

**ANTARCTICA: A CONTINENT FOR ENVIRONMENTAL HISTORY**

ANTÁRTICA: UN CONTINENTE PARA LA HISTORIA AMBIENTAL

**Adrian Howkins. Ph.D**Colorado State University – Department of History  
Fort Collins, Colorado – United States  
howkins@mail.colostate.edu**FECHA DE RECEPCIÓN:** 1 agosto 2010 – **FECHA DE ACEPTACIÓN:** 5 septiembre 2010

**ABSTRACT:** This paper asks two questions. What can the history of Antarctica contribute to the field of environmental history? And what can the field of environmental history offer our understanding of Antarctic history? Thinking about the environmental history of Antarctica as both strange and familiar, the paper argues that the relative simplicity of Antarctica's history offers environmental historians an opportunity to think carefully about the theory and practice of their discipline. In turn, the paper argues that the field of environmental history has much to offer our understanding of Antarctic history, using the origins of the 1959 Antarctic Treaty as a brief example.

**KEY WORDS:** Environmental History – Antarctica – 1959 Antarctic Treaty

**RESUMEN:** Este ensayo gira en torno a dos preguntas. ¿Qué puede la historia de la Antártica contribuir a la disciplina de la historia ambiental? Y ¿qué puede la disciplina de la historia ambiental agregar a nuestro conocimiento de la historia de la Antártica? Utilizando la idea que la historia ambiental de la Antártica es al mismo tiempo distinta y familiar, el ensayo propone que la simplicidad relativa de la historia de la Antártica ofrece a los historiadores ambientales una oportunidad para pensar profundamente en la teoría y la práctica en su campo de investigación. Por lo tanto, el ensayo propone que la disciplina de historia ambiental ofrece mucho a nuestro conocimiento de la historia de la Antártica, empleando los orígenes del Tratado Antártico de 1959 como un ejemplo breve.

**Palabras Claves:** Historia Ambiental – Antártica – Tratado Antártico de 1959

**I. INTRODUCTION**

The title of the paper is a play on the popular designation of Antarctica as a continent for science.<sup>1</sup> The idea of Antarctica as a place of peace and science took concrete form during the International Geophysical Year (IGY) of 1957-58. In December 1959, the twelve nations that participated in Antarctic IGY research signed the Antarctic Treaty, which brought about a limited internationalization of the Antarctic continent.<sup>2</sup> The Treaty suspended territorial claims to the continent and expressly called for a continuation of the scientific co-operation begun during the IGY. Since its signature, the Antarctic Treaty has proved extremely effective in keeping the peace, promoting scientific research, and protecting the natural environment in Antarctica. The purpose of this paper is to think about

Antarctica from the perspective of environmental history. It asks two related questions. Firstly, how can studies of Antarctica contribute to our developing understanding of the field of environmental history? And secondly, how can the methodology of environmental history aid our understanding of Antarctic history? The first half of the paper will consider the first question and the second half will come back to the second question by looking briefly at the role of “environmental history” in the origins of the 1959 Antarctic Treaty.

## II. A CONTINENT FOR ENVIRONMENTAL HISTORY

The field of environmental history is a rapidly developing historical sub-discipline that looks at the interactions of human actions, human ideas, and the material environment over time.<sup>3</sup> A theatrical definition of the field might be that it is a form of history where the environment itself is a historical actor, rather than just being the stage upon which history takes place. Environmental history explicitly brings the environment into its analysis of change and causation. As it is currently practiced in the United States, environmental history developed out of the environmental movements of the 1960s and 1970s, as environmentalists sought to understand the environmental degradation which they were fighting against. Early works of U.S. environmental history sought to document “decolonization narratives” of environmental degradation, as well as to celebrate the early history of the environmental movement.<sup>4</sup> There was also a significant intellectual history component to early U.S. environmental history, as scholars asked questions about ideas such as “Wilderness.”<sup>5</sup> In recent years, the field of U.S. environmental history has become more nuanced and sometimes more critical of the environmental movement: asking, for example, whether ideas of wilderness preservation really are the best way to confront the current environmental crisis, and even looking at historical examples of environmentalism as a form of social control.<sup>6</sup>

Environmental history, of course, has long been written by some historians, even if they have not always called their work by that name. The work of the French *Annales* group of historians, for example, could quite often be said to be environmental history. And environmental history as a field is not limited to the United States, but rather is practiced around the world.<sup>7</sup> The growing popularity of environmental history can perhaps be explained by an increasing awareness of human-nature interdependency, especially as we confront global challenges such as climate change.

