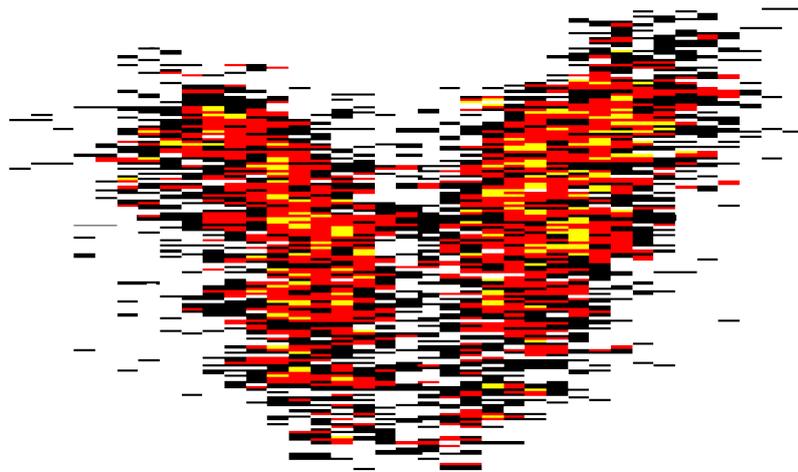


Michael Whittle

Portfolio



2023

Butterfly on the Sun

Changwon Sculpture Biennale, Korea, 2022



Butterfly on the Sun, 2022, Ink on UV-resistant plastic, 1800 x 1400cm
Installation view: Seongsan Art Hall, Changwon

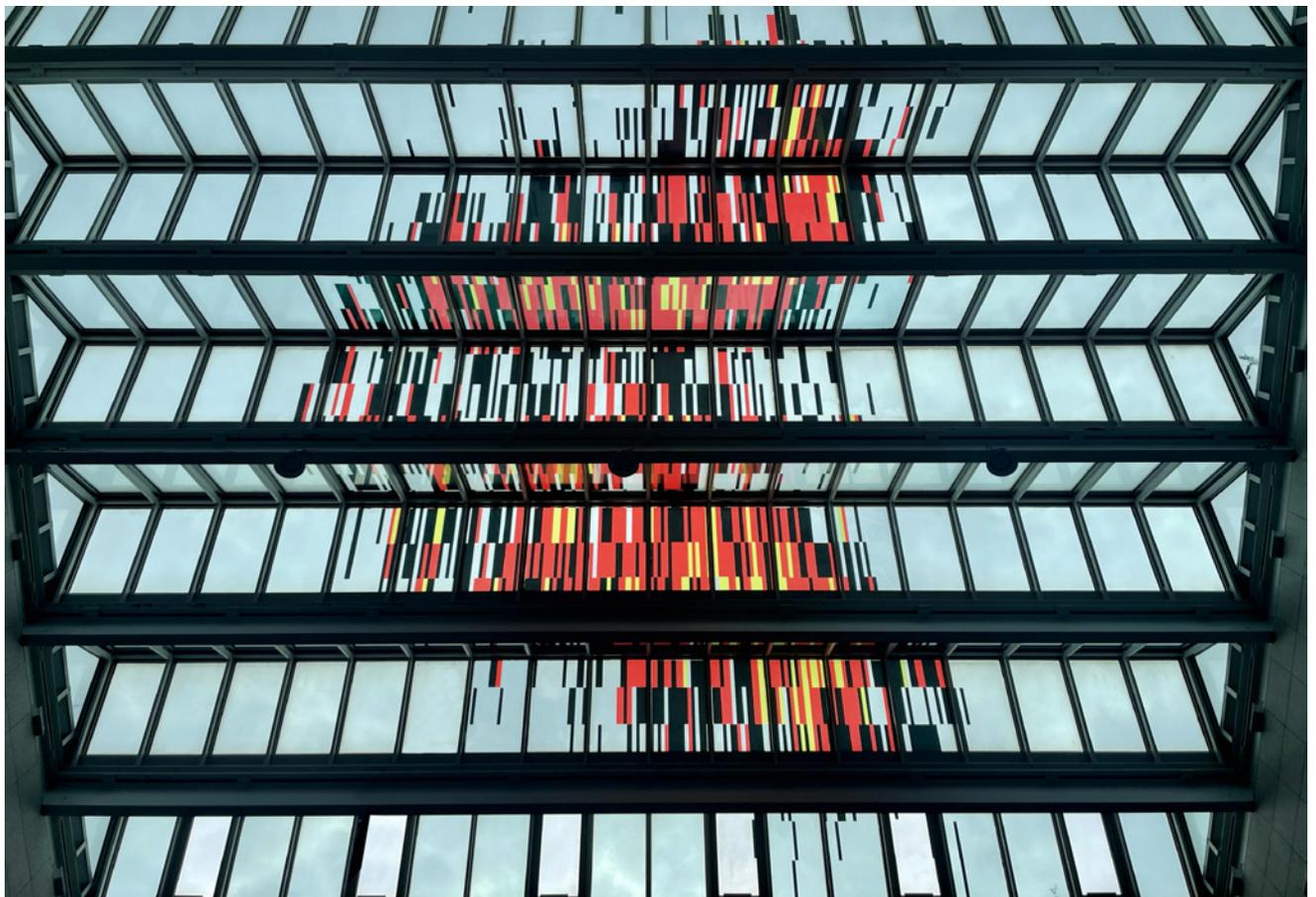
For over 150 years scientists have recorded a series of ongoing measurements of the size and movement of sunspots across the surface of the sun. These dark, cooler spots usually appear in pairs and are most common during periods of maximum solar activity every 11 years. When astronomer Edward Maunder first plotted this data as a graph in 1904, the resulting symmetrical images looked remarkably like the wings of butterflies, and these graphs quickly became known as 'Butterfly Diagrams'.

