

Filtering 'ways of seeing' through their lenses: representations of Antarctic exploration by lesser known Heroic Era photographers.

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Submitted in fulfilment of the requirements for the
Degree of Master of Science – Social Sciences.

University of Tasmania 2013

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Abstract

Photographers made a major contribution to the recording of the Heroic Era of Antarctic exploration. By far the best known photographers were the professionals, Herbert Ponting and Frank Hurley, hired to photograph British and Australasian expeditions. But a great number of photographs were also taken on Belgian, German, Swedish, French, Norwegian and Japanese expeditions. These were taken by amateurs, sometimes designated official photographers, often scientists recording their research. Apart from a few Pole-reaching images from the Norwegian expedition, these lesser known expedition photographers and their work seldom feature in the scholarly literature on the Heroic Era, but they, too, have their importance. They played a vital role in the growing understanding and advancement of Antarctic science; they provided visual evidence of their nation's determination to penetrate the polar unknown; and they played a formative role in public perceptions of Antarctic geopolitics.

The objective of this study is to collate background information and literature on lesser known Heroic Era photographers and to offer a discursive examination of photographs, assessing their representations of exploration in Antarctica. Photographers' 'ways of seeing' were influenced by their backgrounds and often by the history of their nations' involvement in Arctic exploration. Their representations were shaped within contexts of prevailing polar exploration discourses—the race for the South Pole, nationalism, heroic adventure, and scientific investigation. The images they brought back were determined by the nature of their expeditions, whether inherently scientific, nationalist, or adventure-seeking; by the various sponsoring imperatives; and by how their photographic documentation was intended to be used.

This study is important because it offers a comparative consideration of photographers of less well known expeditions from a range of nations and cultures, offering new layers of understanding of the forces that drove the exploration of Antarctica. It is based on principles of historiography and on discourse analysis, an appropriate method for examining the multi-layered cultural messages within the images.

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ACKNOWLEDGEMENTS

Many people assisted me with this project. Thanks first to my supervisors, Dr Julia Jabour (Institute of Marine and Antarctic Studies, IMAS, University of Tasmania) and Dr Nicola Goc (School of English, Journalism and European Languages, University of Tasmania). Julia's guidance during the various and sometimes fraught incarnations of the project was particularly appreciated. Also thanks to IMAS Associate Professor Marcus Haward, and to the Graduate Research Coordinator (IMAS), Dr Kelvin Michael.

With regard to photograph collection, I wish to thank Laura Kissel, Polar Curator at the Byrd Polar Research Center Archival Program, Ohio State University; Olivier Thomas, Collections Manager, Musée d'ethnographie de Bordeaux; and Joy Wheeler, Information Officer, Royal Geographical Society, London.

Thanks also to Dr Fred Goldberg, Swedish Polar Institute, Lidingö, Sweden, who was very helpful with photographs and information on the Nordenskjöld expedition, as was Dr Jeffrey Stilwell, Monash University. Dr Cornelia Lüdecke, Chair, SCAR History Expert Group, helped with literature on German expeditions. Dr Bruno Schelhaas, Archiv für Geographie, Leibniz-Institut für Länderkunde, Leibniz Institute for Regional Geography, Leipzig, was helpful regarding Drygalski manuscripts, and Dr Christian Salewski, Helmholtz-Zentrum für Polar- und Meeresforschung, Alfred-Wegener-Institut, Bremerhaven, regarding photographs. Chet Ross, author of a fine bibliography on the Japanese Antarctic Expedition, kindly provided some photographs and information. Rupert Summerson, Hilary Shibata and Mana Inoue also assisted with that.

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Part A: Introduction

Photographers played an indispensable role in the Heroic Era of Antarctic exploration, providing visibility to the climactic peak of achievement in the period from around 1895 to 1922 when the continent was explored, its coastline and topography mapped, and the South Pole reached (Andrews 2002, 2007; Ennis 2002). Photographs, widely displayed on lecture tours and in newspapers and magazines in order to raise funds for potential future expeditions (Barr 1997; Gray & Newton 2001), played a vital role in sustaining the Heroic Era and in keeping its achievements dramatically alive in the public consciousness for the hundred years since (Lane & Martin 2006; Yusoff 2010). They also influenced the development of a nation's interaction with the Antarctic (Dodds 1997a; Collis 2004).

By far the best known photographers were Herbert Ponting (1870–1935) and Frank Hurley (1885–1962), English and Australian professionals on expeditions by Robert Falcon Scott (British Antarctic Expedition 1910–13), Douglas Mawson (Australasian Antarctic Expedition 1911–14) and Ernest Shackleton (Imperial Trans-Antarctic Expedition 1914–17). Books illustrated by Ponting's and Hurley's photographs continue to be published, and exhibitions held.¹ It is, of course, understandable that the fine work of the professionals attracts most attention, but they were not the only photographers to produce memorable images of the Heroic Era. The literature on Heroic Era photographers, however, is very largely limited to Ponting and Hurley.²

¹ Illustrated books on Ponting: Arnold (1971), Savours (1974), Riffenburgh & Cruwys (1998), Riffenburgh, Cruwys & Arnold (2004), Lane & Martin (2006); on Hurley: Thomas (1990), Ennis (2002), McGregor (2004). The exhibition 'Antarctic views by Hurley and Ponting' toured Australia from 2006 to 2009 (Australian National Maritime Museum n.d.), and works by both photographers were featured in the 'Heart of the Great Alone' Exhibition in the Queen's Gallery, Buckingham Palace 2011–2012 (Royal Collection Trust n.d.), 'Le grand blanc' ('The great whiteness') exhibition at the Atelier d'Artistes gallery, Paris, in 2010 (L'atelier d'artistes 2009), and in 'Die Welt in Schwarz-Weiss' ('The world in black and white') Exhibition, Livona, Italy, 2012 (Kulturstiftung Hermann Geiger 2013).

² Lynne Andrews (2007) gives over fifty pages of her book *Antarctic Eye: The Visual Journey* to discussion of images by Ponting, Hurley, and some produced by the Amundsen expedition. Apart from the books listed above, other literature includes Boddington (1979), Dixon (2003, 2006), Hempleman-Adams, Gordon, Stuart and Donnithorne (2009), and a study of the literature on Ponting and an examination of thirty of his photographs (Millar 2009).

In particular, photographers from the nine Heroic Era expeditions from Belgium, Germany, Sweden, France, Norway and Japan have received little attention. This is due in large part to the sheer number of English, Scottish and Australasian enterprises, totalling half the expeditions which took place during the Heroic Era. The continuing public interest in the Scott and Shackleton myths is another important factor, and yet another is that English is a widely-spoken language, with source material thus accessible to a large number of researchers. But as will be seen in this study, online searches for literature on expedition photography in German, Swedish, French and Norwegian academic and popular journals, magazines and newspapers, as well as English-language, have been mostly without significant result. Apart from some discussion of photographs from the famously successful Norwegian expedition (1910–12) (Huntford 1987; Barr 1997; Kløver 2009; Lund 2010), and a chapter on the photographic visualisation of the narrative of the German South Polar Expedition (1901–03) (Müller 2009), little more has been found for this study.

But the photographers from these expeditions, too, have their importance. Historical understanding of the Era is enriched by the study of them. This study will show that their ‘ways of seeing’ (Berger 1972) were influenced by their individual cultural backgrounds and the experience of their nations in polar regions, and that the kinds of images they brought back to audiences at home depended also on their specific expeditionary needs and those of their various governments and other sponsors. The photographs provide a vivid sense of the contrasting characteristics of different expeditions. They infuse the history of the period with a visual foundation for interpretations of intellectual, moral, psychological and other issues that developed around Antarctic exploration.

Contemporary developments in photography

By the end of the nineteenth century, photography’s value for recording events, landscapes and people had been established (Newhall 1972). Photographic

documentation covered events of every kind.³ Landscapes were also recorded, including those encountered on exploratory expeditions. The scope of portrait photography was extended from the studio to the wider world, individual and group portraits featuring in all kinds of photography. Meanwhile, photography was increasingly used to illustrate the various disciplines of science (Wilder 2009).

Alongside these professional advances, amateur photography was flourishing globally (Fineman 2004). The Eastman Dry Plate and Film Company, Rochester, New York, produced the first Kodak camera in 1888—a simple to operate box camera with paper-backed and emulsion-coated roll film—along with an extensive advertising campaign with the slogan, ‘You press the button, we do the rest’ (Kodak n.d.). The word ‘snapshot’ was invented, an informal photograph taken quickly, typically with a small hand-held camera (Holland 2004). By 1900, every tenth person in Britain was believed to have a camera (Gernsheim 1986).

As a last frontier of geographical discovery, the Antarctic captured great interest among geographers, scientists and other academics, also among national leaders and the reading public. Exploration involved producing narratives (Driver 2001), and photographs became part of the process. On any expedition from any country there were a number of men with cameras, as will be seen from the expedition details in this study. An expedition member was often designated official photographer, using a large-format camera which took glass plates requiring long exposures. There were also scientists documenting their work, often with glass plate cameras, and other expedition members taking photographs with light, portable cameras loaded with enough film for up to a hundred exposures.

³ For example, rail routes photographed by Edouard Denis Baldus (Daniel 1994) and bridges by William England (Jeffrey c.1999); Roger Fenton’s Crimean War photographs (Fenton, Gernsheim & Gernsheim 1954); the work of the Bisson brothers, Auguste-Rosalie and Louis-Auguste, who photographed at high altitudes in the Alps (Cameron & Becker 1900); and photographs taken in the Arctic in 1869 by William Bradford, George Critcherson and John L. Dunmore (Bradford 1873).

The Heroic Era

The Heroic Era, or Heroic Age, may be dated from 1895, when the Sixth International Geographical Congress in London encouraged the formation of expeditions to explore the continent, to the death in 1922 of Shackleton, in many ways the epitome of the polar explorer. However, the 'heroic' designation was not used during the period, but much later. It seems to have been first used in 1932, by J. Gordon Hayes in his book *The conquest of the South Pole* (Hayes 1936, pp. 29–30). It took hold as the name for a period of great personal courage, endurance, achievement and national pride.

The motivations for Heroic Era expeditions arose from an intersection of ideological drivers emerging in the later years of the nineteenth century and persisting through and beyond the Era (MacKenzie 1984; Delanty 1995). In Germany and France as well as Britain, a resurgent militarism and pursuit of increased national prestige found expression in the race for colonies which could be exploited (Seed 1995; Dodds 1997a; MacKenzie 2011). Belgium, with colonies largely owned personally by the king, also benefitted in terms of trade (Hochschild 1999). As part of these developments, polar expeditions became 'icons of colonial enterprise' (Brazzelli 2005, p. 299). Success at exploration was constructed by these nations as an integral part of the national character, and the despatch of a South Pole expedition became a matter of national honour (Riffenburgh 1993; Lüdecke 1995a). This was also true of Norway and Sweden, re-identifying themselves as individual nations after years of unity (Lewander 2001, 2003; Elzinga 2007), and in Japan, where polar exploration was seen as a way of increasing status among the nations of the world (Stevenson 2010).

But the most often professed motivation for Heroic Era Antarctic exploration was scientific progress. The Antarctic was a vast unknown, and the further development of geography and natural sciences depended on its exploration. Geographers and scientists who met at the International Geographical Congresses in London (1895) and Berlin (1899) were convinced that Antarctic exploration would add to knowledge

in almost every branch of science (Lüdecke 2006a). A discussion meeting of the Royal Society on 24 February 1898 saw the beginning of Antarctic science as a coherent body of work, and laid the foundations for future expeditions (Martin 1996).

Science gave credibility to the Antarctic expeditions that eventuated. Robinson's comment about science and Arctic exploration (2006, p. 5)—'an uplifting activity that edified the men ... who undertook it'—is valid also for Antarctica. Science, however, was largely being used as 'a means for securing and expanding sovereign authority over territory' (Shadian 2009, p. 40).

The Antarctic policies of governments of the time were 'founded mainly on potential rather than actual factors' (Beck 1983, p. 456). But an important outcome of the international political and economic rivalries that helped create the Heroic Era was that, by the end of it, the claims made by explorers would be the basis of the large parts of Antarctica that are still subject to claims by seven nations under the Antarctic Treaty (1959)—Argentina, Australia, Chile, France, New Zealand, Norway and the United Kingdom.

Securing funding for expeditions from governments or other sources resulted in patronage involving vested interests in outcomes. The Heroic Era, like Arctic exploration, was largely powered by venture capitalists, media, and home audiences which helped to fund, then followed and admired the adventures of their heroes (Robinson 2006). Widespread popular interest was stimulated by publications and exhibitions, and the public consumption of books, lectures, exhibitions and films in turn provided money for further expeditions (Gray & Newton 2001).

Individual adventurism was another important motivation for Antarctic exploration. The epic tradition of the Heroic Era has been seen as a manifestation of a late nineteenth-century romanticism, validating ideal images of character, gallantry and honour (Karamanski 1984), and representing 'in some ways a glorious remnant of the distant past lodged within a century dominated by technological advance' (Burnham

2000, p. 18). With the advent of the Heroic Era, the Antarctic's attraction became hypnotic.

