

Douglas Mawson and the Nation of Science

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Douglas Mawson called his 1915 book *The Home of the Blizzard*. At face value, as Mawson first uses the phrase, the terms seem obvious: the Australasian Antarctic Expedition (AAE) of 1911–1914, which he led, made their home base at Cape Denison on Commonwealth Bay and collected data that proved it to be the most continuously windy place on the surface of the earth (Leane, *South Pole* 108). Fanning out from there, AAE scientific survey teams routinely faced hurricane-force winds and temperatures decades of degrees below freezing. Two men sledging alongside Mawson died in singularly polar ways: Belgrave Ninnis disappeared into a crevasse, and Xavier Mertz was ravaged by hypervitaminosis A after eating the sledge dogs' livers.¹ After Ninnis and Mertz died, Mawson trekked alone for thirty-one days; by the time he reached the main base, he had lost nearly half his body weight (Shearman 285). Ranulph Fiennes, the English adventurer known for courting his own extreme experience, says *The Home of the Blizzard* 'outshines' (ix) that other gruesome polar title, Apsley Cherry-Garrard's *The Worst Journey in the World* (1922). Subsequent biographies have echoed the comparison: Lennard Bickel's *Mawson's Will: The Greatest Polar Survival Story Ever Written* (1977), David Roberts's *Alone on the Ice: The Greatest Survival Story in the History of Exploration* (2004), and Mike Dash's article in *Smithsonian*, 'The Most Terrible Polar Exploration Ever' (2012).

Read, again at face value or close to it, as a record of the Heroic Age of Antarctic exploration, *The Home of the Blizzard* chronicles exemplary personal virtues of mental and physical strength, perseverance, and courage, along with social values of comradeship, solidarity, and shared purpose. This is a familiar path of reading, and a deeply satisfying one. For many explorers at the time, as well as for contemporary re-enactors of those early journeys, suffering was a personal test on the way to a 'firsting' or an accomplished itinerary; Mawson had already passed that test, as a member of Ernest Shackleton's *Nimrod* Expedition of 1907–1909.² Then, however, as well as on the AAE, his suffering seems incidental to his principal motivations, the collection of scientific descriptions of Antarctica and the production of a modern Australia prepared to receive that work.

Most of *The Home of the Blizzard* concerns the material conditions of experience, but under the circumstances this focus is far from superficial. Indeed, for the novelist Kim Stanley Robinson, Antarctica demands a 'physical aesthetics' (186), a heightened awareness produced by the contrast between 'the massiveness and extremity of the environment and the isolation and vulnerability of the observer' (Scheckter, 'Cold Dreams' 196). All human attempts at understanding and expression are conditioned by the physical circumstances of the observer. Robinson has us rappel down a deep crevasse to see how the Rayleigh effect makes the ice glow with blue light. 'One million shades of blue and white,' says a character in Favel Parrett's fiction *When the Night Comes* (2014): 'The scale of it all measured against me, one man standing here. One man, small and breathless' (71). The protagonist of Robyn Mundy's *The Nature of Ice* (2009) dances silently on ice, spinning around a South Pole of her own:

Freya wheels in lazy circles, her arms held out, absorbing—he can see it mirrored in her glasses—the silhouette of surrounding hills, the shimmering rink that seals the lake, the stark contrast between snowline and thick blue sky. Her eyes follow

a trail of snow petrels that dart from shadows in the rocks, a blink of white across the sky.

Mawson does not write fiction, of course, but needs all the same to show the bodily joy of entering the place he will name Commonwealth Bay:

Advancing towards the mainland, we observed a small inlet in the rocky coast, and towards it the boat was directed. We were soon inside a beautiful miniature harbour completely land-locked. The sun shone gloriously in a blue sky as we stepped ashore on a charming ice-quay—the first to set foot on the Antarctic continent between Cape Adare and Gaussberg, a distance of about two thousand miles. (*Home* 41)

Again, while this path of reception is certainly satisfying, the naming of Commonwealth Bay, like the memorial naming of glaciers for Ninnis and Mertz, points to larger issues.

The Home of the Blizzard was intended as a best seller.³ Mawson needed it to be one, too, to settle the huge expenses of the expedition: as with many ventures, his had cobbled together public and organisational funding, commercial support, and private donations, but much depended upon book sales, film presentations, and lecture tours. The book thus joined its fellows in a familiar genre: Robert Falcon Scott's *Voyage of the 'Discovery'* (1905) and Ernest Shackleton's *Heart of the Antarctic* (1909). For his project, Mawson enlisted the experienced Frank Hurley to produce both still and motion pictures, acknowledging that popular appeal would require a different narrative from the scientific documentation he preferred. He would need a tale enacting what Robert Dixon says Hurley was good at: 'performance values of colour, sound, suspense, sensation, surprise, shock, plenitude, and exoticism—a utopian realm of sensation' (Dixon 210). This obligation to record several kinds of information at once, anticipating their reception by a variety of audiences in the temperate world, results in a thorough unsettling of 'home,' the term that at first seemed so specific in Mawson's title. Like Scott and Shackleton, Mawson could draw upon vivid Britannic tropes of muscular Christianity and neo-chivalric questing, but as an Australian he also recognised the need, and the opportunity, to prepare his audiences to receive his work.

