Faulty Instruments
The Sea & The Stars

~

A Digital Fine Art Practice

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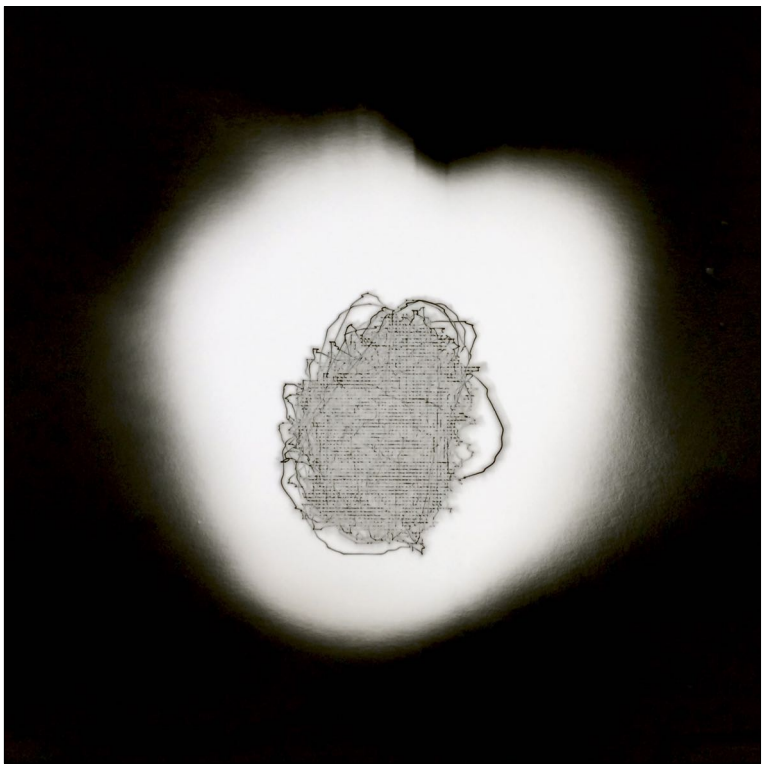
Contents

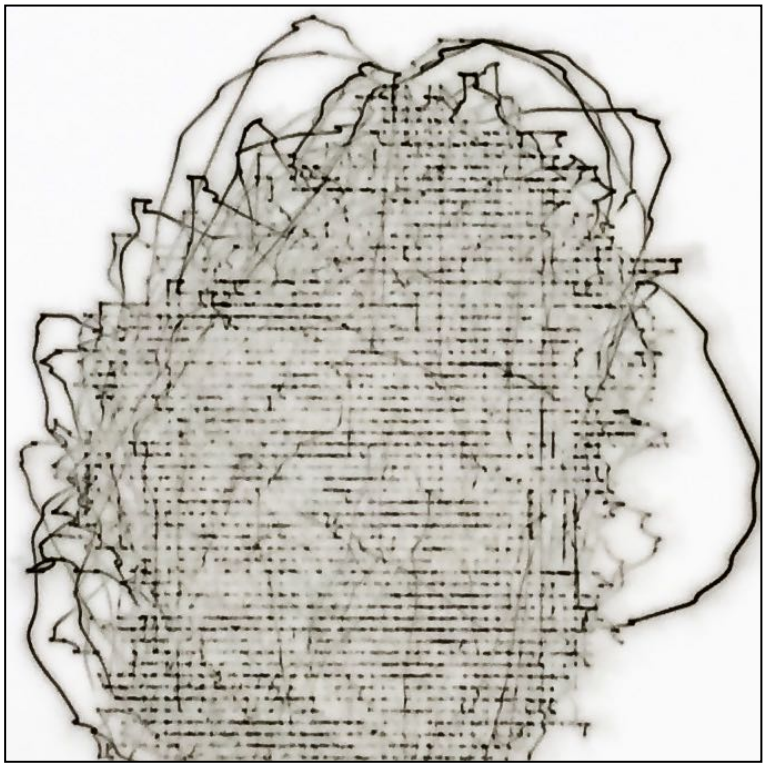
The Darkest Points

Photogrammes. 325mm by 325mm.

Plots of the darkest points in the night sky. The computer takes photographs of the night sky and examines each pixel for its luminance level. It then joins the darkest points to make constellations. The results are plotted with a green laser on black and white photographic paper in the dark room.

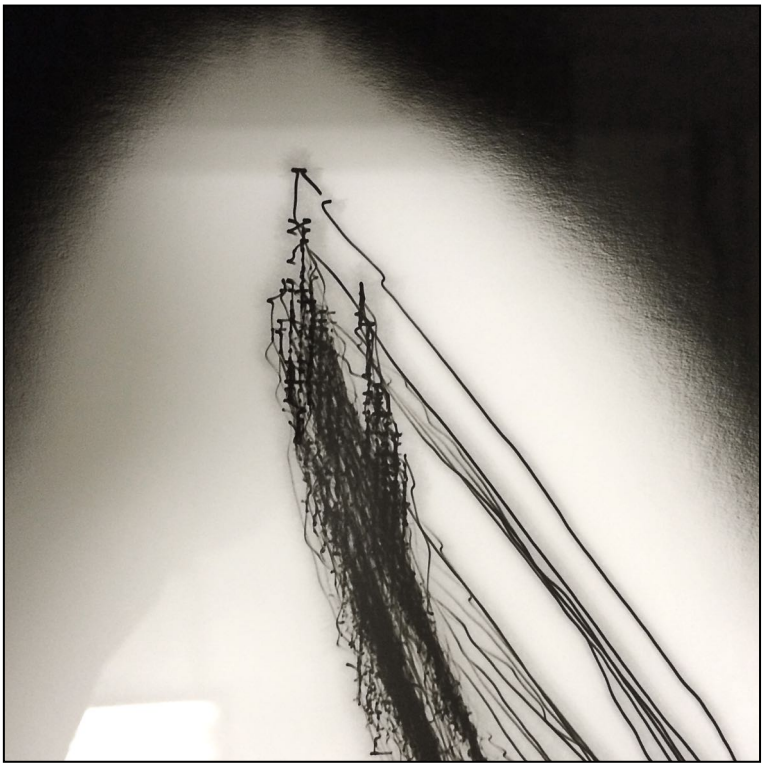


The Darkest Points: Fried Egg Nebula



The Darkest Points: Fried Egg Nebula, detail

The Darkest Points: Moth



The Darkest Points: Moth, detail

The Darkest Points: Loop 1

The Darkest Points: Loop 2

The Darkest Points: Loop 3

The Darkest Points: Loop

The Darkest Points: Aerial Screw 1

The Darkest Points: Aerial Screw 2

The Darkest Points: Aerial Screw 3

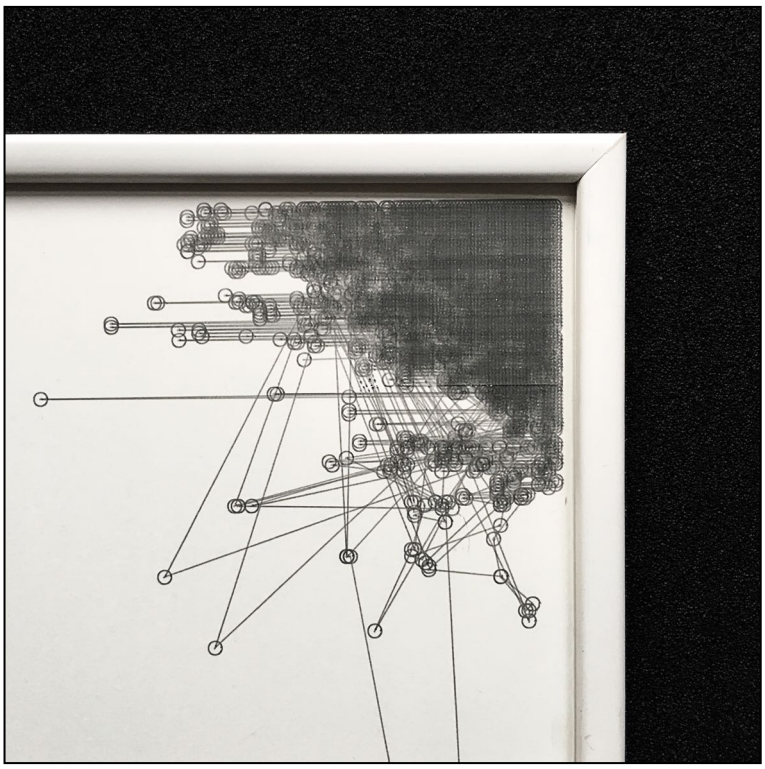
The Darkest Points: Aerial Screw

Kosmos

Plots in pencil on paper. 325mm by 325mm.

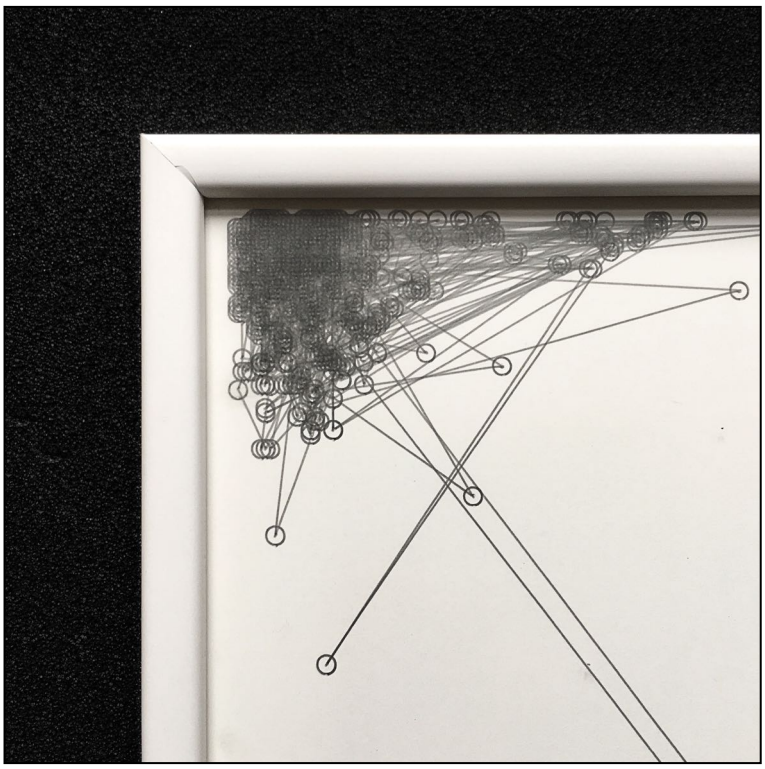
Plots of the brightest points in the night sky. The computer takes photographs of the night sky and examines each pixel for its luminance level. It then joins the brightest points to make constellations. The results are plotted in pencil on paper.

Kosmos 387x



Kosmos 387x, detail

Kosmos 419b



Kosmos 419b, detail

The Darkest Points & Kosmos

Unknown Object

Objects and prints.

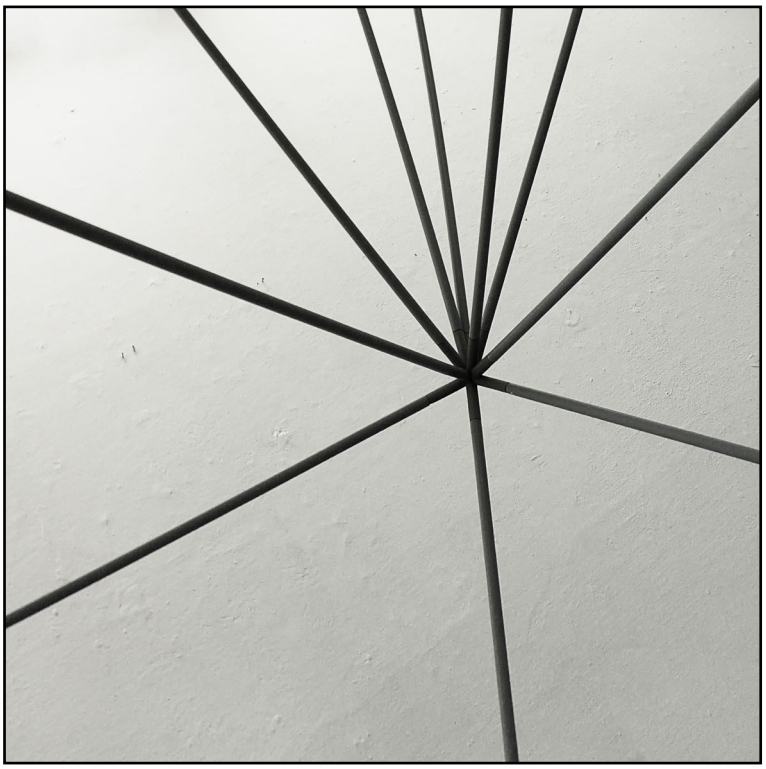
A script downloads a random 3D model from the internet, gives the file a generic name and automatically reduces it to a single vector. That reduction is manually undone one vector at a time until a simple form appears. I never see the original content of the model. I never know what it is.