Stories of exploration thrilled, inspired, and created a polar world of the imagination, a 'storm romance of Polar exploration', as the writer Joseph Conrad put it (1926, quoted in Loomis 1977, p. 106). The symbolic value of the explorer-hero is largely an expression of the values held by a culture (Barczewski 2007), with hero myths developed to justify ideological goals, and those accorded heroic status being relevant to their culture's military, economic, and national needs (Riffenburgh 1993). Antarctic exploration was constructed in accordance with these factors. Some constructions were a response to the notion of the sublime (Spufford 1997), an aesthetics concept from early nineteenth century romanticism, 'an individual experience but also a collective cultural construct' (Wråkberg 2007, p. 196). The sublime was a mixture of awe and fear arising from recognition of humanity's vulnerable relationship to nature, summed up in a line from Byron's *Childe Harold's Pilgrimage*, 'All that expands the spirit, yet appals' (Loomis 1977); or, as Wråkberg has described it in terms of the Arctic, 'the fear, vertigo, and feelings of insignificance and frailty experienced when exposed to open, seemingly immense, northern landscapes' (2007, p. 198). The imagined world of the Poles could also have allegorical significance. Germans, for example, 'like other exploring peoples, wove memory, history, and fantasy into an imagined polar world that was as much a part of their encounter with the Poles as were the actual deeds of scientists and sailors' (Murphy 2002, p. 155).

Much of the discussion about Heroic Era adventurism, nationalism and masculine honour is to be found in the English-language literature, but common themes occurred across national boundaries. For German, Swedish, French, Norwegian and Japanese explorers too, the struggle against the hostility of nature in Antarctica provided a mythical space where men could act like heroes (Bloom 1993), bringing out the best in them and validating cultural and social norms (Murphy 2002), and generating for their nations—to a greater or lesser degree, as will be shown in this study—a heroic tradition with great emotional appeal.

Importance of visual representation of the Heroic Era

By the end of the nineteenth century, the development of visual technologies was playing an important role in representations of the world (Shapiro 1988), and structuring understandings of remote and largely inaccessible regions such as Antarctica (Dodds 1997a & b; Yusoff 2010). Along with accounts of exploration, images of such places entered national discourses, enabling them to operate within cultural memory, the way people collectively form understandings of the past (Barwell 2007). Expectations of the Antarctic were formed within such discourses.

On a practical level, the photographic work of explorers had an important part to play in the growing understanding and advancement of Antarctic science. By the end of the Heroic Era, and thanks in many ways to amateur photographers, the body of handsomely illustrated published work of science and exploration was informing a community of Antarctic specialists (Martin 1996). Also thanks largely to photographers, public perception of Antarctica was becoming an important socio-cultural and political background element which would have influence in Antarctic policy as a form of popular geopolitics, defined by Davis (2005, p. 29) as 'media elements, such as film, television ... newspapers [and] magazines ... which affect public perceptions of geopolitical issues'. Photographs were providing visual evidence of European determination to penetrate the polar unknown (Dodds 1997b).

Photographers in Antarctica faced enormous challenges related to the physical environment and the logistics of journeying there, surviving and working there, and getting home again. An enthusiastic public was eager to view their work, and has to a large extent remained so. Many of the Era's photographs have an enduring evocativeness. For many people, these photographs have formed part of their conceptualising of Antarctica and its connection to historical and cultural heritages.

Importance of the present study

Photographs are important sources of information for forming historical understandings (Barr 2000). Our view of history shapes the way we view the present and envisage the future. For the nations who participated in Heroic Era explorations, this history has contributed to national senses of identity, as well as to geopolitical stances with regard to Antarctica.

This inquiry aims to address a deficiency in the literature regarding lesser known photographers of the Heroic Era, starting with a review of biographical information. Their ‘ways of seeing’ their roles, their expeditions, and Antarctica itself were affected by their own backgrounds and often by the history of their nations’ involvement in polar exploration. Their representations of this exploration were shaped within contexts of relevant prevailing polar exploration discourses—the race for the South Pole, nationalism, heroic adventure, and scientific investigation. The images they brought back were influenced by the nature of their expeditions—whether inherently scientific, nationalist, or adventure, with their various sponsoring imperatives—and by how their photographic documentation was intended to be used. How they saw themselves, and how they wanted others to see them, was constructed in their photography.

Much previous work in the field of Heroic Era photography has concentrated on British and Australasian expeditions. This study makes an important contribution to the literature in that it considers photographers of other expeditions from a range of other nations and cultures, offering new layers of understanding of the forces that drove the exploration of Antarctica.

Methodology

Overall, the study is based on principles of historiography, which involves systematic analysis of contemporary sources such as photographs, records, and diaries to explain past events (Gardner 2006). The main aim of expedition photography was to

document and record (*British Journal of Photography* 1910; Fuchs 1979). Images illustrate the stories told in other texts produced during exploration, but they meant more than this: photography was seen as 'demonstrably superior to words as testimony of an event' (Smith 1992, p. 1), providing the visual evidence believed to validate the story. However, there are limitations to photography's evidentiary authority. In the taking and viewing of photographs, objectivity and subjectivity co-exist. In the photographs there is 'an indisputable flicker of reality' (Brody 2008, p. 279), but this is 'a reality filtered through various lenses' (Barr 2000, p. 584), with an inevitable tension between facts and meanings.

Images contain textual arrangements and discursive practices, producing multi-layered cultural messages in which creator, subject and viewer all play their roles, and which rely on cultural and historical contexts and on experiential knowledge (Barthes 1977). Just as photographers' gazes are mediated by cultural, social, and historical contexts, so are the gazes of viewers of the photographs. Photographs are dynamic sites at which many gazes and 'ways of seeing' intersect (Lutz & Collins 2003). A study of lesser known Heroic Era photographers therefore requires interconnected practices. The method of discourse analysis (Gee 1990, 2011), a technique for analysing the components of texts for their operant values, is particularly appropriate.

In this study, the term 'discourse' is used in line with the critical linguistic tradition (Kress 1989; Fairclough 1989; Gee 1990, 1992, 2011). Discourses are relationships of socially produced understandings which shape how the world is represented. The linguistic and visual structures through which discourses are communicated point to particular interpretations of experience and forms of social interaction. The various social, political, professional, vocational and other contexts of an individual's relationships with other people require different kinds of discourses, all uses of discourses situating speaker and hearer, or writer and reader, within social fields of status and solidarity (Gee 1990).

What is expressed in language through the choice between different kinds of vocabulary and syntax, may be expressed in images through the choice between different compositional structures (Kress & van Leeuwen 2006), in order to situate readers of texts in various responsive attitudes (Sekula 2010). All discourse is 'organised to make itself persuasive' (Gill 1996, p. 143).

The analysis asks questions relating to the values, identities and relationships enacted by the people involved (the image creator, subject/s, and whoever the viewer/s might be), and to the situated meanings and cultural models involved. Images, words and phrases have multiple and flexible 'situated meanings' based on users' construal of context and on their socio-culturally defined past experiences (Gee 2011, p. 211). They are associated with 'cultural models' or 'figured worlds'—explanatory theories or storylines connected by societies to concepts important to them (Gee, p. 205). Situated meanings and cultural models may be used to promote different versions of appropriate behaviour.

Photographic meaning is 'a hybrid construction' (Sekula 2010, p. 16). A full interpretation of images may require attention to associated passages in relevant texts. These inform the reader/viewer as to how the image fits into the verbal narrative (Myers 1990).

An approach to photography as a culturally constructed 'way of seeing' ... emphasizes the intertextuality of photographic discourse. The meaning of photographic imagery is frequently framed by linguistic messages in the form of titles, captions, and accompanying text. (Ryan 1997, p. 19)

The present study therefore draws strongly on cross-referencing of intertextual material in order to analyse the photographs. This material consists of primary sources—books and articles written by expedition leaders and/or photographers.

Objective

The overall objective of this study is to collate background information and literature on lesser known Heroic Era photographers, and to offer a discursive examination of

photographs. Given the scarcity of such studies in the literature, this is a worthwhile undertaking. Within this overall objective, the following research questions are posed.

Research questions

- Who were the photographers? What were their backgrounds and their ‘ways of seeing’?
- What kind of images of the Antarctic did they bring back, and to what kinds of audiences?
- What photographic equipment was used?
- What are the overall representations of exploration in Antarctica?

Organisation of the thesis

Early expeditioners with cameras went south with an imagination of Antarctica and its exploration formed from many sources and mediated by their culture and their own world view. Part B of this thesis presents an outline of the history of visual documentation of exploration and the ‘ways of seeing’ Antarctica and its exploration that photographers may have formed. Part C outlines the various expeditions, provides a review of the existing literature and biographical details of photographers, and considers how they represented their expeditions in the Antarctic. The thesis concludes in Part D, with suggestions for further research.

Scope and limitations

Of necessity, the number of photographers and photographs discussed in the study is limited, due to constraints of thesis length and time-frame in the Master’s requirements.

Photographers from nine expeditions and their work, published or available from archives, were examined and subjected to constant analysis and comparison (Lincoln

& Guba 1985), seeking trends in subjects, themes and motifs. This process focused the study on relevant discursive aspects, and effectively reduced the volume of the data set eventually drawn upon for discussion in the study, while maintaining fairness of representation.

The final selection of photographs for study was drawn from nine expeditions, and one or more photographers from each. Official photographers were always chosen; others who took photographs were chosen if their work had a significant place among subjects, themes and motifs already identified. The photographs were selected according to the same premise.

Heroic Era expeditions originated from a number of countries in Europe, and one from Japan. Examination of primary sources, such as published narratives, has been intrinsic to the study, but access to unpublished diaries and manuscripts in overseas archives has not been possible due to travelling distances. I read German and French, a little Swedish and Norwegian, but no Japanese. In many cases my access to material has depended on it being available online. Obviously, much archival material is not, however some sources have kindly provided me with copies of items.

I have done extensive German, French, Swedish and Norwegian online searches for literature on those expeditions in academic and popular journals, magazines and newspapers, and English-language searches of the same for the Japanese expedition, finding very little material specifically on the photography of the expeditions. But it is possible that some material exists which has not been accessed.

Where possible, photographs have been reproduced at medium resolution or better, but in some cases only low resolution images could be obtained. Reproduction quality in published primary sources varies. In some cases, the quality has been quite poor, and the original plates have been lost.

Part B: Visual documentation of exploration

Heroic Era photography was a technological advance within the field of visual representation in the service of exploration and science. Illustrators had long been employed on expeditions. Explorers hoped to recoup expenses and to promote sponsorship by publishing accounts of their voyages, and illustration was thus associated with a profit motive (Porter 1995). In earlier years, the main work of illustration was undertaken by artists. Illustrators were expected to communicate accurate information while applying artistic skills of design, drawing and painting. They needed keen observational skills, accuracy, attention to detail, and an understanding of light and shadow on form in order to translate what they saw into useful drawings (Kemp 1990; Ford 1992).

Andrews (2007) has presented a detailed artistic assessment of the work of illustrators of Antarctic exploration from the earlier days of drawings and watercolour to the emergence and eventual dominance of photography. On Captain James Cook's exploratory and scientific voyage searching for the southern continent (1772–75), William Hodges and George Forster were official artists, producing work which set a standard followed by subsequent artist-illustrators. The United States' Exploring Expedition to the Antarctic (1838–42), led by Charles Wilkes, which sighted the continent, produced sketches creating a vivid account of work and recreation. On James Clark Ross's British voyage of 1839–43, John Edward Davies produced amateur watercolours of landscapes and activities. Photographers, however, were already working in remote places.

Photography

Photography would come to dominate Antarctic illustration, but artists continued to work on expeditions through the Heroic Era. Among these, Friedrich Winter produced fine watercolours on the German Deep Sea Expedition (1898–99), and the American F.W. Stokes travelled as artist with the Swedish South Polar Expedition (1901–03). Artists and photographers may have discussed their work with each

other, as did Edward Wilson and Herbert Ponting on Scott's *Terra Nova* Expedition (Ponting 2001), and may have worked together sometimes, as did George Marston and Frank Hurley on Shackleton's *Endurance* Expedition (Rack 2009).

Writing on 'Art in the service of science and travel', Bernard Smith has said that drawings do not achieve the degree of objectivity that may be obtained by photography, because

they are executed within the conventions of a personal and a period style ... [and] particular categories of art with the temperament and dispositions of the artist embedded within the information they contain, and they convey also something of the artist's own social, cultural and intellectual inheritance. (1992, p. 1)

Photography, however, though commonly associated with objectivity and accepted as a copy of reality, is also a cultural practice with its own codes and conventions, and the choices made by the photographer, through selection, framing, and personalisation, are largely subjective (Sturken & Cartwright 2001). Photographs, therefore, must be viewed with awareness of the quality of the perception present, even in images made apparently with informational intent only.

'Ways of seeing'

'To look is an act of choice ... We never look at just one thing; we are always looking at the relation between things and ourselves' (Berger 1972, pp. 8–9). Every image represents a 'way of seeing' which 'is affected by what we know or what we believe' (Berger 1972, p. 107). This is 'a historically specific process ... in which social groups experience, reflect upon and structure the world around them' (Pringle 1991, p. 43).

Andrews (2007, p. 237) postulates the idea of an independent Antarctic genre of art and photography, 'not a school defined by a single, clearly defined style', but often characterised by a strong documentary thread. Her book is titled *The Antarctic Eye*. Most Heroic Era photographers have had little or nothing to say about their 'ways of seeing', their own particular 'Antarctic eye', but some things may be inferred. To a significant degree, photographers' ways of seeing would have been formed before

they came to the continent. Their preconceptions of Antarctica would have been important in the subjective choices shaping their 'ways of seeing' through their lenses.

The polar regions had a powerful grip on western imaginations long before the Heroic Era (Simpson-Housley 1992). The promise of adventure and excitement in the pursuit of scientific findings set the tone (Lüdecke 2007), especially with the publication of Norwegian scientist and polar explorer Fridtjof Nansen's narratives of his 1888–89 crossing of Greenland (Wærp 2010), and his 1893–96 drift with the ice across the polar sea, which made him a hero in Britain as well as in Norway (Barczewski 2007). The latter was one of the first polar narratives to contain actual photographs (Müller 2009). Another immensely popular book in Norway, published in 1896 before Nansen's astounding return from the latter expedition, was Brøgger and Rolfsen's *Fridtjof Nansen 1861–1893*, which became a basis for his legend, and which repeatedly emphasises science as a heroic adventure into the unknown (Friedman 2010).

