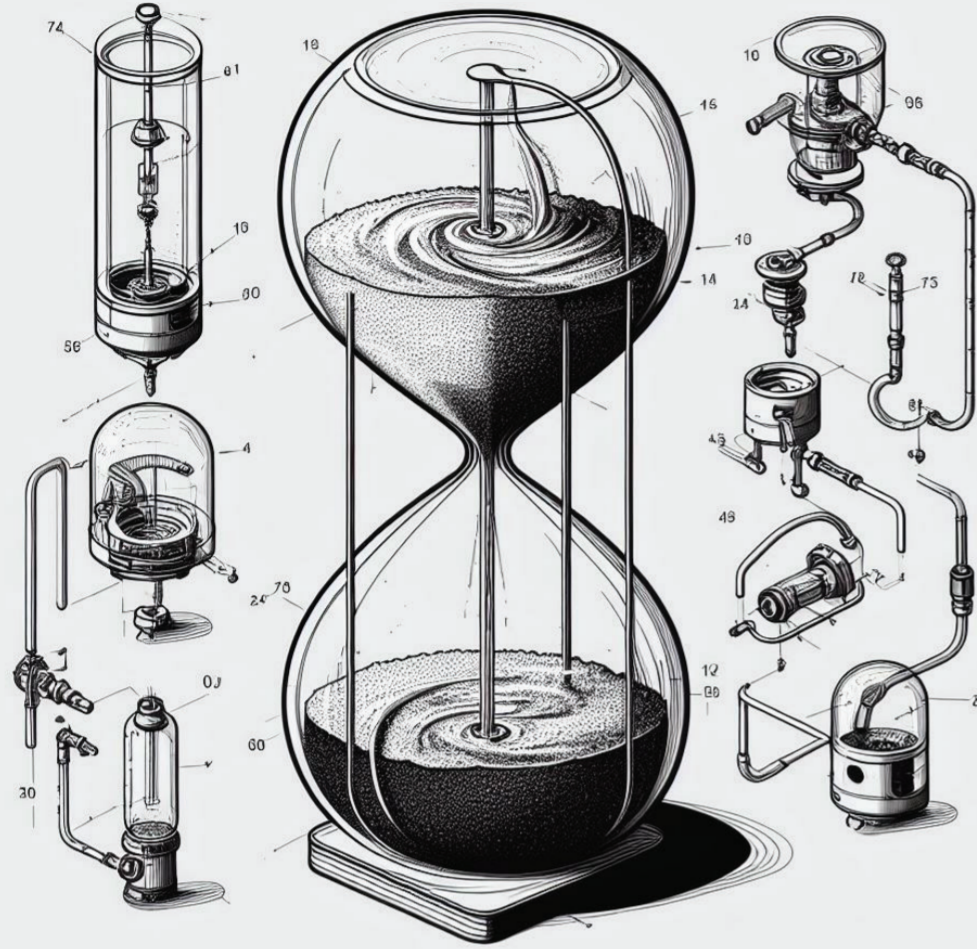


UNCANNY DYNAMICS

KINETICS OF CONSTRAINTS

VORTEXGLASS 1

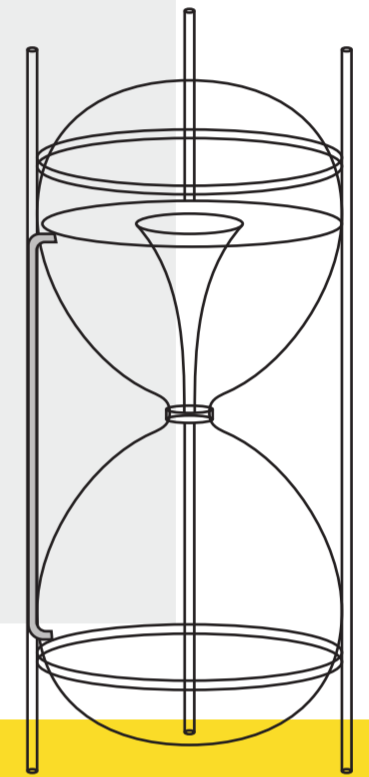


Vortexglass is a bespoke, hand-made whirlpool hourglass machine. The replicable design will be created in collaboration with glassmakers to generate a series of kinetic sculptures which expose the delicate interplay between **constraints**, fluid turbulence and **self-organised** vortices.

The fluid dance of dynamics and **dissipative structures** can be disrupted and influenced by adjusting the water flowing in and out, but the pervasive process of **self-organisation** inevitably emerges.

As a series, the nuanced relationship between the the two degrees of freedom in the system is unveiled, exposing the detailed **complex dynamics** that emerges from **simple components**.

The interplay of constraints and emergent kinetics human control and natural forces

