Paulette Singley reviews Polly Gould's Antarctica, Art, and Archive (Bloomsbury, 2020).

X marks the spot. It also organizes Polly Gould's important book, Antarctica, Art, and Archive, a work that spirals around the en plein air watercolor paintings that Edward Adrian Wilson (1872–1912) produced during his two expeditions to Antarctica: the Discovery expedition from 1901 to 1904 and the Terra Nova expedition from 1910 to 1913. As Gould maintains, the book 'traces the historical precedents for our current understanding of the human and the environment through cross-readings of the archive of Antarctic exploration, nineteenth-century knowledge practices of global exploration and mapping, watercolor landscape painting, anthropology, and observations of the weather and climate.'1 The spot X marks is the South Pole, which as Gould observes, may be found at three separate locations: the Geographic South Pole determined by geodesy and the meeting of all longitudinal lines, the Magnetic South Pole determined by compass points that are tens of hundreds of miles distant from the Geographic South Pole, and the Ceremonial South Pole, which is about 300 meters from the Geographic South Pole and was set up specifically for photo opportunities. The South Pole's shifting location serves as an analogy for 'The Age of Attainment' that Gould documents, wherein attempts to create precise universal standards – in the color of paint or in meteorological measurements – are compromised by the very atmospheric conditions they are intended to gage, as for example, when paint melts together in tropical heat or instruments freeze in the Antarctic.<sup>2</sup>

In terms of structuring the publication, X operates as a form of literary chiasmus derived from a series of refractive cross-readings Gould has constructed, starting with the overall form. The book begins with a 'Prologue,' continues with 'Elsewhere' and 'Watercolor,' meets in the middle with 'Antarctica through the Archive,' reverses the syntax of the first two chapters into 'The Color of Water' and 'Where Else,' and then concludes symmetrically with an 'Epilogue.' With evocative subtitles such as 'Glass,' 'the Crippetts,' 'Archive as Field,' 'Some Notes on Penguins,' 'Refractive Index,' 'Of Turnerian Topography,' 'Twenty-First-Century Storm Cloud,' 'Silver Nitrate,' and 'The Grid and Globe,' the 'Expanded Contents' tantalize the reader with expectations of the rich material history that follows. Conversely, the overall structure develops a formal argument that transcends the ekphrastic writing process Gould deploys with a new model for building a book. Instead of chronology, geography, or monography, she offers a refractive lens through which subject matter introduced in the first chapters passes through a metaphorical sheet of ice to emerge on the other side as material tangentially related to and critical of the first half. What is perhaps most significant is that the content of the work determines its form, as ice

becomes a new epistemological lens with which to replace modernism's dominant metaphor of glass and to act upon a world in which Wilson's views of antarctica are disappearing as icebergs retreat under climate change. Given its arc from Antarctica to global warming or from exploration to colonization the book performs as an *arkive*, to borrow Gould's neologism, of our future imprint on the planet and therefore offers an especially important collection of topics for proposing an operative position for inhabiting the globe that also concerns race and gender. As Gould writes: 'We need ice through which to refract our sensibility and ethics, to transpose the archive into the arkive as a place of generative newness.' Insofar as Gould argues for 'a contribution to changing our epistemologies of vision' she posits the interpretive method metaphorically based on the optical process of refraction, versus reflection, as a dominant formal strategy for organizing the book as a chiasmus that crosses at the X-spot of the journey to the south pole while she also makes a convincing argument for understanding that the productive lens for surveying the world should shift from glass to ice, from humankind to the earth.

## As Gould explains:

This book may appear to have the biography of an 'Age of Empire' figure at its center, but in fact, by a process of decentering and refiguring the 'human' of rational Enlightenment, the argument proceeds towards a post-human, new materialist, ecological and feminist figuration of the human and the environment. New materialism is a category of theories that include innovative materialist critiques in which the human is decentered.<sup>4</sup>

In proffering a new paradigm for organizing a work of history and theory while simultaneously staking a claim for models of research that propose a geocentric turn away from humanist anthropocentrism, the author thinks through material-discursive 'entanglements,' a term Gould privileges, on the continent of Antarctica and its conceptual tributaries. In so doing, the book offers a sublime, essential, and beautifully written addition to one's library.

