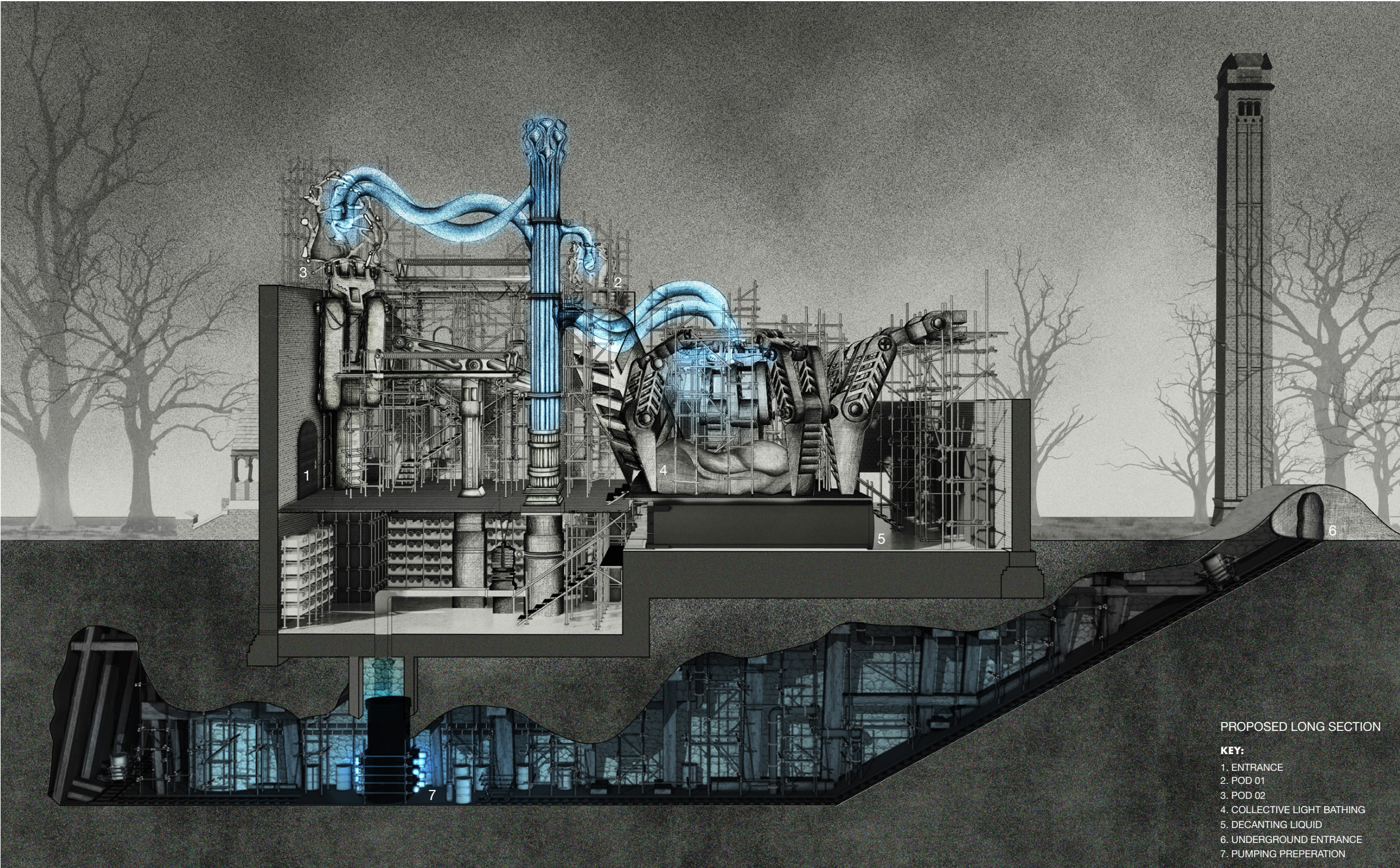
