

A STONE SKY – LIST OF WORKS – SUSAN EYRE

The Absolute Hut (of action potential), Wood, moss, paper, copper, video projection, video monitors ; 200 × 300 × 275 cm

The Absolute Hut (of action potential) operates as a sensory hub where a range of actions and processes are running concurrently reflecting on the dynamics between the Earth's geologic structure and navigation using the magnetic field. The installation is conceived from a combination of features, impressions and functions of the observing building and instruments at Hartland Magnetic Observatory in North Devon and the observation huts built in the 18th century at The Kings Observatory in Kew for meteorological and magnetic observations.

Video projection: Wintering Light 4:49 m : Migratory pink footed geese filmed at RSPB Snettisham on the North Norfolk coast.

Monitor 1 degrees of variation video 5:51m : imagines what it might be like to have the extra sensory powers of a bird where a protein in the eye is excited by polarised light making it possible to see the magnetic field and follow a visual navigatory clue in an accelerated world.

Monitor 2 internal skies: external spheres video 4:48m : video sequences within concentric circles mimic the geological structure of the Earth to explore the relationship between Earth's magnetic field and various methods of navigation including via magnetoreception and celestial observation.

Mini screen array interference video 16:47m printed narrative 326 words : The narrative is a mix of fact and fiction based on a real experiment carried out at Caltech where scientists found Alpha waves in the human brain do respond to Earth's magnetic field and other research suggesting that it could be possible for the magnetic field in one animal's brain to transmit information to another animal's brain by triggering action potentials creating the same thoughts and emotions. Images of the human brain were filmed using polarizing filters to create pulsating birefringence colours.

Domain of the Devil Valley Master, Directional magnetic steel, etched to reveal Goss pattern; 250 × 250 cm

This work uses industrial directional magnetic steel, sanded and etched to reveal the Goss texture of rolled iron silicon alloy crystals. The jigsaw pattern of magnetic domains give this material exceptional magnetic properties. The simple evocation of a spiral described in geologically informed polygons draws upon many references, from the shape of our own Milky Way Galaxy sculpted by vast cosmological magnetic fields and the spiralling molten dynamo generating Earth's magnetic field, to the inner pathway of spiritual growth and the route to the symbolic omphalos (navel) at the centre of the world where the sky entrance and the underworld meet. The title of this work originates from an ancient Chinese manual on the skills of persuasion, The Book of the Devil Valley Master, containing the first known mention of a compass, known at the time as a south-pointer.

Instruments of the Anemoi

Instruments of the Anemoi are a set of dodecagon tablets cast in Snowcrete, a non-magnetic cement, as used in buildings at a magnetic observatory. Suggestive of the

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pedestals that support various instruments used in monitoring the Earth's magnetic field they also respond to an ancient anemoscope "table of the winds" carved in marble around eighteen hundred years ago. Envisaged here as speculative objects wrought by the wind gods, the first emissaries of navigation and orientation.

1. Concrete, copper, water, silver leaf, repurposed telescope tripod, 42 x 3 x 80 cm
A 'silver fish' floating in water in a copper bowl is based on the oval shaped compass needle illustrated in Breve Compendio de la Sphera de la arte Navegar by Martin Cortes 1551 it also reflects on the use of wafer thin fish shaped iron leaves used by 11th century Chinese geomancers.
2. Concrete, magnets, iron filings, nails, repurposed theodolite tripod, 42 x 3 x 83 cm
Nails and iron filings reveal an embedded magnetic field and hark back to a legend on the discovery of the lodestone, a naturally magnetic mineral which recalls a Greek shepherd who noticed the nails in his boots were attracted to the rock beneath his feet.
3. Concrete, etched and patinated copper, repurposed telescope tripod, 42 x 3 x 57 cm
Copper etched with images and names based on associations and attributes of the twelve Greek wind gods are set in a traditional compass rose.

The Breath of Stars, Cosmic ray detectors, mini computers, wooden box (20 x 20 cm), video projection; live duration

The Breath of Stars is a digital video work activated in real time by the passage of cosmic rays through a scintillator detector. The kaleidoscopic video images that appear for every particle recorded by the detector, are created from footage of cosmic ray trails filmed in the artist's cloud chamber. Cosmic Rays arrive randomly and this can be witnessed by the sudden flurries and silent gaps of the video imagery. Most cosmic rays heading for Earth are deflected by the planet's magnetic field and without this protection life on Earth could not survive this bombardment of radioactive matter. The interaction of cosmic rays and the solar wind with atmospheric electrical fields combines to influence the unpredictability of Earth's magnetosphere.

The Azimuth Obelisk (of sedimentary knowledge), Paper, steel, concrete, patinated copper; 30 x 30 x 270 cm

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The Azimuth Obelisk (of sedimentary knowledge) is a reimagining of an obelisk erected at Hartland Magnetic Observatory in the late 1950's near the site's northern boundary. Viewed through the window in the north wall of The Observing Building (also known as the Absolute Hut) it acts as a permanent azimuth mark from which the drift of the magnetic north pole is monitored. Currently almost hidden by undergrowth, the observatory's concrete azimuth mark has been replaced by a digital GPS position. Much as the Earth's geological and magnetic history is secreted into the strata of sedimentary rock, this sculpture also expresses the passage of time through the layering of recycled paper prints and drawings whose history becomes embedded within the stacked layers.

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In the wake of knowing, Piezography* archival pigment prints. 2023. 2 prints at 891 × 594 mm, vertically stacked.