The 3D model is used to generate 2D images for screen prints.

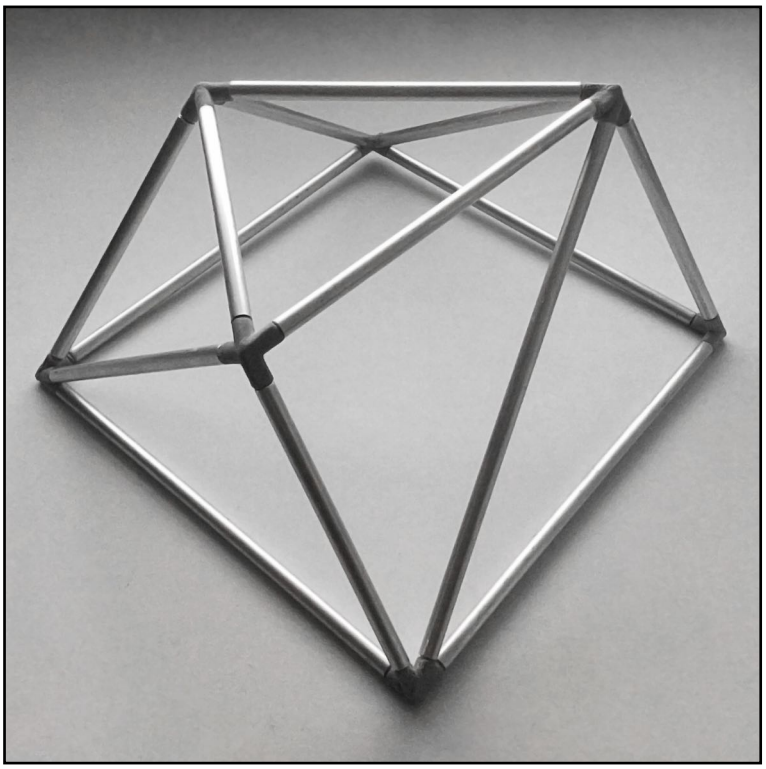
The process for the objects is a little more involved. A wireframe is extracted from the 3D model, and passed to a *Grasshopper* definition in *Rhino* that calculates and models the nodes. The nodes are fabricated with a 3D printer. The vectors are measured and pipe is cut to those dimensions. The pipe and their respective nodes are fitted together.

Titles for individual works are provided by online image-recognition engines that attempt to identify the objects and images.

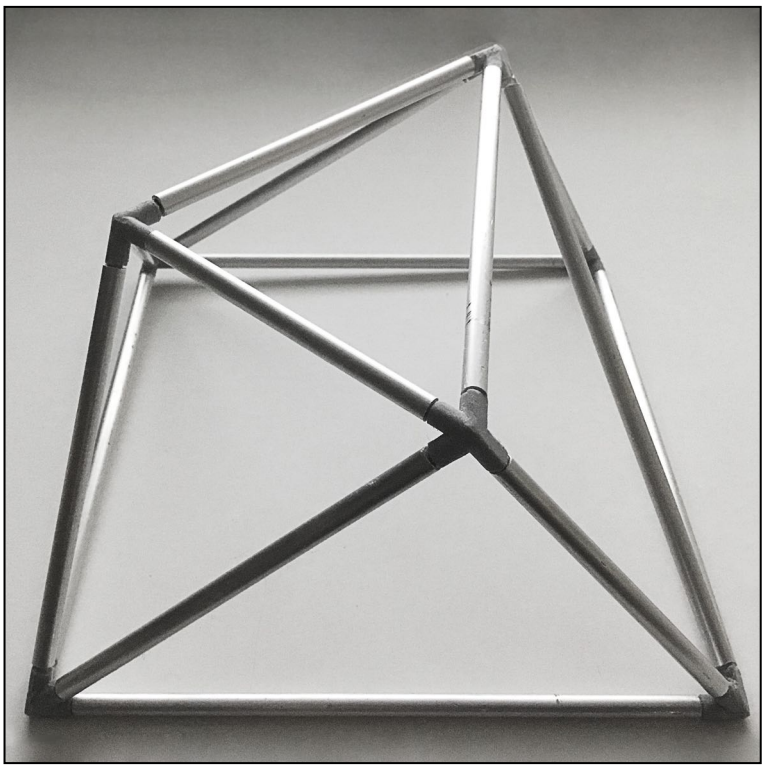
Unknown Object: Empty Geometric

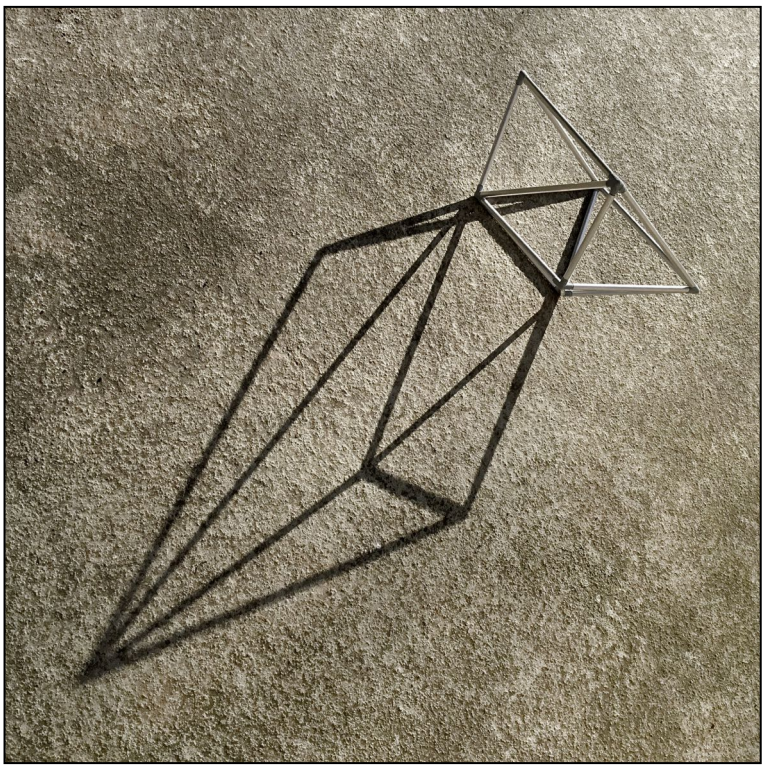


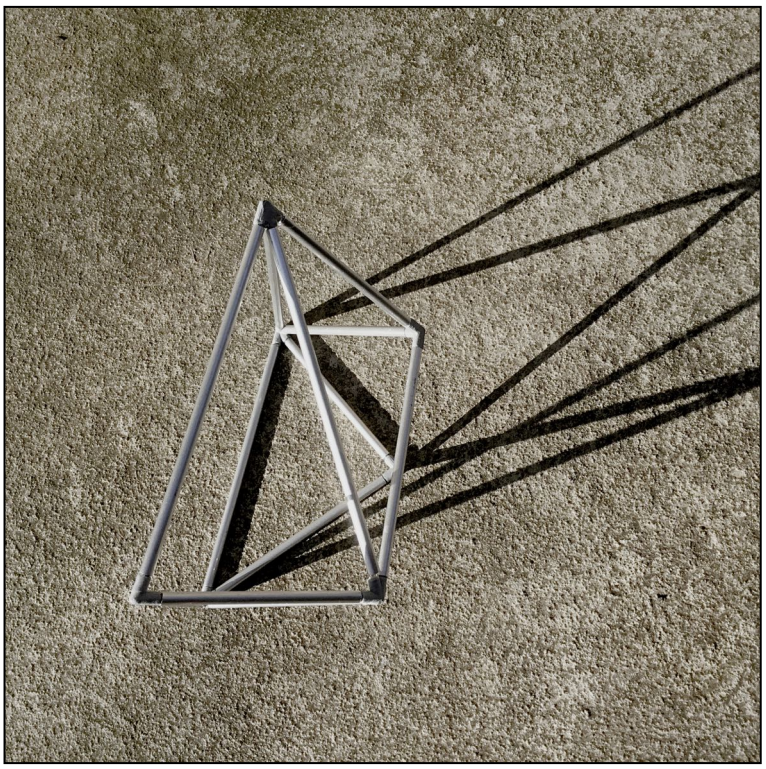
Unknown Object: Empty Geometric, detail: *Mother of All Nodes*