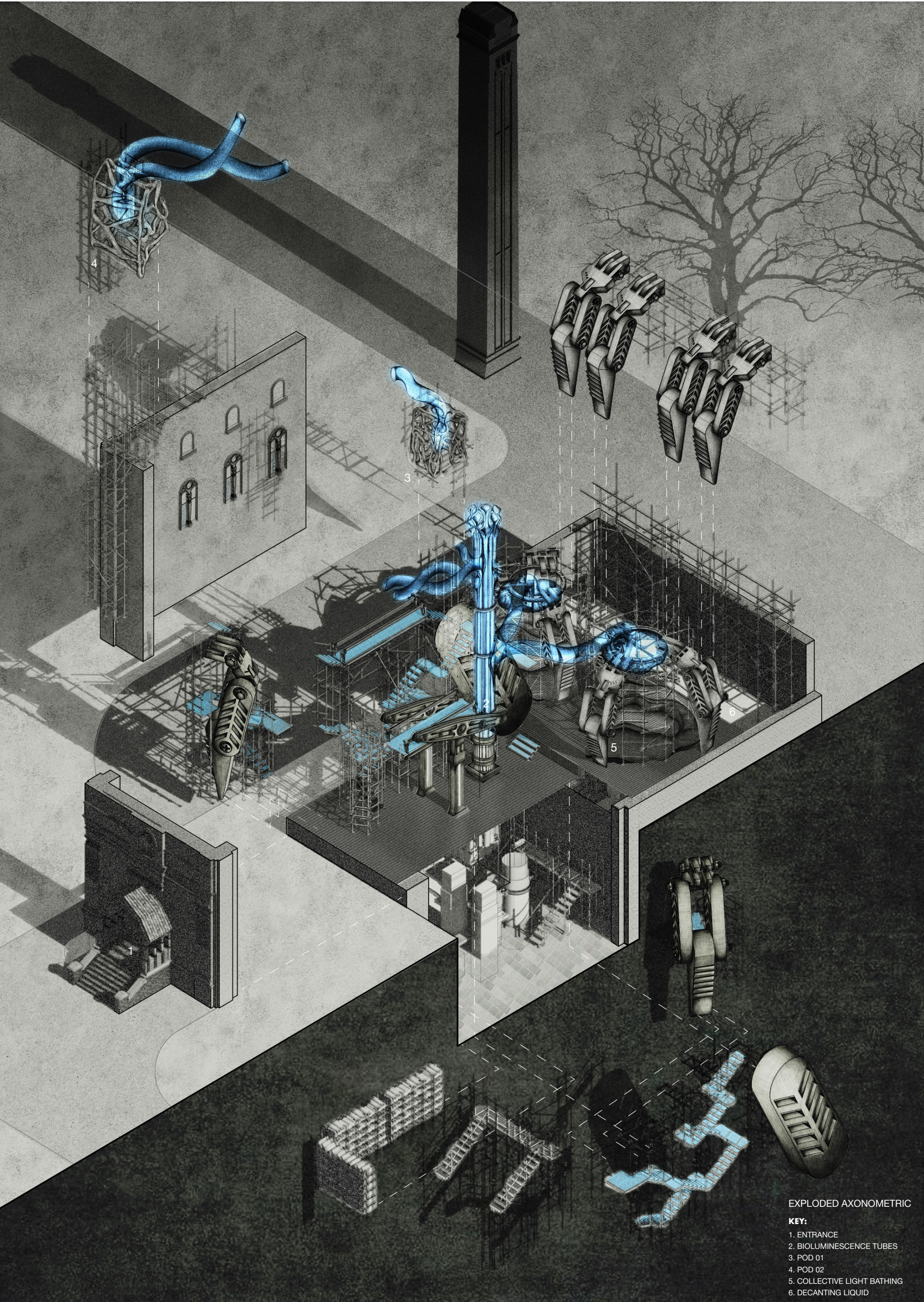