Through research into the use of crystal and minerals in space optics Hill has garnered Hills interest in how materials formed in the deep recesses of the Earth, can be used to gather information about deep space. Mine takes Iceland Spar as its focus – a transparent variety of calcite, or crystallized calcium carbonate, from the Helgustadir mine, in Eastern Iceland which Hill journeyed to in May 2023 as part of a self-directed residency. The mine, active in the late 1800 to early 1900s, was a source of very optically pure calcite that helped spawn a period of scientific discovery as it was widely used in scientific instruments at the time. For instance, F Zollner developed the astrophotometer which was able to measure light-intensity of celestial objects using a nicol prism made from Iceland Spar. Two photographs of the present-day mine are stacked, one above the other, echoing cosmic and sedimentary layers. The spoil-heap glints with myriad crystal fragments, almost star-like whereas the cave below is now obsolete, bereft. The work thinks about technoscience and the extraction of mineral resources in the pursuit of knowledge. The work thinks towards ideas of ‘unknowing’ as described by artist and technologist James Bridle.

Chasms, Piezography* archival pigment prints. 2023. 3 at 841 × 1189mm; 1 at 891 × 594 mm.

Chasms is an ongoing series made by digitally processing RAW images from space telescopes such as Hubble and the James Webb Space Telescope using scientific software. Various algorithmic functions are applied to visualise the data – a process Hill likens to a digital darkroom. The image has then been sent through physical and digital transformations as an attempt to explore the chasm-like depths of interstellar and photographic space. For these additions the prints have been left in various solutions to grow crystals, referencing the use of minerals in space optics. For example, some telescope filters are manufactured with quartz to help us see parts of the electromagnetic spectrum that are otherwise beyond human vision.

Ariadne's thread, Plaster-of-paris, string, 2022–2023. L560cm

Thousands of cast 3d printed asteroids are strung together in a threaded piece that guides the viewer up through a section of the exhibition space. The work is titled after the string in Greek Mythology that Ariadne gave Theseus to find his way back out of the labyrinth. A caver's guide rope is also referred to as Ariadne's thread. Asteroids are fossil remnants from the creation of the solar system are theorised as having delivered lively elements to earth, that potentially kickstarted life: they are our origins. Following this thread invites the viewer to consider our origins via the astro-geological. The forms are also reminiscent of embryos, teeth and bones, their chalky, plaster forms appear vertebrae-like, further reinforcing these ideas.

Cave, physically manipulated soy ink print on paper, powder coated steel, water, 480 × 450 × 200cm (1600 × 900cm when flat), 2023, In her most ambitious large-scale print to date, Hill reworks telescopic data from the James Webb Space Telescope into a sculptural installation that emulates a cavernous formation to provide an experience of intimate immensity: the image is reworked into an ‘affective space’ that affords an imaginative and bodily engagement with the viewer. An underground pool reflects the print into an infinite night, confounding senses of inner and outer, earth and sky.

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Made from recently released data from the James Webb Space Telescope's MIRI camera, which sees in the mid-infrared range, the print displays the 'delicate tracery of dust and bright star clusters' within the spiral arms of barred spiral galaxy NGC 5068. The telescope reveals the intricate and intelligent structures that lie beyond the veil of darkness and human perception.

Water is intrinsic to the sculpted formations and cavernous spaces found within most cave systems. Underneath the print sits a pool of water that reflects the print further confusing semblance of sky and earth. In her recent work water has replaced mirror, its reflective surface standing in for the fabricated mirrors that are the light gathering components within many ground and space based telescopes. If water is the eye of the landscape and can act as a natural telescope, what ways of knowing could it engender?

Passed time, silk thread and cotton, 3 x stands (1. H170 × W10 × D30 cm / 2. H150 × W10 × D30 cm / 3. H130 × W10 × D30

Delicate embroidery works based on studies of icy stalagmites seen inside the Raufarhólshellir lava tunnel during a self-direct residency in Iceland (May, 2023). Through their making – a build up of individual french knots, they evince the passing of deep as well as human contemplative time. Hill uses embroidery as an intimate process that encourages meditation. The embroideries are presented on stands, emulating stalagmites that from from mineral deposits that have precipitated from water dripping onto a cave floor.

Rock clouds, dolomite, acetetic acid, steel. Metal stands (1. H75 × W24 × D17 cm / 2. H65 × W24 × D17 cm / 3. H50 × W24 × D17 cm). 2021–2023

These sculptural pieces are made from rocks which have been left in a solution so that they grow aragonite (a form of calcium carbonate) crystals and mimic forms found in caves known as 'cave flowers'. The roundish crystal formations make the rock appear as if it's transforming into a cloud. Reflected in a watery surface and dried out channels of mineral residue they continually evolve throughout the duration of the exhibition bringing an element of growth and change.

Abyssal voices, vocal work devised with and performed by Eleanor Westbrook. 2023

A vocal work inspired by the phenomenon of 'ringing rocks' and 'singing sands' found on Earth as well as sounds of deep space found in NASA sound library. Abyssal Voices provides a speculative listening to the abyssal voices of deep space and cosmological time, channeling the non-human and inorganic realm. This work will follow in the same spirit as *Dark Quartet* (Passengers, 2018) and *In the Debris of Planets* (Land Art Agency, 2021) which are inspired by Elizabeth Povinelli's remarks in *Geontologies* about 'coming into Logos – the movement of the experience of noise (phonos) into the experience of sense (logos)': how might we come to hear the 'voice' of the non-living.

The Book of Sand, machine learning generated video, five minute duration, 2021

Crystal growth generated by machine learning algorithm trained on dataset of imagery from a compendium of crystals and minerals.

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*Piezography is a highest quality black and white fine art digital printmaking process using a 11 carbon pigment ink set. Printed by Denise Banks, Lucid Imaging.