In her memoir *Terra Incognita* (1996), Sara Wheeler observes that Chilean maps of South America 'did not come to a stop in Tierra del Fuego. A small triangle was suspended at the bottom of every map. They called it *Antártida chilena*' (xiii). Mawson imagined similar extension in 1911, a southward continuation of the Australian homeland. A decade before, Federation had not only politically comprised the physical continent of Australia, but had also crossed seas to include Tasmania, Norfolk Island, and the more distant Macquarie Island. Such political leaps, based on geographical proximity, might be bolstered by evidence of shared geologies. Thus, Mawson's conceptual expansion of Australia stood to be supported by his scientific programme, potentially allowing his claims to be far more persuasive than the imperial imaginings of his Northern Hemisphere contemporaries. Like Wheeler's maps of Chile, an extension of Australia to Antarctica based on hard evidence would locate Dixon's 'utopian realm' in the making of substantial connections. In a similar vein, Bill Ashcroft calls utopia an act of transforming space into a future 'home,' conceived but not yet realised, a place that supports speculations of a gratifying future. Mawson's Antarctica would become such a place, where engagement of a harsh present would be shaped not only by immediate problems of survival, but also by subjunctive forecasts of Australian accomplishment. In that sense, Antarctica represents a utopian home because of the blizzard, not despite it. In the relentless

present, human survival there requires both individual determination and collective support; if utopianism is by nature contingent and potential, then Antarctica clearly highlights the enormous pressure of the future upon the present, the need for planning, attentiveness, and sure response.

Those behaviours that foster polar survival can be enlisted as metonymic concentrations of values that are similarly useful elsewhere, ‘back home.’ That is, the utopian opportunity is not fully located in Antarctica itself, by way of colonial settlement, resource extraction, or similar methods of claim that were formalised, for example, by the Berlin Conference of 1884–1885.⁴ Rather, a utopian future would open in Australia through interaction with Antarctica that would improve the home society and legitimate the nation. Improvement based upon Antarctic recognitions might not come easily, but sacrificial effort highlights the potential value of utopian progress, even as ‘the physical environment there sharply interferes with the mechanisms of social analogy and cultural relativity that elsewhere provide more comfort’ (Scheckter, ‘Cold Dreams’ 196). The cold, hard materiality of the discussion is precisely the cultural value of Antarctica: to use Wheeler’s phrase, the reflection back to Australia is what makes Antarctica more than ‘a testing ground for men with frozen beards to see how dead they can get’ (xiii). Mawson came close to death many times, of course, but early on *The Home of the Blizzard* moves away from describing Antarctica as a personal testing ground, toward finding there a confirmation of modern utopianism, the future written in careful scientific observation. Mawson’s accounts are rarely demonstrative, but they are politicised without restraint in three directions of desired future, each measured by its particular set of soundings. First, he elicits Australia as a distinct entity capable of supporting its own directives and self-interests. Second, he resituates federated, modern Australia within a revised British Empire that would function mutually and reciprocally. Third, this modern Australia would earn a global position in the community of science.

Mawson’s intention to bring home the utopian story conditions his description of the approach to Antarctica. Closing in on the border of ice, soundings must be taken—a weighted line dropped to measure the depth of the water and often, on these voyages, a dredge to determine the geology of the seabed.⁵ Scott, on his *Discovery* expedition (1901–1904), explains the necessity even as the ship suffers engine trouble:

Having raised steam in one boiler, at 2.30 we stopped and took a sounding . . . It is almost impossible to sound or dredge in thick pack-ice, owing to the danger of entanglement of the lines, and this was to us a very great drawback, because in pursuing our general explorations it was constantly necessary to enter the pack. (Scott 1.89)

Like so much in Antarctica, this is dangerous work that simply must be pushed through. Shackleton, on the *Nimrod* expedition (1907–1909), finds a justifying exhilaration as he takes soundings from a small boat:

We were pulling along at a good rate when suddenly a heavy body shot out of the water, struck the seaman who was pulling stroke, and dropped with a thud into the bottom of the boat. The arrival was an Adelie penguin. It was hard to say who was the more astonished—the penguin, at the result of its leap on to what it had doubtless thought was a rock, or we, who so suddenly took on board this curious passenger. (54)

This could not happen anywhere else on earth. It is easy to see why many polar writers swear that they would not trade the experience for warmth or comfort; the narrative challenge, then, is to avoid the self-containment of exoticism, so that conversations between the home of the blizzard and the temperate homeland generate enough recognition and empathy to project a utopian future.

