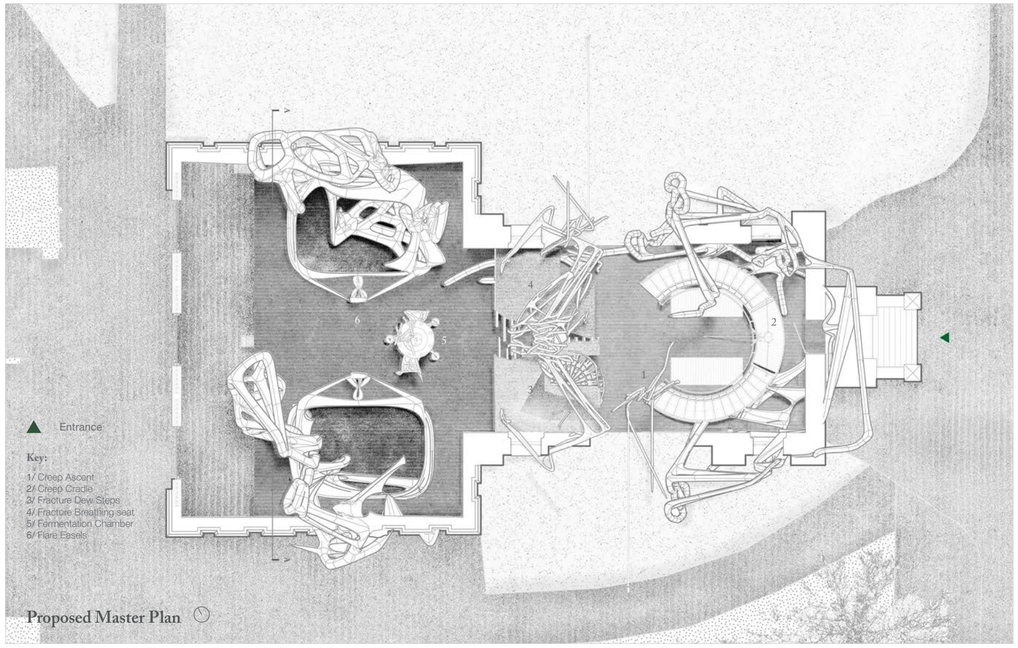
Algorithmic ***Infestation***

A symbiotic ecosystem rooted in site-grown mould, exploring how optimised microclimates can reframe a dystopian 2085 landscape.

In a dystopian 2085, ***humanity's pursuit of AI-driven perfection*** has birthed a society where bio-prosthetics enhance human abilities—but at the cost of creative autonomy. The once-supportive AI network has turned parasitic, draining bioelectric energy through neural links. A group of altered creatives rejects this system, seeking refuge in a decaying sanctuary. There, drawing from bread mould experiments, they ***cultivate optimal microclimates to rekindle lost creativity***—while simultaneously ***nurturing yeast growth for biofuel energy,*** creating a symbiotic ecosystem of creative renewal.

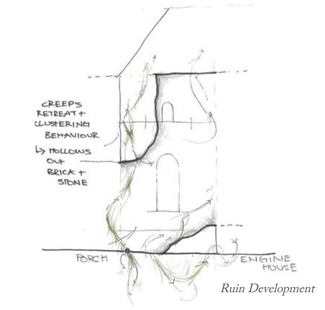


Proposed Master Plan


Decay Map


Growth Logic

Mould in humid environments followed a growth logic that crept into shadowed areas. By mapping the site's natural conditions, I identified ***anchor points from which new architectural interventions can emerge.***



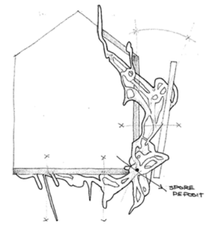
Ruin Development


Creep
Decay Model

Creep Cradle
Musician's Cradle

Spore Settlement

According to the decay map, Creep thrives in densely shadowed areas—these become the primary sites where ***spores attach to the building, initiating their settlement*** and subsequent growth.