For the 2022 Changwon Sculpture Biennale I worked with sun spot data provided by leading sun spot expert Prof. David Hathaway of NASA Ames Research Center to create a large 'Sun Butterfly' on the glass ceiling of Seongsan Art Hall. In this case, the butterfly wings are made using 11 years of data from 1965 - 1976, the solar-cycle in which I was born.

Thanks to Prof. David Hathaway for his collaborative support and endorsement of this project.



Butterfly on the Sun, 2022
Installation view: Seongsan Art Hall, Changwon



Butterfly on the Sun, 2022
Installation view: Seongsan Art Hall, Changwon

Perpetual Motion

(Grid cell carpet map with suspended
MTDNA Haplogroups of the World, pre-1500 AD)



Perpetual Motion, 2021, Custom-made carpet, glass disks, mono-filaments, wire, metal rods.
Installation view: Yi Tai Sculpture & Installation Projects, Hong Kong Art Central.

Perpetual Motion contrasts two different notions of movement and location and suggests an alternative poetics of space and place based upon a scientific understanding of our endless wanderings as human individuals and as a species. The installation invites visitors to walk across a carpet, the design of which is based upon the distinctive firing patterns of a new type of human brain cell.

Grid cells are a specialized type of neuron that constitute a self-positioning system within the brain, one which allows us to create cognitive spatial maps of the rooms, buildings and the cities we inhabit. The cells derive their name from their triangular grid-like firing patterns, and their discovery was awarded the 2014 Nobel prize for physiology and medicine. In this way, the symbolic markings on the carpet mirror the neuronal processes in the brains of the people moving across it.

Above the carpet is suspended a mobile constellation of 62 glass disks, which embody a very different kind of information about identity, location and movement. Each disk is actually a pie chart derived from cutting-edge DNA studies that map global patterns in female genetic variation across the planet. The data in the map represents female genetic variation before the so called 'European expansion' that began around 1500 AD.



Grid Cell Carpet Installation views: Light -Up, Goethe Institute, Hong Kong, 2022.