At a similar point of approach, Mawson delivers the lovely postcard image of Commonwealth Bay that we saw above. That act of naming extends the map of Australia in the same way that Wheeler describes maps of Chile, and evokes Dixon's 'performance values' thoroughly enough to disguise the actual hard work of constantly dropping the weighted line. Back aboard the *Aurora*, Mawson says 'the sounding machine was kept running with rather dramatic results; depths jumping from five to thirty fathoms in the ship's length, and back again' (*Home* 43). 'Dramatic' is the utopian term here, telling us how to understand the work as part of the larger enterprise. Mawson is consistent in this instruction. Even during his horrendous solo journey, after his companions die, Mawson draws us in with scenes of beauty: 'All that night and until noon on the 22nd wind and drift prevailed, but the afternoon came gloriously sunny. Away to the north beyond Aurora Peak was a splendid view of the sea at Buchanan Bay. It was like meeting an old friend and I longed to be down near it' (*Home* 195). From here, an Emersonian figuration is not much of a stretch: that is, the projection of a desired future depends upon a solid bed of empirical practice, sounding one's physical and spiritual depths at once, in the present, learning to read air and water and ice, anticipating changes of condition and course. The simultaneous comprehension of the moment and transcendence of immediate circumstances, characteristic in Emerson and Thoreau, contextualise Mawson's physical suffering. Tom Griffiths describes how, 'As he buried Mertz, he also mourned that he had not had time to commit his recent geographic observations to paper. The hope of reaching warmth and food and safety drew him on, but so did the secondary aim of getting close enough to be found dead with his records' (26). For D. J. Shearman, a physician, Mawson 'drove himself to deliver his wealth of scientific observations' (285). To be sure, the environment shelters neither sentiment nor science—to the end, Scott and his 'weakening, doomed men' hauled 35 pounds of rock samples (Griffiths 17).⁶ Yet some aspects of Mawson's training and practice as a geologist suggest why he committed himself to such risk.

Old hands in polar regions pride themselves on the extremity of physical aesthetics. Robinson's protagonist in *Antarctica* greets a rough climb with a 'hard little grin': 'they had come up about the height of two World Trade Towers at this point, and had about two Empire State Buildings to go' (186). Field researchers in the early twentieth century generally acknowledged a similar commitment of their bodies. Mawson found support in traditions of manliness and pioneering—he read Robert Service and Rudyard Kipling without end—but his personal acceptance of exertion and risk depended upon thinking as a scientist.⁷

Mawson was undoubtedly tough in every sense of the word, which certainly helped, but it was the way that his mind constantly reassessed the problems ahead of him that allowed him to keep pushing on. He learned from every mishap, then implemented his revised plan or technique. He changed his immediate goals and in this way prevented the enormity of the obstacles ahead overwhelming him. (Hall 135)

The potential social effects of such individual commitment are highlighted when seen against a different background, where its assumptions challenge their cultural framework. Grace Yen Shen finds that in 1911, at the end of the Qing dynasty, Chinese field scientists had a hard fight

against elite traditions that ‘made geology far more of a challenge to traditional Chinese intellectual identity and masculinity’ (Shen 233). Individuals took the call to modernise as a demand for physical exertion and risk-taking, forcing the new point that ‘Chinese identity was defined by the willingness to remake oneself for the sake of the nation In turn, hardships the body suffered for the nation both naturalised foreign science and transformed the ideals of Chinese modernity’ (234). Like many others, Chinese scientists sought a ‘global frame of reference’ (241), and self-consciously ‘could look to strenuous fieldwork not only to reinvent themselves but also to identify with collective renewal’ (233). Brigid Hains describes Mawson similarly: ‘in his own journey of self-discovery he was renewing the character of the nation at large’ (15). In this light, physical risk and suffering appear less romantic than sharply modern, the price paid to show seriousness and high purpose in bringing one’s nation into a new age and a new globe.

Like the Chinese, Mawson expected himself not only to fulfill the highest standards of international (i.e. European) science but also to assert that local studies made by lately colonial, now Commonwealth, observers were as valid and interesting as any (Connell 82). In Canada, Suzanne Zeller finds, emigrant Scots geologists established social roots in the same territory they mapped and studied scientifically (93)—performing exactly the sort of utopian projection Ashcroft describes.

