premise of the implication of observer with observed, of entangled environments, and the subject and object, in an aesthetic of atmospheres. Refraction repositions writing's relation to art practice elsewhere.

Through the Archive

Antarctica is simultaneously a landscape as a subject of paintings and art, ¹⁴⁹ a source of meteorological data, and an immersive environment in which, whether we make it there or not, we are inextricably ecologically implicated. The mirrored globes such as *Berg off Cape Evans*, for which I borrowed titles from their source watercolor (Figs. 3.20 and 3.21), represented a vast landscape with peachy and mauve skies, and a magnificent iceberg floating in the sea off the coast of Cape Evans where the expedition base hut was sited. Wilson's original had the additional information "April 23.11. Last day of the Sun, 1911", and was a diminutive watercolor measuring 21.2 by 13.4 centimeters. The curious coincidence of the similarity between the globes that I chose to make and the chrome globe at the Ceremonial South Pole perhaps indicates a corollary between Antarctica through the archive and the place itself. Should you be one of those people who arrive at the South Pole, rather than feeling you are standing at the center of the world and surveying all around as a disembodied Cartesian view from nowhere, you will see your own reflection as a little figure in the miniature world (Fig. 3.22).

In this chapter I have explored how the mathematical description of the ellipsoid geoid of the Earth produced the South Pole as a destination. The geodesic dome that takes its name from geodesy became the iconic architecture associated for some decades with scientific research at the South Pole. The sheltering sky of the geodesic dome and the painted ceiling of the entrance hall at the Scott Polar Research Institute both articulate the human ambition to build an atmosphere most suited to our preferred climate parameters. *The Antarctic Manual* had provided advice to support the *Discovery* Antarctic Expedition in its twofold purpose as scientific observation and as geographic exploration. During the second *Terra Nova* expedition, the aim for Wilson as part of Scott's party was to be first to the South Pole; the planning of the journey there and back was derived from previous expeditions and patterned like a chiasmus. Wilson was also the Chief of Science during the second expedition and therefore responsible for the programming and gathering of scientific observations. Atmospheric effects were measured in observational experiments, but this was fraught with difficulty in the extreme cold of Antarctica, demonstrating the materiality of the apparatus of observation, and the need to pay attention to the mediating role of writing and interpretation.

The climate data of Antarctica as it was observed and recorded by the men of those historic expeditions was then deposited in the documents and publications in the libraries and archives back home. The second volume of Meteorological Observations from the first British Antarctic Expedition



Figure 3.20 *Polly Gould, Berg off Cape Evans, 2013 (hand-blown colored and mirrored glass, watercolor on sand-blasted glass, 40 \times 40 \times D. 18 cm).* © *Polly Gould.*

of 1901–4 with *Discovery* was not published until 1913. The following 1915 review was written in the knowledge of the polar party deaths:

No one can turn over the pages of this important volume without being impressed by the enormous labor involved in its preparation, and without a feeling of gratitude to all the faithful observers who, often in peril and usually in discomfort, made the series of records which are here collected and summarized so that all of us may make use of them, quietly, conveniently and in safety, in the study, the library or the classroom.¹⁵⁰

The harsh and extreme environment that generated the pages referred to above are now met by contemporary readers via such spaces as the domed entrance of the Scott Polar Research Institute and in convenience and comfort that are in stark contrast to the experience out in the field.

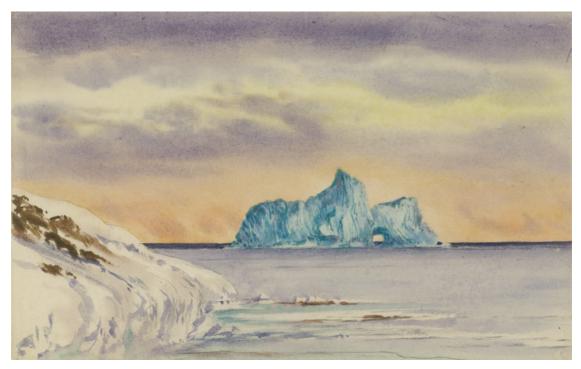


Figure 3.21 Edward Wilson, Berg off Cape Evans. April 23.11. Last Day of the Sun, 1911 (watercolor on paper, 21.2 × 13.4 cm), SPRI N:1401. © Scott Polar Research Institute, University of Cambridge, with permission.