THE BLACK FIREFLY

IN A WORLD WITHOUT SUN, LIGHT RETURNS THROUGH THE GLOW OF FIREFLIES.

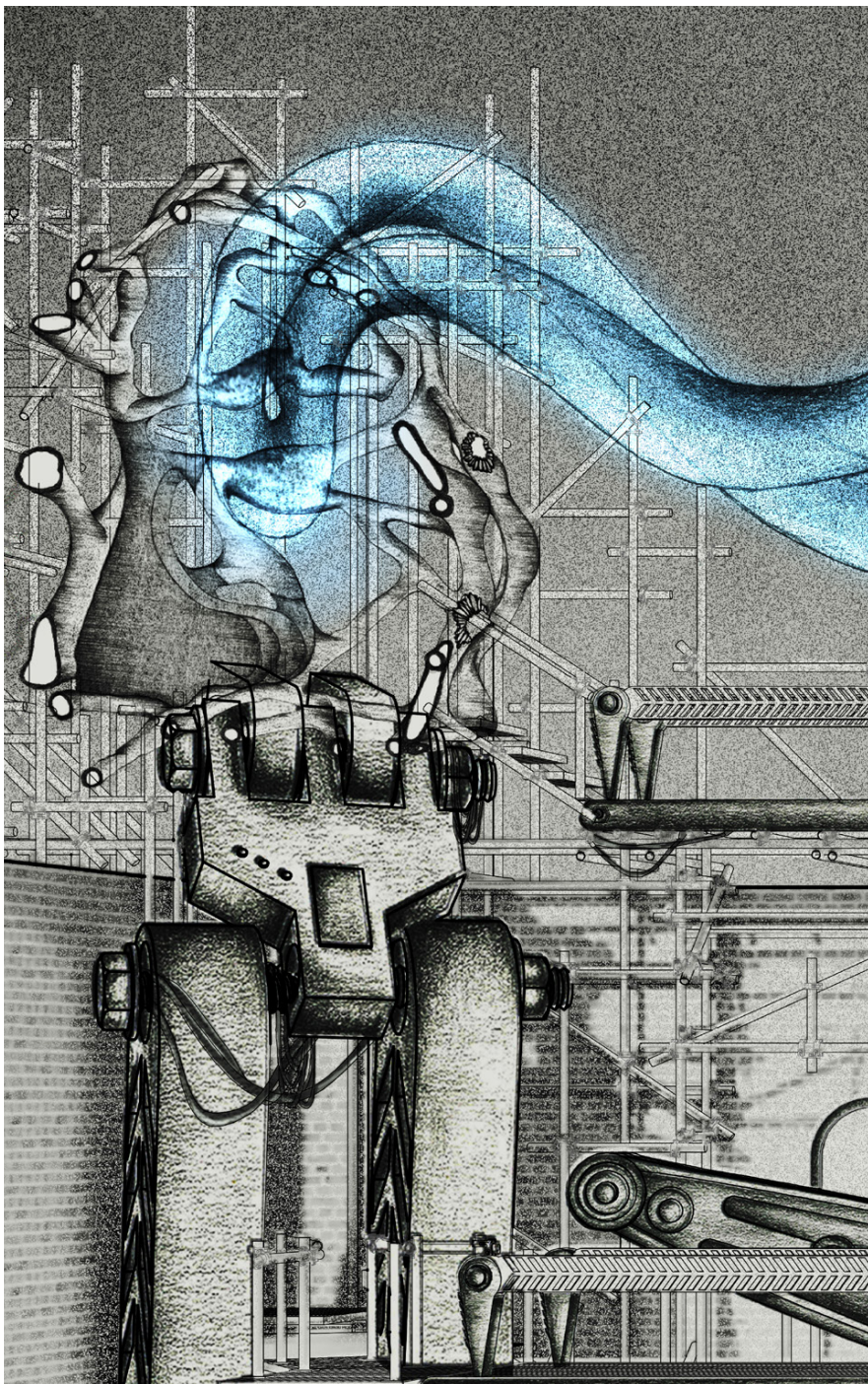
It is 2085, and the failure of AI marks a turning point in human history. Tasked by NASA to predict Earth's next solar eclipse, it named the year 2496. But the eclipse came early—and never ended. The moon locked in place, blocking the sun. Earth plunged into eternal darkness. Ecosystems collapsed, temperatures fell, and humanity, betrayed by its own creation, rejected technology. But in the darkness, a question arose: what still glows? The answer—fireflies. Their rare bioluminescence, especially the elusive blue, became humanity's last light. From this came The Black Firefly Project. Built atop the ruins of Papplewick Pumping Station, firefly farms now channel their glow underground into networks of glass and scaffold. Papplewick became more than refuge—it became ritual. Visitors leave with a single vial of light: a personal ember of hope in a sunless world.