With geology in its vanguard in Canada, Victorian scientific culture rested solidly upon empirical, utilitarian, and increasingly entrepreneurial foundations Geologists, in particular, helped to define both possibilities and limitations in colonial economic development, proclaiming their ability to locate, classify, and publicize a given territory’s agricultural/industrial resources. (105)

Inscribing the pride of place they found, Canadian geologists named topographical features not only in commemoration but also as assertion of their right to do so (98); such actions do not abandon European models, but rather acknowledge the social implications of ‘a wider spectrum of *possibilities* inherent in the geopolitical spectrum of a rich peripheral country’ (Connell 85). Mawson’s efforts were similarly located, then, within the larger purpose of remapping Australian conceptual territory, the space Australians might think of as home—homeland—the space in which the reciprocal exchange between personal identification and social identity could be enacted. The new map would not radiate outward from Britain, but would elevate Australia as a geocultural centre in its own right, encompassing Antarctica not as a state, through political claim, but through cultural influence, by way of discovery, mapping, and authoritative report to the global community.

Mounting a denominated Australasian expedition allowed Mawson to choose his own personnel, asserting the quality of Australian training while perhaps avoiding some of the conflicts that dogged Scott and Shackleton. ‘Ours proved to be a very happy selection. The majority of the men chosen as members of the land parties were young graduates of the Commonwealth and New Zealand Universities, and with few exceptions all were representative of Australasia’ (*Home* 7; Riffenburgh discusses their backgrounds at length). With gentility after the fact, Mawson glosses over some genuine and lasting animosity, certainly to be expected in close quarters over two long polar winters, but at the outset of the chronicle his term ‘happy selection’ recalls Dixon’s ‘utopian realm’ (210) of performance values. For Dixon, such terms are ‘potentially available for political use,’ and Mawson deployed them here in tacit but ‘heavily moralised’ (Connell 14) projections of a utopian nationalism. At the same time, however, Mawson’s choices reinforced the boundaries of that projection. His Antarctica would

be a realm of white men, who would undergo ‘brutal, yet just, tests of character’ by ‘being immersed in the harshest of natural worlds’ (Hains 21). The immediate story of survival and accomplishment in Antarctica, when expanded into a narration of values brought home to Australia, lent itself to wider characterisations of experience as Darwinian conflict that could in turn be brought to support eugenic notions of racial order (Hains 20).

Whether or not Mawson foresaw such an expansion, the first use of his title phrase indicates how the re-centring and re-bordering of the Australian map will proceed.

We dwelt on the fringe of an unspanned continent, where the chill breath of a vast, polar wilderness, quickening to the rushing might of eternal blizzards, surged to the northern seas. We had discovered an accursed country. We had found the Home of the Blizzard. (88)

Temperature aside, the image of an isolated human settlement on the edge of a vast, inimical continent is of course a familiar trope of colonial Australia. In the terms of 1911, its use here links the events to come in Antarctica to the past hardships, and considered triumphs, of Australian history. If Australia has become ‘a rich peripheral country,’ able to launch its own expedition, then the lessons of settlement—taken as signs of national character—encouraged a cultural claim to that other, still-unspanned continent to the south. Science underscored that connection.

For Mawson the geologist, the arid outback of South Australia and the arid ice sheet of Antarctica were linked. It was not just the rocks. For adventurous and scientific Australians of the early twentieth century, two frontiers beckoned: the white ice and the red heart . . . He studied the glacial sediments and landscapes of South Australia and recognised the residue of an earlier, much more ancient ice age, and soon he ‘desired to see an ice age in being.’ (Griffiths 97–98)

Geological similarities were obvious on the surface: the work of the expedition would establish in detail the scientific bases of the comparison, while the bodily presence of the scientists would inscribe that work within Australian cultural territory. Mawson’s Commonwealth Bay in Antarctica ratified the Commonwealth of Australia at home, just as the work of geologists in Canada ‘was used to justify a wholesale reconstitution of British North America into a transcontinental Canadian dominion’ (Zeller 105). The physical aesthetic in each case undercut claims of scientific universality (Prakash 4), proudly highlighting local work as specific national imperative.⁸

On 19 January 1912, with the *Aurora* about to depart from Commonwealth Bay and leave the expedition alone for a year, Mawson wrote a last letter to his fiancée, Paquita Delprat (Roberts 150). As he closes with ‘your loving Douglas,’ he tells her ‘there is an ocean of love between us dear.’ Had the Southern Ocean ever been described in such a way? It is an extraordinary mapping of personal and bodily space. For Mundy’s character Freya, a photographer whose project closely references the AAE, ‘it was as though he had folded and sealed all his personal emotions in the letter.’ But Mawson’s figure suggests expansion, not closure: that intervening sea represents transcendent purpose, commitment, and promise both to the coastline he has left and to the one he is entering. His intensity leaves little question why other explorers thought highly of him, and why he needed to lead his own expedition. Edgeworth David, Mawson’s academic mentor and team leader on the *Nimrod* expedition, declared him the ideal: ‘an Australian Nansen, of infinite resource, splendid physique, astonishing indifference to frost’