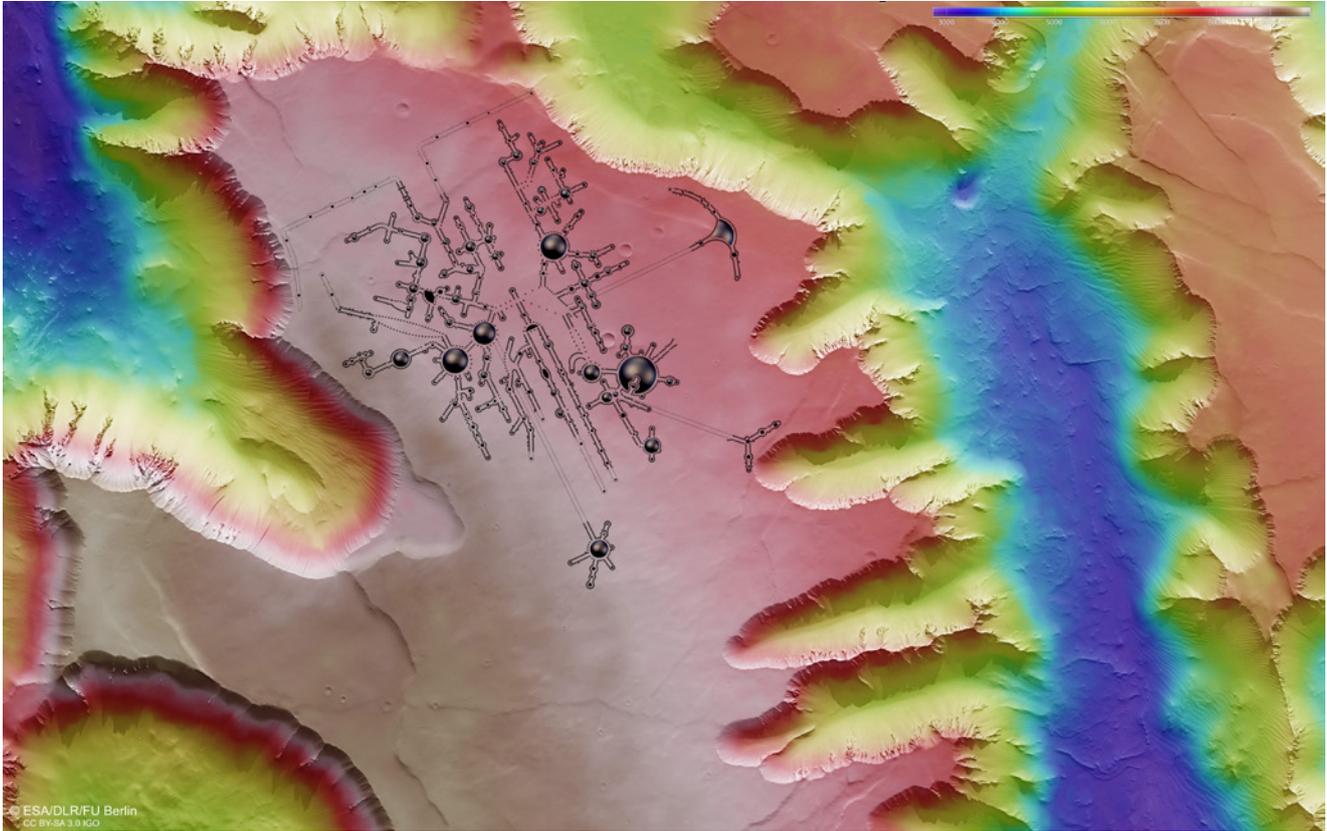
Grid Cell Carpet was also exhibited at the Goethe Institute, Hong Kong, with a collaborative specially choreographed dance performance based upon the Nobel prize winning research in to Grid and Place cells, and their involvement with our experience of motion, memory and architecture.

Perpetual Motion was created using Haplogroup Map data provided by Prof. J.D. McDonald and Grid Cell firing data provided by Nobel Laureates Profs. May-Britt and Edvard Moser, who kindly consulted on and endorsed the project.

Noctus Labyrinthus (Labyrinth of the night)

Topographic map of Mars with city plan based on ribosome molecule

Centre for Visual Arts, Hong Kong, 2021



Noctis labyrinthus, Topographic map of Mars with city plan based on ribosome molecule
Image adapted by Michael Whittle

(Courtesy of ESA / DLR / FU Berlin, as part of the HiRISE project).

Noctis Labyrinthus, or 'Labyrinth of the night', is the name given by NASA scientists to a vast network canyons on the surface of Mars. NASA HiRISE topographic data of the region was downloaded and used to create a high resolution model of a valley and plateau within the labyrinth, as the possible location for a fictional Martian city. CNC milling technologies were then used to create an accurate scale replica in high density architects foam, and coloured using an appropriate mix iron oxide pigments found on Mar's surface.