The meteorological observations from the *Terra Nova* British Antarctic Expedition 1910–13, made under the supervision of the expedition's meteorologist, George Simpson, were not published until some time later, in 1923. Among those pages of over 600 tables of weather data is the "Table 78 Register of the First Relief (Dog Sledge) Party, Hut Point to One Ton Camp and Back February 26th to March 16th, 1912", as observed by Apsley Cherry-Garrard. ¹⁵¹ According to Cherry-Garrard, their purpose was to "hurry Scott and his companions home so they might be in time to catch the ship if possible". ¹⁵²

As with all the other tables, this table notes time, day and hour, position, barometer, dry bulb temperature in Fahrenheit, the wind direction and force, Beaufort notation for weather, and amount and kind of cloud, with a broad column for remarks. But what is not tabulated or remarked upon in this table is the narrative of the larger purpose of the First Relief (Dog Sledge) Party. Cherry-Garrard and Dimitri Gerov arrived at One Ton Depot on 3 March 1912, waited for Scott and his party for as long as provisions allowed and then started the sad return to Hut Point one week later. On 21 March, only 11 miles from One Ton Depot, the last three surviving men of the polar party pitched their tent for the last time. Once all hope was gone for the polar party's safe return, the remaining men, exhausted and somber, settled down for another winter in the hut. Cherry-Garrard wrote that "the first



Figure 3.22 The Ceremonial Pole at the South Pole surrounded by the national flags of the countries which were the first to sign the Antarctic Treaty. December 30, 2011, Photograph by Deven Stross. Courtesy of National Science Foundation/ Antarctic Photo Library.

thing which we settled about the winter that lay ahead of us was that, so far as possible, everything should go on as usual.". This included the taking of meteorological observations.

The National Centre for Earth Observations is a UK-based organization that takes all kinds of measurements of the Earth, including atmospheric and meteorological effects. They "are using Earth Observation (EO) data to improve our understanding of and ability to predict climate change". Earth Observations are intended to support wise action regarding the environment. But as we have explored in this chapter, the instruments used in establishing such data sets need to be calibrated in order to avoid distortions. I have proposed that those calibrations require more than a visit to Greenwich to set one's watch, but rather also entail an appreciation of the inseparability of observer and observed, and a new understanding of scientific observation.

Science's argument for observation in the field cannot be neglected: for example, as regards the measuring of sea ice in the Arctic there remains necessary and absolutely vital work to be done. But I suggest that we need to combine this with the application of Freudian comprehension of the disavowal of the observed facts, to develop an understanding of the failure to acknowledge observation, and use

this in the particular context of a changing climate. That is to say that charges of omissions in data might be due to our not *wanting* to see, rather than a failure in our instruments, as with our disavowed knowledge of the hole in the ozone, and of the disappearing ice caps. ¹⁵⁶ Freud might describe this as repression at play in things that we know but do not want to know. That which is shifted elsewhere undergoes a distortion; in Freud's terms, it is displaced in exile and covers over the site of a repressed knowledge. ¹⁵⁷ These denials can be interpreted through *Entstellung*.

In his deconstructive reading of Freud, Weber proposes that observation, despite Freud's own protestations, is not at the core of psychoanalysis. At the center of psychoanalysis, suggests Weber contra Freud, is rather a movement towards appearance, something Weber links to *Entstellung*.¹⁵⁸ Hence, for Weber, Freudian psychoanalysis does not find its ground in empirical observation. For Weber, psychoanalysis contains a structural movement of displacement and distortion in common with the ego's defense mechanisms.¹⁵⁹ Psychoanalysis, as a science based upon observation, turns its attention upon itself as an interpretative method, only then through interpretation to generate displacements elsewhere that never lead back to the origin. Thus observation in psychoanalysis turns the attention back upon the observer's role in generating those interpretations. Barad's onto-epistemology argues for a similar entanglement in which the cut between observer and observed is enacted as part of the boundary-making of a specific instrument-apparatus.

The psychoanalytical dream interpretation of *Entstellung* is patterned on the return journey that is different on the way back, or the ring composition in which the chiastic pattern is A-B-C-X-C'-B'-A'. This chiasmus is not a circular one, but the spiral, where "X" is not the final destination, but the axis of transposition. The chiasmus here is the transposition that occurs in metaphorical language, in figurative descriptions and in *ekphrasis*. The chiastic structure then is not just a decorative device, as some might argue is the ekphrastic excursion in the *Iliad*, but an addition to the main epic line of the narrative that introduces difference into the text. If one takes part in the spirit of chiastic inversion then the observer becomes observed, or the questioner questioned, as Paul and Wiseman put it. ¹⁶⁰ In *ekphrasis*, when the writing attempts to describe the absent visual object, we increasingly become aware of the medium and materiality of the rhetoric being used, rather than the ostensible object being described. Similarly, my refractive method draws attention to the medium and to its distorting effects. *Ekphrasis* as a kind of anamorphic writing can, I suggest, offer an approach that implicates the reader with the object under discussion.

Antarctica through the archive is not an encounter with the place itself; the encounter does not occur in the open air of Antarctica, nor even under the geodesic dome of the South Pole Station, but via the entrance dome and relative comfort of the archive and library and is refracted through the interpretations, the watercolor paintings and the descriptions found there. The shifts between paintings and their descriptions, between field and archive, between then and now, require as an interpretive method that I have called refraction.