Discourses of polar exploration

Nineteenth-century experience and exploration in the Arctic had been represented through the interplay of often intersecting discourses. Recurring motifs and metaphors enabled a sense of familiarity within which expectations of the region were formed, 'a consolidated, self-perpetuating vision promoted by inherited images ... reproduced and naturalised, taken for granted' (Ryall, Schimanski & Wærp 2010, p. x). Those discourses increasingly intersected in the theme of the race for the North and South Poles, which appeared as blank screens on which nations and individual men could project their fears, dreams and conflicting desires (Wilson 2003).

The discursive story of Antarctic exploration differs from the colonial discourses involved in other exploration, including in the Arctic, due to the extreme climate and remoteness, and the absence of an indigenous population. Because of obvious similarities, however, the motifs and metaphors associated with the Antarctic often

resemble those through which the Arctic was represented. The evolving exploration literature saw to that, as well as the fact that some expeditioners had both Arctic and Antarctic experience.⁴ Motifs of icebergs, ships in the ice and icy fairylands were common in accounts of exploration in both regions. The effect of these recurring motifs was to connect with concepts already formed in the minds of readers and viewers, drawing on a mystique of adventure and heroism blended with nationalist and scientific elements, which would enhance engagement with the narratives explorers planned to write.

Forming pre-conceptions of the Antarctic

Heroic Era photographers' understandings of Antarctica and past and contemporary representations of it would have been shaped by their backgrounds, their reading, and any experience they may have had in frozen regions, or indeed their interactions with people who had had such experience.

Some photographers had previous experience in Greenland, Alaska, Arctic Canada, or the sub-Antarctic. For others, organisations such as Britain's Royal Geographical Society provided informal contacts for those who could read English. The Society produced the series of *Hints to travellers* from 1854 (Savitt 2004) in an effort 'to promote an authoritative "way of seeing" in the field' (Driver 2001, p. 49). Some photographers were very young men with no first-hand experience to draw upon, but the press was an exciting image-maker, celebrating explorers for their heroism, romance and the adventure of empire (Riffenburgh 1993). Narratives of expeditions were increasingly available. Frederick Cook, photographer on the Belgian Antarctic Expedition (1897–99), published his first account of it in the New York *Herald* in 1899 (Bryce n.d.a). A number of other newspaper and magazine publications were followed by his book *Through the first Antarctic Night* in 1900. Carsten Borchgrevink and Louis Bernacchi published their accounts of the British Antarctic Expedition

⁴ Frederick A. Cook, Erich von Drygalski, Otto Nordenskjöld, F.W. Stokes, and Hjalmar Johansen were among those expeditioners who had been to the Arctic before the Antarctic.

(1898–1900) in the first years of the twentieth century (Borchgrevink 1901; Bernacchi 1901). These articles and books included photographs.

An exhibition of photographs from Scott's *Discovery* Expedition (1901–04) opened in London in late 1904 and at least ten thousand people came to see the images (Gordon 2009). Scott's book, *The Voyage of the Discovery*, appeared in 1905, with many photographs, art work, and descriptive passages about Antarctica's ability to enthral:

Beyond our immediate surroundings is fairyland. The eye travels on and on over the gleaming plain till it meets the misty white horizon, and above and beyond, the soft silvery outlines of the mountains. Did one not know them of old, it would sometimes be difficult to think them real, so deep a spell of enchantment seems to rest on the scene. (Scott 1905, p. 272)

Scott's book, and Shackleton's *Heart of the Antarctic* about his 1907–09 *Nimrod* Expedition, raised the story of polar exploration to the level of universal human themes of struggle and endurance by the inclusion of poetry. Both books refer to Coleridge's *Rime of the Ancient Mariner*, as does De Gerlache's account of the Belgian Expedition. Other expeditioners of the Heroic Era may also have known the poem, in which Coleridge drew on explorers' depictions of Southern and Arctic Ocean ice to craft resonating lines:

And now there came both mist and snow,
And it grew wondrous cold:
And ice, mast-high, came floating by,
As green as emerald. (Reeves 1959, p. 23)

The popular 1817 version of the *Rime* had illustrations by Gustav Doré which profoundly influenced late-nineteenth- and early-twentieth-century notions of Antarctica and exploration (David 2000). The images and the poetry invested Antarctica with an exciting mystique. Through the influence of Coleridge's poem Antarctica 'was no longer just distant and unfamiliar, it became fascinatingly, horrifically, sublimely unknown' (Wråkberg 2007, p. 202).

Scott's and Shackleton's books also combined the theme of science with that of adventure. Adventure was a highly popular literary genre of the time, and many

hundreds of young men applied for places on Antarctic expeditions, motivated by the hope of bringing adventure into their own lives.⁵ The concept of adventure was linked with virtues of gallantry, honour and duty in a cultural model of manly character that crossed national boundaries. The idea of Antarctic exploration as ‘a grand test of the moral strength of ... manhood’, applied by Karamanski to Anglo-Saxons (1984, p. 465), also resonated with explorers from other nations. The Antarctic ice was a *tabula rasa* on which great narratives of character could be developed and written (Farley 2005). One of the three Swedish South Polar expeditioners marooned at Hope Bay later wrote: ‘We only had to meet the wintering in dark and cold, filthiness and misery as *men*’ (quoted in Lewander 2001, p. 112). Writing in his 1912 Introduction to Amundsen’s *The South Pole*, Nansen emphasised: ‘It is the *man* that matters, here as everywhere’ (vol. 1, p. xxx).

Photographers may have imagined this landscape in different ways, based on their earlier experiences and their reading, but once they arrived there, they had to reconcile the reality with their imaginings. Pyne (2004) speculates that Antarctica’s ice was so absolute a presence as to deny the possibility of meaningful interaction between explorers and landscape, and suggests that the ice was a mirror reflecting back at the explorers their own character and that of the civilisation from which they came: ‘Explorers and the civilisation that sent them did not so much discover The Ice as The Ice allowed them to discover themselves’ (Pyne, p. 67)—an experiential process.

Just as Heroic Era photographers’ images were influenced by their various cultural and personal ‘ways of seeing’, so too were viewer responses to their work. The notional audience for the photography was, in the first instance, the geographical-scientific one for which the exploration was being documented and recorded. Henryk Aręrowski, Friedrich Winter, Emil Philippi and Louis Gain, from the Belgian, German Deep Sea, German South Polar, and second French expeditions, envisaged this

⁵ Women were also avid consumers of masculine adventure literature in this period (Strange 2012). However, the first expeditions to include women did not take place until the 1950s.

audience primarily. Some photographers had future publications in mind, for example Frederick Cook, Otto Nordenskjöld, and Jean-Baptiste Charcot. Others, like Adrien de Gerlache and Amundsen's photographers, were thinking of funding bodies, government and non-government, present and future. In this context they also had in mind the wider public, whose support would inspire the funding of further expeditions. The photographs of Heroic Era expeditions can be seen to appeal to the various 'ways of seeing' of these different notional viewers. Many aim simply to be scientifically or geographically illustrative. Others seek to capture emotional senses of great enterprise and achievement, human endeavour, adventure and national pride, the wonder of the natural world, or allude to myths. Each viewer would add a personal perspective to the interpretation of a photograph, based on his or her own experience, knowledge, imagination and culture.

Cameras and equipment

Photographic work in the Arctic preceded that in the Antarctic. Daguerreotype equipment was apparently taken to the Arctic on the ill-fated Sir John Franklin expedition in 1845–48 (Wamsley & Barr 1996). Probably the earliest Arctic images that survive are from Sir Edward Belcher's 1852–54 expedition to search for Franklin. These were taken in West Greenland and Beechey Island, and were calotypes, which exposed paper sensitised with silver nitrate and salt. The 1854 Inglefield expedition to resupply Belcher used an improvement on calotypes, wet-plate or collodian-coated glass negatives which were sensitised in silver nitrate, quickly exposed, developed in pyrogalllic acid and fixed in hyposulphite or potassium cyanide. A positive print was then obtained by placing the plate in contact with aluminised paper. The process was more complex than its predecessors, but in the early 1850s it revolutionised photography as it could produce multiple and sharp images (Wamsley & Barr 1996). In 1860–61 Dr Isaac Israel Hayes achieved in Greenland the first extensive photographic record of a polar expedition. The invention of the dry-plate process, with plates pre-sensitised and exposed in a dry state, again revolutionised exploratory photography in the 1870s (Condon 1989).

One of the first Antarctic expeditions to take cameras and have a darkroom on the ship was the British *Challenger* Expedition (1872–76). Photographs were included in the 50-volume *Report* (Thomson & Murray 1880–95). It is not known who took the photographs, or what equipment was used, but an artist, John James Wild, was part of the expedition (Codling 1997).

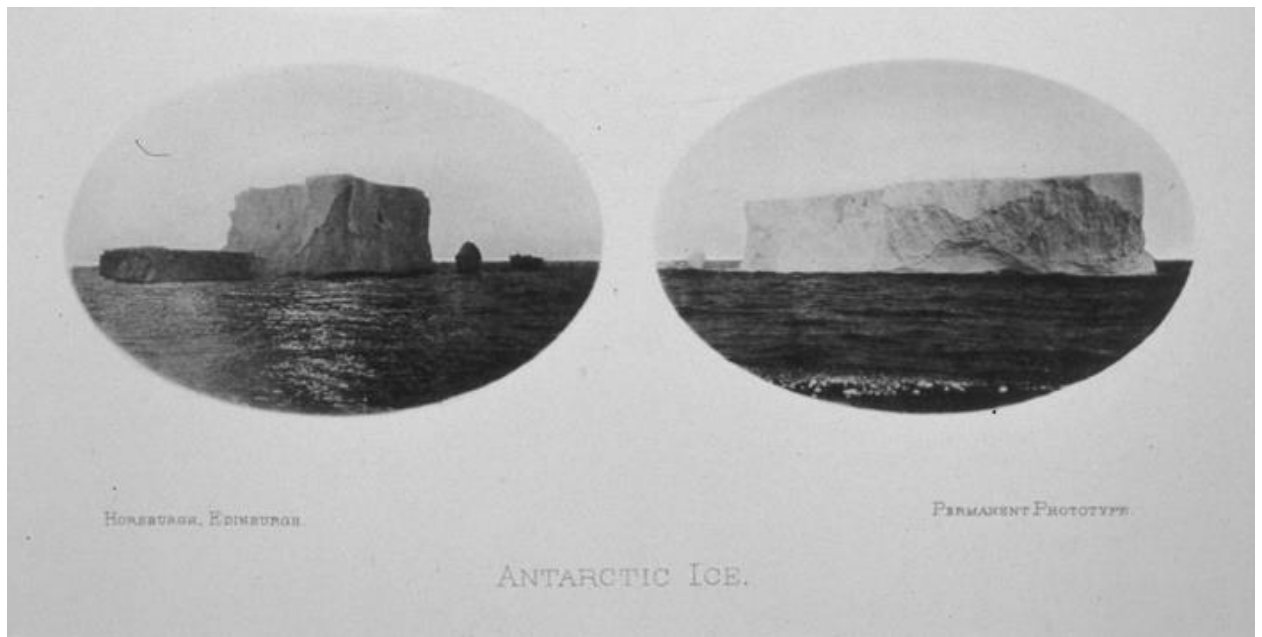


Figure 1: Antarctic ice. Photographed by the *Challenger* Expedition, 1873

(Source: Permanent prototype, published in Thomson & Murray 1880–95, image obtained from Dixon Library, State Library of NSW)

By the end of nineteenth century, photographic film was in use. A unique visual record from nineteenth century Arctic exploration survives in the then undeveloped photographic film salvaged in 1930 with the bodies of the three ballooning participants of the Swedish Andrée Expedition of 1897. The expedition's photographer, Nils Strindberg, produced images described as having artistic quality and an aura of mystique (Martinsson 2004). Strindberg used a camera (Figure 2) which he designed along with Karl Westberg, J. Härden and camera makers Numa Pettersson in Stockholm (personal communication, Dr Tyrone Martinsson, University of Gothenburg, 20 December 2012). Dr Fred Goldberg of the Swedish Polar Institute

believes it was the prototype for the modern Hasselblad camera (personal communication, 2 January 2012). Many artefacts and photographs are on display at the Grenna Museum in Gränna, southern Sweden.



Figure 2: Camera retrieved from Andrée Expedition to the Arctic (Photo: Jan Engsmar)

(Source: Grenna Museum—Polarcenter)

In the Antarctic, photography was not the only technological innovation to accompany Heroic Era expeditions. Scott and Drygalski took balloons in 1901, Shackleton took a motor car in 1907, Scott had three motor tractors and a telephone line in 1911, and Mawson took a plane in 1911. While the other technologies often did not perform to expectations, photography was a definite success. As a writer in the *Australian Photographic Journal* put it in 1909, the camera linked the extraordinary sights of Antarctica 'with the expectant world in a truly visible manner never dreamt of by explorers of past ages' (Marony 1909, p. 325). The growth in number and popularity of illustrated newspapers and magazines increased the

demand for cameras on expeditions. In time, leaders would recognise the value of specialist photographers who would be able to provide more than just a record of events (McGregor 2004). But much of the photography was produced by amateurs.

Standard equipment consisted of a tripod-mounted, large-format camera which took glass plates requiring long exposures; each photograph had to be planned, with no opportunity for spontaneity. In polar regions the difficulties were hugely increased. When Nansen crossed Greenland in 1888, he took an Eastman camera with roll film, better for expedition conditions and providing wider photographic opportunities, from posed images to impromptu photography. Nansen's influence on contemporary and later photographers was considerable: his widely published narratives for the exploration and popular science readership were among the first to use photographs (Müller 2009), and he also lectured, using lantern slides of photographs. Barr (2000) points out the artistic elements in his photography, emerging from his talents as a lyrical, romantic landscape artist.