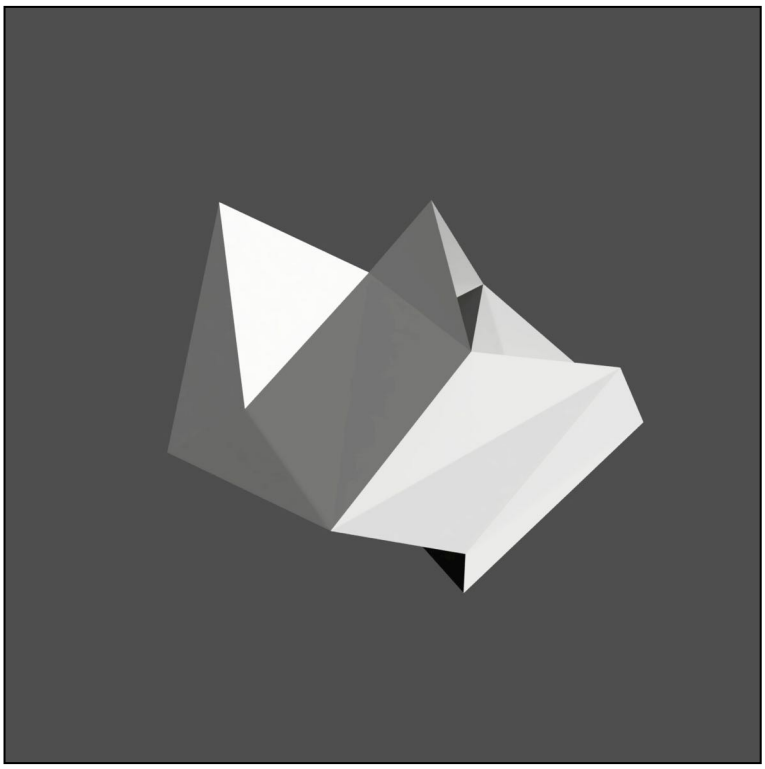


Unknown Object macquette

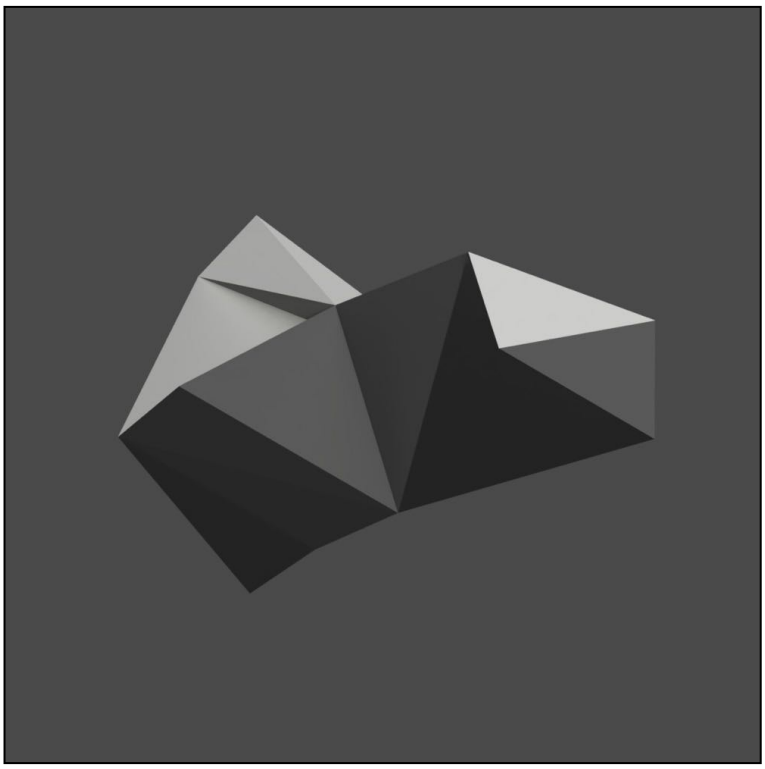




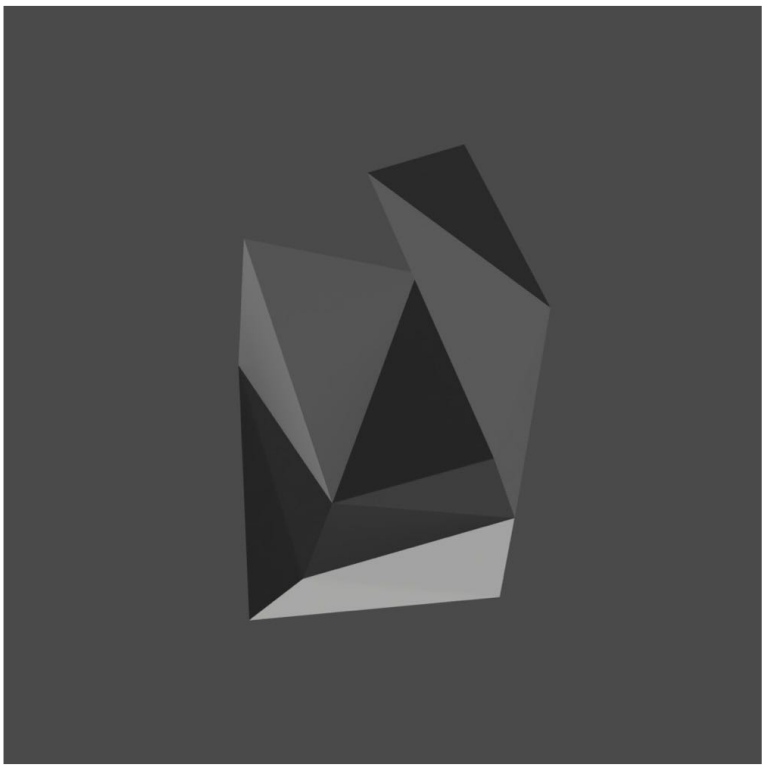




Unknown Object: Forward Figure



Unknown Object: Grey Wyrm



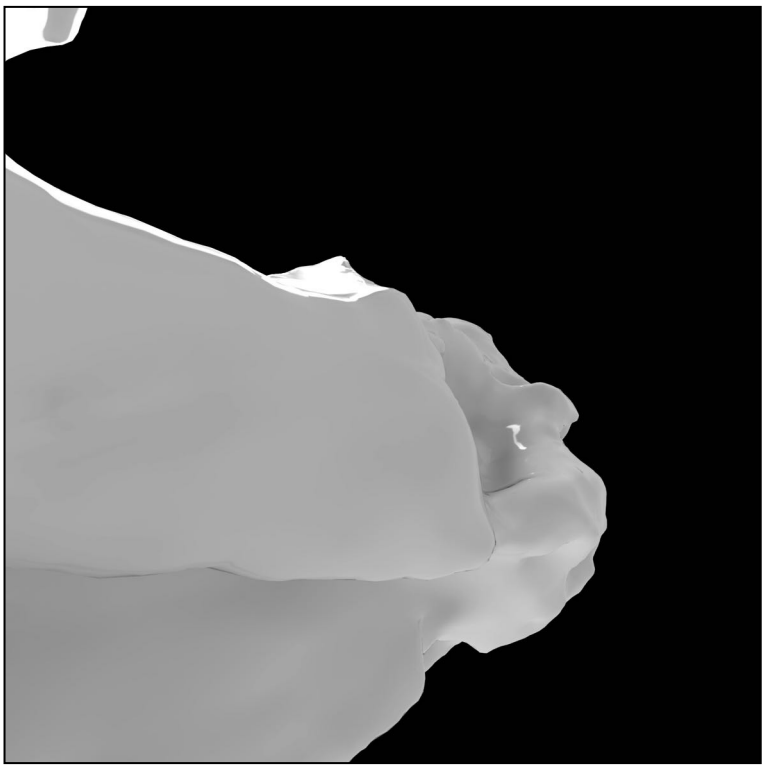
Unknown Object: Falling Angle

Meteor

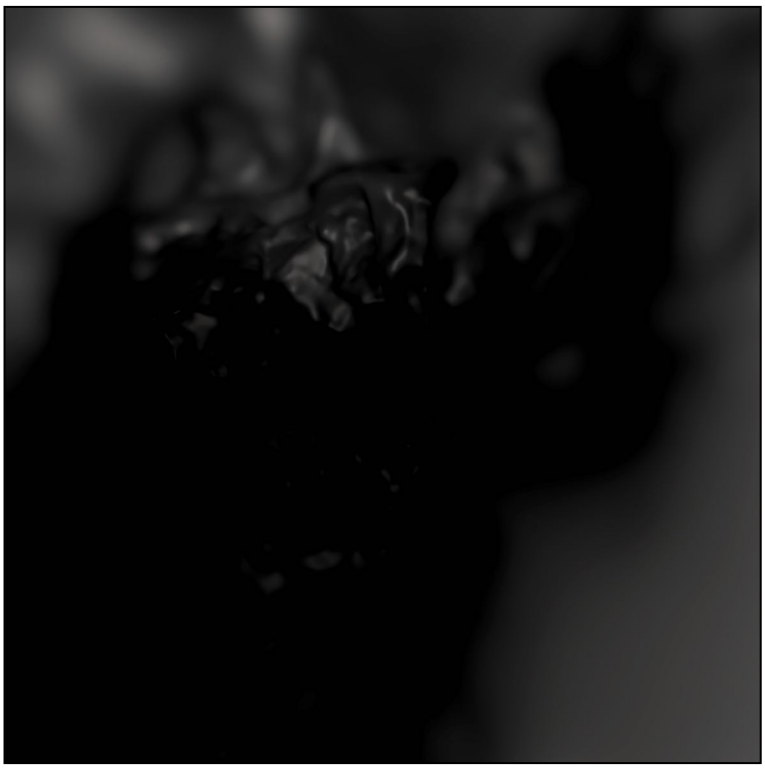
Black and white prints.

Meteor begins as molybdomancy, the ancient Greek divination practice. A lump of molten wax is dropped into water, and the resulting object is scanned photogrammetrically. 2D snapshots of the 3D model are selected for print.

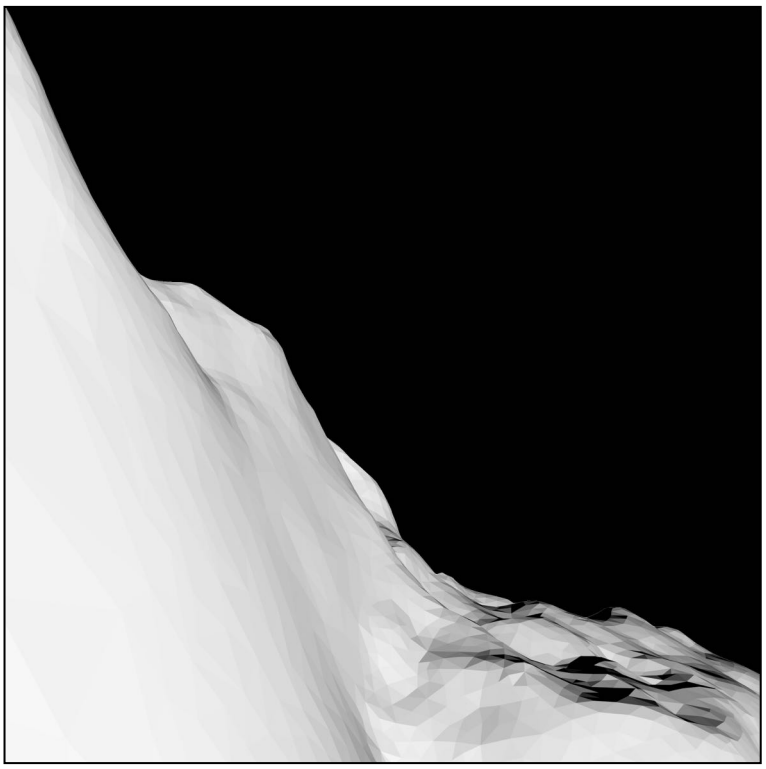
Provisional titles follow asteriod naming conventions in astronomy.



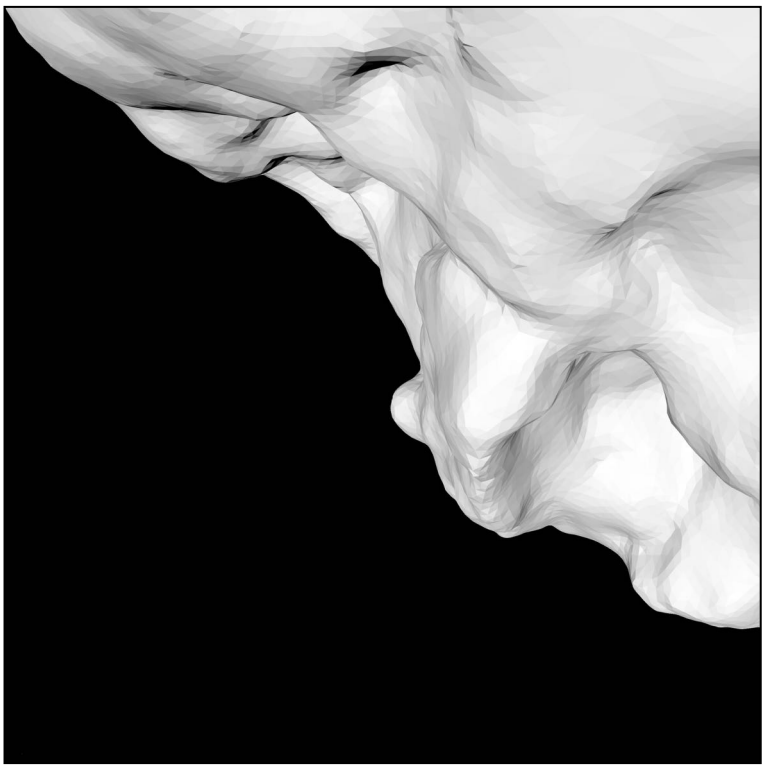
Provisional designation *Meteor: 2016 DA_0*