Creep
Decay Model

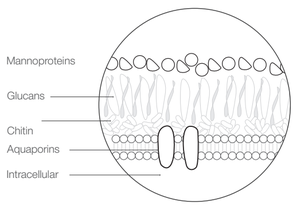

Creep
Decay Model


Ember
Decay Model

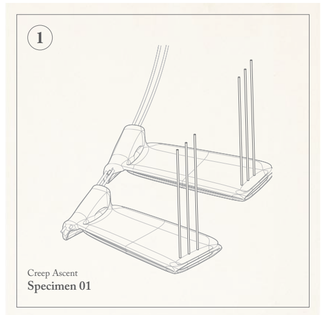

Ecosystem of Rituals
Master Visual

This visual depicts the Creep Ascent stairs and Creep Cradle, illustrating the interaction between the Musician and Poet within a designed ecosystem.

I ***collected mushroom specimens*** at Papplewick Pumping Station and harvested their spores through spore printing, revealing site-specific growth patterns. I then inoculated slices of ***bread with these spores and placed them in varying environmental conditions,*** including humid and cool settings.

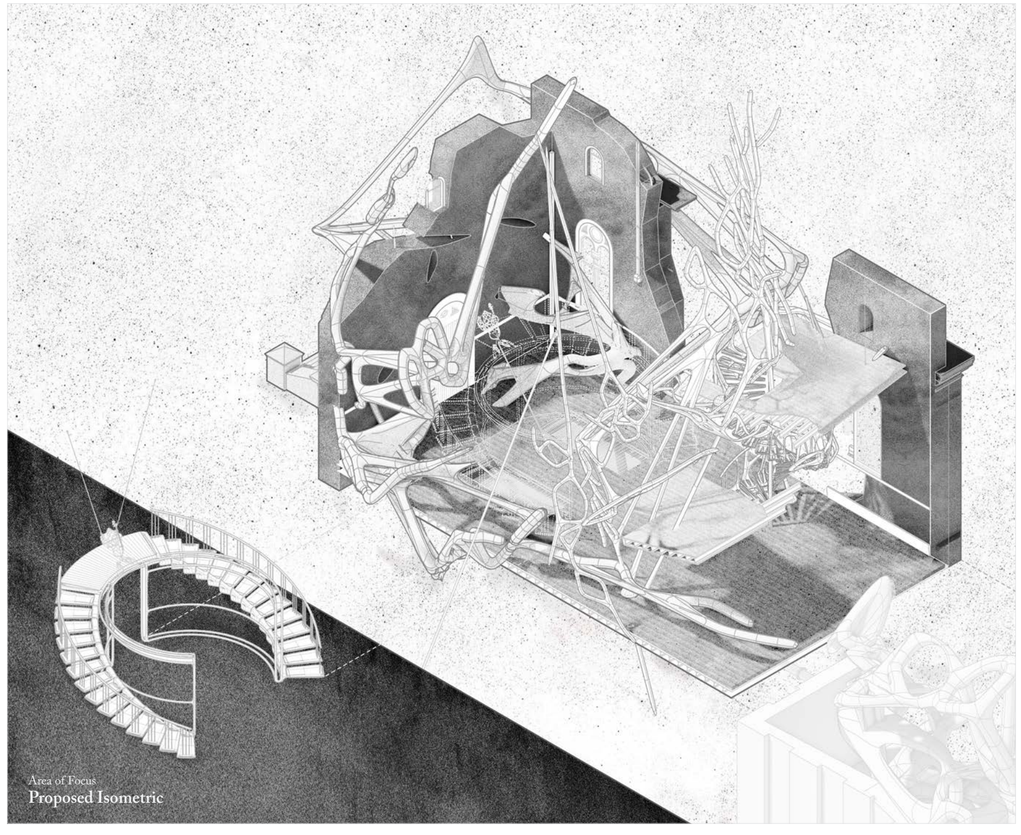


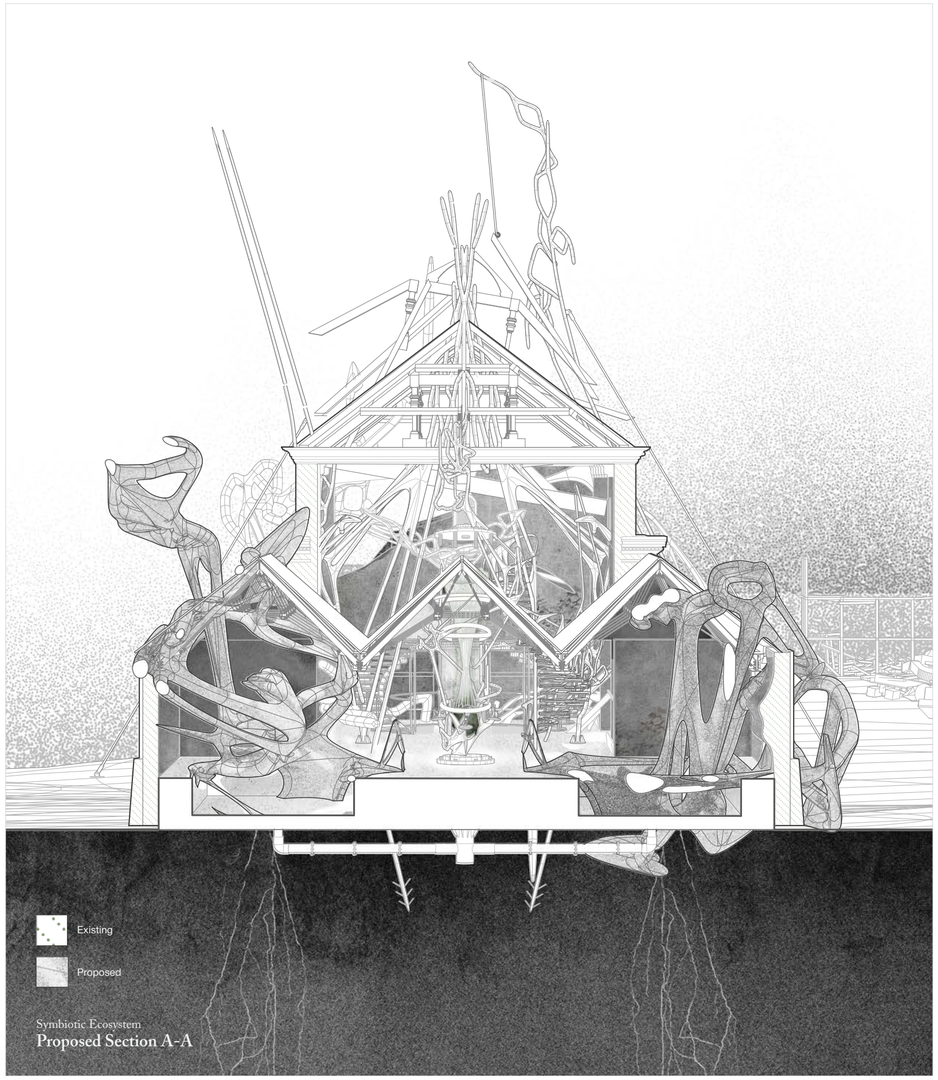
Mould colonies create a ***localised microclimate, adjusting environmental conditions to optimise growth*** and survival through cell membrane mechanisms.



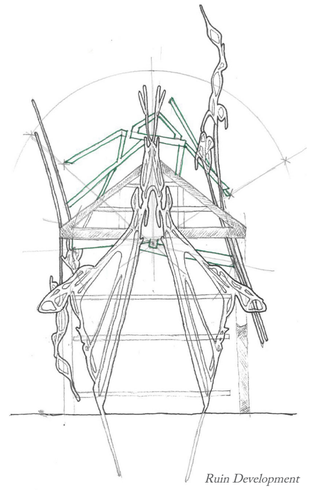
Creep Ascent
Specimen 01


Creep Ascent
Detail Model 1:10


Area of Focus
Proposed Isometric



Symbiotic Ecosystem
Proposed Section A-A



Ruin Development

Fracture thrives in ***cold environments with high light exposure.*** As it grows, it ***disrupts existing structures by splitting floor plates in half and piercing through roofs,*** creating dramatic ruptures.