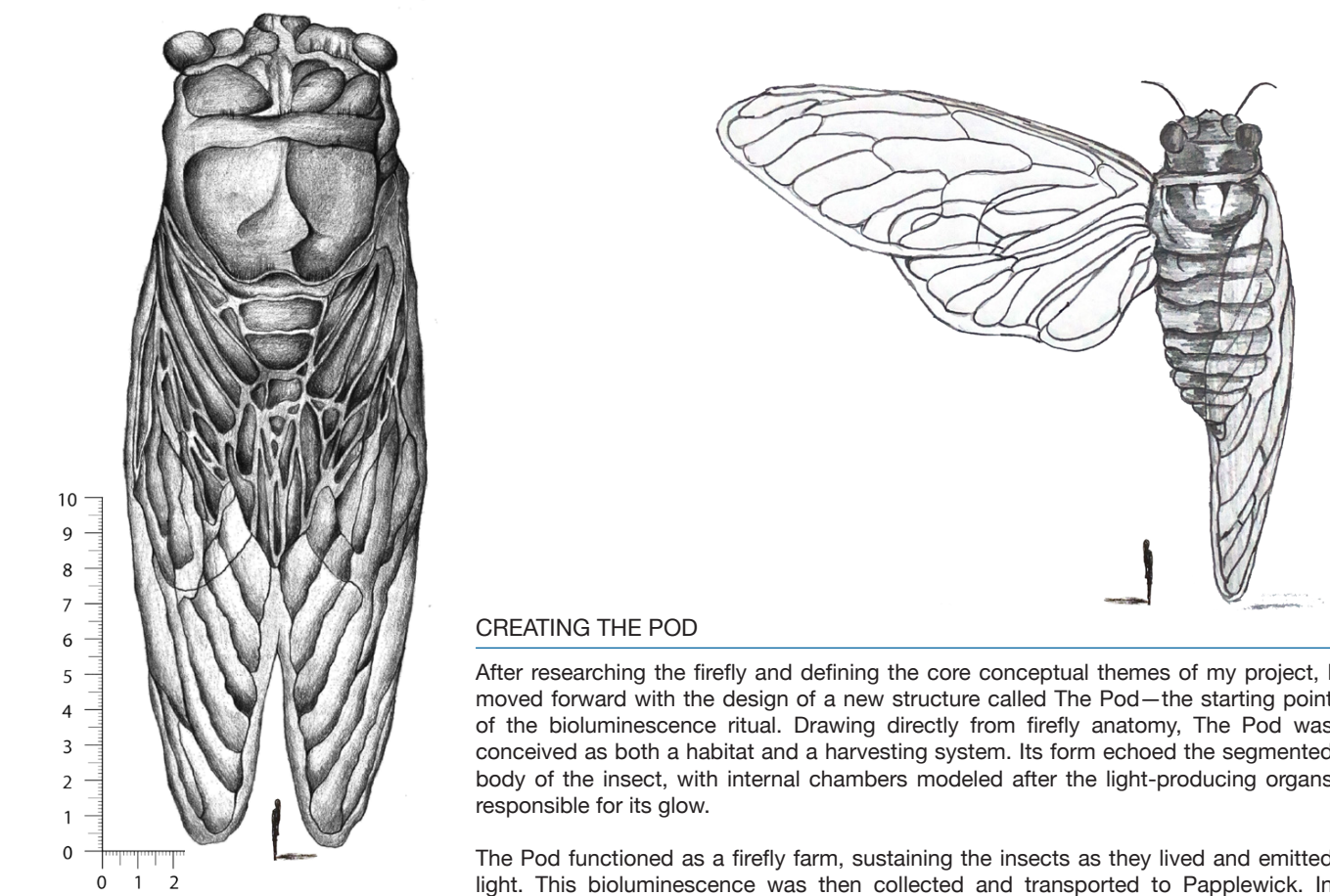


AREA OF FOCUS VISUAL



ZOOM IN ON LIGHT BATHING MOMENT

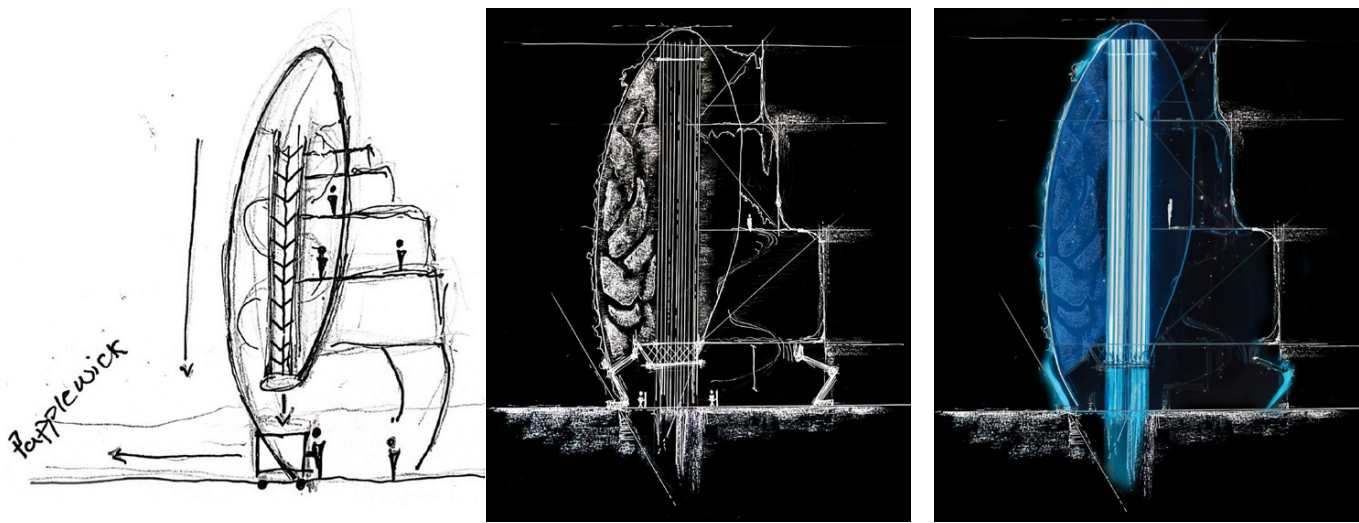




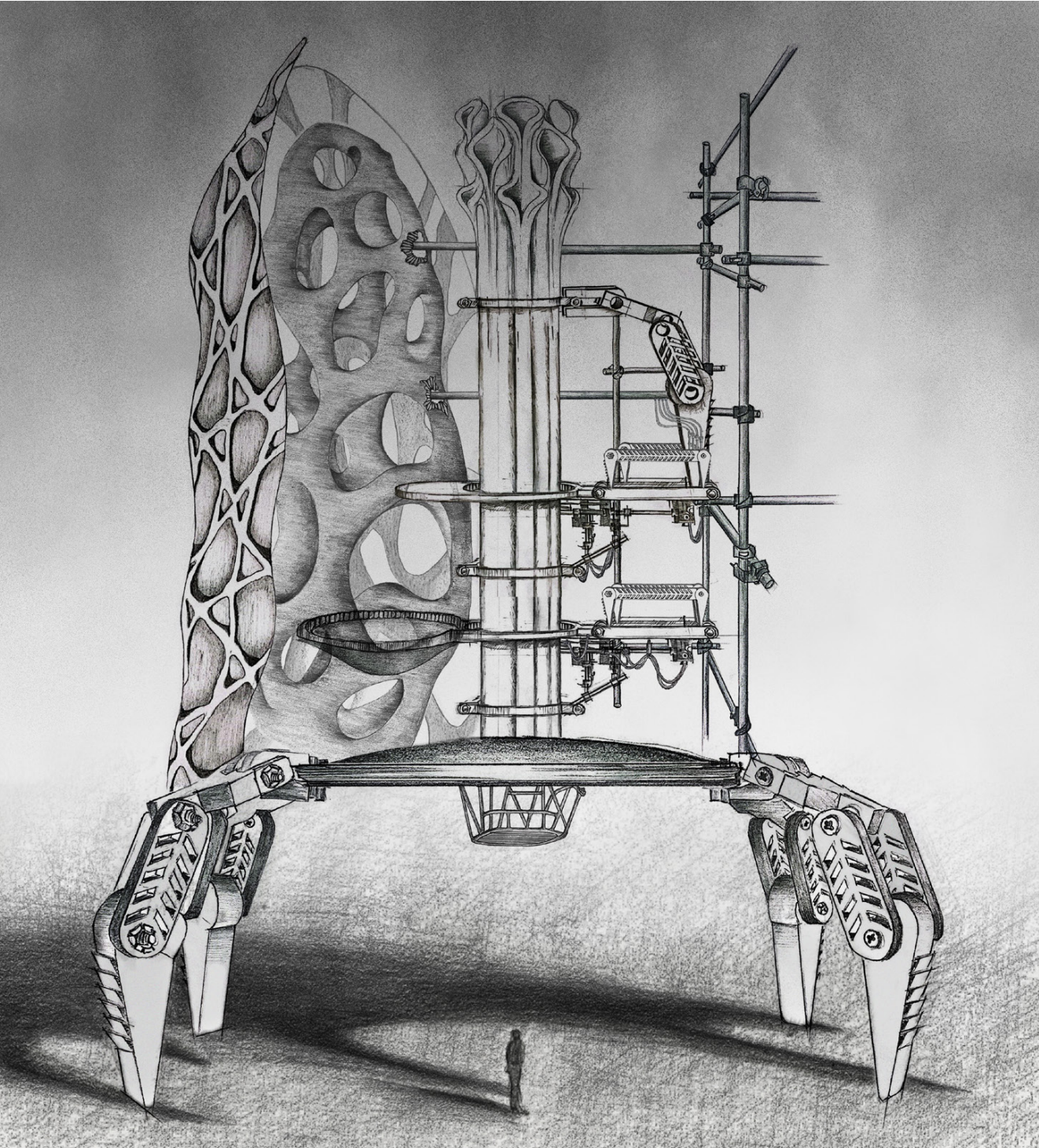
CREATING THE POD

After researching the firefly and defining the core conceptual themes of my project, I moved forward with the design of a new structure called The Pod—the starting point of the bioluminescence ritual. Drawing directly from firefly anatomy, The Pod was conceived as both a habitat and a harvesting system. Its form echoed the segmented body of the insect, with internal chambers modeled after the light-producing organs responsible for its glow.