The work shuttles between the disciplines of fine art, architectural history, anthropology, and geography. While the entire structural mechanism of refraction describes a spatial model, one might naturally query where is the architecture in a book sited in a frozen landscape with no indigenous

human inhabitation or ruins and few structures beyond the tents and huts leftover from numerous expeditions. From Wilson's panoramic landscapes to the stunning glass models that Leopold and Rudolph Blaschka's handcrafted of microscopic protozoa called *Radiolaria*, the response is that the architecture is located everywhere and at every scale. The book also features architecture in the more prosaic sense of inhabitable buildings, including discussions on the Scott Polar Research Institute and its archive, the Buckminster-Fuller-inspired Climatron, Pier Luigi Nervi's unrealized design for the Pitt Rivers Museum and proposed Centre for the Study of Anthropology and Environment, Berthold Romanovich Lubetkin's Penguin Pool at London Zoo, Joseph Paxton's Crystal Palace, and more.

Even the act of breathing while reading the book becomes a work of architecture. Insofar as *Antarctica*, *Art and Archive* offers a material history of the atmospheric conditions under which Wilson worked, it is breathtaking. In other words, by drawing attention to the air we inhale and exhale as an 'aesthetic ambience,' it takes our breath away. Gould further materializes breathing and the atmosphere with observations such as the following:

Stern and Gerlach realized that Stern's breath had been a factor in producing the appearance of the trace, as his habit of smoking cheap cigars had resulted in sulphuric breath that reacted with the silver particles. Barad shows that the sulphuric breath on the plate was productive of an inscriptive tracing of silver marks and was implicated in the practice of observation.<sup>6</sup>

While contemplating sulphuric traces from cheap cigars or considering the extreme sub-zero temperatures in which Wilson worked I often imagined frozen air coming from out of my nose and mouth as Gould conjured atmosphere into fungible architecture.

Certain terms operate as conceptual tropes in both relaying the story of Wilson's work and the larger subject matter carried therein: a kind of glossary of significant theoretical terms with instrumental architectural trajectories. Gould translates *anamorphic* projection, a perspectival technique of drawing and painting that works outside of the cone of vision, into a form of writing, while she also develops this process as part of her own art practice of producing panoramic watercolor landscape painting reflected in globes she has silvered. The *avant-garde* is a concept Clement Greenberg develops in relation to maintaining strict boundaries between the arts, the history of which 'consists chiefly in the flat picture

plane's denial of efforts to 'hole through' it for realistic perspectival space.' Gould's own process of ekphrastic writing offers a tacit polemic against Greenberg's endorsement of medium specificity which 'underscores a kind of essentialism and immutability and intends to keep arts defined by their medium and separate from each other.'8 Ekphrasis is a vivid verbal description of a work of visual art where writing approaches the limits of interpretation. Entstellung is the interpretation of 'distorted-displaced dream images,' wherein the censorship occurring between two systems corresponds to the refraction accompanying the passage from the unconscious to the conscious.<sup>9</sup> Rosi Braidotti situates the *nomad* in a 'postmodern, culturally differentiated understanding of the subject in general and of the feminist subject in particular' in order to understand her as enacting 'transitions without a teleological purpose.'10 Both a cure and a poison at the same time, the *pharmakon* references the scapegoat described in Plato's Phaedrus and Jacques Derrida's writing on 'Plato's Pharmacy' in Dissemination (1972). Lane Fox Pitt-Rivers, as Gould explains, 'claimed to have invented the term "typology" to describe the arrangement of anthropological artefacts according to their features and functions rather than according to the geographical region associated with the material culture of a particular society.'11 (my emphasis) These terms and more operate as much as part of a conceptual design lexicon as they do thematic moments around which the book twists and turns.