What can studies of Antarctica do for the field of environmental history? Perhaps the answer is implicit in the question, and just by asking it we have started to make a contribution to the theory and practice of the discipline. The act of “doing environmental history” in more familiar parts of the world only sometimes raises theoretical questions such as what is environmental history?<sup>8</sup> Why do we do environmental history? How do we do environmental history? Antarctica offers an unfamiliar location that immediately unsettles and brings these questions into the open. For example, in a discipline traditionally preoccupied by the science of ecology, the Antarctic continent’s relative scarcity of biological life challenges the very idea of “environment.” In a continent with few plants more complex than moss, and few animals larger than fleas, where is the environment? And, importantly for this paper, where is the environmental history?

One way to start thinking about Antarctica's contribution to the field of environmental history is to consider its similarities and differences with the rest of the world. In what ways is Antarctica unique? And in what ways is it familiar? This dialectic of strangeness and familiarity offers a useful way to take forward the question, and to arrive at some kind of synthesis.

Within this dialectic, a useful thesis is of Antarctica as a "pole apart."<sup>9</sup> Antarctica has no indigenous human population. The Antarctic continent was first seen around 1820, but the first confirmed landing did not take place until 1895 with the claim of the Anglo-Norwegian Carsten Borchgrevink.<sup>10</sup> So the human history of the Antarctic continent is only a little over one hundred years old. The history of Antarctica appears to follow a similar trajectory to the apparent exceptionalism of its environment: separate – often in positive ways – to the history of the rest of the World. The heroic era of Antarctic exploration, for example, climaxing in the race to the South Pole between Amundsen and Scott, is often told as a light-hearted sideshow to the expansive imperialism of the late nineteenth and early twentieth centuries.<sup>11</sup> At the height of the Cold War, the United States and the Soviet Union were able to get along in Antarctica in a way that they seemed incapable of doing anywhere else.

Only a handful of environmental historians have attempted to write about Antarctica. Those that have ventured south have all have faced what William Fox describes as "cognitive dissonance" when trying to describe the Antarctic environment.<sup>12</sup> The apparent simplicity of the landscape makes it very difficult to grasp, and actually makes writing history more complicated: there is little that is familiar to which the historian can relate. Occasionally, historians have succeeded in capturing the essence of the Antarctic environment: Stephen Pyne's *The Ice* is an example of book that perfectly captures the continent's otherness, but it is a book like few others – almost as unrecognizable to the traditional field of environmental history as the Antarctic environment is to the rest of the world.<sup>13</sup>

The counter argument to the idea of Antarctica as a pole apart is the continent's connections with numerous themes in global environmental history. On close inspection, the environmental history of Antarctica does have much in common with environmental history of the rest of the world. The antithesis of Antarctica history's strangeness is its familiarity. It fits neatly, for example, into "grand narratives" of declension and salvation. The history of resource exploitation in the seas around Antarctica (as opposed to the Antarctic continent itself) goes back to at least the late eighteenth century. The pursuit of seals and whales created classic resource frontiers that drove sealers and whalers ever further southwards in pursuit of their prey. The over-hunting of seals and the over-fishing of whales offer declensionist narratives to rival the worst of them.<sup>14</sup> By the mid-twentieth century Antarctic whale populations had been hunted to near extinction, in what some would argue is a perfect case of the "tragedy of the commons."<sup>15</sup> Fortunately, the history of whaling also has its "heroes" in the shape of environmental organizations such as Greenpeace and Sea Shepherd, and by the 1980s an international moratorium was in place to "save the whales." This moratorium has proved largely successful, despite continued "scientific" whaling, especially by Japan. Similarly, in the 1970s and 1980s, mineral resource extraction in Antarctica was a hotly debated topic, and the continent was touted as a dumping ground for nuclear waste. In 1991, however, the signature of the Madrid Protocol banned all activities related to mineral resource extraction and made the Antarctic continent arguably the most protected environment anywhere on the planet.<sup>16</sup>