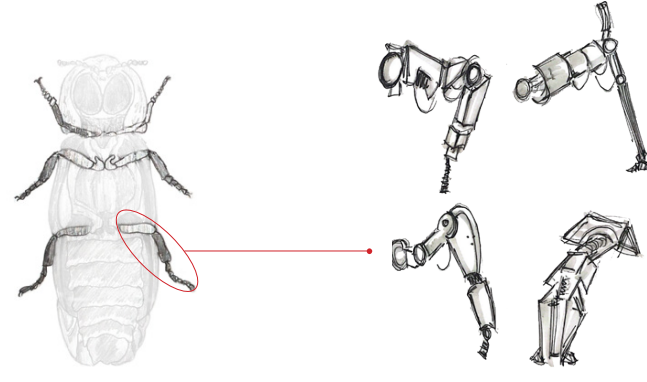
The Pod functioned as a firefly farm, sustaining the insects as they lived and emitted light. This bioluminescence was then collected and transported to Papplewick. In essence, The Pod served as a prototype for Papplewick itself—each design element tested here was intended to inform and evolve into the final structure.



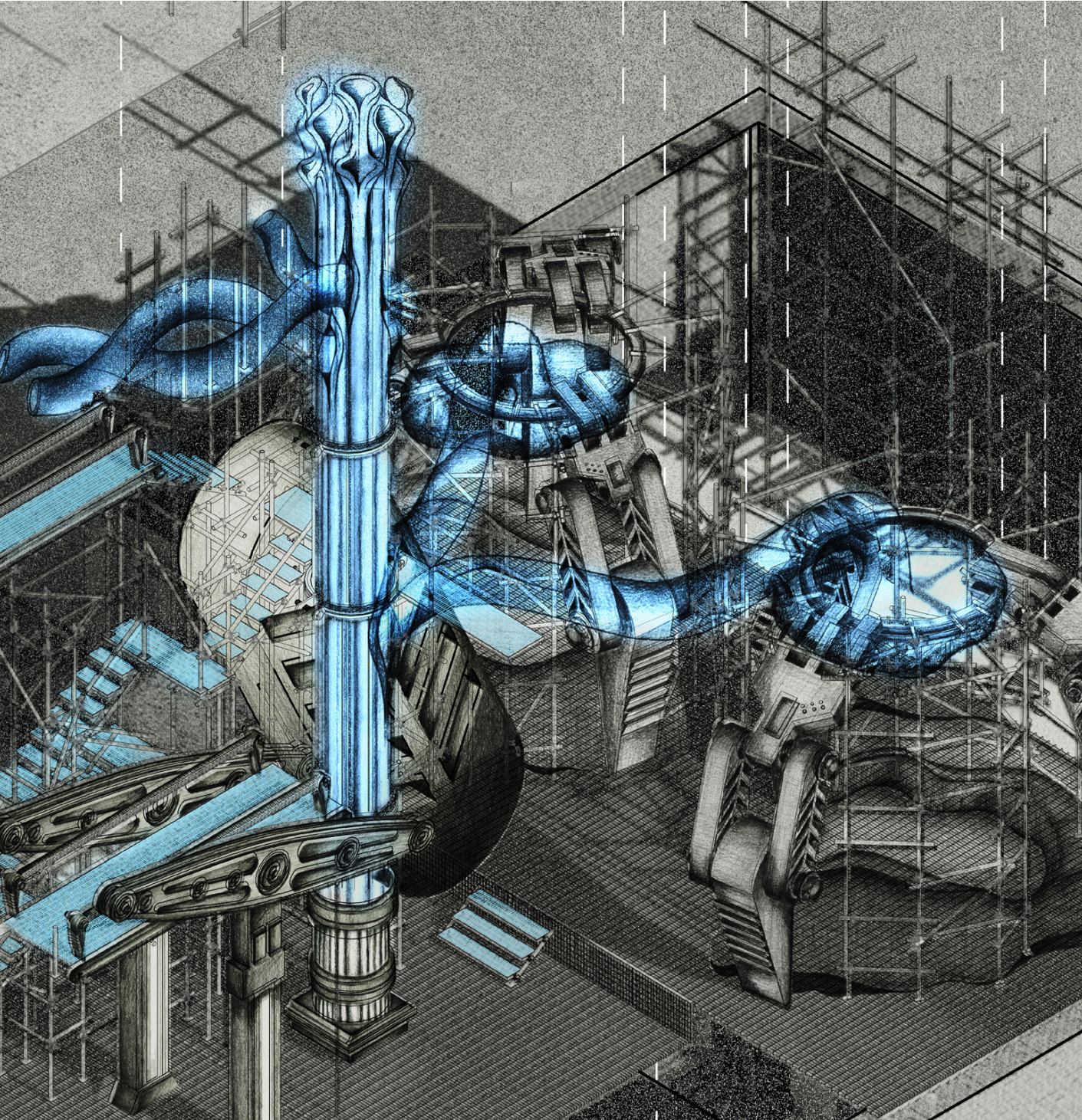
FINAL POD DRAWING



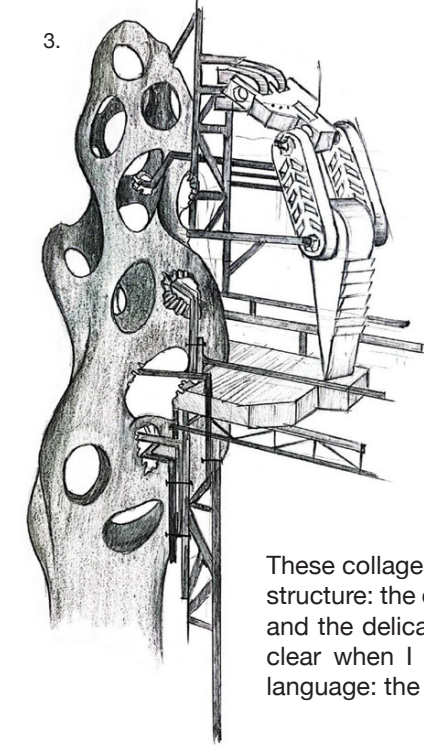
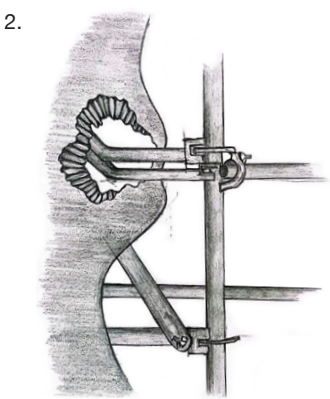