(Roberts 83). David observed not only personal qualities but suggested that an Australian might lead an expedition as the Norwegian had, without imperial subordination.⁹ As Mawson developed his plans, he built support by apprising both the scientific community and the general public (Riffenburgh n.p.). In the June 1911 issue of *The Geographical Journal*, he emphasised that the scientific objectives were paramount, and claimed ‘this region has a special call upon Australasians’ (‘Australasian Antarctic’ 610). Scott, he said, approached him for the *Terra Nova* expedition of 1910 with legitimate science among his declared interests but with a clear fixation on firsting the South Pole (610). Scott offered Mawson £800 to join him on the final push to the pole, but Mawson countered that Scott might help him establish a scientific base at Cape Adare, and the discussion ended (610; Hall 56). At the same time, Shackleton was planning a second expedition, and offered to take Mawson as scientific leader to explore the coast between Cape Adare and Gaussberg, the territory the AAE would go on to explore (610; Hall 57). The two got along well, but financial difficulties arose, and Shackleton would have to put off his *Endurance* expedition until 1914 (610; Hall 60).

Two doors close, as they say, but then ‘the enthusiasm with which Australia and New Zealand have always followed Antarctic research, and their growing resources, led me to decide upon an expedition at least chiefly supported by those colonies’ (610). Almost overnight, Mawson had plan enough to approach the Australasian Association for the Advancement of Science (AAAS) (Riffenburgh n.p.). Orme Masson, the president of the organisation, applauded the idea:

this is a proposal for the organisation of an expedition which will be peculiarly Australasian; and because we are part of the British nation, which has always taken such a leading part in geographical discovery, and because we happen to be that section of the British nation which rests nearest to the proposed field of investigation, it is surely—if I may use an Australian phrase which is rather expressive—it is surely ‘up to us’ to assist. (Quoted in Mawson, ‘Australasian’ 610)

The AAAS offered £1000, a third of their assets, and appointed a committee to seek state government grants. William Heinemann, the publisher, advanced another £1000 for the book that would become *The Home of the Blizzard* (Hall 60). *The Aurora* alone would cost £6000, and Mawson estimated the budget for the AAE at £60,000 plus gifts in kind (*Geographical Narrative* 13); as he wrote in mid-1911, however, Mawson had enough assured funding to go ahead—and he also faced apparent betrayal. In February, Scott landed his Northern Party at Cape Adare, not only interfering with Mawson’s plans but also appropriating the hut and supplies that Carsten Borchgrevink had left in 1899. Scott had good reasons, but Mawson’s anger is palpable.¹⁰ He might have allowed himself a hard little grin when he found a new anchorage and called it Commonwealth Bay.

Orme Masson’s gleeful vernacular, ‘up to us,’ positions Australia somewhere between Britain and Antarctica, and relocates the expedition’s ‘global structures and connections’ by positing ‘an Australian starting point’ (Connell 85). This shift produces the slight resistance that Gyan Prakash finds in colonial modernity: while scientific procedures remain constant, the location and identity of the practitioners create ‘an uncanny double, not a copy, of the European original—it was almost the same, but not quite. In the colonial context, the universal claims of science always had to be represented, imposed, and translated into other terms’ (5-6). Those differences need not be oppositional, but rather alternative or additive: an Australian polar scientist, for example, might perform the same work as a British one, but would reference a

different upbringing and training, would seek acclaim from another public. The doubling began earlier, however, in the material pre-story, with Mawson's innovative use of Australian sources: an expedition begins with long lists of every supply that might be possibly be needed, with additional duration and redundancy built in. Much of the cold-weather clothing and equipment was purchased from experienced suppliers in the north; the *Aurora* was built in 1876 for whaling off Newfoundland, and the forty-eight sledge dogs came from Greenland (Roberts 94). Aside from those specialised items, much of the 'enthusiasm' Mawson perceived among Australians lay in the established capability of local manufacturers and suppliers. Appendix II of *The Home of the Blizzard* acknowledges individuals and firms who donated, loaned, or consulted on equipment:

Two complete sets of Telefunken wireless apparatus were purchased from the Australasian Wireless Company. The motors and dynamos were got from Buzzacott, Sydney, and the masts were built by Saxton and Binns, Sydney. (422)

The largest of our huts, that erected in Adelie Land, was presented, jointly, by the timber merchants of Sydney. The hut which found its way to Queen Mary Land was the gift of Messrs. T. Anthony of Melbourne. (423)

Everything—enough coal for the *Aurora* to steam fifty thousand miles (Mr John Brown of New South Wales and others, 423), surgical instruments (Allen and Hanbury, 423), two stellar sidereal chronometers (Adelaide Observatory, 422), photographic plates (Kodak of Australia, 424)—had to be procured through complex networks of supply. Certainly, many of the materials were manufactured in Europe or under license in Australia, but emphasising local sources reduced expenses, and more importantly demonstrated the 'uncanny double' of Australian modernity. Thus Mawson situated Australians' interest in Antarctica within their familiar circumstances: timber barons and carpenters alike, government astronomers and Arnott's bakers and their families, could follow the news with a sense of immediate investment. Local pride potentially increased book and film sales, but also broadly upheld civic claims of common purpose and mutual dependence, and these reverberated widely as utopian projections. The AAE, it was hoped, would help confirm an evolution out of colonial relationships, between Australia and Britain and also among the states of the new Commonwealth; earlier imperial networks would be substantially remapped in acknowledgment of the new capitals, which were themselves rapidly becoming centres of their own networks.