Though many photographs were taken during Antarctica's Heroic Era with small, easy-to-use, hand-held cameras, which often succeeded in capturing the spirit of a moment, glass plates were the main choice of expedition photographers. It was generally believed that these produced greater detail and a finer image, and 'serious' photographers used them (Riffenburgh 2004), with the smaller cameras often associated with amateurs in the derogatory sense (Kendall, Mathe & Miller 1997). Expedition images produced by large-format cameras—planned in advance and carefully posed—demonstrate a high degree of control over subject matter (Higginson 1998), which is another reason photographers may have preferred them. Larger format cameras were best used on a tripod, though hand-held was possible with some.

Photographers could use albumen prints, where paper was coated with an egg-white film before being sensitised by a silver nitrate solution (Vitale & Messier 1993); or platinotype prints, using platinum (Farber 1998); or carbon prints (Farber 1998).

Thirty-five millimeter roll-film was used in cinematograph equipment (Dixon & Foster 2008).

To accommodate the needs of the ever growing number of photographers, photographic societies were launched, and guides to photographic equipment and periodicals about photography were published (Davenport 1991).

Amateur photographers

The growth of amateur photography was spurred by the transition from daguerreotypes to the wet plate process (Gernsheim 1986), still a laborious process, but less expensive. The introduction of dry-plate photography in the late 1870s encouraged more amateurs, cameras being smaller, cheaper, and much easier to use. They could also capture action very easily, leading to the new term 'snapshot' (Inglesby 1990), which probably came from hunting terminology (Brower 2011).

Amateur photographers were a diverse group, ranging from serious photographers working with large plates, complicated cameras, and developing their own prints, to users of small cameras which needed little skill. Eventually plates were largely replaced by roll film. From 1888, Eastman Kodak provided equipment even cheaper and easier to use. Amateurs were mostly from the upper and middle classes and took photographs as a hobby (Zimmerman 1995). For many scientists the appeal of light- and chemistry-based photography was a natural extension of their interest in the sciences and their need to record their research.

Polar photographers

Photography in polar regions presented great challenges. Exposing glass-plate negatives on the ice was immensely difficult, involving extended periods of camera adjustments by the photographer and pose holding by the subjects. Cameras brought indoors needed to be protected from the moisture of condensation (Ponting 2001). Photographic equipment was bulky and very heavy. Developing films and printing from a negative black and white silver image from glass plate or film was time-

consuming and monotonous (Arnold 1967). From the 1890s, explorers had cinematograph cameras. Robert Bonine and Thomas Crahan filmed in the Klondike in 1898, and Anthony Fiala made a motion picture, *A Dash for the North Pole* (Abel 2005), of his 1903–05 expedition (Diesen 2012).

Colour

Arctic and Antarctic experiments with colour photography were a response to the special colour effects in polar regions. F.W. Stokes, the American artist and polar specialist who accompanied the Swedish South Polar Expedition, told the *New York Times* :

The barren, savage polar regions ... have always been looked upon as entirely devoid of color—only black and white; but just the reverse is the truth ... I am one who believes that the chief fascination of those bleak regions is their color ...' (*New York Times*, March 11 1912)

The first colour photographs in Antarctica were taken between 1902 and 1904 by Dr Reginald Koettlitz,⁶ surgeon on Scott's *Discovery* Expedition (Jones 2011), using a complex process involving three separate exposures of different length with colour filters red, green and blue (personal communication, Andrew Atkin, who has studied Louis Bernacchi's diaries of the expedition, 18 April 2013). Unfortunately, the photographs were not published and can no longer be found.

Hanna Resvoll-Holmsen, a Norwegian botanist, was the first female scientist-photographer in polar regions and is credited with also being the first naturalist to use colour photography in polar work, experimenting with it in the Svalbard archipelago in 1908 (Fuglei & Goldman 2006; Norsk polarhistorie n.d.). In the Antarctic, H.G. Ponting attempted to take advantage of contemporary developments, taking with him Autochrome plates made commercially available by the Lumière brothers in 1907 (Lavedrine & Gandolfo 2013). The process involved a panchromatic emulsion layer exposed through a screen of starch grains in primary colours. The plates had a short life, and many of Ponting's Antarctic exposures

⁶ Jones (2011, pp. 201–202) gives an extensive list of Koettlitz's colour photographs, which include important events of the expedition, scenes, and the midnight sun.

spoiled due to time and conditions (Ponting 2001). Frank Hurley considered his colour photographs to be among the most valuable records of the *Endurance* Expedition. He was an early user of the Paget method of colour photography, a leading-edge technique introduced commercially in 1913 (Riffenburgh 2008). The intricate process involved an in-camera Paget Taking Screen with a ruled set of colour lines, which was pressed to the emulsion of a black and white negative, and a special yellow screen fitted over the lens. The negative was reverse processed into a positive transparency and placed back in contact with the screen, giving the effect of a colour photograph (Mitchell Library 2001; Wilson-Roberts 2004). Amateur photographer Percy Correll (1892–1974) worked with the Paget colour method alongside Hurley during the Australasian Antarctic Expedition (1911–14) (Riffenburgh 2008).

Lantern slides and multimedia shows

Photographic slides for projection became extremely popular from the mid-nineteenth century. The projection technology was known as the magic lantern, for its associations with illusion and conjuring (Hartrick 2003). It extended the value of photography, changing it from an intimate medium to one that could be used for entertainment and educational purposes (Library of Congress n.d.). The magic lantern was a globally significant medium (Hartrick 2003) until its popularity was eclipsed by that of motion pictures after World War One.

Magic lanterns and slide sets were mass produced and mass marketed from the 1890s. A meticulous process was involved in the making of slides. Transparent copies were made from the original negatives and fixed between glass plates. Many were hand painted, which was done before the second protective plate was secured (Elmendorf 1985). Slides measured 8 x 8 cm, were quite heavy, and were stored and carried in special cases.

Lantern shows and slide sets covered a variety of subjects, including religion, travel and tourism, and humour (Butterworth 2009), and they often promoted cultural values and patriotism. Lantern slide lectures were an important form of public

entertainment and information. The audience was the educated, liberal middle class (Martinsson 2005). Polar explorers were quick to adopt the medium. Antarctic photography was extremely popular with the public, and profitable (Thomas 1990). Scott used slides of the *Discovery* Expedition at a London Albert Hall lecture in 1904 to an audience of over 7,000 (Yelverton 2000, pp. 328–329). Charcot and Amundsen were among those who continued the practice,⁷ raising money for further expeditions.

Multimedia shows on Antarctica were very important popular entertainments during the first decades of the twentieth century (Dixon 2006). These could be complex performance events combining a live presenter with lantern slides, film and music. They might also feature a photographic exhibition, including print sales, associated newspaper and magazine coverage, dioramas and the display of related artefacts, and book publication (Dixon 2006). Ponting and Hurley were masters of synchronised multimedia shows aimed at maximising their income from expeditions (Dixon 2003, 2006).

Postcards

Postcard popularity developed at the end of the nineteenth century and reached its peak from 1905 to the 1920s (Nicholson 1994; Vaule 2004), coinciding with the Heroic Era. Postcards provided one of the world's most complete visual histories, 'spark[ing] our historical imaginations, providing the circumstance to conjure up the past with concrete visual testimony' (Bogdan & Weseloh 2006, p. 208). Picture postcards communicated attributes, concepts, and ideas (Yüksel & Akgül 2007). From the sender's viewpoint, a postcard affirmed his or her identity with the scene. The recipient was placed figuratively in the picture through the power of its imagery.

Most postcards were mass-produced and printed. Antarctic expeditions had official commemorative postcards printed. Figure 3 is the official Swedish expedition postcard, showing the ship *Antarctic*. The expedition had a supply of these, and many

⁷ An example of Amundsen's slides may be seen at Figure 58.

members made use of them. This postcard was sent by Otto Nordenskjöld from Sandefjord, Norway, to Kockums Company, a warehouse in Gothenburg. The message translates as: '19.10.1901. The expedition's grateful thanks for your valuable gift. O. Nordenskjöld' (Nova Stamps n.d., translation courtesy of Stefan Heijtz, philately and postcard specialist).



Figure 3: Official expedition postcard sent by Otto Nordenskjöld 19.10.1901

(Source: Nova Stamps, n.d.)

It is not known who took the photograph of the ship with flags flying from masts and stern. Neither is there any indication of the printer, who was probably responsible for the official envelopes and letterheads also used by the expedition. The reverse of the card has a 'S.Y. Antarctic Swedish Expedition' cachet stamp. The card was sent three days after departure from Gothenburg. Just over two years later, the small, steam-powered sailing vessel sank in Antarctic waters.

There were also photographic postcards (sometimes known as real photo postcards), where the film was developed by the photographers themselves on photographic paper with postcard backs (Bogdan & Weseloh 2006). The Eastman Kodak Company

capitalised on the market for photographic postcards, introducing stock specifically for postcards in 1902, and from 1903 to 1941 producing various models of the 3A camera that used postcard sized film (Vaule 2004).

Photographic postcards were monochrome and mostly documentary in approach. Many were never mailed but were placed in albums. Cards depicting historical events such as Antarctic expeditions are scarce and have particular value to collectors. Messages can also heighten the interest and value of cards, especially if written by a famous person.

Members of the Swedish expedition made photographic postcards during the voyage south. Figure 4 shows one written on and made by Gösta Bodman, who had an early model of the Kodak 3A camera that used postcard sized film (Nordenskjöld 1911, p. 225).

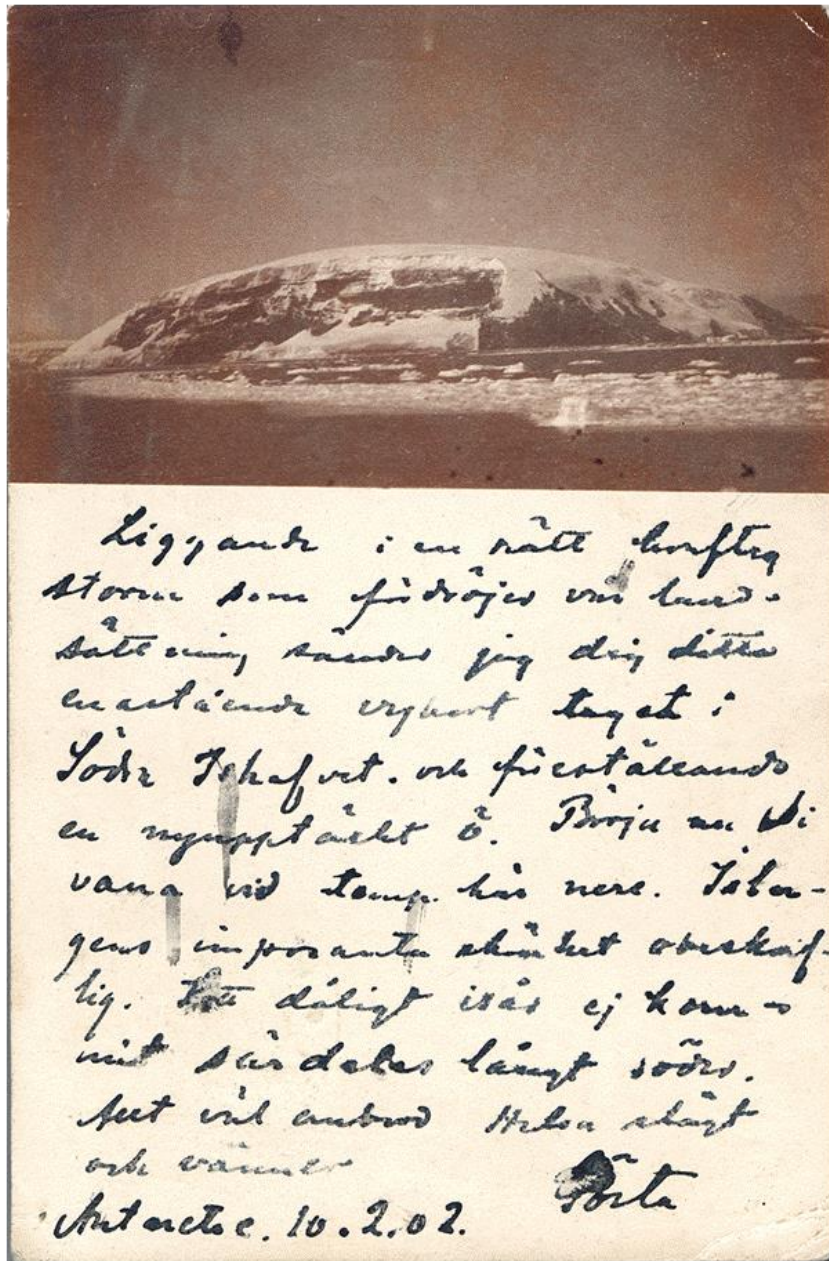


Figure 4: Photographic postcard from Gösta Bodman, 10 February 1902

(Source: Original postcard in private collection of Dr Fred Goldberg)

Bodman's message reads:

While lying in a strong storm delaying our landing, I am sending you this picture card taken in the Southern Ice Sea showing a newly discovered island. We are now getting used to the temperatures here. The beauty of the icebergs is indescribable. Everything well onboard. Greetings to relatives and friends. Gösta/ Antarctic 10.2.01 (translation courtesy of Dr Fred Goldberg).

New and untrodden land was a main attraction for polar explorers. The photograph of the island promotes Bodman's projected image as explorer.

Real photo postcards made a vivid connection between recipient, sender and scene. Photographs from the expedition thus had influence not only on the scientific and political environment, but also on individual persons in the social and cultural milieu in which it occurred.

