

HELGA GROVES

Slow Moving Structures

Rocks are verbs, writes Marcia Bjornerud in *Timefulness*, her account of geology's study of earth's planetary history. (1) By offering visible evidence of processes--eruption, accretion, growth--rocks make time legible. Like Bjornerud, Helga Groves reads time's legibility in the surfaces and markings of stone, transforming them into abstract images and sculptural forms.

The work here was prompted by Groves's observations of rock specimens housed in natural history museums in Europe. Direct observation is important to her working method, enabling a continuing engagement with one of the key occurrences of deep geological time, the Great Oxygenation Event which took place somewhere between 2.5 billion and 1.8 billion years ago. This occurred when oceanic bacteria, a very early life form, began photosynthesizing, converting the sun's energy into food and generating oxygen as a by-product. One consequence of this process was the eventual stabilization of oxygen availability; this "free oxygen" has been a vital component of earth's atmosphere ever since.

Groves is interested in the Great Oxygenation Event as a sign of earth's "constant flux, (its) series of continuing processes and cycles," as she puts it. This registered physically in what's known as Banded Iron Formation rocks. These were formed when, as a consequence of newly photosynthesizing ocean bacteria, iron that had been dissolved in the oceans was precipitated out as iron oxide minerals and deposited in sedimentary layers. These strikingly beautiful formations, combining fine layers of silver hematite and black magnetite with grey chert and red jasper, are found principally in Australia, Finland, Brazil and the Lake Superior area. For Groves, they show "how a fluid event becomes permanently set in stone as a form of visual inscription of our geological past."

Banded Iron Formation rocks vary globally, a fact Groves noted on her recent travels. Three paintings here are indebted to those observations: *Patterns of Interaction (Banded Iron Formation series)*, based on a specimen from Western Australia seen in the Natural History Museum of London, *Broken Lines (Banded Iron Formation series)*, and *Ocean Memory Stone* (all 2018). In the first, Groves creates a pronounced sense of sedimentation through simple bands of colour organised across three canvases. We see the process almost as if it's happening before our eyes. Over these layers she draws contour lines, present day markers of past geophysical processes. *Ocean Memory Stone* might be thought of as an imagined recreation of the oxygenation event, the oceanic colours indicating the greater diversity of lifeforms that resulted from oxygen's increased availability along with the ongoing process of sedimentation signaled in the painting's horizontal bands.

Groves does something very different in *Broken Lines (Banded Iron Formation series)*, borrowing a procedure famously used by Ellsworth Kelly in his collage *Study for "Cité"*:

Brushstrokes Cut into Twenty Squares and Arranged by Chance (1951). (The procedure described in the title underwrites much of Kelly's gridded work from the early 1950's.) Rather than using brushstrokes Groves recreates the striations of banded rocks in silvery grey—their layers reading as deposits of time—and repeats Kelly's use of chance to organize her composition, the lot being held together by a striking orange grid. The overall effect is of time crumpled, played with, transformed and recomposed. As in the vertical bands of *Varve-Vertical Sequence* (2018) Groves shows she is not bound by a sense of veracity to her geological sources, shifting the horizontal line of sedimentation to the vertical. (Varve refers to the annual layer of sediment or sedimentary rock.)

Kelly's influence extends to two collages from this year, *Foliated Forms #1 & #2*. The first recalls the chance collisions in the Cité study quite explicitly, while the second, with its ovals and undulations, acknowledges the patterned cobblestones in Lisbon's city square and seaport. Both collages comprise pigment prints of deformed metamorphic rock located in Lisbon's Geological Museum of Portugal and with their varied hints of collision, undulation and deformation acknowledge the geological history of the Portuguese capital.

In 1755 Lisbon suffered a devastating earthquake that killed tens of thousands; from its ruins the city was largely rebuilt and the modern science of seismology was born. Like most Portuguese cities, Lisbon's buildings are richly tiled and while visiting, Groves was struck by a geometric pattern on a particular Lisbon facade. *Tremor Pattern* (2018) repeats this pattern upside down in a diptych format, the gap between the two canvases serving as an interruption to the subtly shifting surfaces worked in layers of wax and silver pigment, followed by layers of iridescent silver and pewter oil paint. Many of the works here feature similarly light-deflecting surfaces, the product of careful application of metallic pigments and iridescent paint containing mica. With light appearing to move over the surface of these works Groves introduces a temporal dimension to the moments of viewing, a phenomenological temporality that contrasts with the epochal changes she registers by other means.

Coloured light is the particular quality of *Meteoric (Fallen Star series) #3 - #6*, and *Pallasite (Meteoric Fallen Star series) #2* (all 2018), works inspired by an exhibition of meteorites at the Museum of National History in Paris seen late last year. These wall sculptures of layered, laser-cut fluorescent Perspex seem to cast a glow, a glow which space debris emits as a result of heat friction. Given their extra-terrestrial origins, meteorites comprise a special class of rock that has been called the memory of the solar system for their otherworldliness can, paradoxically, help explain the history of our own. Paradox marks these works as well for despite their inorganic inspiration they recall cross-sections of human organs or the phylum Porifera – those very simple ocean animals known as sponges, at once formless and biomorphic.

The doubled *Pallasite*...exemplifies this quality: stony, lunglike, and at the same time human, an eighteenth century silhouette in mirror image.

This might take us far from the Great Oxygenation Event and processes of sedimentation but Groves is interested in particularities large and small—a pallasite is a particular kind of meteorite, distinguished by quantities of peridot in an iron-nickel matrix. Groves calls these works abstract and certainly her processes transform their source material. At the same time, her chance arrangements seem to mimic the look of geological processes in their fractured foldedness, but is this mimicry the province of abstraction or representation? Invoking both the macro-and the microcosmic, Groves's work gestures to an underlying, or overarching, principle of legibility in natural phenomena, the acknowledgement of which is inseparable from the experience of wonder.

- Ingrid Periz

(1) Marcia Bjornerud, *Timefulness: How Thinking Like a Geologist Can Help Save the World*, Princeton University Press, 2018, p. 8.