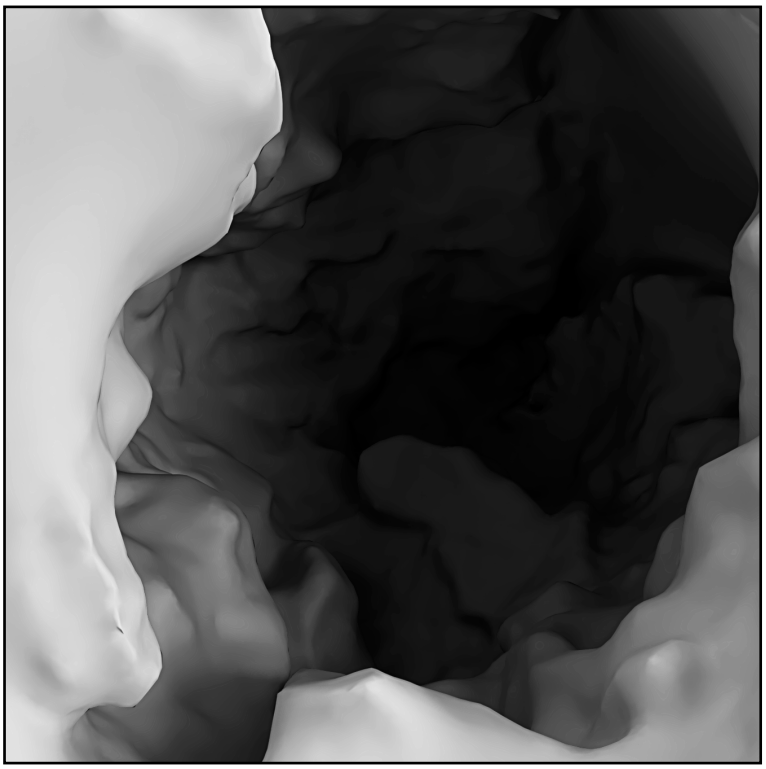
Provisional designation *Meteor: 2016 EA_0*



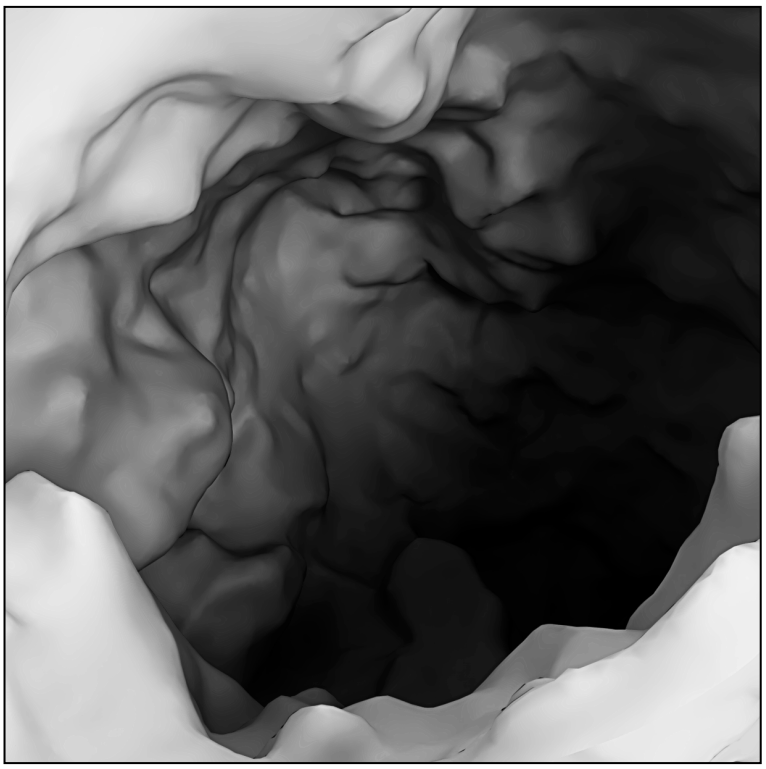
Provisional designation *Meteor: 2016 DB_0*



Provisional designation *Meteor: 2016 DC_0*



Provisional designation *Meteor: 2016 DD_0*



Provisional designation *Meteor: 2016 DE_0*

Lacuna

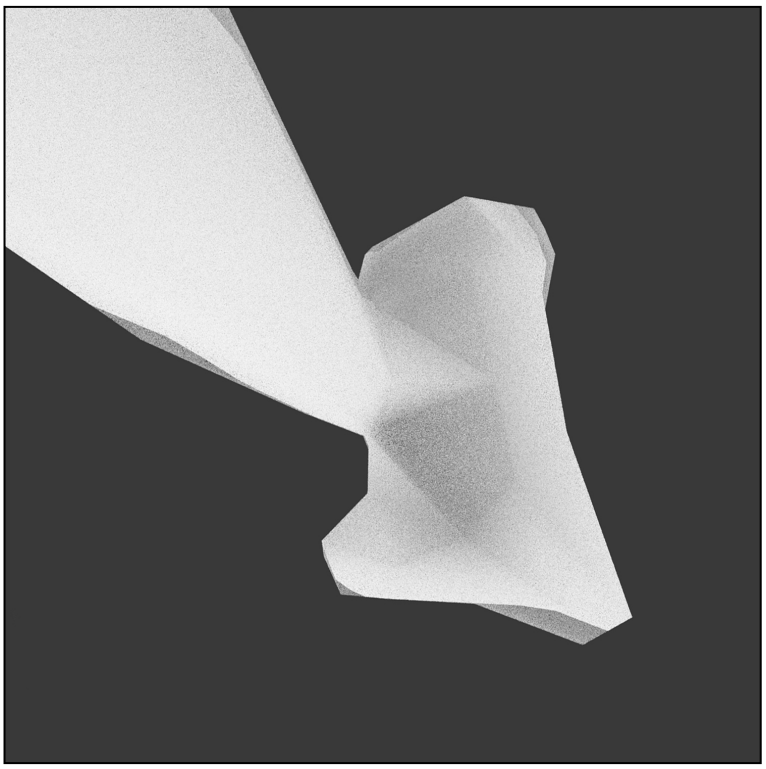
3D models and anatomical prints.

Noun: a missing segment in a book or manuscript; a cavity or depression, especially in bone.

Confused Object

Objects and prints.

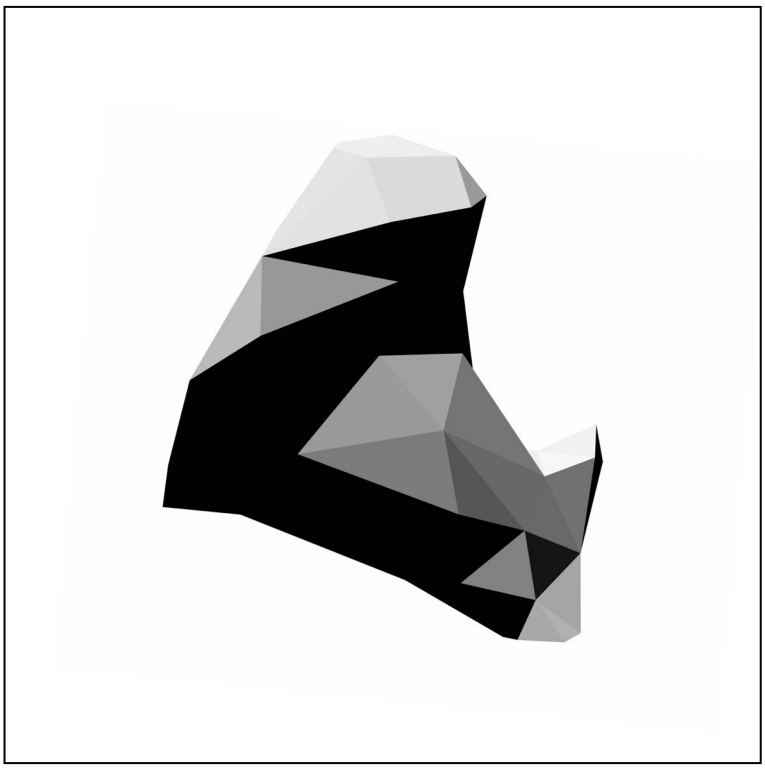
Found objects are taped together and plastered over. That object is then scanned and modelled using a camera phone and photogrammetry software. The facets and vectors in the resulting 3D model are reduced. The simplified model is 3D printed, and then manipulated further to generate a series of 2D Prints.



Confused Object: Thing 1:1

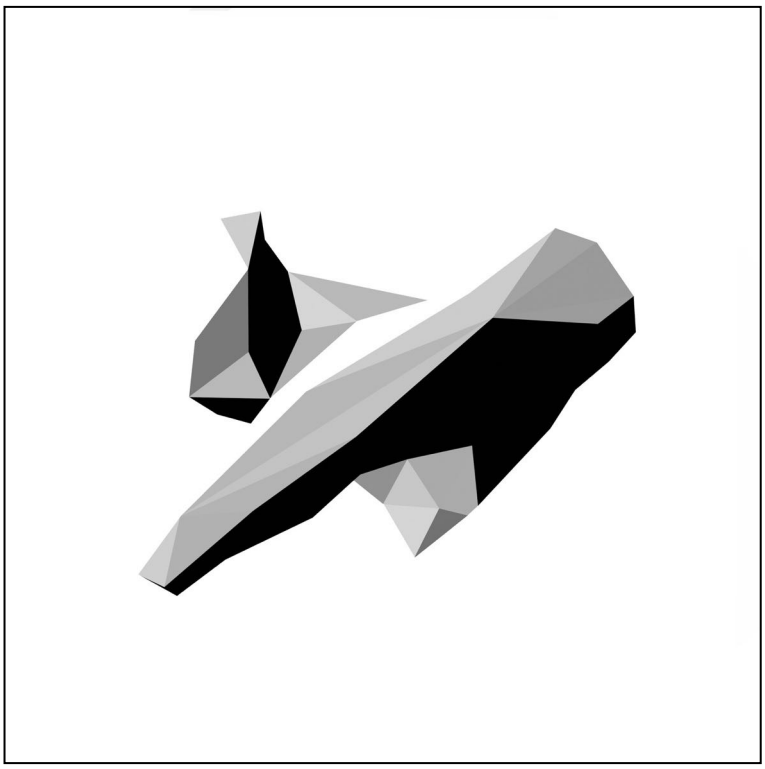
Confused Object: Thing 1:2

Confused Object: Thing 1:3

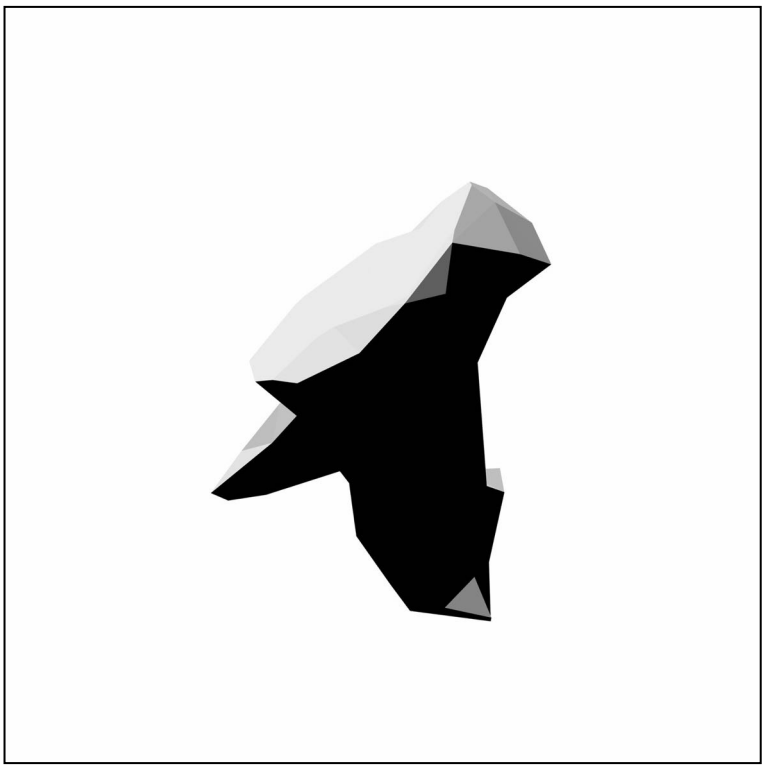


Confused Object: Thing 2:1

Confused Object: Thing 2:2



Confused Object: Thing 2:3



Confused Object: Thing 2:4

Confused Object: Very Confused Object

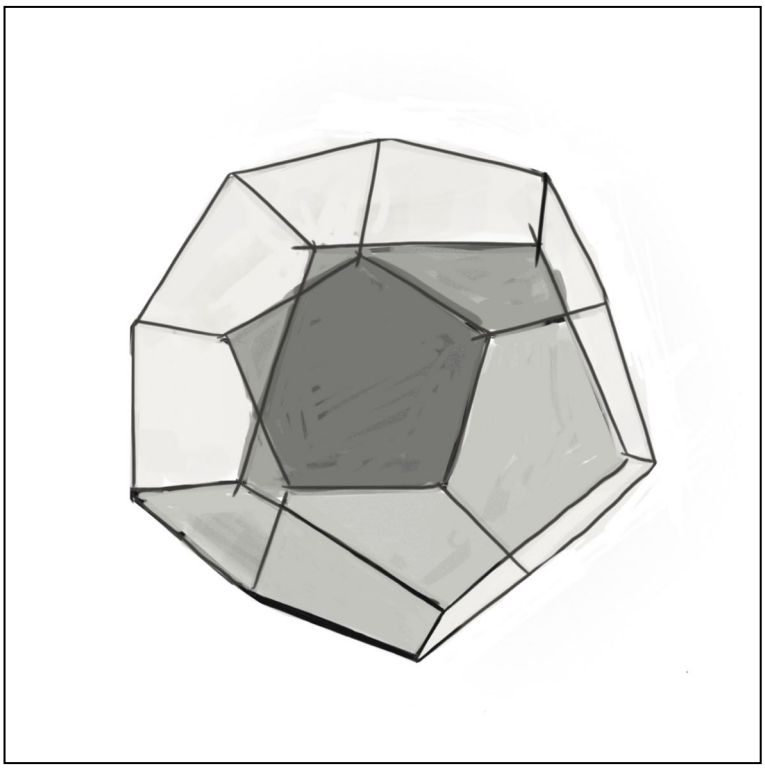
Regular Solid

Drawings and objects. Incomplete.