Styles of polar photography

Stylistic changes occurred in polar expedition photography over the decades at the end of the nineteenth century and the beginning of the twentieth. Early polar photographs were influenced by existing styles in landscape painting, which tended to depict nature romantically, as dramatic, wild and forbidding (Barr 1997). Many of Nansen's Arctic photographs express a lyricism about the landscape and can be regarded equally as works of art as of documentation (Barr 1997).

Later work trended more towards a recording and documentary approach, representing the control of nature by science (Cook 1937, quoted in Gibbons 1998; Barr 1997). However, scope always remained for photographers to express their own 'ways of seeing' in individual representations. Artistic approaches, evident in certain landscapes and photographs of groups and individuals, may create more complex images that communicate or evoke ideas and feelings, the photograph becoming an expressive vehicle, an example of the its capacity both to present evidence and to evoke other qualities, psychological or mythical (Sturken & Cartwright 2001).

Promotional aspects

Expedition photography had a strong promotional aspect with a view to raising funds for new expeditions. Photographs had the power to enthral lecture audiences and enhance fund-raising. Leaders often mortgaged photographic rights in advance to newspapers and other backers in order to raise money (Alexander 1998; Robinson 2006). Newspapers were able to publish photomechanical reproductions from around 1904 (Gray & Newton 2001), using the half-tone process which was the major

factor in the growing circulation of popular illustrated newspapers and magazines (Lenman 2005). Publishers preferred images that suggested excitement and daring.

The relationship between newspapers and explorers required more than ever that new lands be portrayed as tests for daring individuals who were willing to risk their lives to make gains for science, the flag, or mankind. A demand developed for triumph over obstacles, and the greater the difficulty, the more the danger, the longer and harder the journey, the better the public liked it. (Riffenburgh 1993, p. 56)

Producers of photographic equipment were quick to realise the potential advertising benefits of sponsoring expeditions. The German South Polar Expedition (1901–03) made its selection of equipment from product description material supplied by the Carl Zeiss Company, A. Stegmann Fabrik, Aktien-Gesellschaft für Anilin-Fabrikation (AGFA) and other companies. Companies sponsoring expeditions in other ways required photographic promotion of their connection. The Hamburg Line provided a ship and some crew to the German Deep Sea Expedition (1898–99), and the Line was ‘advertised’ in the group photograph (Figure 14). The British Antarctic Expedition (1898–1900) was preceded by a display of its equipment, including food, arranged by the expedition’s sponsor, prominent British magazine publisher Sir George Newnes, as ‘a gigantic advertisement’ (‘Antarctica in London’ 1898, p. 4). H.G. Ponting, also conscious of marketing potential, would later include many sponsors’ products in his photographs of Scott’s *Terra Nova* Expedition (1910–12), such as Liebig’s Oxo drinks and Fry’s cocoa (Riffenburgh, Cruwys & Arnold 2004).

Photography, art and science

Photography is one of a range of representations by means of which scientists communicate their ideas and findings about their research. For scientists researching on early Antarctic expeditions, photography had obvious advantages, but art continued to be important. Publications of Antarctic work often contained reproductions of hand-drawn or painted illustrations. Examples are the deep sea fish shown at Figure 17, and the German South Polar Expedition’s artwork (Drygalski 1908, Bd. IX), naturalistic in style, with the various individuals of a species posed in natural situations.

The photographer has less leeway than the artist when attempting to capture wildlife in classic poses (Law & Lynch 1990). The technical apparatus of films and levels of light can be both resource and constraint. Certain anatomical details may not be clearly discernible in photographs, and the moment in the life of the creature may not necessarily be fully illustrative of its known behaviour. For these reasons, 'a drawing can do much more than a photograph ... A photograph is a record of a fleeting instant; a drawing is a composite of the artist's experience' (Peterson 1980, p. 9). For the best formal documenting of field research, a combination of art and photography may be necessary.

The principal value of photographs and film, in decades when scientists had less possibility of access to Antarctica themselves, may have been for scientific understanding from a distance. Today, photographic illustrations preponderate in science books, although art work is often included. A recently published study of Antarctica's prehistory (Stilwell & Long 2011) is an example of this useful combination of forms of visual representation.

Summary

Photographers came to dominate the illustration of Antarctic exploration and science, which had begun with the work of artists. Photography is a cultural practice, and the choices made by the photographer, through selection, framing, and personalisation, are largely subjective. 'Ways of seeing' are affected by experience, and preconceptions of Antarctica would have been important in the subjective choices shaping photographers' 'ways of seeing' it through the lens.

The polar regions had a powerful grip on western imaginations, linked with discourses of adventure, patriotism, honour and manliness, as well as scientific progress. The publication of Antarctic photographs in early Heroic Era narratives further fuelled the allure.

Technological developments were accompanied by an increase in the number of amateur photographers. Amateurs appointed official photographers for polar expeditions had to deal with great challenges, but a few were able to be experimental. Lantern slide shows and postcards played an important part in the representation of expeditions and in the raising of funds for new exploration. Photographs often drew on landscape painting traditions, but photographers could express individual 'ways of seeing'. Art continued to play an often collaborative role in the documentation of science.

Part C: Expedition photography

In 1930 the Ullstein press in Germany declined an offer of a polar story from a group of researchers with the comment:

The awful thing on such research trips is that there is never anyone around who understands how to photograph with a proper journalistic eye. It's always the same boring pictures of dogs running around on the snow, icebergs, and men standing in front of tents (quoted in Murphy 2002, p. 137).

In the Heroic Era, however, amateur photography found ready acceptance by the publishers of accounts of expeditions in books and magazine articles. To quote what has been said of the amateur photographs taken by Amundsen's team, whatever the drawbacks in presentation, the photographers 'did at least register events as seen through their own eyes, and the outcome is a poignant blend of immediacy, artlessness and authenticity' (Huntford 1987, p. 8). Immediacy and authenticity, in particular, had considerable attraction for readers looking at early photographs of exploration.

Photographic representations of the expeditions are found in overall accounts written by expedition leaders, in published scientific results, in accounts published by the photographers themselves in books and magazines, on postcards, and in photographic collections. Each photographer and author made choices as to how to present their work.

Did they present scientific expeditions in the name of modernity; as national projects strengthening the glory of their own countries; or as adventurous stories of discoveries of the unknown? Did they highlight the physical achievements or the requirements for fulfilling the standards of being a 'real' man ... Did the projects carry connotations to a modern Viking tour ... or a tour for constructing the hero? (Lewander 2002, pp. 99–100)

Their choices, and the factors which contributed to the making of them, will be examined in this section.

***Belgian Antarctic Expedition (Belgica)*⁸**

The Belgian Antarctic Expedition (1897–99), instigated and led by naval officer Adrien de Gerlache with the moral support of the Société Royale Belge de Géographie, was the first to overwinter within the Antarctic Circle after becoming ice-bound for a full year in the Bellingshausen Sea.

The expedition, like others of the early Heroic Era, was motivated by both nationalist-imperialist agendas and international scientific reasons (Elzinga 2007). For De Gerlache, his expedition was to be a scientific one, although it was later suggested that his ‘courageous, persevering and daring spirit’ longed to head for the South Pole (Arctowski 1902, p. 389). For the Belgian public, ‘the idea of Belgium performing scientific work in distant locations was more important than the work itself’ (Roberts 2003, p. 346), and the project came to arouse considerable enthusiasm in the daily, periodical, scientific and popular press (Cabay 2001) and among people of all walks of life. This helped De Gerlache finance the expedition, and enabled him to make a preliminary visit to the Arctic (Cook 1900, p. 40). Money came mainly from a subscription fund organised by the Société de Géographie, which was committed not only to geography and science, but also to expansionism in the interest of the nation (Cabay 2001). As a result of its fund-raising, the Société was made owner of the expedition. Some financial help also came from the Belgian government, though it did not see much potential in the Antarctic (Cabay 2001).

Though the expedition’s leader and high ranking crew were Belgian, members came from a number of countries. De Gerlache spoke French and English, and all of the scientific staff spoke German (Cook 1900, p. 5). Roald Amundsen from Norway was second mate. There were Polish and Romanian scientists, all volunteers, and an

⁸ The primary sources examined for this study are published books by De Gerlache (1902, 1998), an article by Frederick A. Cook (1899) and his book (1900, 1980, 1998), articles and book chapters by Henryk Arctowski (1901a, 1901b, 1902, 1908a, 1908b), books by Roald Amundsen (1912, 1927), quotes in Gibbons (1998) from articles written for *Popular Photography* by Cook in 1937 (Gibbons 1998), photographs reproduced in the aforementioned publications, and copies of photographs obtained from the Byrd Polar Research Center Archival Program, Frederick A. Cook Society Records. Secondary sources about the expedition refer only briefly, if at all, to the work of photographers.

American medical doctor. Nevertheless, Belgium's sense of ownership was strong (Cabay 2001). On the expedition's departure a flotilla of boats accompanied the ship out of the harbour. On board one were the Minister of the Interior, presidents and members of the Sociétés de Géographie de Bruxelles et d'Anvers, civil and military authorities, representatives of the press, and members of scientific societies (De Gerlache 1902). On the return in 1899 there was triumphant national celebration, with De Gerlache decorated by King Leopold II and commemorative postcards issued featuring Belgian flags (Pinot n.d.).

Many members of the expedition took photographs. Because of the time constraints of the Master's project, only two will be considered here: Frederick A. Cook and Henryk Arctowski. Cook was the official photographer of the expedition. Arctowski has been selected as an example of a scientist who also took photographs.

Frederick A. Cook

Frederick A. Cook (1865–1940) was the official photographer and also the surgeon. He was one of the few Heroic Era photographers to have considerable prior understanding of what Antarctica might be like, as he had crossed the Greenland ice cap in 1891–92 as surgeon on Robert Peary's first expedition to find the North Pole, following this with other Greenland expeditions of his own. He had planned to lead an Antarctic expedition (*New York Times* 1897) but had not raised sufficient funds.

On the *Belgica* Cook became good friends with Roald Amundsen. The Norwegian, then on his first polar expedition, frequently mentions Cook in his writings, saying that Cook was 'in all ways a very reliable man' (quoted in Declair 1998, p. 111), 'beloved and respected by all' (Amundsen 1912, p. 19), and 'As a result of his ... in-depth study of everything to do with polar life ... [he] undoubtedly has a deeper insight than other people ... He gives advice in a friendly and pleasant way' (Amundsen 1912, p. 131). Figure 5 is a portrait of Cook, probably taken after the *Belgica* Expedition.



Figure 5: Frederick A. Cook

(Source: Photographic print, Byrd Polar Research Center Archival Program, Frederick A. Cook Society Records)

Conditions on the ice-bound *Belgica* were very difficult, cramped and intensely monotonous. The men were like ‘a little colony of convicts serving our time’ (De Gerlache 1998, p. 115). Several of the crew succumbed to persecution mania. Cook quoted an expedition member: ‘We are in a mad-house’ (1900, p. 334). His medical skills and innovative prescriptions were said to have saved the lives of several men (Guly 2012a), and it seems to have been his scheme to release the ship from the ice that ultimately saved the expedition and its scientific records (Bryce 1998).

But Cook is a deeply ambiguous personality in history. In 1906 he claimed to have climbed to the top of Mt McKinley, the highest mountain in North America, and produced a summit photograph which aroused suspicions almost immediately and was later exposed as fake (Bryce 1997). In 1909 he claimed to have been the first to reach the North Pole the year before, a claim he again supported with photographs

purporting to show the area at the Pole (Bryce n.d.a). He received a hero's welcome on his return to America, but his claims were quickly disputed and discredited (Bryce 1998). He was later convicted of mail fraud, and spent five years in an American prison, where Amundsen visited him in 1926. Amundsen wrote: 'Some physical misfortune must have overtaken him, to change his personality, for which he was not responsible' (1927, p. 74–75). Maxtone-Graham (1988, p. 275) theorises that Cook had a 'fatal doppelganger, [a] furtive, calculating charlatan'. In an effort to rehabilitate Cook's reputation, his daughter Helene Cook Vetter and others formed the Dr. Frederick A. Cook Society in 1956, reorganised in 1975 as the Frederick A. Cook Society, its purpose to seek 'official recognition for the scientific and geographic accomplishments of Dr. Frederick A. Cook' (OSU 2011a, last para.).

Before the expedition, Cook had published widely in journals and magazines, and had also written a chapter on the Greenlanders for a book about his 1894 Arctic expedition (Cook 1896). On that expedition, others had taken the photographs (Kersting 1896). His first publication about the *Belgica* Expedition came in July 1899, a copyrighted story in the *New York Herald* (OSU 2011b), written in South America on his way home. Several others followed, including a lengthy article in *McClure's Magazine*, which contained eighteen photographs marked with his copyright (Cook 1899). In 1900 he was the first member of the expedition to publish a book, using many photographs in *Through the first Antarctic night*, which sold well (Bryce n.d.b), with a second edition in 1909, and also Belgian (1902) and German (Cook 1903) versions.

A contemporary reviewer found that the author was 'spontaneous and witty, combining a rare descriptive talent with very acute observation skills' and that the photographs were skilfully composed (Zimmermann 1901, p. 455, my translation). A descendant of De Gerlache has described them:

Taken on glass plates with the rudimentary equipment of that time, [they] are not only the earliest pictures that we have of a South Polar winter, but they still astonish by their quality ... (De Gerlache 1979, p. iv)

The photographs include several of the ship, scenes and icescapes, and some activities of the crew. There are detailed photographs of wildlife, including heads, skulls, and claws, but in later years Cook acknowledged that the style of many of his photographs was predominantly pictorial:⁹

The photo habit of that time was to make pictorial scenes, portraits, and animal studies. The old school of photography had not yet broadened its scope to record the utmost scientific detail which for us was vitally necessary (Cook 1937, quoted in Gibbons 1998, p. xii).