A similar litany of significant 19<sup>th</sup> century *dramatis personae* make entrances and exits throughout Gould's text. Franz Boas – the pioneering anthropologist who published his doctoral thesis in physics studying the perception and measurement of color in water titled *Contributions to the Understanding of the Color of Water* – argued for 'the inextricable mutuality of people and environment.' Boas's contextual museum displays offered an alternative to Pitt-Rivers's display system mentioned above where typological formalism privileged the a-contextual display of similarly shaped artifacts: a distinction between showing objects in a culturally resonant diorama or displaying them as a collection of similar uses and forms. 'While refuting some parts of Lamarckian thinking,' Charles Darwin 'added to evolutionary theory the method of "Natural Selection" in *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life* (1859) and then 'applied his ideas to the human race in *The Descent of Man, and Selection in Relation to Sex*, published in 1871.' A prominent Darwinist, Ernst Haeckel 'proposed that ontogeny (the development of embryonic form) recapitulates phylogeny (the development or evolution of a kind or type of animal),' while he completed detailed illustrations of animal and sea creatures in *Kunstformen Der Natur* (1904). John Ruskin provides inspiration for the spatialization of the atmosphere when describing Turner's work as painting

the air and producing 'something which has no surface, and through which we can plunge far and farther and without stay or end, into the profundity of space.'15 D'Arcy Wentworth Thompson's influential book On Growth and Form (1916) 'demonstrated how the application of a grid and Cartesian coordinates allowed extrapolations to occur from one two-dimensional form to another.' 16 J. M. W. Turner explored watercolor's portable nature and its capacity for being used quickly in the study of rapidly moving atmospheric events. Sir Henry Wellcome was 'a collector, philanthropist and pharmaceutical businessman' who used his salesmen as 'in-the-field buyers of ethnographic curiosities' and promoted his collecting activities in the pages of the Wellcome's Medical Diary and Visiting List, which included reproductions of figures and carvings from Maori culture.<sup>17</sup> Besides standardizing colors, providing portable paint sets, and other technological advances in the production of water colors, Winsor and Newton sponsored expeditions by supplying art materials, exemplifying Tony Rice's claim that 'the British history of watercolor painting was associated with the expanding empire of this maritime colonial power and had been used as a tool of topographical description by its naval explorers.'18 Together figures such as these move in and out of Wilson's life and work, rendering his watercolors with larger global implications than the South Pole, a site whose melting away has become the index of climate change and human extinction.

Gould also breaks new ground in combining more conventional scholarly research with her own artwork, publishing the contents of the 2015 performance and lecture titled 'Penguin Pool' she gave at the Danielle Arnaud Gallery and simultaneously underscoring her own subjectivity within the text. Along with having completed a Ph.D. in Art and Architecture at the Bartlett School of Architecture, UCL in London, supervised by architectural writer Jane Rendell and anthropologist Victor Buchli, Gould is an artist who shows regularly in the UK and abroad, holding a First Class BA in Fine Art from Central Saint Martin's College of Art and Design and an M.A. in Theory and Fine Art from the Jan van Eyck Academie for Postgraduate Research in Maastricht, The Netherlands. She also maintains a design practice, as Eggebert-and-Gould, where she works on commissions for public spaces and installations. Not only does she situate her body in the book though the publication of her own work, such as 'Suiseki Bergs' (2013, three Edwardian mahogany nesting tables with hand-blown glass) and 'Castle Rock and Mount Erebus' (2012, colored and mirrored hand-blown glass, watercolor on sand-blasted glass), but also through her description in 'Notes from the Field' where she writes:

5:30 a.m.: 27 March 2013. It is early on a wintry spring morning in England. Outside, I can see my breath in the freezing air. The sun rising is as bright and red as the open glory hole of the glass studio furnace. The news this week is that industry came close to having the gas turned off owing to low supply levels and cold weather. The glass furnaces are powered by gas. I am inside the glass blower's studio to work on making my impression of the landscape of Antarctica. I am working with a glassblower to make globes and molded forms in glass.<sup>19</sup>