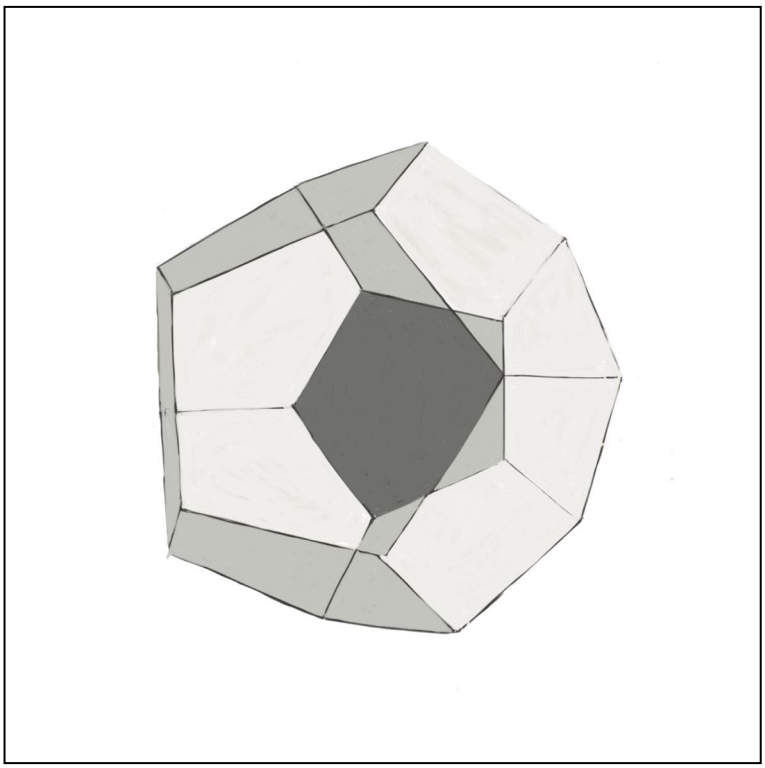
A method looking for an artwork: A series of custom scripts automatically generate wireframes from models on the computer and 3D print their nodes for the construction of those wireframes in real space.

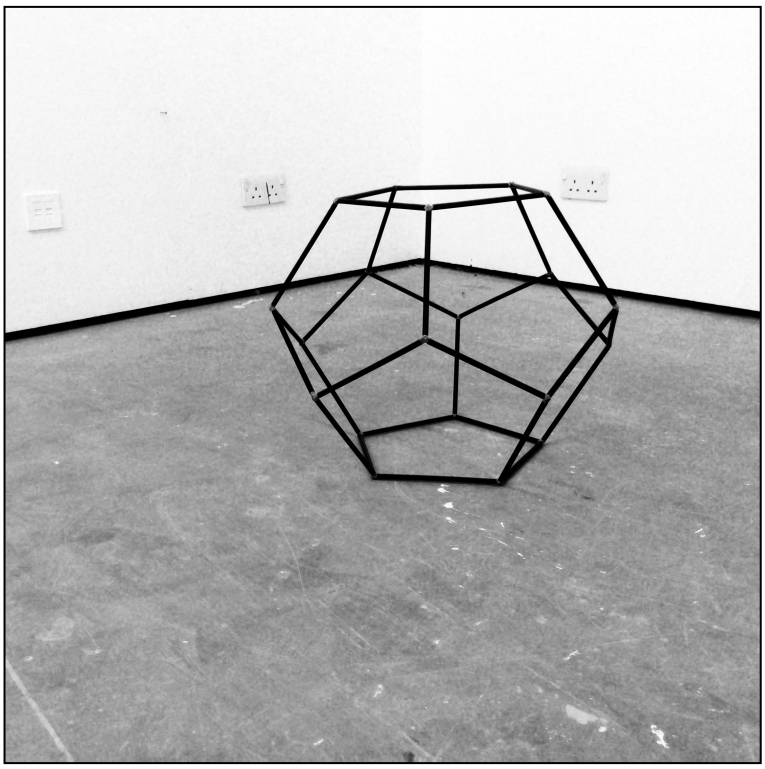
Drinking straws form the vectors of a platonic solid, and 3D printed nodes pull them into a number of interconnected dodecahedrons.

Experiments with *Regular Solid* led directly to *Unknown Object*.