In his later years Cook published some accounts of his camera work in Antarctica. He explained some of the challenges in a February 1937 *Popular Photography* magazine article, 'My experiences with a camera in the Antarctic', introduced by editorial praise of the 'great technical excellence' of the photography (quoted in Gibbons 1998, p. xii). Cook's prior experience had been limited to a simple Kodak, but on the *Belgica* his equipment was French and German, with Zeiss lenses and glass plates, and 'there were headaches ahead' for him in camera technique (p. xii).

He had to learn how to deal with the light:

Polar light is not as strong as it seems. Exposures must be longer as you near the Pole, for there the sun is never high and there is little actinic light. Because of the photographically adverse weather conditions, and our inexperience, we went into the long night with perhaps five hundred camera exposures to be thrown away ... We still had plenty of plates, but the fast emulsion plates did not keep well and too often failed in results. The slow emulsion plates were, however, superb (Cook 1937, quoted in Gibbons 1998, p. xii).

There were also problems with developing.

There was plenty of developer, but our hypo was nearly all used. It was necessary therefore to devise a new fixing bath or stop developing. We knew that exposed plates could not be taken home successfully across the torrid zone unless developed, fixed and well packed ... In an old copy of the British magazine *Answers* there was a brief mention of the use of prussic acid as a fixing solution for daguerreotypes ... We had on the *Belgica* twenty gallons of hydrocyanic acid, used to kill animals for specimens ... I began to experiment, knowing the grave danger of the poison. In due time I formulated a solution of proper strength, and thereafter we used prussic acid as a fixing bath. Needless to say, nobody remained in the darkroom during fixing (Cook 1937, quoted in Gibbons 1998, pp. xii–xiii).

⁹ Pictorialism was a movement in the history of photography that saw the photographer's role as an artistic one (Andrews 2007). It was heavily influenced by Romanticism.

Adrien de Gerlache's account of the expedition, first published in 1901, included photographs taken by Cook and others, including himself, though none were individually credited. The book was awarded an Académie Française prize in 1902, but not translated into English until 1998. There are many photographs of the ship (especially in relation to its final extrication from the ice), a large number of landscapes and wildlife photographs (in deference to the sponsor-owner, the Société Royale Belge de Géographie), some activities, including one of the crew at leisure, and a photograph of the funeral on the ice and in the dark of Lieutenant Danco, who died of heart failure (De Gerlache 1902, p. 217). (Danco was Belgian, and the inclusion of the photograph would have gratified the Belgian readership, but he was also De Gerlache's friend.) A 1902 reviewer criticised the illustrations in De Gerlache's book as 'not altogether trustworthy "documents"', for a good many of them are photographs which have been improved upon by the artist, and some ... are only "after photographs", and leave a great deal to be desired ('Review' 1902, p. 449). This comment would appear to be largely valid. There are also photographs in the numerous scientific reports that followed the expedition (Commission de la *Belgica* 1901–13), but most of the illustrations are drawings.

There is little in the scholarly literature regarding Cook's photography in Antarctica. Bryce (1998) and Raraty (1998) refer to Cook's photographic record of the voyage as excellent and superb, but do not elaborate. Nevertheless, Cook's and De Gerlache's books have done much to maintain awareness of the photographs, as have *Belgica* centennial symposia held at the Byrd Polar Research Center, Ohio, in 1997, and in Brussels in 1998 (Decleir & De Broyer 2001). Many photographs are held in collections in the Library of Congress and at Ohio State University.

Henryk Arctowski

Two years before the expedition, De Gerlache appointed the Polish exile Henryk Arctowski (1871–1958)¹⁰ scientific deputy-leader (Machowski 1998a) and geologist, meteorologist and oceanographer. Arctowski, described by Amundsen as ‘an all-round man’ (1912, p. 19), had studied at Liège in Belgium and at the Sorbonne in Paris, and was well immersed in South Polar issues (Raraty 1998). He also had a friendship with the Russian artist Ivan Pokhitonov, who lived in Liège, and through this Arctowski had acquired an appreciation of the subtleties of landscape painting (Arctowski 1901a, p. 163). He assisted De Gerlache in recruiting scientists for the expedition, and in lecturing to raise funding for it (Machowski 1998a). In preparation for the expedition he undertook studies in glaciology in Switzerland, which gave him his first field experience in an ice environment. He also studied oceanography in England, consulting with scientists who had been on the *Challenger* Expedition (Machowski 1998b). His ‘way of seeing’ may be deduced as scholarly and scientific, influenced by his experience in the field on the Swiss glaciers but also by his interest in art.

As a result of the *Belgica* expedition, Arctowski produced the first coherent account of the physical geography and petrology of the Antarctic Peninsula (Fogg 1992). After the expedition he edited the publication of its scientific results. In 1907 he announced plans for an Antarctic expedition led by himself and Lecointe, which did not eventuate (Riffenburgh 2004). He worked at the Royal Observatory of Belgium, then as division director at the New York Public Library, and later pursued a distinguished academic career in Poland. Throughout his life he continued to work for the cause of international cooperation in polar research (Machowski 1998b).

The ‘ships in the ice’ motif

Within the often reproduced images of polar exploration certain motifs occurred which became taken for granted. One of these is that of ships in the ice, an image

¹⁰ Arctowski is shown in Figure 12.

evoking the romantic aspect of powerful nature, relentless ice masses pressing in on small ships (Barr 1997). Sir John Franklin's *Terror* and *Erebus* (1845), Nils Adolf Nordenskiöld's *Vega* (1878–79) and Nansen's *Fram* (1893–96) are among many striking images which survive of ships in the Arctic ice.

Belgica's enforced year in the Antarctic ice had a heavy impact on the expedition members, requiring them to deal with isolation more intense than that experienced by most explorers. Images of the *Belgica* taken by Cook and Arętowski set a tone of foreboding for the Heroic Era in Antarctica.

One of Cook's most striking photographs is shown in Figure 6, which he included in *Through the first Antarctic night*. The photograph of *Belgica*, beset by ice and spectral, was taken in midwinter 1898. It was carefully planned and executed with an exposure of 90 minutes (Mission du patrimoine photographique 1997), illuminated by magnesium powder flashlights (Huntford 1987).



Figure 6: Moonlight photograph of the *Belgica*, May 20 1898 (Photo: Cook)¹¹

(Source: Photographic print, Byrd Polar Research Center Archival Program, Frederick A. Cook Society Records)

The composition of the image—the foreground dominated by blocks of ice, frosty masts rising skeletally towards a black sky—reconstructs the motif familiar from the Arctic: Europeans risking all in exploration of the farthest seas. The published photograph was testimony to the fact that Belgium had earned the right to have an ongoing interest in Antarctica.

As a medical doctor, Cook took an informed interest in the depression and neuroses that claimed many members of the expedition during its long period in the ice. He wrote: ‘The curtain of blackness which has fallen over the outer world of icy desolation has also descended on the inner world of our souls’ (1909, p. 282). In his depiction of the stricken ship in Figure 6, he found a way of suggesting psychological aspects of the expedition. The image of the vessel, corpse-like in its grey-whiteness,

¹¹ De Gerlache also included this photograph in his narrative (1901), and Amundsen had a lecture slide of it (Kløver 2009).

trapped in a dark alien icescape, evokes the apprehensive state of mind of the expeditioners. The depiction indicates Cook's progress in a few months from almost complete amateur to a photographer developing a distinctive creative voice.

Among papers on the expedition's scientific findings authored by Arctowski, there are photographs, mostly taken by himself, selected to illustrate aspects of the text. Some of these have a power that enables them to stand alone as striking depictions. The image in Figure 7 is one of these.



Figure 7: *Belgica* soon after return of sun (Photo: Arctowski)

(Source: Arctowski 1908a, p. 33)

Arctowski used the photograph in his report on ice conditions (1908), to illustrate the crust of frost and ice on the rigging and the characteristics of the ice and snow around the ship. But the image works effectively as art. The low angle image of the ice-shrouded ship, the bow almost front on to the viewer and damaged by collision with an iceberg, is a dramatic one, the upper structure seeming to strain upward in a vain attempt to get free from the ice. The image situates the viewer in a responsive attitude of awe as he or she contemplates the predicament of the expedition. It evokes myths of ghost ships, and foreshadows the photographs of the *Endurance* in the ice which Frank Hurley would take in 1915.

‘A new world of ice’

The theme of ice naturally dominates the *Belgica* writings of Cook and Arctowski. Two of the chapters in Cook’s narrative were titled ‘Discoveries in a new world of ice’. Arctowski’s reports in the scientific results of the expedition were about glaciology.

Glittering whiteness and brilliant colour

Three of the photographs in the 1900 edition of Cook’s narrative of the expedition were coloured,¹² in order ‘to give a few examples of the daily touches of colour which serve to relieve the awful monotony and glittering whiteness peculiar to the south polar regions’ (1900, p. xv). Descriptions of brilliant colour are not uncommon in polar literature. Accounts in the *Challenger Report* emphasised colour (Codling 1997). Shackleton later wrote: ‘Nature’s colour schemes in the Antarctic are remarkably crude, though often wondrously beautiful. Bright blues and greens are seen in violent contrast with brilliant reds ...’ (1909, vol. 2, p. 27). The unexpected aspect of colour in a white world is a thread that pervades the work of later Antarctic artists (Andrews 2007).

¹² The colourist of Figures 8 and 9, Albert Operti (1852–1927), was a noted Arctic artist who had been on the 1896 Peary Expedition to Greenland and, like Cook, was a member of the Explorers’ Club in New York. One of his watercolours, held in the Frederick A. Cook Collection of the Sullivan County Museum, New York, shows *Belgica* in the ice.

In having his photographs coloured for publication, Cook was also seeking to shift his representation of Antarctica from a monotony where 'all [was] cold and white and wearisome' (Cook 1900, p. 386), to a retouched version that might be more appealing to his readers.¹³ Figure 8 shows one of the hand-coloured photographs, quite astonishingly vivid, but Cook wrote that 'the success attained by the artist, the engraver, and the printer ... has been an agreeable surprise to me' (1900, p. xv).

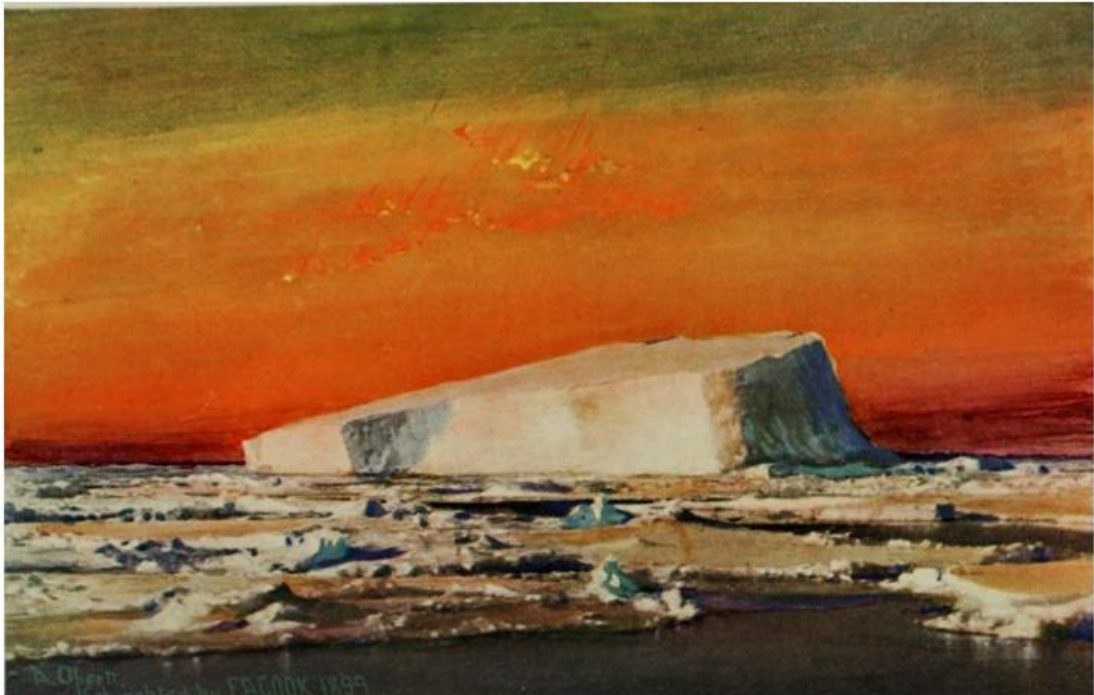


Figure 8: An Antarctic iceberg (Photo: Cook)

(Source: Cook 1900, frontispiece)

The orange glow of the sky is palely reflected by the ice. The photograph is similar in other ways to the *Challenger* photograph at Figure 1, but the colouring enhances the viewer's experience of a hostile, alien new world, like a scene on another planet. The photograph, as frontispiece of Cook's narrative, anticipates and emphasises the danger and daring of the explorer's story.

The ice, mist and eerily lit gloom of another coloured photograph (Figure 9) evoke a different sense of the un-earthly. The image has similarities to depictions of other

¹³ Heroic Era photographers later experimented with colour photography.

mountains with which viewers might have been familiar, but Cook's photograph, hand-coloured, emphasises 'a mystic light ... like an artist's dream (1900, p. 151).



Figure 9: Midnight at midsummer over the Antarctic mainland (Photo: Cook)

(Source: Cook 1900, facing p. 166)

The transcendental and indescribable something about this continued twilight from sunset to dawn ... raises the soul into a plane of superhuman existence. The glory of these midnight glimmers will haunt me for the rest of my days. (Cook 1900, p. 175)

The photograph was taken when the expedition was still some months away from becoming ice-bound. There is 'glory' in Figure 9, but the image is also one of foreboding.