Gould's combined skill as an artist and a scholar is formidable and prodigious, contributing to what makes her book a large and important work of literature. She offers inspiration for those working between design and writing practices, offering an elegant model for including one's own artwork and embodied experiences in a research project. This work matters, both as a significant contribution to the field and as a work of *material* history where the etymological trajectory of this term evolves from the feminine root of *mater*: stemming from Old French *matere* as a subject, topic substance, or content (12c., Modern French *matière*) and from the Latin *materia* meaning the 'substance from which something is made,' which returns us to *mater* as the origin, source, or mother.<sup>20</sup>

While reading *Antarctica*, *Art*, *and Archive*, I was renting a house in the town of Joshua Tree, California, going on daily hikes between chapters, with Wilson's paintings and Gould's words reframing the views along journeys to sites such as Barker Dam and the Forty-Nine Palms Oasis. At an elevation of 5,185 feet, Keys View is located on a crest of the Little San Bernardino Mountains, providing panoramic views of the nearby Coachella Valley, the distant Signal Mountain in Mexico, and the visible plate tectonics of the San Andreas Fault, a line that stretches 700 miles from the Gulf of California to north of San Francisco. The landscape of rock, cacti, and Joshua Trees is lunar, even glacial in its state of vast emptiness and often equally as dramatic and rugged as Wilson's watercolors of what once had been a *terra incognita*.

I would relish showing Polly Gould and the readers of *Antarctica, Art, and Archive* around the park and taking them to Los Angeles to visit unlikely trajectories of this text. We would go to David Hildebrand Wilson and Diana Drake Wilson's Museum of Jurassic Technology, founded in 1988, to view exhibitions such as 'The Eye of the Needle: The Microminiatures of Hagop Sandaldjian' or 'Lives of Perfect Creatures: Dogs of the Soviet Space Program,' afterwards sharing Georgian Black Tea and cookies in the

Tula Tea Room. We would then go next door to visit Matthew Coolidge's Center for Land Use Interpretation, founded in 1994 as 'a research and education organization interested in understanding the nature and extent of human interaction with the surface of the earth.'<sup>21</sup> Included in this itinerary would be the Santa Monica Camera Obscura that Robert F. Jones Built in 1898, the 240-pound bronze ball suspended by a cable that comprises the Foucault Pendulum in the Central Rotunda at the Griffith Observatory, and finally, the La Brea Tar Pits, an Ice Age fossil site undergoing active excavation. The point of this tour being that Gould's work dwells beyond the specificity of its geographical center at the south pole and X marks spots for similar sites around the globe that consider how nature, atmosphere, art, and architecture work together.

<sup>1</sup> p. 1.

<sup>&</sup>lt;sup>2</sup> p. 43.

<sup>&</sup>lt;sup>3</sup> p. 266.

<sup>&</sup>lt;sup>4</sup> p. 1.

<sup>&</sup>lt;sup>5</sup> p. 8.

<sup>&</sup>lt;sup>6</sup> p. 149.

<sup>&</sup>lt;sup>7</sup> p. 60.

<sup>&</sup>lt;sup>8</sup> p. 62.

<sup>&</sup>lt;sup>9</sup> p. 18.

<sup>&</sup>lt;sup>10</sup> p. 13.

<sup>&</sup>lt;sup>11</sup> p. 52.

<sup>&</sup>lt;sup>12</sup> p. 170.

<sup>&</sup>lt;sup>13</sup> p. 49.

<sup>&</sup>lt;sup>14</sup> p. 243.

<sup>&</sup>lt;sup>15</sup> p. 89.

<sup>&</sup>lt;sup>16</sup> p. 248.

<sup>&</sup>lt;sup>17</sup> p. 178.

<sup>&</sup>lt;sup>18</sup> p. 76. <sup>19</sup> p. 27.

<sup>&</sup>lt;sup>20</sup> https://www.etymonline.com/word/matter#etymonline\_v\_43759

<sup>&</sup>lt;sup>21</sup> https://www.clui.org/section/about-center