Blueprints for the city were based upon equally labyrinthine diagrams of the ribosome, one of life's oldest and most important organic molecules. Ribosomes are found in all cellular life on earth, from bacteria to yeast and humans. Ribosomes provide the machinery that transforms genetic data into proteins to create the material substance of all life on Earth.

By appropriating this ancient pattern as a fictional plan for our first extraterrestrial colony, a scientific - poetic gesture is made that serves as an emblem for the spread of Earth-based organic life out into the solar system.

Noctus Labyrinthus was created using data provided by Prof. Anton Petrov at the Centre for the Origins of Life Research (COOL) and NASA's High resolution Imagine Science Experiment (HiRISE).



Noctis Labyrinthus, 2021, CNC-milled architects foam, iron oxide powder, UV-Resin printed model buildings, posters, photographs, drawings, books (Installation view)



Noctis Labyrinthus, 2021
Ribosome molecular diagram, UV printed plastic on gallery windows, (Exterior installation view)

Still Life

2019, Creators in Labs Art and Science Residency, Asia Culture Centre, Gwangju



Still Life, 2019, printed roller blinds, aluminium rigging, lighting, cables, 240 x 600 x 600 cm
Asia Culture Centre (ACC), Gwangju, South Korea. Photo credit: Sarah Kim.

The installation project 'Still Life' was developed and built during the artist in residency project Creators in Labs at the Asian Cultural Centre (ACC) in Gwangju, South Korea in 2019.

This large scale project was made in collaboration with the Korean company 'Space Blinds' based in Daegu. In collaboration with their design team, we developed a new double sided blind with archival quality printing techniques to create 60 original blind designs.

The blinds that can be raised or lowered to create a series of pathways in the form of a maze. With some 482,443 possible combinations of valid maze designs for a five by five grid, the chances of any one individual being able to view all of the panels is reduced to almost zero, making each visit a unique visual experience.

Printed upon the walls of the maze are a series of diagrammatic computer models, digital sketches and digitally manipulated images, many of which were specially developed to create a series of ink and watercolour paintings for the exhibition 'Portraits of thought: Diagrams in Art and Science' at the Kyoto University museum, following a previous artist in residency project at the iCeMS laboratories at the Institute for advanced study of Kyoto University in 2018.



Detail 1: Entrance to the maze

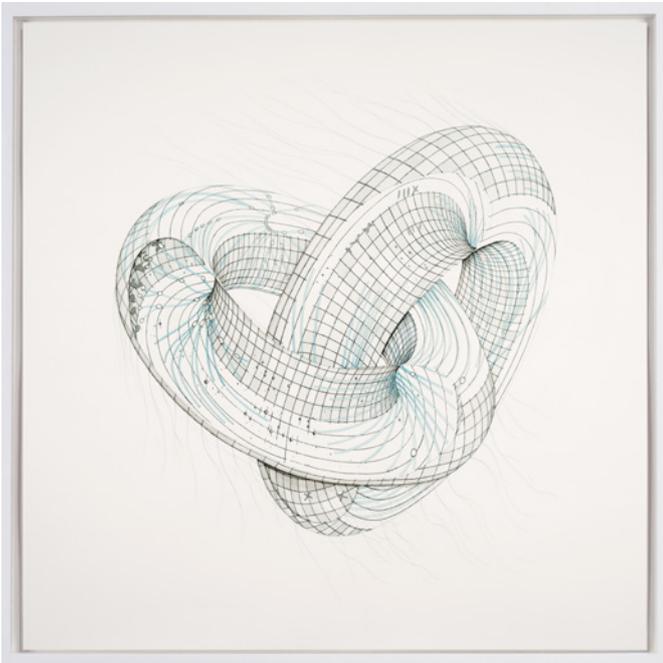


Detail 2: Visitors using Augmented Reality software on smart devices to read virtual titles and information about the images and research



Still Life, Installation detail showing Blue Flower Still Life with Fruit Fly (*Drosophila* embryonic neurons with polygon wing cell tension models), 2019, Ink, pencil and watercolour on paper, 57.3 x 43 cm.