Another theme that the environmental history of Antarctica has in common with the environmental history of much of the rest of the world is the connection between environment and empire.<sup>17</sup> In justifying their claims to Antarctic sovereignty, for example, the British drew upon the oceanographic “Discovery Investigations” to argue that they alone could understand and manage the whaling industry for the good of humanity. Perhaps most importantly of all, contemporary fears about climate change link the environmental history of Antarctica with the environmental history of the rest of the world.<sup>18</sup> As the global climate warms, the threat of melting ice in Antarctica has global implications. Since the 1960s, for example, governments and scientists have worried about the consequences of the West Antarctic Ice Sheet breaking loose from the Antarctic continent. Scientific research in Antarctica has contributed to the creation of a “global vision” with which we now see the world. Antarctica, perhaps, is not such a “Pole Apart” after all.

Antarctica’s contribution to the theory and practice of environmental history comes through a reconciliation of its differences and its similarities with the rest of the world. Such a synthesis might involve taking advantage of the continent’s relatively simplified history to ask questions with much broader relevance. Writing about the natural history of the Antarctic Peninsula, the biologist Sanford Moss notes:

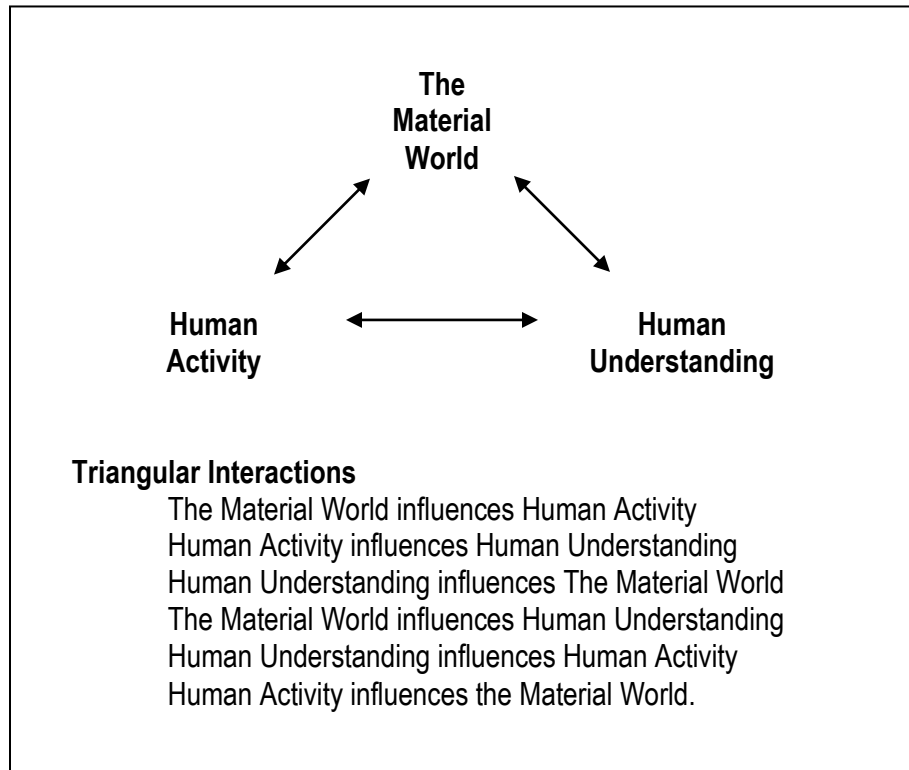
Even though Antarctica is the fifth largest of the continents, it has the fewest forms of life inhabiting it. This fact provides unparalleled opportunities for naturalists. The plants and animals that visit, breed, and in some instances thrive here are of special interest to students of natural history. They offer one of the least complex webs of ecological interrelationships to be found on earth. This is the place for the ecologist to formulate and test theory.<sup>19</sup>

A similar “natural reductionism” could be applied to the history of Antarctica.<sup>20</sup> Since historians—even environmental historians—ultimately focus their study on humans, the simplification of the environmental history of Antarctica is caused by its scarcity of people. The number of people ever to have spent more than twenty-four hours on the Antarctic continent would fit into a medium-sized city. Importantly, such reductionism is not an artificial construct, but is a fundamental characteristic of the continent’s history.