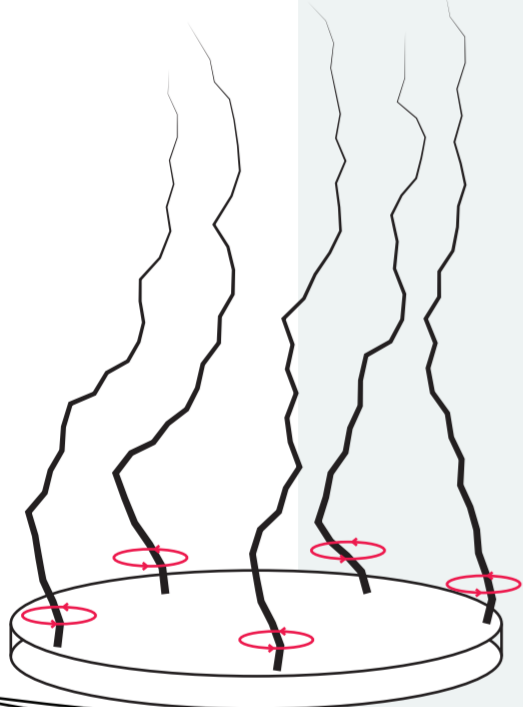
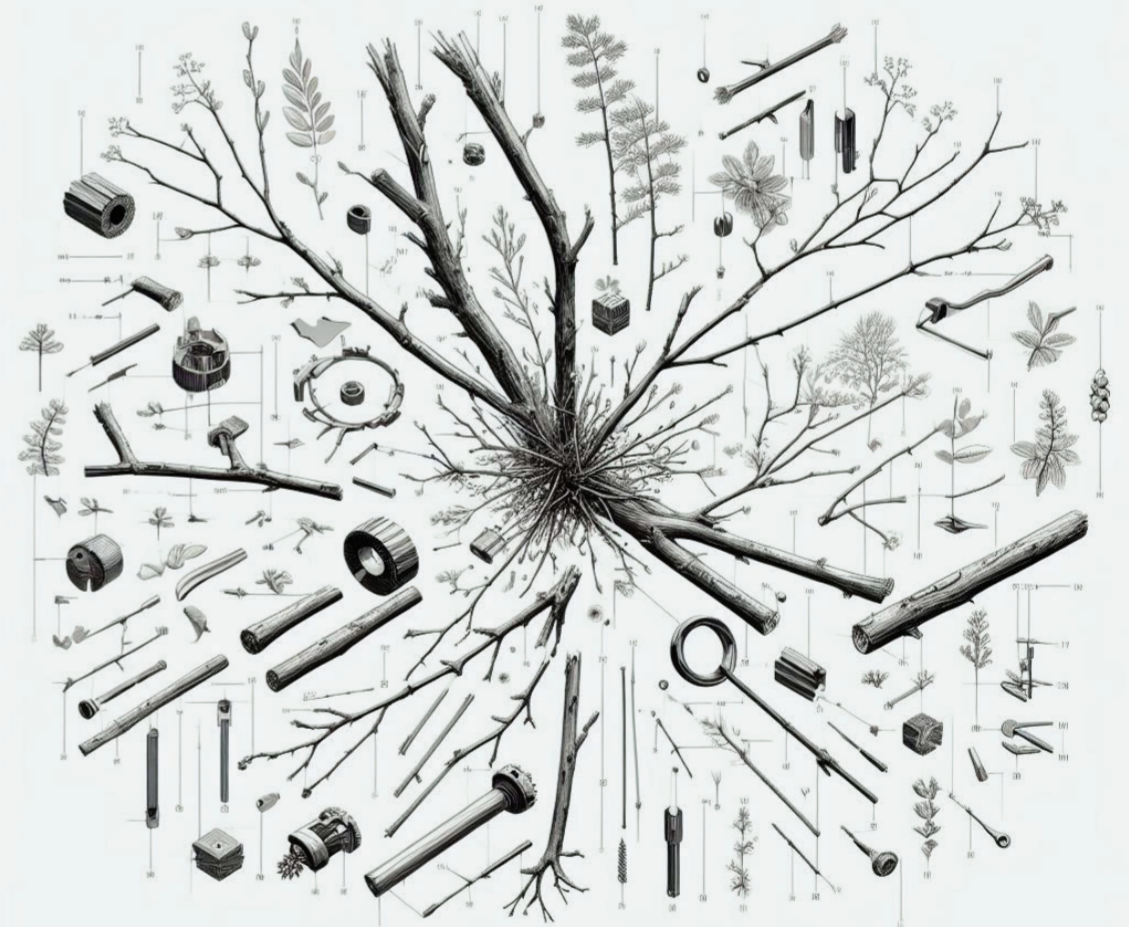


ARBOR KINETICS 2

In Arbor Kinetics, simple **mechanisms** are used to generate an array of kinetic aesthetics in a sculptural series. For each sculpture, branches will be arranged on a circular platform. **Rotational motion** will be converted into jerking, twisting, extending, interweaving, shaking, pivoting and swaying due to **mechanical constraints**.

The sculptures will serve as both a demonstration for simple electromechanical principles of kinetics, while concurrently conveying an unnerving sense of **human intervention** in the dynamics of natural forms.

The work displays **organic forms** - such as the natural bend and flex of the branches, and movement that is reminiscent of **organic motion** found in nature - as an advantage of kinetic aesthetics. In contrast, the curious **robotic motion** in the work is visually idiosyncratic, and expresses the human imposition on nature's **forms and processes**.



WHO ARE WE?

Matthew Woodham is an artist and experience designer interested in the human relationship and influence on the **systems of nature**. His educational background in cognitive neuroscience has expanded to the study of **processes** and **dynamics** throughout a broad array of natural systems, for example **emergence**, **self-organisation** and **chaos**. He is particularly interested in the 'isomorphic' nature of **complex systems**. He builds **sculptures**, machines and creates real-time, **interactive environments**. He graduated from MA Information Experience Design from the Royal College of Art in 2023.

Picture branches, once swayed by gentle winds, now jerking and twisting in eerie, mechanomorphic choreography. Water, the epitome of fluid motion, caught in the persistent grip of whirlpool machines, forced into a submissive flux. Despite external constraints or influences, Uncanny Dynamics explores the wonder of witnessing nature's fluidity and adaptability, its beauty and power.

DETAILS

Uncanny Dynamics: Kinetics of Constraints is a **series** of kinetic sculptures celebrating and exploiting natural **forms** and **processes**. The works provoke audiences to consider human **interventions** with nature, and how design can both work **with** and **against** natural systems. The exhibition explores the interplay of **dynamics** and **constraints** to generate **emergent behaviours**. The interactive kinetics tussle with tensions between **control** and **chaos**, **animate** and **inanimate**, nature and machine.