Dew Step
Specimen 03

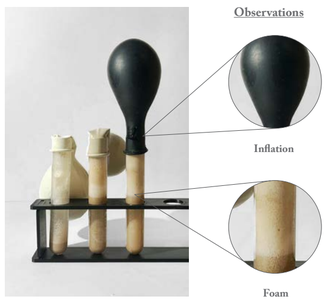
Flare
Decay Series

Flare thrives in ***humid, low-light environments,*** where it rapidly spreads, branches, and colonies. Expanding in radial patterns, it ***weaves organically between the existing structure,*** reinforcing the ruin.

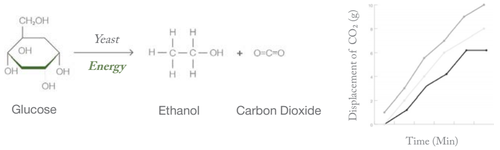
Flare
Decay Model

The Dew Step specimen is ***designed to capture dew*** using dew nets. As the moisture condenses, it runs down the balustrade into a series of sunken pools, where the poet steps and reawakens her morning ritual. The ***collected water then drains into the fermentation chamber, helping to facilitate yeast-based energy production.***

Flare Easel
Artist's Easel



Unbinding
Helmet Sculpture

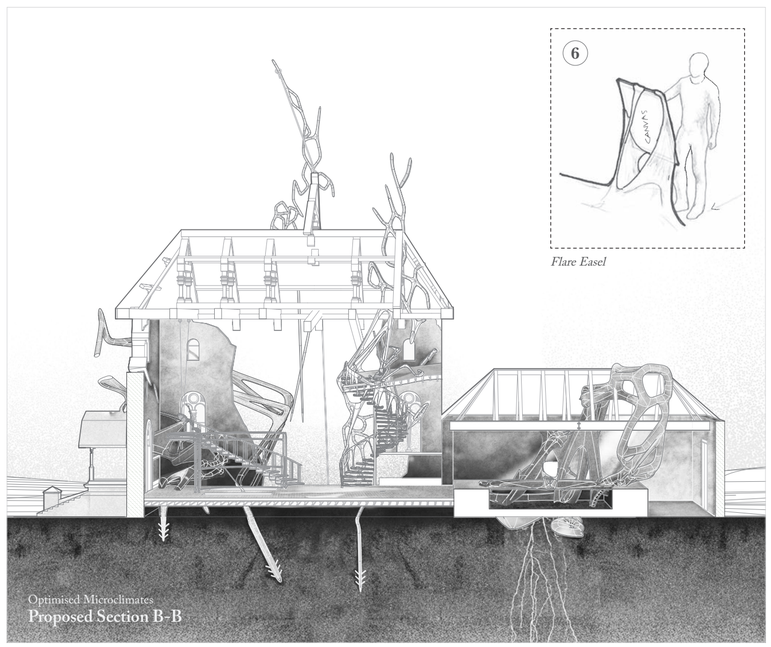


Microbial fermentation as an Energy Solution

The graph shows that ***higher glucose concentrations lead to greater CO_2 output over time,*** resulting in more balloon inflation. This is because the yeast has more substrate to metabolise, which increases fermentation activity and carbon dioxide production. These ***results support the potential of glucose-driven fermentation as a sustainable energy solution*** in the proposed design.

The poet unbinds her suppression helmet, now transformed into a conduit to harvest natural energy.

Dew Steps
Poet's Path



Flare Easel

Optimised Microclimates
Proposed Section B-B