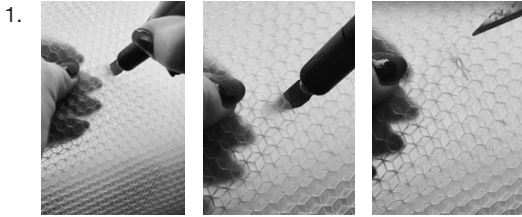
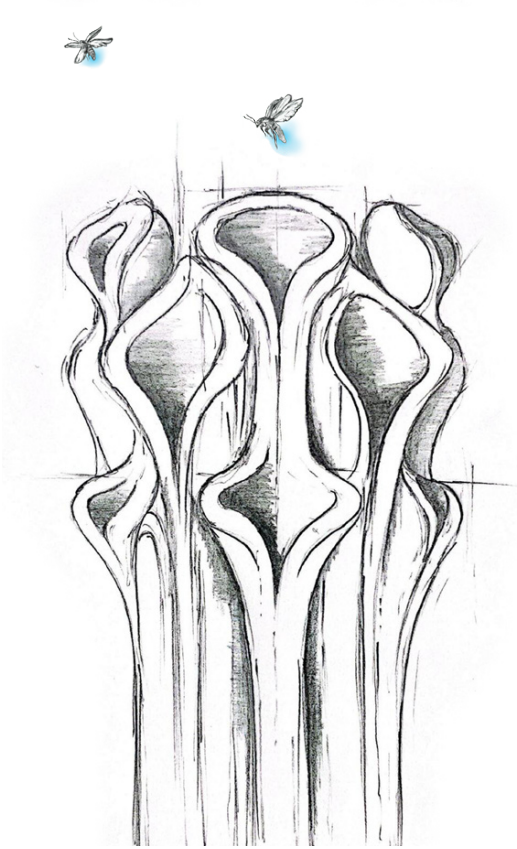
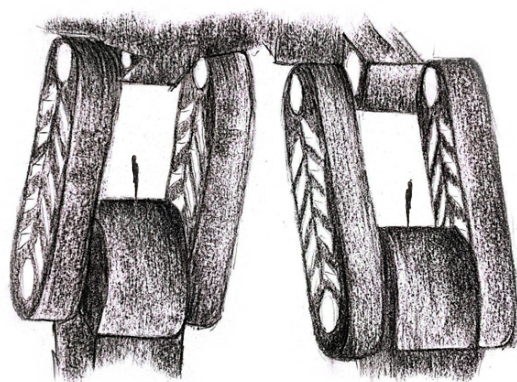
Inspired by firefly anatomy and my own sketches, the leg design mimicked their kinetic movement. When bent, the central pod lowered for extraction; when straightened, it rose—protecting the bioluminescence by keeping it out of reach. I later used this mechanism as an armature within Papplewick, embedding its motion and form into the site's structural framework.