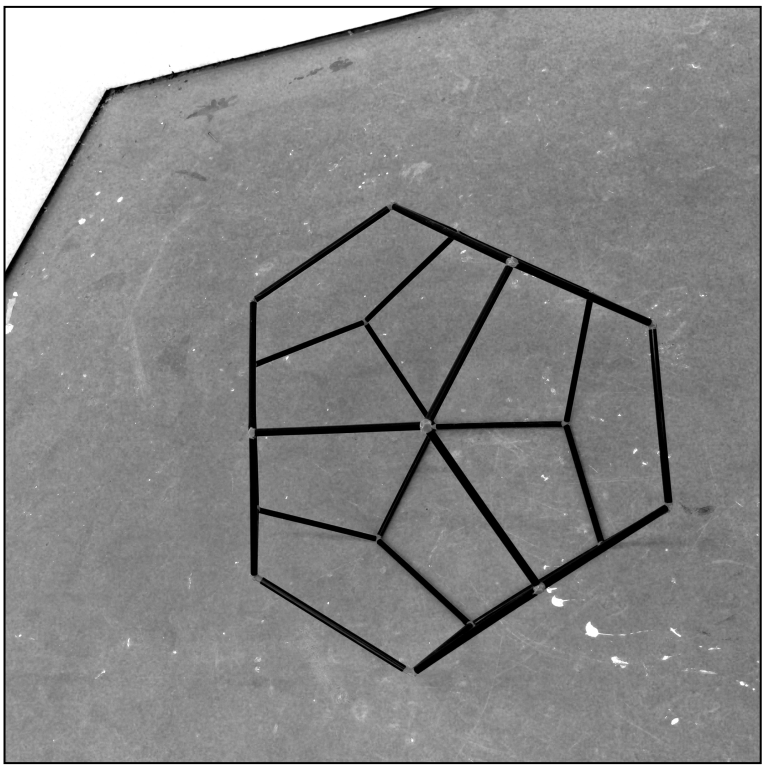


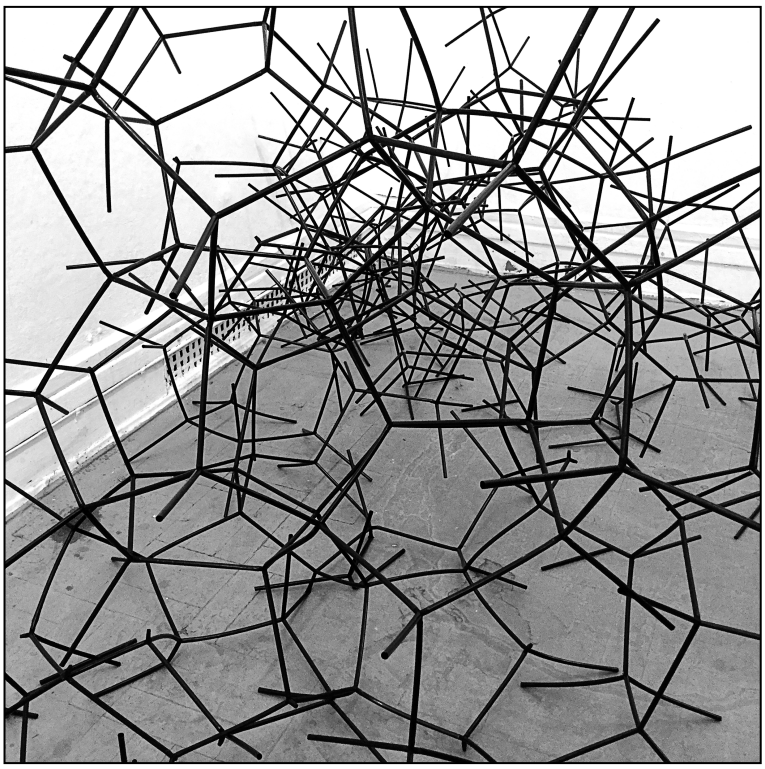
Drawing from *Regular Solid* maquette

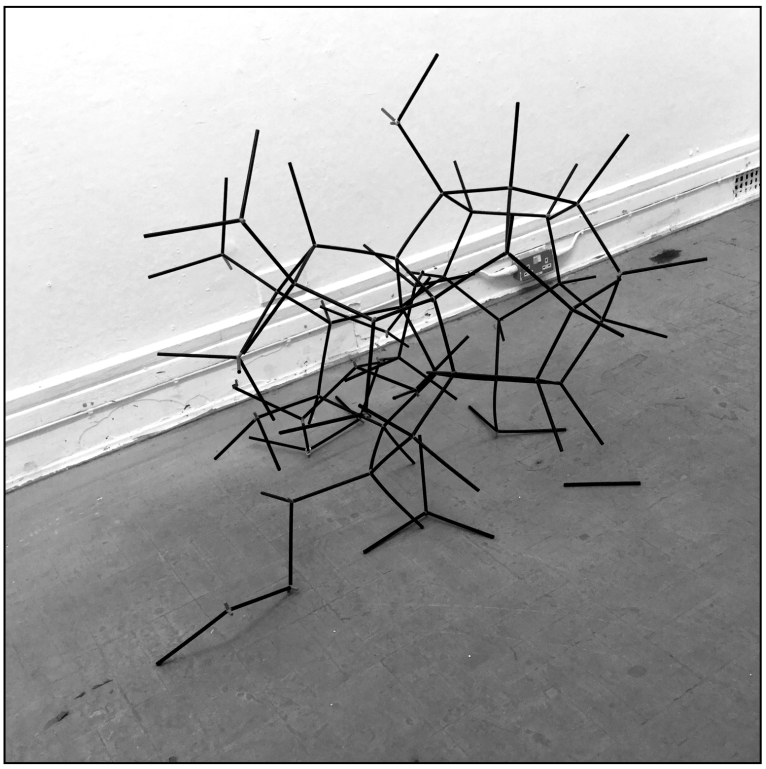




Regular Solid, Maquette





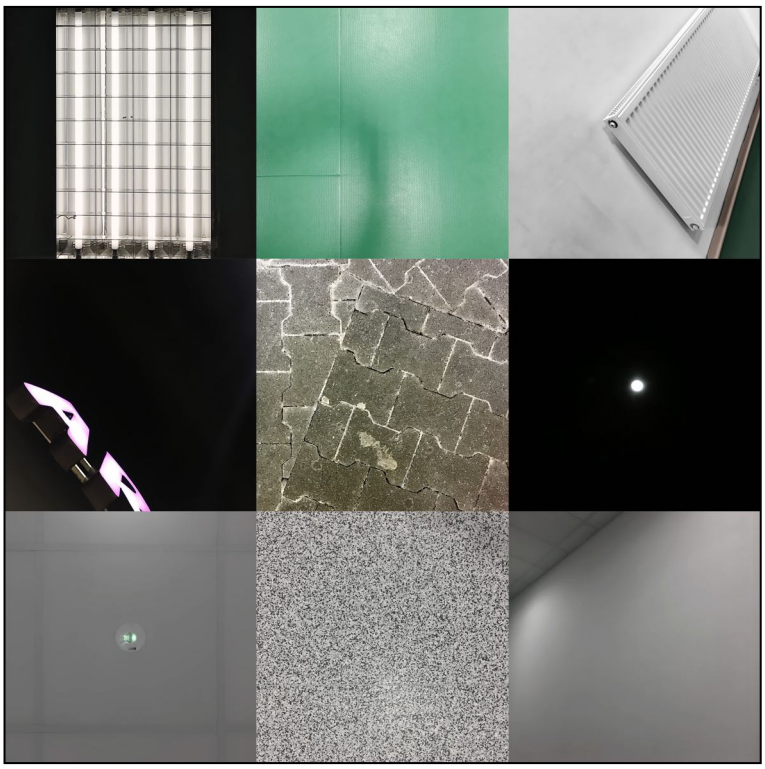


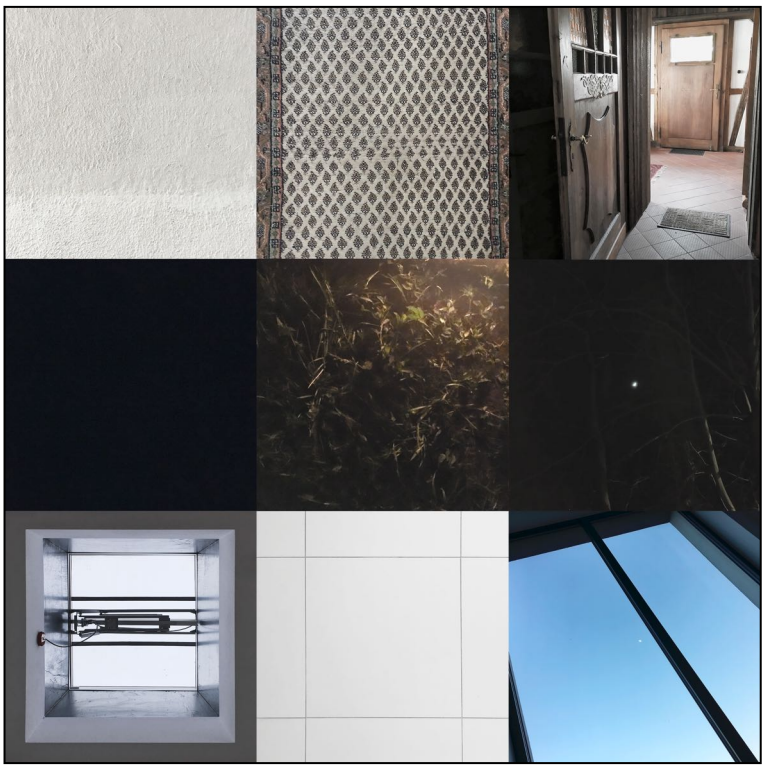
Disintegrating *Regular Solid* before repair by unknown party

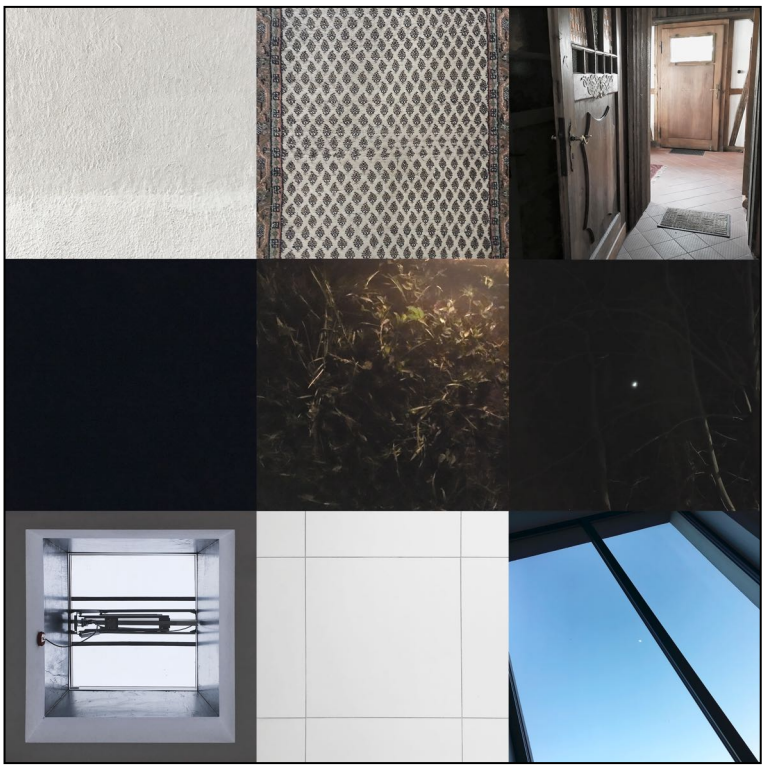
Heaven, Earth & the Lunatic

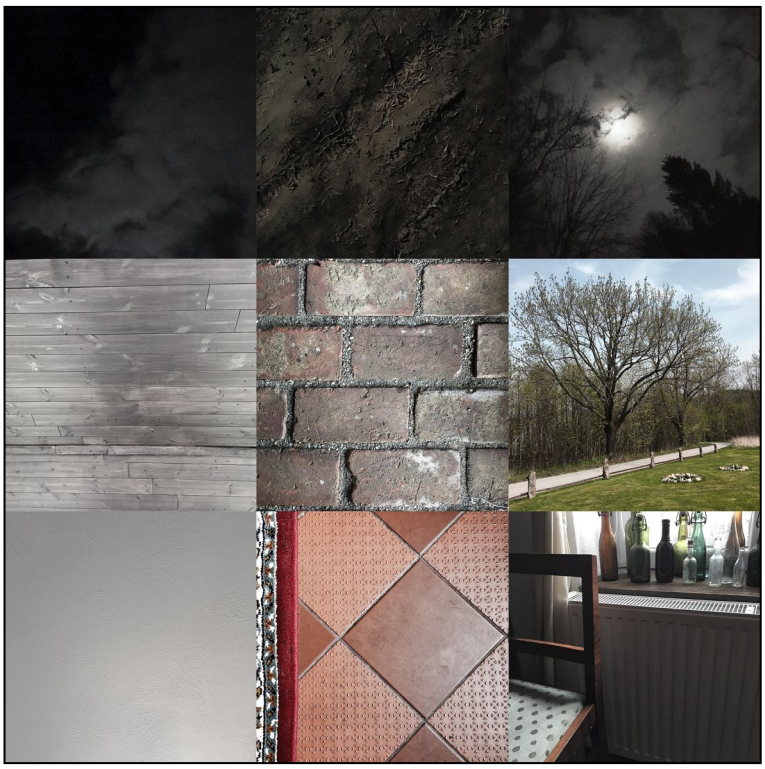
Photographs and installations.

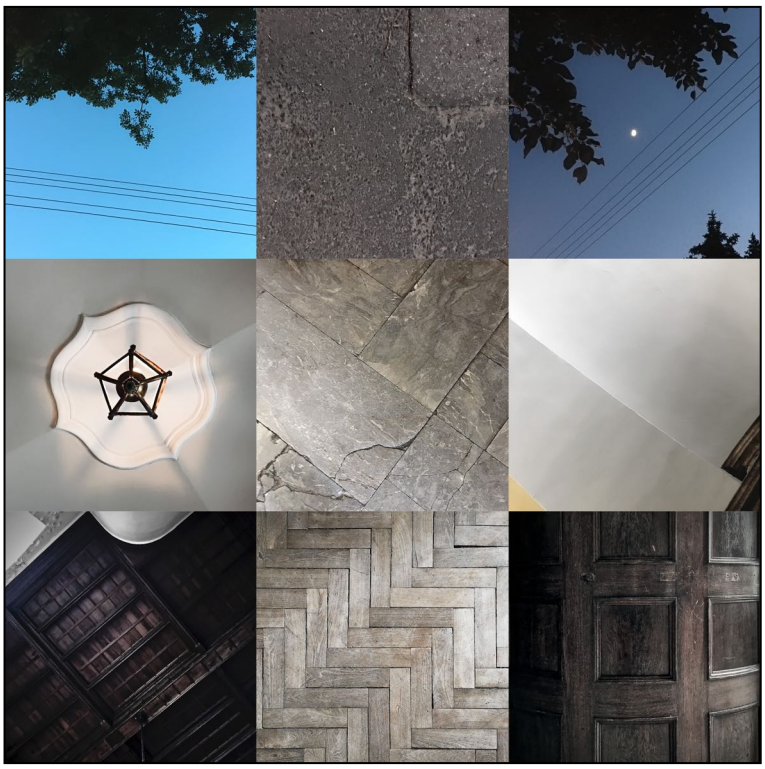
One camera points up.
Another points down.
A third tracks the moon.









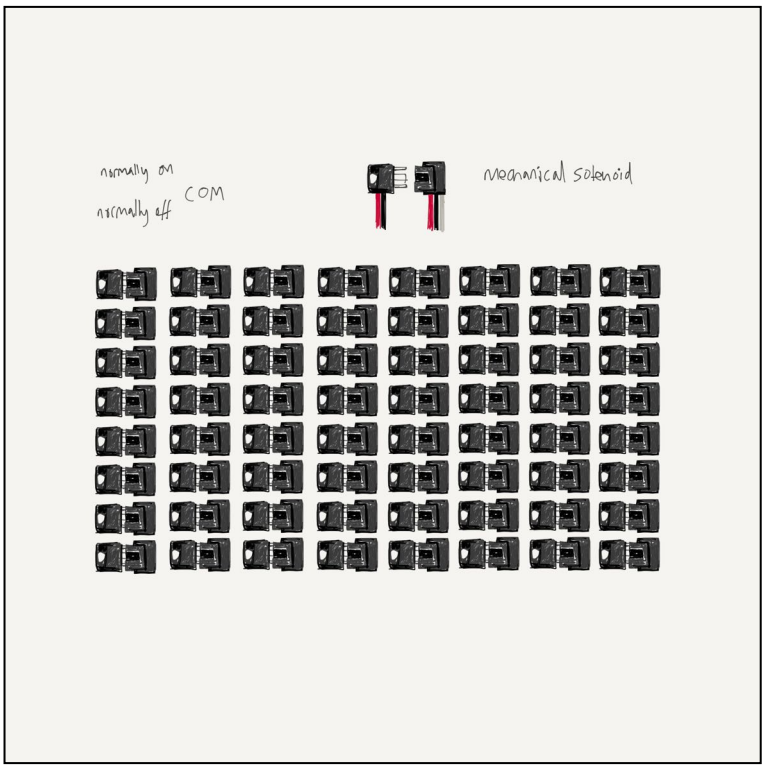


The Nautilus Machine

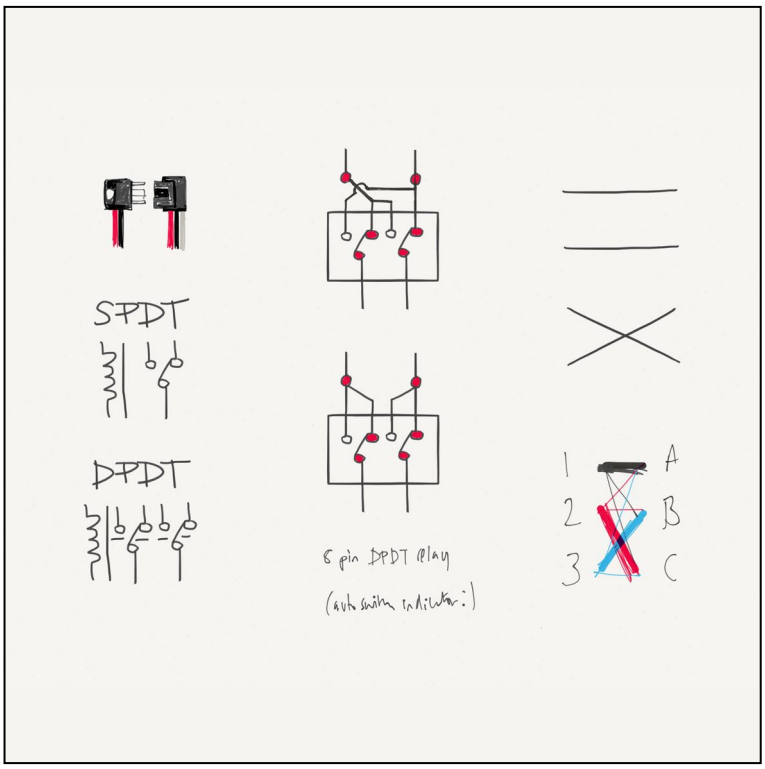
Variety of ongoing work, loosley held together under the above title.