The history of Antarctica might therefore be thought of as local history on a continental scale. Despite the scarcity of people, we are dealing with the history of an entire continent. What can we do with this unique opportunity? Perhaps most importantly, the relative simplicity might help to address the question of historical causation. In describing the “grave dangers” faced by environmental historians in “trying to incorporate natural history, social relations, technology, and culture into unified explanations of social change,” the environmental historian Richard White noted twenty years ago: “Environmental historians assert amazing interactions, but there is a certain sketchiness of detail as to how they all work. There is not much reason for a skeptic to believe the larger claims. Environmental history has been vague as to how historical change and causation proceed.”<sup>21</sup> Although the situation has improved since White made this accusation, there remains a theoretical vagueness about the practice of environmental history, which the environmental history of Antarctica might help to address.

Donald Worster’s three-dimensional model for “doing environmental history” continues to

offer a good starting point for addressing the question of historical causation.<sup>22</sup> This model involves looking at the interaction between the physical environment, human understanding, and human work. It allows for a much broader definition of “environment” than purely non-human biology. In my reading of Worster’s model, the whole material world –including humans– become parts of the physical environment. Antarctica’s glaciers, rocks, intense cold, explorers, scientists, and tourists therefore become as much components of its environmental history as its mosses and penguins. A triangular view of a slightly modified view of Worster’s model allows for the six elements of human-nature-culture interactions to be examined, both together and separately.



These interactions, of course, have been studied in other parts of the world for as long as historians have been doing environmental history. But given the complexities involved in such analyses, some of these interactions are often overlooked. The relative simplicity of Antarctica’s history makes it easier to consider –if never to fully understand– all the interactions contained within the the Human-Nature-Culture triangle. The best way to see how this might work in practice is to look at an example: the origins of the 1959 Antarctic Treaty.

### III. ENVIRONMENTAL HISTORY FOR ANTARCTICA

The second part of the paper addresses what the field of environmental history can do for the history of Antarctica. In order to do this it will briefly focus on the history of the origins of the 1959 Antarctic Treaty, which brought about a limited internationalization of the Antarctic continent and successfully

created the idea of a “continent dedicated to peace and science.” The central argument in this section is that the origins of the Antarctic Treaty cannot fully be understood without taking into account the material reality of the Antarctic continent and changing human perceptions of this environment, especially as brought about by the International Geophysical Year (IGY) of 1957-58.<sup>23</sup> The most important environmental changes at this time were perceptual: in the late 1950s, as a direct consequence of the IGY, people began to view the Antarctic environment differently than they had in earlier decades.<sup>24</sup> These perceptual changes laid the foundations for the signature of the 1959 Antarctic Treaty, but underlying these perceptions was the environmental reality of Antarctica.

The International Geophysical Year of 1957-58 changed perceptions of Antarctica. Both the United States and Great Britain, and probably the Soviet Union and at least some of the other participants, approached the IGY in Antarctica partly as an economic survey. U.S. Secretary of State Christian Herter, for example, thought that people would speak of “Herter’s Folly” due to his fears of giving up U.S. rights to parts of Antarctica that might subsequently be found to be valuable.<sup>25</sup> The scientific work of the IGY, however, temporarily shattered dreams of Antarctica as a frozen *El Dorado*. Despite the exponential increase in scientific activity in the continent, no minerals of significant economic potential were found. Instead, IGY science confirmed Antarctica as an inhospitable continent with freezing temperatures (the coldest ever yet recorded, -126.9°F), deep ice, and the potential for human accidents.<sup>26</sup> In this way human activity in Antarctica shifted perceptions of the continent away from a belief in its potential mineral wealth towards a realization that Antarctica contained little of immediate economic worth. For countries such as the United States where there was a clear economic bottom line, such considerations helped to motivate the push for some sort of limited internationalization of Antarctica, which ultimately culminated in the Washington Conference and the signature of the Antarctic Treaty on 1 December 1959.