'This realm of eternal ice'

Arctowski appears to have had romanticist leanings, perhaps arising from his friendship with Pokhitonov, whose art has been described as romanticist and impressionist (Strachan & Bolton 2008). The scientist described how on one landing in Antarctica he 'sat down in the midst of the silent solitude to allow the grandeur of the magnificent polar landscape to produce its full impression on my mind' (1901a, p. 158). The photograph in Figure 10 suggests the influence of romanticism. It was

taken to illustrate a report on glaciology, but the inclusion of a human figure before the glacier adds a further dimension. The man is not represented as hero-explorer, but looks more like an Alpine walker, giving the photograph some resemblance to late eighteenth and early nineteenth century picturesque art, where figures were often introduced to survey the 'landscape sublime' (Finley 1979, p. 150). There are other beautiful photographs in Arętowski's report on glaciers (1908b), but most do not include humans. The man is not identified, but could be seen as representing Arętowski's own emotional response to the wonder of the ice world:

The silence which brooded over this unknown world was singularly impressive, but occasionally a mountain of ice would collapse with a thundering crash. One could hardly believe one's eyes when these changes in the fairy-like scene occurred, were it not for the dull rumbling growl of the disrupted glaciers. In fact, this realm of eternal ice is so different from anything one had seen that it appeared another world altogether; in sober truth, I do not believe that in any fable the human imagination has described what we have seen there. (1901a, p. 155)



Figure 10: Rocks at the 9th landing site and face of the glacier (29 January 1898). (Photo: Arętowski)

(Source: Arętowski 1908b, Plate X)

Arętowski's photographs discussed here offer insight into a merging of the scientific gaze with an emotive or aesthetic gaze. They light up his scholarly texts in a 'way of seeing' that would recur in the work of other scientist-photographers of the Heroic Era.

Extreme isolation

All Heroic Era expeditions were aware of the need for celebrations to break the monotony, and rituals such as birthdays, midwinter, Christmas and New Year were traditions intended to bind the men together in celebrations of continuity and community. But Cook wrote of the 1898 *Belgica* Christmas celebration:

We have long since worn out all social enthusiasm, and can unearth nothing new to infuse fresh life into the desired good cheer of our Christmas dinner ... Outside all is cold and white and wearisome. At dinner we drank to the health of King Leopold, to the pleasure of Queen Wilhelmina, to the continued success of the expedition, and everybody expressed a hope of an early release from our ice-imprisonment. Altogether, I noticed that the enthusiasm was forced. At heart we were not in a feasting mood, and the doubt of our future was pictured on every face. (1900, p. 418)

There is little evidence of enthusiasm, forced or otherwise, in Figure 11.



Figure 11: The Midsummer Christmas dinner 1898 (Photo: Cook)

Left to right: Henryk Arctowski, Georges Lecointe, Emile Racovitza, and Adrien de Gerlache.

(Source: Photographic print, Byrd Polar Research Center Archival Program, Frederick A. Cook Society Records)

In contrast to other Heroic Era photographs of similar occasions, this is an informal, even intimate photograph. There are no festive decorations,¹⁴ and the discourse of Christmas is completely lacking. Arçtowski and Georges Lecointe (the captain and hydrographer) are looking at each other. Arçtowski seems pensive; Lecointe is smiling a little. But Emile Racovitza (the Romanian naturalist) and De Gerlache are looking downwards, and the former appears tense. There is no information about the camera Cook used here, but the subjects were probably required to hold the pose for up to thirty seconds (Andrews 2007). Even so, the scene seems uncomfortable for the occasion.

By Christmas 1898, *Belgica* had been frozen in for nine months. Two men had died, both well liked: Carl Wiencke, a young sailor, washed overboard in a storm in January 1898, and Lieutenant Danco, of heart failure, just before midwinter (Cook 1900). The entire crew was experiencing melancholy and depression (Palinkas & Suedfeld 2008) and confinement would have been having its effect on how each man experienced his own self-image and personality (Rosnet, Le Scanff & Sagal 2000). Arçtowski wrote:

One finds one's self in conditions of existence altogether abnormal, and crowded against one's fellows in an uncomfortably narrow space. Some became nervous, excitable, and sleepless, with the imagination continually wandering and dreaming. I was one of these. (1901b, p. 381)

Cook had been observing the problem since the first months of their imprisonment in the ice:

Physically, mentally, and perhaps morally ... we are depressed, and from my past experience in the arctic I know that this depression will increase with the advance of the night, and far into the increasing dawn of next summer. (1900, p. 291)

He watched the members of the expedition closely. Figure 11 throws light on his point of view. He used the photograph also in his *McClure's Magazine* article (Cook

¹⁴ This is in contrast to the flags hung out by other expeditions on festive occasions: Borchgrevink's British Antarctic Expedition New Year's Day 1900 (Norsk Polarinstitut n.d., image np001144), and Scott's *Terra Nova* expedition in 1910–12 on the occasion of midwinter day and birthdays (Millar 2009).

1899, p. 13). The presence of the photograph in his publications suggests he wanted to show some of the mental and emotional privation. The men were, as described in the dedication of his book, 'the little family ... whose close companionship and sturdy good-fellowship made life endurable' (Cook 1900), but he was in some ways the outsider, as doctor, documenter, and also as an American. The image shows his developed confidence as a photographer, having moved beyond the bounds of the standard Christmas dinner image. As documenter, he was opting for realism, not seeking to manage the representation of the event in terms of symbolic or patriotic themes, such as, for example, Ponting would later suggest in his 1911 celebratory photographs of Scott's birthday and the mid-winter dinner (Millar 2009, pp. 59–62).

Identity: constructing the explorer-hero

'Ways of seeing' are linked with identity (Berger 1972), which is constructed continuously, within social interactions. These interactions occur in various fields of relations built around overlapping and shifting perspectives on what it means to be recognised as a certain kind of person (Bourdieu, 1980; Davies & Harre 1990). One perspective is an affinity one, involving sets of distinctive experiences, practices, participation and sharing; another is an institutional perspective, whereby an individual holds the rights and responsibilities that go with a position or calling (Gee 2001).

The son of German immigrants to the United States, Cook's explorer identity had its origins in his boyhood experiences roaming the Catskill Mountains of New York state (Henderson 2005). Nationality has a role in the construction of personal identity (Calhoun 1997), and the American sense of masculinity contained an important place for frontier wilderness, regarded as 'a source of national virility and toughness' (Bloom 1993, p. 32). Cook sought to pull himself up from poverty by obtaining his medical degree, an act of self- and identity-creation. But in 1891 his life had come to a dismal stage: his young wife and child had died and he was living a penurious life as a new physician in Manhattan. He sought refuge in books on exploration of the Arctic, which in the late nineteenth century had come to function as a substitute for

frontier wilderness (Bloom 1993). He later described how he came upon a newspaper article about explorer Robert E. Peary seeking members for a new expedition, including a surgeon: 'It was as if a door to a prison cell had opened. I felt the first indomitable, commanding call of the Northland' (quoted in Henderson 2005, p. 33).

Cook's writings¹⁵ indicate that he became used to merging his explorer and medical roles, but it would seem he came to identify primarily with the explorer role, secondly with the medical one. The role of photographer was a new domain engaged in on the *Belgica* Expedition.

His representation of himself as polar explorer-hero appears to have been carefully crafted. The photograph in Figure 5 shows him wearing the furs he wore on the *Belgica*. It appears to be a studio portrait, but it is not known when it was taken. A likely time would have been around 1907 or 1909, before or after he claimed to have reached the North Pole. It was used in 'The dash to the Pole', an article by Herbert L. Bridgman, in *The Independent Magazine* in 1909, and on a postcard issued to commemorate Cook's North Pole claim (Vintage postcards & collectibles 2001–2013). Another photograph, full-length, of Cook in furs was included in his book on the *Belgica* expedition (1900, p. 111). Nansen—the ideal of the polar explorer (Greve 1994)—had also been photographed in furs, around 1890 (National Library of Norway 2012). In Figure 5, Cook's gaze is away from the viewer, staring into distance with a serious expression. The portrait, like that of Nansen and later Amundsen (see Figure 59), depicts him in line with the predominant polar explorer ideal (Houltz 2010).

Throughout the expedition's trials, Cook appears to have enacted a strong sense of identity, maintaining cheery enthusiasm (Lecoite 1904) while being inventive as

¹⁵ For example, 'The Antarctic's Challenge to the Explorer' (Cook 1894a), 'How Polar Expeditions are Equipped' (Cook 1894b), 'Life in the Arctic Zone' (Cook 1894c), 'Medical Observations Among the Eskimos' (Cook 1894d), 'Some physical effects of Arctic cold, darkness and light' (Cook 1895).

expeditioner, performing well in his medical role, and demonstrating creativity as photographer. However, bearing in mind how aspects of his personality appeared to change for the worse in later years, it seems likely that he emerged from the *Belgica* experience with some psychological consequences—as was also the case with others on the expedition (Amundsen 1912).

For most other expeditioner-photographers in this study, Antarctica was a transitional, liminal space in their lives. For Cook, however, polar exploration was a central organising design. His ambitions with regard to it had become fused with the whole meaning of his life, and his ‘way of seeing’ the *Belgica* situation was inextricably involved with that meaning. The acclaim he received on return from the expedition was such that he made a modest demur in the Introduction to his book of 1900. But the book and its photography were akin to a qualification evidencing major progress in the course he had set himself. Seen in this light, the photographs selected for study here—the ghostly ship, the other-worldly iceberg, the forbidding mountains, and the little group of isolated men trying to celebrate Christmas—become projections of the identity Cook wanted the world to recognise: an outstanding man of courage and strength, supportive, psychologically perceptive, and multitalented.

The narrative, however, contains only a few photographs of Cook. Like Amundsen later, he presented more photographs of others. This is in line with the descriptions of him by *Belgica* companions, that he was a humble man (Bryce 1998). Amundsen’s later description of Cook, ‘a psychological enigma’ (quoted in Bryce 1998), was perceptive.

Cook had other studio portraits taken. The 1909 edition by Doubleday, Page and Company, New York, has as frontispiece an autographed portrait of Cook in a dinner suit, as if ready for a social round. It was taken by a Chicago *Daily News* photographer (Library of Congress Digital Collections, n.d.). By then he was preparing for his North Pole attempt. He had written in 1900: ‘The public wants the Pole and nothing short of it ... The hero-worshippers are ready’ (quoted in Bryce 1998, p. 130). He made an

intensive effort to capitalise on his exploratory experiences and to make dramatic new claims, winning financial support from a wealthy backer and from sections of the popular press, including the *New York Herald* (Robinson 2006).

But by 1911 his carefully constructed polar-hero image was spoiled. Controversy had mounted about his Mt McKinley and North Pole claims. *New York Times* articles in that year dismissed them as impostures (1911a) and referred to Cook as an ‘arch-humbbug among explorers’ (1911b). His claims were generally believed to be hoaxes (Bryce 1997; Oszcewski 2003), and he withdrew from public life (Gibbons 1983).

Documenting science

Cook wrote that the expedition’s aims were ‘wholly in the interest of science’ (1900, p. ix), and the inclusion of science-related photographs in his narrative emphasised this representation. He took photographs of scientists at work in the ship’s laboratory. Figure 12 is one of these.

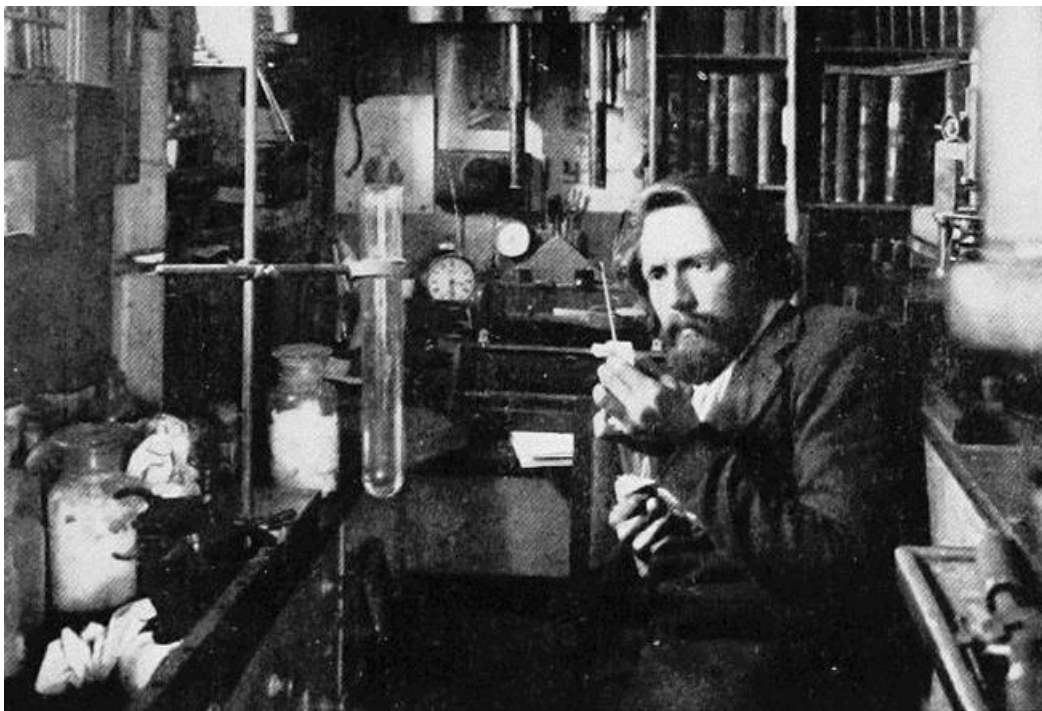


Figure 12: Arctowski in the laboratory (Photo: Cook)

(Source: Cook 1900, p. 208)

It is a posed photograph constructed to identify Aręowski as a scientist and place the expedition within the discourse of science. The subject is closely surrounded by many scientific instruments and specimens, and is gazing intently at a capillary tube.