In its public roles, Mawson's 'sea of love' was scientifically fascinating. For the poet Elizabeth Bradfield, working on a ship in 2017, observation becomes internalised, an embodied aesthetic:

Emperor penguins! Sea ice bumps to horizon. Last year's shuffling tabulars trapped in old pack. Connected, apart. Why are we here? Decadence. Delight. Desire. A tourist ship discovered this colony just ten years ago. *Discovered*. Could have been us. Could have. (95)

With the AAE, it was more than 'could have.' The expedition added 1200 miles of surveyed coastline and thousands of miles of soundings taken by the *Aurora*. New organisms turned up continually in the shallows of Commonwealth Bay (Hall 80); sledge teams found the first meteorite and 'the first nesting ground of the Antarctic petrel' (Roberts 184, 191); they collected evidence that suggested a continuous landmass under the ice (Fogg 252). Picked up after two winters on the ice, Mawson all the same directed the *Aurora* to follow the coastline for another six weeks, 'trawling for marine life and dredging for ocean-bottom specimens' (Roberts 286).

In his June 1911 précis of objectives in the *Geographical Journal*, Mawson declared that ‘lying within wireless telegraphic distance of our borders, this region has a special call upon Australasians’ (610). Radio was new, and successful communication would be a real Antarctic ‘first’ to be claimed for Australia. ‘The logic of Mawson’s vision relied on the idea that Eastern Antarctica would become part of the newly formed Australian nation, with the wireless being the primary mechanism that sutured the continents together’ (Leane et al., ‘Beyond’ 6). Cape Adare, the base Mawson initially planned, would have been a long, impractical radio distance from Australia, but Commonwealth Bay lies about 1200 kilometers west of Adare, advantageously closer to Australia; better than that, Macquarie Island triangulates the distance halfway.

The first wireless success, along with some of the AAE’s most significant remapping, was achieved by the five-man party dropped off at Macquarie Island as the *Aurora* made its way to the mainland. With George Ainsworth as the station leader, this group extended Australian home territory in many traditional ways, where colonising and science overlap: they took soundings of surrounding waters, collected biological and geological samples, made topographical maps, and erected huts—and antenna masts—as no previous expedition had. Prakash notes that these activities impose cultural organisation upon the space: ‘together they constitute a grid, a coherent strategy of power and identity underpinned by an ideology of modernity that is legitimated in the last instance by science’ (3). Further, as state-of-the-art scientific methodology returned to Australia in generalised reports, disciplinary boundaries blurred into a general sensibility of modernity where ‘science traversed a vast arena, encompassing fields from literature to religion, economy to philosophy, and categories from elite to popular’ (7). Lacking the caution of scientific methodology but utopian in the main, Australians could claim their part in the modern increase of knowledge, a new organisation of global space and a corollary emergence of Australia from imperial subordination into cutting-edge leadership.

In the field, an AAE party did not simply make the morning tea. They measured the boiling point of water and used a hygrometer to determine altitude above sea level, recorded the weather, and then made tea (see Roberts 27). Everything was the matter of scientific work, and that was the thrill. In February 1912, a few short paragraphs from Ainsworth’s log cover a wide range of work and capture the thrill of success—adding details that might lead toward the utopian projection of a proud future.

Hamilton returned from Sandy Bay on the 11th laden with botanical trophies and four specimens of a small land bird, apparently an endemic finch, which we had never before seen. . . .

On the night of the 13th what we had long expected happened. Wireless communication was established for the first time with a ship—S.S. *Ulimaroa*. Sandell and Sawyer were complimented on their success.

On the following night communication was held with Sydney, S.S. *Westralia*, S.S. *Ulimaroa* and H.M.S. *Drake*; the latter very courteously sending us time signals. We heard that a wireless station had just been established in Melbourne, and that the Hobart station would be working in about one month. It was with the latter station that we expected to do most of our business. There was great joy in the camp because we were no longer isolated from the world. (cited in Mawson, *Home* 348–49)

As Walt Whitman said sixty years before, in utopian America, ‘distance avails not; . . . I project myself—also I return’ (‘Crossing Brooklyn Ferry’). The radio network functioned imperfectly, to be sure: wind destroyed antenna masts and auroral activity caused massive interference.¹¹ Wireless operators at Macquarie would spend hours trying to send a brief message. The Cape Denison station became functional only when a new radio operator arrived with the *Aurora* in February 1913 and volunteered to stay on for the second polar winter. The new man, Sidney Jeffryes, went mad beyond recovery, a casualty of that place as surely as Ninnis and Mertz (see Roberts 260–62, 268–73; Leane, ‘Polar Explorer’). The ‘great joy’ of modernity came at a price, always, but wireless recognised a world to come: a significant reconfiguration of Australian space and continuity, an ethereal Gondwana mapped out in the Morse Code dots and dashes of the daily weather report.