In terms of anthropogenic change to the Antarctic environment, by the late 1950s it was probably only the oceans around Antarctica that human activity had significantly altered in a direct way.<sup>27</sup> By this stage, the Antarctic whaling industry had decimated Antarctic whale stocks and fundamentally changed the marine eco-systems of the Southern Ocean. The history of whaling did not play directly into the signature of the Antarctic Treaty. The whaling industry was regulated by the International Whaling Commission, and the oceans surrounding Antarctica were specifically excluded from the Antarctic Treaty negotiations. But although anthropogenic changes to Antarctica’s material environment were not a direct cause of the Antarctic Treaty, the perceptual changes brought about by the decline of the whaling industry certainly had an impact on the way certain countries viewed the region. The British, for example, had originally made their claims to the Antarctic Peninsula in an effort to tax and regulate the Antarctic whaling industry, and it was the British imperial mantra that empire should pay for itself.<sup>28</sup> The loss of revenue from the whaling industry contributed to the decline in British Antarctic income and an increase in the expenses involved in maintaining its sovereignty claims, and these economic considerations were forefront in British minds during the negotiation of the Antarctic Treaty.

An important and dynamic tension at the heart of environmental history is the relationship between “construction” and “reality.” At the same time as the environment is mediated through human understanding, it is impossible to fully construct what is not there. It is perfectly conceivable that economically viable deposits of oil, copper, or even uranium, could have been found during the

IGY. Such a discovery would almost certainly have changed the history of the continent, and the Antarctic Treaty may not have been signed. But such deposits were not found. Despite the boosterism of people such as Richard E. Byrd, they could not simply conjure up the valuable resources that they promised were there.<sup>29</sup> The material environment of Antarctica –with no easily accessible deposits of economically valuable minerals, deep ice, and a treacherous climate– might therefore be considered a “root cause” of the Antarctic Treaty.

Changed environmental perceptions of Antarctica during the late 1950s influenced political activity in the continent. It was much easier for countries such as Britain and the United States to entertain thoughts of internationalization in an apparently worthless continent, than in a place with obvious economic value.<sup>30</sup> The Antarctic Treaty offered its twelve signatories a means of retaining their political influence in the continent without the need for costly formal control. The Treaty has subsequently governed the continent of Antarctica successfully for almost fifty years, and has won praise for its idealism in promoting peace, science, and environmental protection. But an environmental history approach might suggest that this idealism was only possible because the signatories of the Antarctic Treaty felt that they had little to lose through limited internationalization of the southern continent.

#### **IV. CONCLUSION**

In many studies of environmental history, human alteration of the material environment has been an important cause of historical change. In the case of the origins of the Antarctic Treaty, however, even a very brief examination of the human-nature-culture interactions leading up to 1959 suggests that anthropogenic change of the Antarctic environment was not a major causal factor. Instead, changes in environmental perceptions, brought about above all by the IGY, were much more important, since these in turn directly influenced human activity in the continent. The widespread realization that took place during the IGY that the Antarctic contained little of short- to medium-term economic worth was crucial in laying the foundations for the limited internationalization brought about by the 1959 Antarctic Treaty. These perceptions, in turn, were rooted in the material reality of the Antarctic environment’s deep ice and hostile climate. If the Antarctic environment had been different –or simply perceived differently– the Antarctic Treaty may not have been signed.

Can Antarctica offer a model for “doing environmental history” in other parts of the world? I would conclude with a qualified yes. In a similar fashion to the way in which the simplified biological life of the continent offers an ideal place for ecologists to formulate theory, the relatively simple history of Antarctica offers an excellent location to put into practice different ways of doing environmental history. The three-dimensional model proposed by this paper is just one of many possibilities: others could be devised and tested, and maybe shown to be better. The results of historical analysis will of course be very different in different places, and models devised for doing environmental history in Antarctica may not be applicable in more complex situations. But for bringing into the open important questions of theory and practice, Antarctica has much to offer environmental historians, just as environmental history has much to offer our understanding of Antarctic history.

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<sup>1</sup> See, for example, Richard S. Lewis. *A Continent for Sciences: The Antarctic Adventure* (New York: Viking Press, 1965).

<sup>2</sup> Secretariat of the Antarctic Treaty. Text of the Antarctic Treaty <[http://www.ats.aq/e/ats\\_treaty.htm](http://www.ats.aq/e/ats_treaty.htm)>.

<sup>3</sup> For a good recent overview of the field, see J. Donald Hughes. *What Is Environmental History?* (Cambridge: Polity, 2006).