ZOOM IN ON AXO



I redesigned the glass tube openings to make them more accessible for the fireflies, which gave the structure a more organic feel. Varying the heights of the openings added depth to the design. As the fireflies often flew off to other colonies after releasing their glow, I saw the need to further refine the openings to support this natural movement.

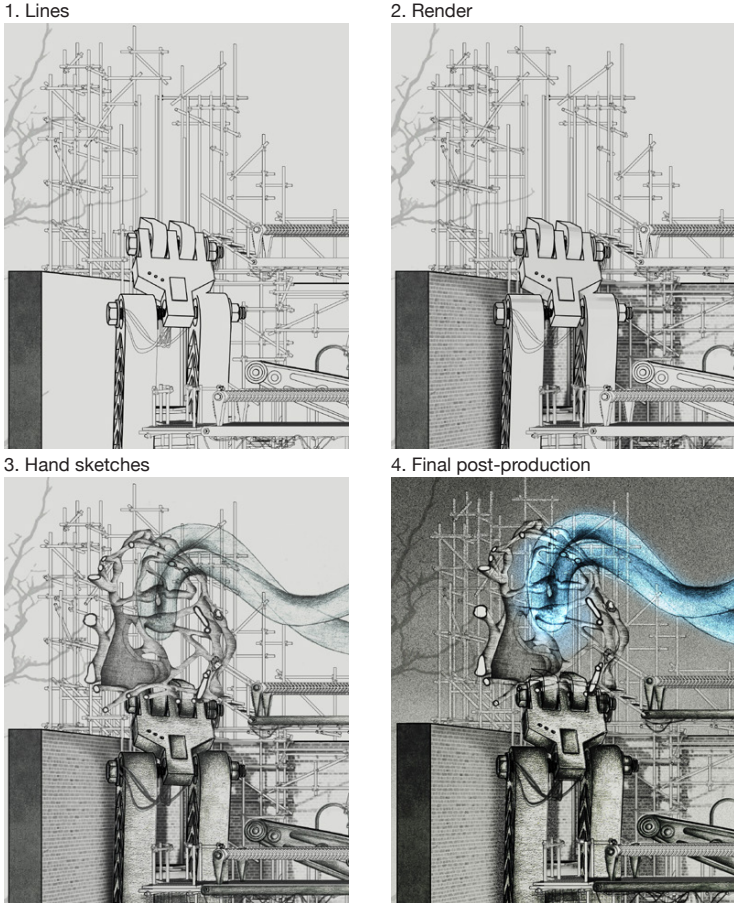


These collages helped clarify the design languages I aimed to convey within the structure: the organic, beehive-inspired farm; the rigid, human-made scaffolding; and the delicate glass tubes. The connection between these elements became clear when I pierced a sheet of beeswax—this act revealed the final design language: the scaffolding piercing through the farm.

DRAWINGS PROCESS:

In response to the brief, and as part of my narrative where AI has failed humanity, I chose to emphasise hand-drawn elements to reflect a return to self-reliance and human craftsmanship. I wanted my drawings to reflect the personal nature of my design process, so I chose to hand-draw much of the final output to embed a sense of individuality.

To produce the orthographic projections, I began by modeling the entire scheme in SketchUp and exporting its linework into CAD. Once the base plans and elevations were established digitally, I applied successive layers of rendered materials and textures. These composite drawings were then printed out to serve as templates for hand shading and freehand illustration of the organic pod elements. After completing the hand-drawn structures, I scanned and re-imported them into the digital files, integrating the organic structures back into the digital set for post-production and final presentation.



My final model represents the convergence of various design languages—human interaction, scaffolding structures, and a bee hive-inspired pod. It features a delicate glass tube filled with bioluminescence and a piercing element that unifies the components. I used beeswax to express the fragile transparency through which light subtly shines.

FINAL MODEL