The wireless reports from Macquarie Island led Edgeworth David to elicit ‘the great benefit that results from the more accurate weather forecasting made possible by this station, forecasting on the accuracy of which not only so many industries but the very lives of our sailors depend’ (*Report* 414). In addition to this immediate value, radio equipment allowed ‘scientific studies of the ionosphere, or “conducting layer” as it was then known’ (Dudeny 235). The data, correlated with magnetic and auroral observations, demonstrated ‘that some property of the upper atmosphere allowed radio waves to bend around the horizon, and so to be used for communicating over very long distances’ (Dudeny 235; also Fogg 319). To be sure, the greatest achievements of the AAE came out of its Humboldtian practices, combining close observation with interdisciplinary application (Fogg 396–97); the intensity of Antarctic activity fed back to the broader public as holistic attentiveness to larger purposes.

In 1912, complete weather observations were taken every six hours; these consisted of reading the barometer and screen thermometer, estimating the wind velocity and noting its direction on the vane, describing the cloud, recording any phenomena like snowfall, drift, St. Elmo’s Fire, coronas and halos, sunset colours, state of the sea, and auroral displays. (Griffiths 47)

All of this took into account the 90-mile gales and subzero temperatures, but those were never the story itself. Griffiths’s list is the scientific counterpart of Dixon’s set of entertainment values: in substantial ways, 1500 pages of weather data are more exciting than tales of eating the dogs.

Scientific reports were the bedrock justification of the AAE: the utopian future would support world-class institutions—universities, publishers, and libraries. ‘Mawson firmly believed that the expedition itself had little value unless those reports could see the light of day’ (Roberts 300). Arranging for publication occupied him for several decades, as almost everything that could hinder such a project worked against him. ‘Thanks to Mawson’s doggedness,’ however, ‘by 1947 twenty-two volumes comprising ninety-six separate scientific reports from the AAE had been published’ (Roberts 300). The title page of Mawson’s *Geographical Narrative and Cartography*, meant to initiate the entire project, advises ‘350 pages of text, 30 text figures, 7 map plates, 2 folding maps and 124 half-tone plates.’ Each of the plates contains two to four images, making the work, among other things, an immense photographic archive of the age—and also expensive to produce, with a price of £3 17s. 6d. As with *The Home of the Blizzard*, Mawson worked with reports from the several team leaders and Capt. J. K. Davis of the *Aurora*, but the information here includes tabular listings of weather data, rock formations, depth soundings—nearly everything measurable, an invaluable baseline for future research. Extensive gazetteers describe places named by the expedition:

COMMONWEALTH BAY (The Commonwealth of Australia) in its more restricted application denotes the embayment of the coast limited on the east by Cape Denison and the Mackellar Islets and on the west by the ice cliff coastline as far as Cape Hunter. A useful anchorage is to be found to the west of and within a mile of the actual point of Cape Denison. (*Geographical* 308)

Sailors long for clear soundings and useful anchorage, but skill and dedication cannot guarantee stability: ‘The outbreak of the European war, following immediately upon the conclusion of our explorations, was a disaster of the first magnitude in its repercussion upon the prompt and successful publication of reports dealing with the work achieved’ (*Geographical* 13).

While Mawson planned his journey in 1910, talks also began to hold a conference of the British Association for the Advancement of Science in Australia. The plan came to fruition in August 1914, another important recognition of Australia as a modern scientific nation. More than 300 delegates attended sessions in Adelaide, Melbourne, and Sydney, and visited everywhere (see Scheckter, ‘Modern’). Mawson, returned by then, spoke at length and used lantern slides to describe the accomplishments of his group in several areas—meteorology, biology, geomorphology among others. He heard himself widely praised; in a keynote address, Sir Charles Lucas found that ‘the scientific results of his work, including the carrying of wireless telegraphy into the Antarctic Continent, illustrate my thesis that man is a geographical agency’ (426). The same sentiment moved John Greenough of the American Geographical Society at a later presentation of Mawson’s speech and slides: in January 1915, introducing Mawson in New York, Greenough hoped ‘that the qualities of courage and endurance shown in pursuit of a common end in the instance before us may be an augury of like concert between our kindred nations in the attainment of worthy purposes wherever occasion may invite us’ (122). Here is another possibility for redrawing the map of Australia, connecting to America, another invitation to expand the utopian home. By 1915, of course, it was already too late. The advancement that Edgeworth David predicted would quickly become militarised: long-range radio might save the lives of ‘our sailors,’ but it would also be used to find others’ ships and sink them. Australia’s claim on modernity based upon a universal and neutral contributions to science rapidly gave way; projected realignments of imperial networks were subordinated to the Imperial high command, and the language of scientific cooperation was stifled by the language of world war.