Portraits of Thought
Diagrams in Art and Science
2019, Kyoto University Museum



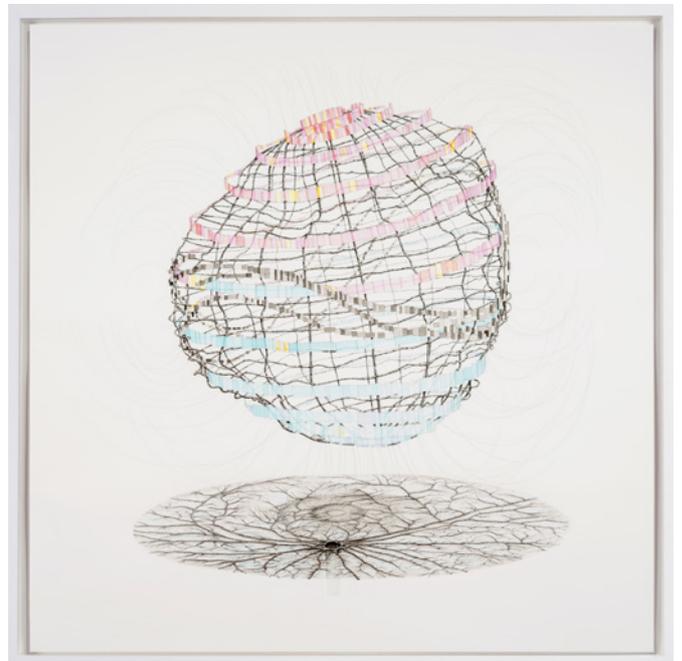
Model for the Origins of Movement, 2018,
124x124cm, Ink and Watercolour on paper



Model for First Causes, 2018,
124x124cm, Ink and Watercolour on paper



A Vision in a Dream, a Fragment, 2018,
124x124cm, Ink and Watercolour on paper



Ulysses Rapid Transit, 2018,
124x124cm, Ink and Watercolour on paper

Portraits of Thought was a solo exhibition of drawings created during a residency at Kyoto University's Centre for Advanced Studies, 2018-2019. The drawings were developed directly from published research papers in Biology, Astrophysics, Chemistry and Computer Science, and consider how we investigate and model reality.



Blue Flower Still Life with Fruit Fly
(Drosophila embryonic neurons with polygon wing cell tension models)
2019, Ink, pencil and watercolour on paper, 57.3 x 43 cm.



Installation view 1



Installation view 2

Totality and the art of Michael Whittle.

Michael Whittle attended art classes after majoring in biomedicine as a university undergraduate. Born in the United Kingdom, he currently lives and works in Kyoto, Japan. His art and science projects arise from not only a great deal of work, but a holistic vision that penetrates life and art itself. Having built his life and art and career by crossing the borders between science and art, and the West and the East, he shows the qualities of a renaissance man in a borderless realm of artistic creation.

Under the concept of 'diagrammatology', he collects images produced by the entire domain of the natural sciences, from the cellular to astronomical. His collection process spans online and offline, analog and digital, past and present, science, technology, and art. Michael is working on linking scientific understanding to the dimension of emotional understanding by analyzing and interpreting concepts, and then reinterpreting them on a sensory level.

Michael Whittle's research is the discovery and archiving of a poetic language in scientific thought. His interests do not remain within natural science, but also reach out in to the humanities such as history and geography. In this context, Michael Whittle's work pursues a holistic art that penetrates through the plane, the three-dimensional, and the image, based on an integrated perception of science. His art is not limited to the basic artistic code of emotional empathy through emotional expression, as is commonly used in the field of art, but works as a mechanism of communication beyond that.

Art oriented toward a convergence of science and art is often limited to visual illustrations of science or technical issues that help art. On the other hand, Michael's holistic approach is both sophisticated and expansive in scale, and approaches an overall understanding by analyzing and interpreting objects and events based on their collective perceptions. It is a practical example of solving a new paradigm of scientific art, in that it embodies the totality of cognition across both sides of science and art, and his way of thinking and work process itself already presupposes this totality.

Jungi Gim

Former Chief Curator, Seoul National Museum of Modern and Contemporary Art