The drawings that follow concern the randomiser at the core of *The Nautilus Machine*. The sound came first, a cloud of mechanical clicks from a multitude of relays. This led to the drawings. The drawings in turn led to the discovery of the randomiser.

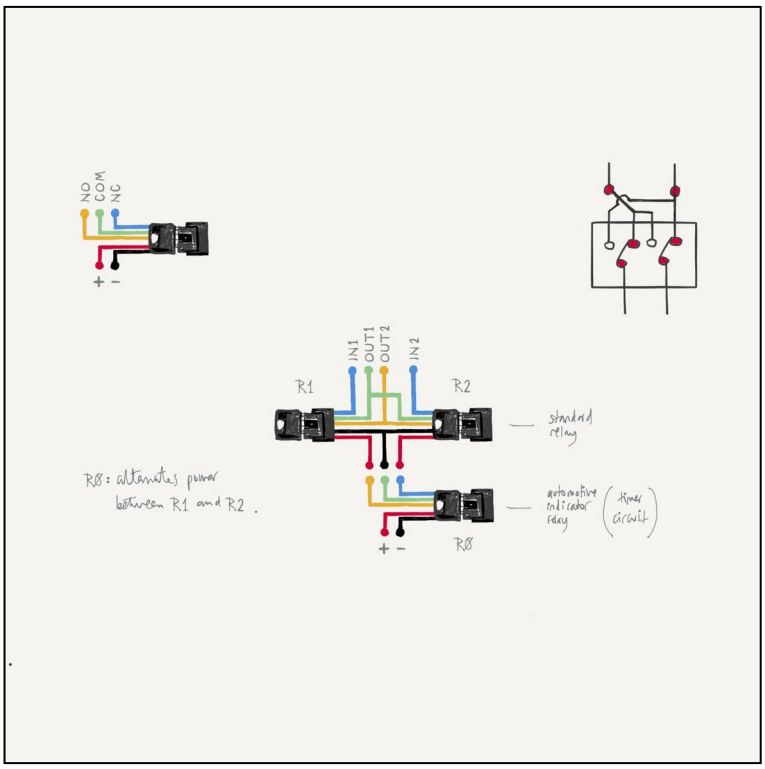
More information regarding the development of this machine is detailed in the thesis.



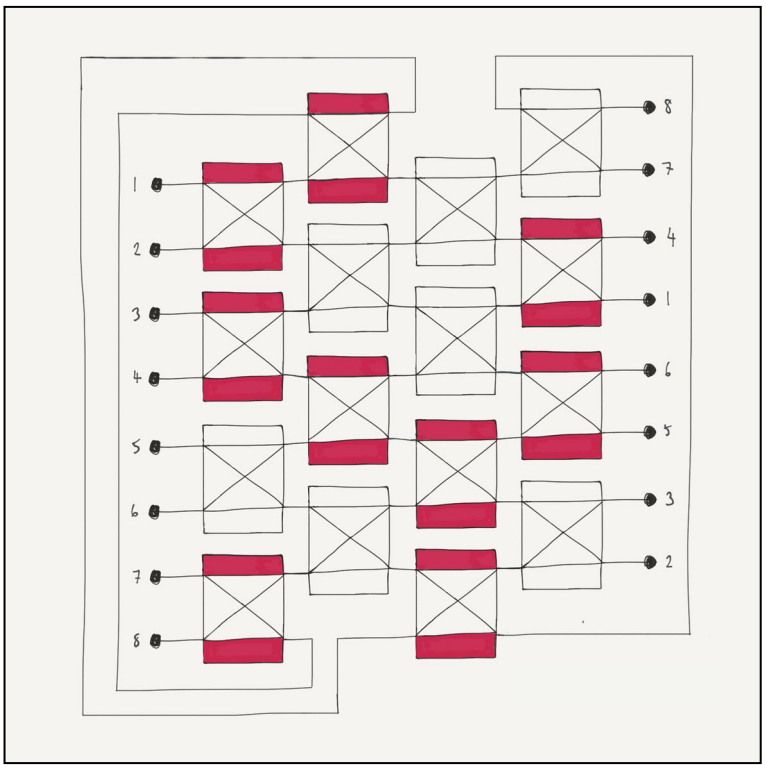
Mechanical solenoids



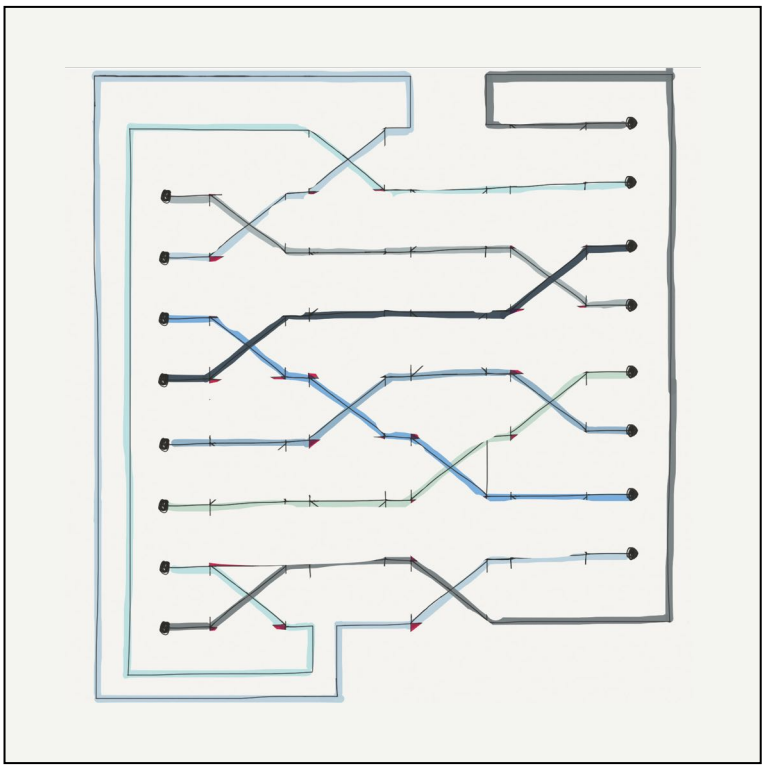
SPDT: Single Point Double Throw



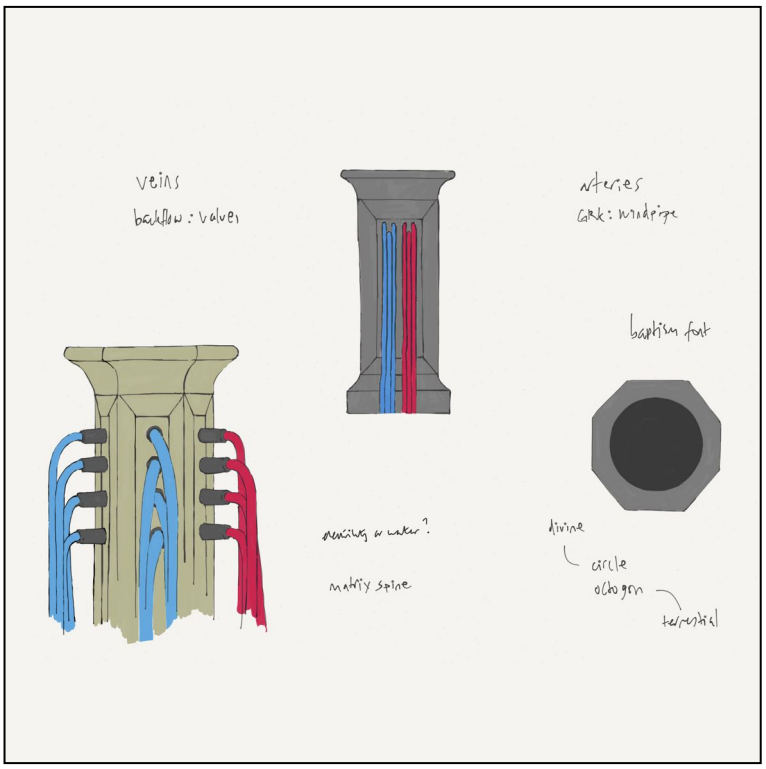
Details of how one node is randomised by 3 relays