<sup>4</sup> For one of the most influential declensionist narratives, see Donald Worster. *Dust Bowl: The Southern Plains in the 1930s* (Oxford: Oxford University Press, 1979). For an example of a history of the environmental movement, see John McCormick. *Reclaiming Paradise: The Global Environmental Movement* (Bloomington: Indiana University Press, 1989).

<sup>5</sup> One of the most famous examples being Roderick Nash. *Wilderness and the American Mind* (New Haven: Yale University Press, 1967).

<sup>6</sup> William Cronon. *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W. W. Norton & Co., 1996).

<sup>7</sup> For an excellent overview of the field of environmental history as currently practiced in Latin America, see Sociedad Latinoamericana y Caribeña de Historia Ambiental <<http://www.csulb.edu/projects/laeh/html/solcha.html>>.

<sup>8</sup> The phrase "doing environmental history" comes from Donald Worster. *The Ends of the Earth: Perspectives on Modern Environmental History* (Cambridge: Cambridge University Press, 1988).

<sup>9</sup> The phrase "pole apart" comes from Philip W. Quigg. *A Pole Apart: The Emerging Issue of Antarctica* (New York: New Press, 1983).

<sup>10</sup> For a list of early sightings of and landings on Antarctica, see Robert Headland. *Chronological List of Antarctic Expeditions and Related Historical Events* (Cambridge: Cambridge University Press, 1989). Headland suggests that Borzhgrevink was not the first to land on the continent, although he himself claimed to be so.

<sup>11</sup> See Tracey Banivanua Mar and Penelope Edmonds (eds). *Making Space: Settler Colonial Perspectives on Place, Race and Identity* (Houndmills, Basingstoke: Palgrave Macmillan, 2010).

<sup>12</sup> William L. Fox. *Terra Antarctica: Looking into the Emptiest Continent* (San Antonio: Trinity University Press, 2005).

<sup>13</sup> Stephen J. Pyne. *The Ice* (London: Weidenfeld & Nicolson, 2003).

<sup>14</sup> See, for example, Gerald Elliot. *A Whaling Enterprise: Salvesen in the Antarctic* (Norwich: Michael Russell, 1998).

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- <sup>15</sup> Garrett Hardin. "The Tragedy of the Commons." *Science* Vol. 162 (1968): pp. 1243-1248. For a good discussion of this controversial thesis, see Arthur F. McEvoy. *The Fisherman's Problem: Ecology and Law in the California Fisheries, 1850-1980* (Cambridge: Cambridge University Press, 1986).
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- <sup>19</sup> Sanford A. Moss and Lucia De Leiris. *Natural History of the Antarctic Peninsula* (New York: Columbia University Press, 1988): p. xx.
- <sup>20</sup> Such a comparison with biology might seem to continue environmental historians' reliance on the natural sciences, but it is also a technique familiar to social scientists. See Sverker Sorlin and Paul Warde. "The Problem of the Problem of Environmental History." *Environmental History* Vol. 12 n° 1 (2007): pp. 107-130.
- <sup>21</sup> Richard White. "Environmental History, Ecology, and Meaning" *Journal of American History* vol. 76 (1990): pp. 1111-1116.
- <sup>22</sup> Worste (1988).
- <sup>23</sup> For a more developed version of this argument, see Adrian Howkins. "Recuctant Collaborators: Argentina and Chile in Antarctica During the IGY" *Journal of Historical Geography* Vol. 34 (2008b): pp. 596-617.
- <sup>24</sup> In a sense, the connection between human knowledge and the material environment is the most metaphysical of the interconnections within the triangular relationships described above. But ultimately everything that we know about the world is mediated through our understanding.
- <sup>25</sup> See Document no. 280 in United States Department of State. *Foreign Relations of the United States, 1958-60, Vol. 2, United Nations and General International Matters* (Washington: U.S. Government Printing Office, 1992).
- <sup>26</sup> For a summary of some of the IGY's results, see Lewis (1965).
- <sup>27</sup> An argument could be made that anthropogenic climate change on a global scale may have been indirectly altering the Antarctic climate as early as the 1950s. But nobody was really aware of this at the time.
- <sup>28</sup> Adrian Howkins. "Political Meteorology: Weather, Climate and the Contest for Antarctic Sovereignty, 1939-1959." *History of Meteorology* Vol. 4 (2008a): pp. 27-40.
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