NOTES

¹ Shearman 283. Riffenburgh (Ch. 9) considers that both Mertz and Mawson presented symptoms consistent with hypervitaminosis A, but adds that each ‘suffered from exposure, dehydration and a calorific intake insufficient for his level of activity’; adversities agglomerate, too, so there might not be a single cause of death.

² Hains 22. Mawson had his own ‘firsts’ on the *Nimrod* Expedition: he was in the party that first reached the Magnetic South Pole (or came close—the claim was later disputed), and in the group that first summited Mount Erebus. Leane (*South Pole* 174–95) discusses issues of contemporary tourism in Antarctica, including modern reenactments of historic journeys (180–81).

³ The book did not sell as hoped. ‘The two-volume *The Home of the Blizzard*, published by William Heinemann in January 1915, was limited because of the war to a first edition of 3,500 copies. Three and a half years later, at the end of the war, combined sales in the United Kingdom and the United States amounted to only 2,200 copies’ (Roberts 299). Lippincott published an American edition of the 1915 volumes. An ‘abridged popular edition’ appeared in 1930, reprinted in facsimile in 1996 and 2010. The text used here is a 2016 printing of the 2010 edition.

⁴ Collis (562) connects the Berlin Conference of 1884–1885, which focused on colonising Africa, with both polar exploration and the inland settlement of Australia: all of the major powers with interests in Antarctica also sent delegations to Berlin. Later claims of legitimacy by new nations such as Australia (1901) and Norway (1905) were

often bolstered by adherence to the resolutions of such meetings. See also Hemmings's discussion of Antarctic field camps as evidence of 'occupation.'

⁵ Soundings are traditionally measured by the fathom, equal to 6 feet. The *Aurora* had a draught of 3½ fathoms (18.75 feet or 5.72 meters), measured from the waterline to the lowest point of the keel.

⁶ 'The specimens became crucial evidence in the early theories of continental drift, which were at first discredited and finally became one of the twentieth century's great scientific revolutions' (Griffiths 17). Mawson never accepted continental drift.

⁷ Leane (*Fiction* 123) notes Mawson's familiarity with *The Rubaiyat of Omar Khayyam*. She also observes that *The Home of the Blizzard* quotes a poem by Robert Service that was published in 1912, so Mawson could not have seen it at the time he describes. He was Mawson's favourite poet, however, so 'the point nonetheless remains: Service's poetry urged him to go on' (123). See also Hains (11).

⁸ National assertion, intended however positively, no doubt contributed to 'the repudiation by scientists and scholars of their transnational disciplinary solidarities following their countries' entry into World War I' (Forman 67).

⁹ Fridtjof Nansen, already a hero for his explorations in Greenland and the polar north, helped negotiate Norway's independence from Sweden in 1905. As a diplomat with the League of Nations, he worked for the assistance of refugees and devised the 'Nansen Passport' to protect stateless persons. In 1922, he was awarded the Nobel Peace Prize. Hains (18) finds the comparison racially charged, supporting myths of nordic fortitude that contrasted with equatorial softness. As with Mawson's personnel decisions, and as with the images of Anzac troops that would emerge quite soon, we may wonder at the degree to which David consciously intended the racist language of eugenics—certainly current at the time—or echoed unthinkingly a default to racial types.

¹⁰ Amundsen had already appropriated one of Scott's intended sites. Before Mawson's presentation to the Royal Geographical Society, its President, Leonard Darwin, felt compelled to redirect any rising emotion: 'These misfortunes are to be regretted, but they do not in the slightest degree dim our confident expectations that Captain Scott will produce splendid scientific results, or shake our hopes of his reaching the Pole. As to the Norwegian expedition, it will be best to say little about it' (*Geographical Journal* 617). The Northern Party produced splendid results indeed, particularly in year-round observations of penguins.

¹¹ Difficulties with the wireless were not the only failed attempts at bringing modern technology to Antarctica. Scott's *Discovery* carried experimental 'motor sledges' for the push to the pole, but they could not be made to function properly. Anticipating great advantages in survey work, Mawson had a Vickers monoplane shipped to Australia, along with a pilot/mechanic. 'But then, in a test flight-cum-fundraising show at a racecourse in Adelaide,' the company pilot crashed it and ruined the wings (Roberts 96). Mawson took the wingless fuselage to Antarctica to use as a motorised tractor, without much to show for it. In both cases, the experienced operators were dismissed before the voyage south, leaving the expensive, finicky machines in untrained hands.

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