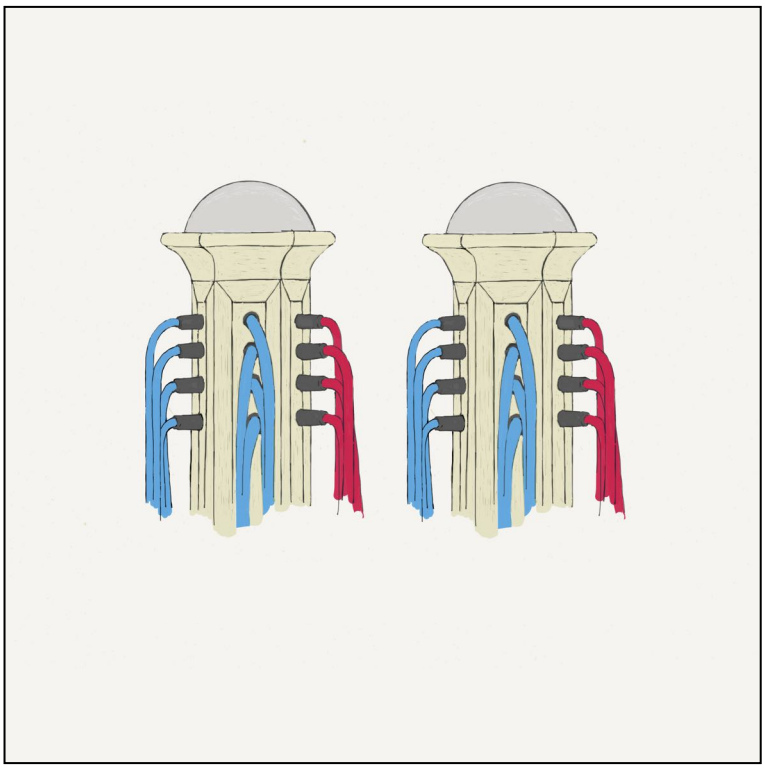
Map of 8 inputs routed to 8 outputs

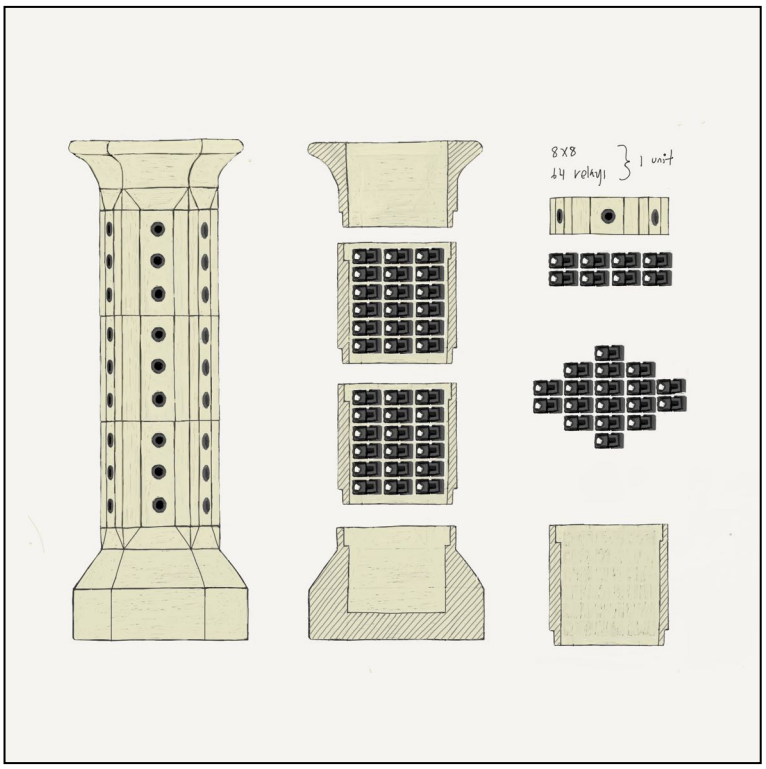


All paths at one instant through that map

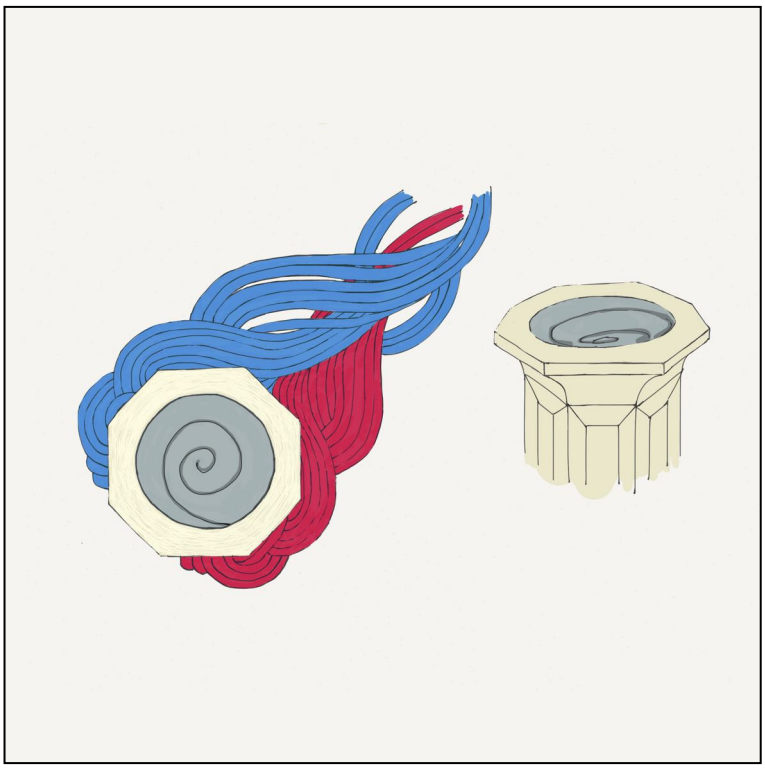


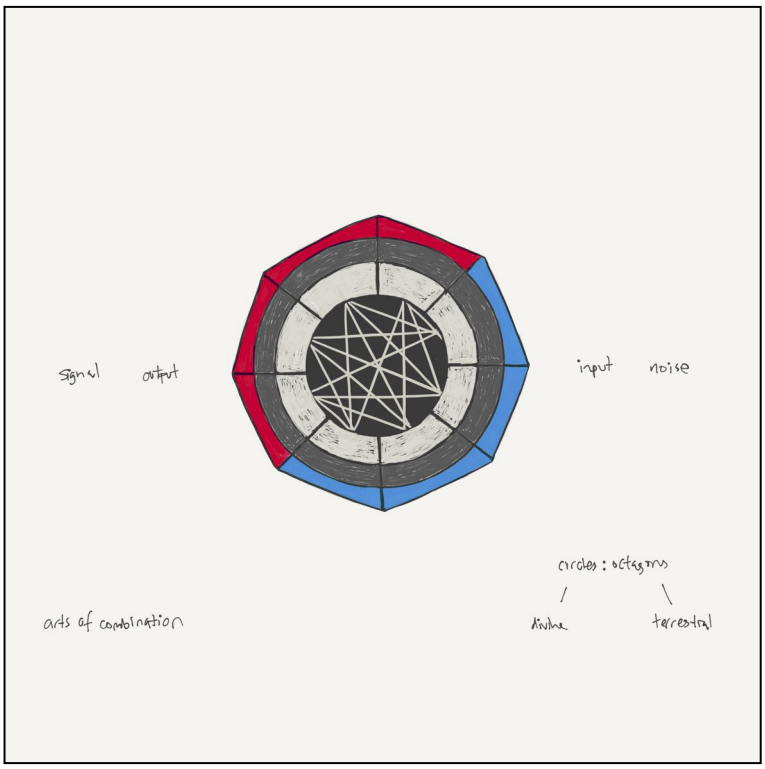
First appearance of the plinth/pillar enclosure




8x8
64 relays
1 unit

Full-size maquette of randomiser enclosure




signal
output
input
noise
circles : octagons
/
\
divine
terrestrial
arts of combination

Hysteria

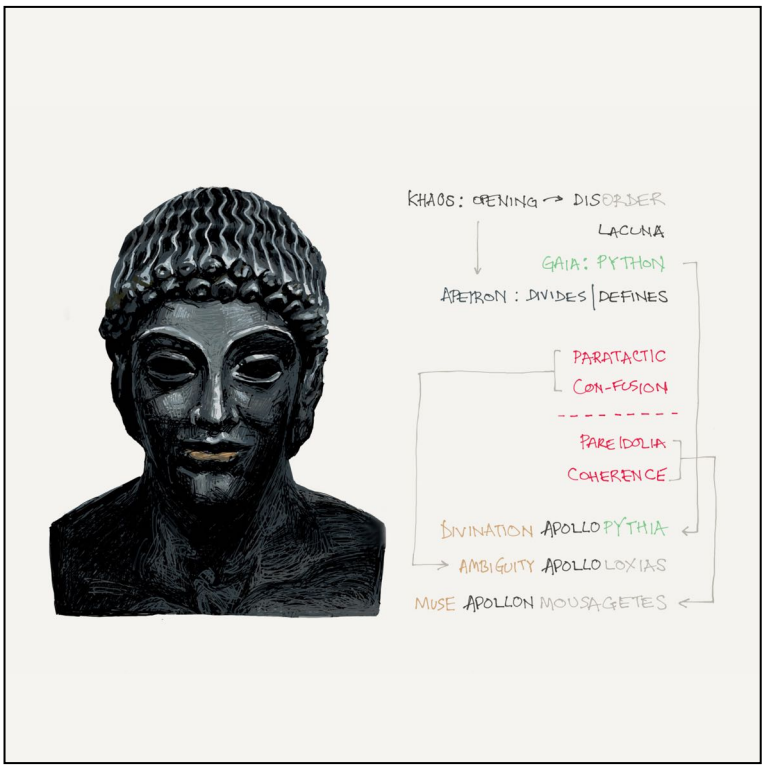
Sound Object.

Hysteria is a concrete tower. It listens to random internet audio and parses it with the open-source *CMU Sphinx2* speech recognition engine. It then plays those sounds it recognises as laughter.

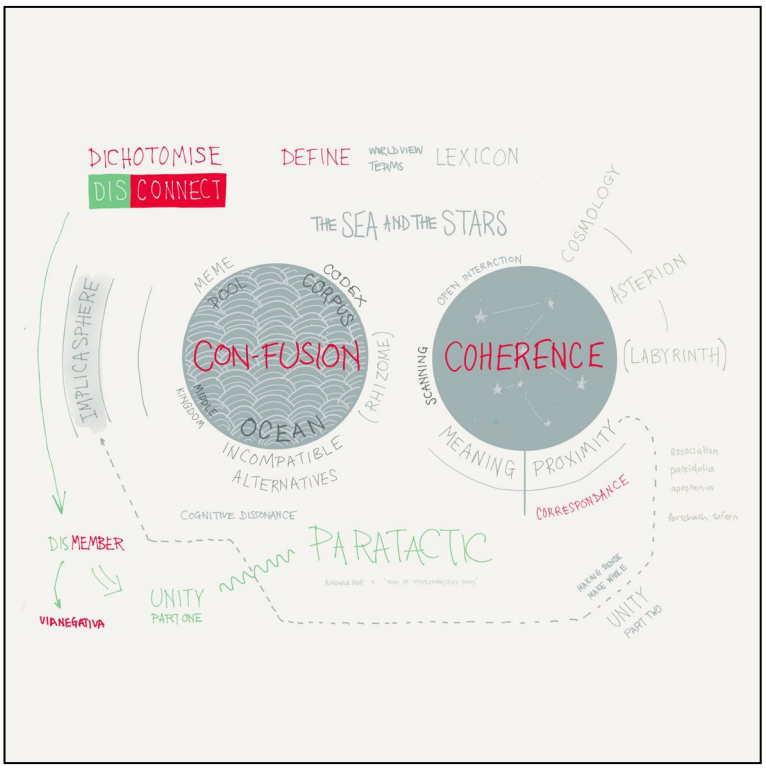
Transcript: Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha. Ha.

Untitled screenprint one unexpected outcome from *Hysteria*

Appendix A: Diagrams

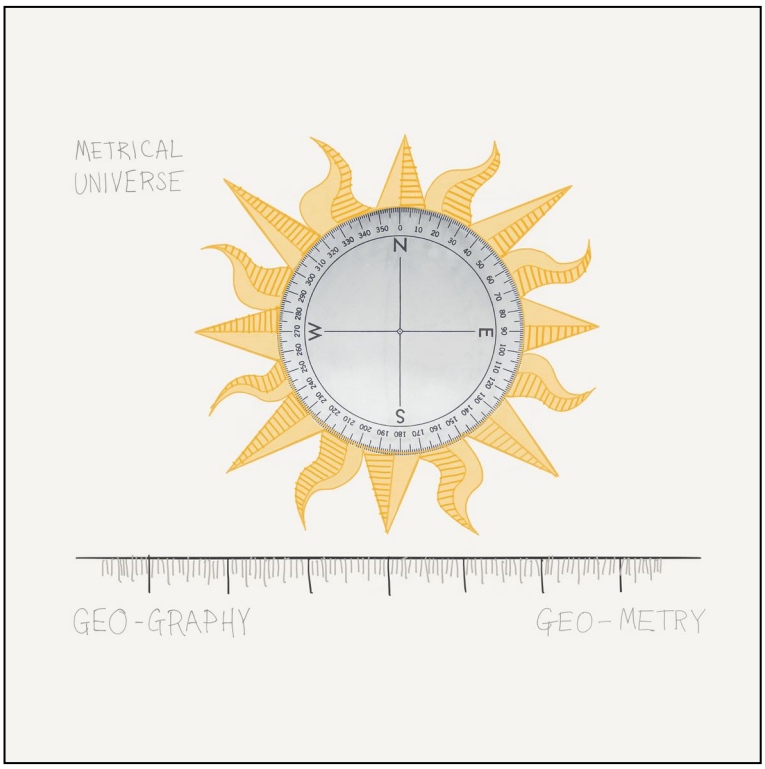


Drawing of the *Apollo of Piombino* focused aspects of the thesis



The diagram responsible for the final title of this research

Thinking around the E at Delphi



The metrical universe

Alpha & Omega