Cook's narrative, intended for the more general reader, nevertheless included some more scientific photographs, for example, lichens and mosses (1900, p. 202), star fish, sea urchins and shrimp (p. 392) and types of ice (p. 354). In Figure 13 are photographs of heads and feet of two types of penguins.

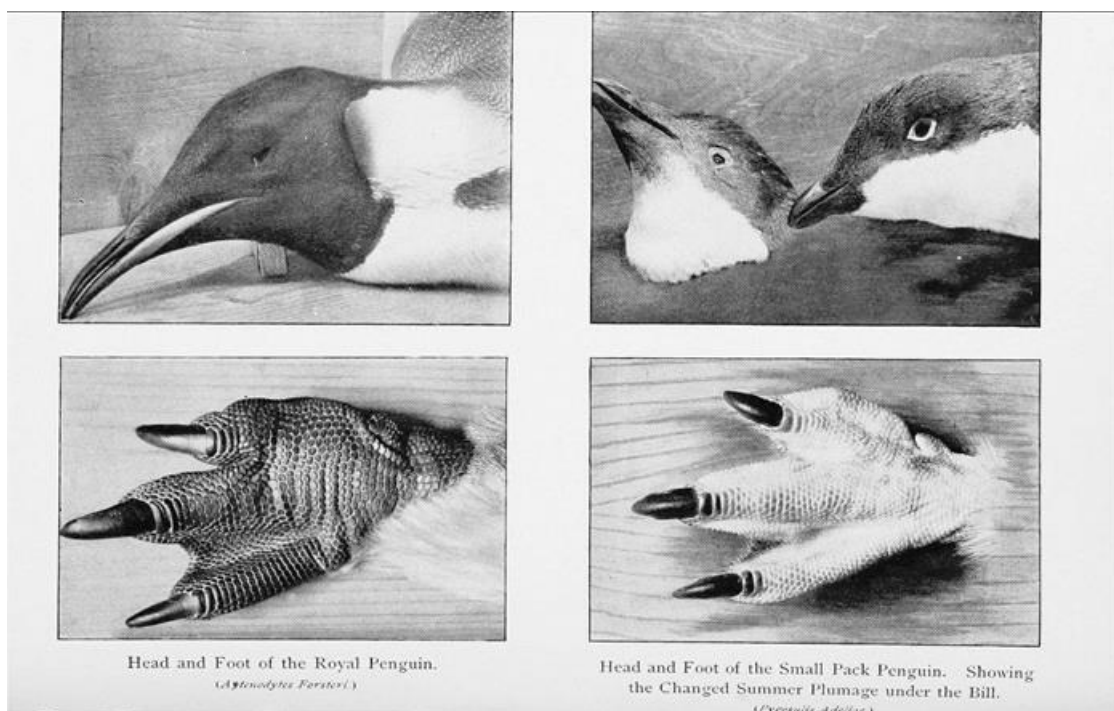


Figure 13: Penguins heads and feet (Photo: Cook)

(Source: Cook 1900, p. 313)

Once again, the images place the expedition within a science discourse. In choosing to include them in his narrative, Cook was emphasising the scientific representation, and also involving the reader in it, showing that he believed his more general readers would be interested in this aspect of life science in the Antarctic. In one of the photographs (upper right), the chopped off head could be seen as somewhat gruesome for the general reader, but again, it emphasises the science construction.

Photographs documenting scientific work predominate in Aręowski's reports on the expedition.

Nationalism, the race for the Pole, and possession

'My story ... is not one of pole-chasing,' wrote Cook in his narrative of the *Belgica* (1900, p. xv)—somewhat ironical, in consideration of his later North Pole claim. Aręowski's view of the *Belgica* Expedition was similar to Cook's. Not surprisingly, considering also their own nationalities, neither was concerned with appealing to Belgian nationalism in their photographs and writings. Cook, indeed, mentioned the absence of territorial ambitions in the expedition. In March 1898, more than a month after crossing the Antarctic Circle, he wrote:

Thus far we have not unfurled a flag, nor have we made any other effort to take formal possession of the many new lands which we have discovered, except by our attempts at scientific exploration. This is in sharp contrast to the British, German and Russian,¹⁶ and all the ancient explorers whose first act always was to land and say, 'This by the help of God, the consent of the Pope, and the permission of the King, belongs to us and to our countrymen.' (1900, p. 240)

In an appendix, Cook implied that the Belgian discoveries should belong to Belgium (1900, p. 458), but flag-raising, if it ever occurred, was not commemorated by either photographer.

For Belgium, the body of photographic work produced on the expedition is an important part of the credentials that underpin its right to have an interest in Antarctica. Belgium made no territorial claim but is an original signatory to the Antarctic Treaty (1959), as is Aręowski's native Poland and Cook's United States of America. Belgium established a research station in Dronning Maud Land in 1957-59, with an expedition led by Gaston de Gerlache, Adrien de Gerlache's son. A new research station was built in 2007–2008. Henryk Aręowski Polish Antarctic Station was established on King George Island in 1977, and is managed by the Polish

¹⁶ Cook appears to have been referring to exploration and claims by Britons such as William Smith in 1819, Edward Bransfield in 1820, and James Clark Ross in 1841, and by Thaddeus von Bellingshausen, an ethnic German from Estonia working for the Russian Navy, who led an expedition in 1820–21.

Academy of Sciences. The United States of America has a history of involvement in Antarctica since the early nineteenth century. It officially opened its first station at McMurdo Sound in 1956, to run the United States Antarctic Program.

Summary

Frederick A. Cook and Henryk Arctowski had characteristics in common with most Heroic Era photographers: both had backgrounds in the sciences, and limited prior experience in photography. Cook had much more experience of polar exploration than most; Arctowski had only done some glaciology study in the Alps, but this too would have been more ice experience than most had. Cook's photographs on the *Belgica* were many and varied; he had publication for a general readership in mind, but included some photographs that situated the expedition within science contexts. Arctowski was photographing to illustrate papers he would write for a scientific readership. Cook's photographs endure in the public mind due to his own well-written book, his later notoriety, and the efforts of a dedicated society and university archive. Arctowski's photographs are less known, although the haunting quality of his image of *Belgica* has caused it to be reproduced not infrequently.

'Ways of seeing'

Cook's photographs suggest the 'way of seeing' of a talented and versatile explorer intent on crafting a polar hero persona. He was inexperienced in camera work when he began photographing for the expedition, and for his future publications, but he had an eye for subjects that would contribute to the realisation of his ambition. His 'way of seeing' was that of a creative and sensitive man, and the photographs combine aesthetic and science aspects. Arctowski's focus was on the science, but to his scientific gaze he added emotive and aesthetic elements perhaps acquired through his life experience, largely that of an exile, and his friendship with artists.

Representations of exploration in Antarctica

The published photographs of the *Belgica* Expedition—in books and articles by Cook, De Gerlache, Arctowski, and on postcards—represent the expedition as a long ordeal

of courage and endurance in a cruel but dazzlingly beautiful new world. The photographs illustrate geographical and scientific aspects of Antarctica, in keeping with expectations of the geographical society which sponsored the expedition, also of interest to the general public. Nationalism is concentrated in departure and return photographs.

***German Deep Sea Expedition (Valdivia)*¹⁷**

The German Deep Sea Expedition (1898–99), funded by the German government, was an oceanographic voyage in the Atlantic and Indian Oceans, led by zoologist Professor Carl Chun in the *Valdivia*. It spent almost four weeks in the sub-Antarctic between Bouvetøya and Enderby Land, achieving a farthest south position of 64° 15' S, visiting and fixing the positions of the islands Bouvetøya, Kerguelen, Saint-Paul and Amsterdam, and investigating chemical, zoological and physical aspects of the ocean. At this time, the fate of the *Belgica* was still unknown.

The photograph in Figure 14 was taken shortly before the expedition. The prominent lifebelt acknowledges the Hamburg-American Line, which, 'with patriotic liberality', supplied and fitted out *Valdivia* at cost ('The German deep-sea expedition' 1899, p. 143). The trawl net for specimen collection in the foreground establishes the expedition's scientific nature.

¹⁷ The primary sources examined for this study are the published narrative (Chun 1903) and the scientific results of the expedition (Chun 1908), articles in the Senckenberg Nature Research Society's publications of 1900 and 1918, and photographs and artwork reproduced in the aforementioned publications. Secondary sources about the expedition refer only superficially, if at all, to the work of photographers.



Figure 14: German Deep Sea Expedition

Professor Chun is in the centre, looking to the left; Friedrich Winter is second in the second row, on the left.

(Source: Planet Wissen 2010)

There were many photographers at work on the expedition. Indeed, Chun reported that a photographic mania had taken hold, with seven smaller cameras as well as large-format ones on board (Chun 1903). He describes the smaller cameras as *Moment-Apparats*, possibly referring to the Goerz-Anschütz box camera which had appeared in 1890, a folding box camera for 9 x 12 cm plates with the lens mounted on the front plate, and the more recent model of which was recommended in a German photographic guide for explorers (Niemann 1896).

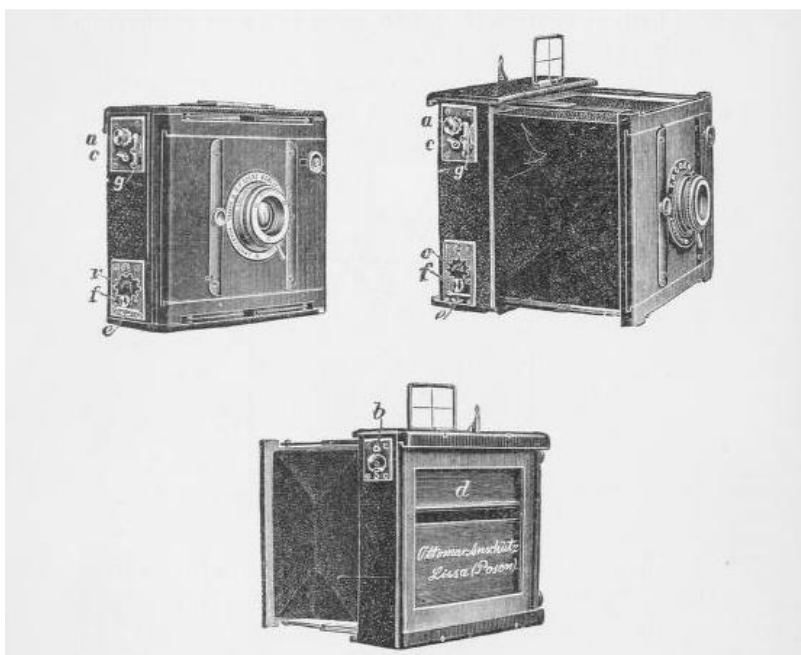


Figure 15: Goerz-Anschütz box camera, 1896

(Source: Niemann 1896, p. 54)

There were other reputable brands as well (Niemann 1896) which the *Valdivia* expeditioners may have used. The optical department of the firm Zeiss in Jena had provided the expedition with free lenses, and carefully prepared and packaged dry plates came from the photography sections of Anilinfabrik (AGFA) in Berlin and Schleussner in Frankfurt am Main (Chun 1903, p. 10).

Thousands of photographs were taken. In the sub-Antarctic, these included many of icebergs, also wildlife and specimens. The ship's darkroom was in constant use. Ernst Vanhöffen, a zoologist, had been to West Greenland with Erich von Drygalski in 1892–93 (Drygalski 1904a), but it is not known if any others of the amateur photographers had previous experience of Arctic or sub-Antarctic travel. However, the ship's extensive library contained numerous accounts of other expeditions, including the *Challenger* (Chun 1903).

The expedition included a scientific draughtsman, artist and photographer, Friedrich Wilhelm Winter, who had no official status ('The German deep sea expedition' 1900), having signed on voluntarily (Chun 1903, p. 17). The inclusion of artists had been a

feature of German Arctic expeditions in 1869–70 and 1872–74, but the Deep Sea Expedition would be the only German expedition to the Antarctic to have one on board. Chun recognised the importance of photography. In the preface to his narrative of the expedition, he attributes the included photographs, except for those attributed to other expedition members, to ‘the unremitting efforts of the young artist accompanying the expedition, Fritz Winter’ (2003, p. vi). Winter is therefore the only photographer who will be considered here, but among others who took photographs were Dr Paul Schmidt, a chemist from Leipzig, on the voyage to study seawater, and Walter Sachse, the navigator from the Hamburg-American Line, who had had photographic training (Chun 1903, p. 15).

Friedrich Winter

Friedrich Wilhelm Winter (1878–1917) had vocational training in his father’s nationally renowned printery, Werner und Winter, in Frankfurt am Main, which specialised in the production of lithographs to illustrate mostly scientific works (Senckenberg Nature Research Society 1918), but his interest in natural science and his artistic talent led him to science illustration. He was only twenty years of age when he joined the Deep Sea Expedition, and appears to have been previously untravelled. After the expedition, he studied science under Chun in Leipzig, but on his father’s death he left to run the family printery in Frankfurt am Main. He printed the plates in the extensive series of scientific publications resulting from the expedition (Chun 1908). Winter managed to continue his interest in biological science and illustration, published a number of papers, and in recognition of his scientific achievements was awarded an honorary doctorate by the University of Marburg in 1912. In all this, his wife Gertrud collaborated, producing her own fine pen and ink drawings of animals and birds.

Fritz Winter died on the Western Front in World War One (Senckenberg Nature Research Society 1918, pp. 250–251). In an obituary he was fondly remembered:

All who came near him were captivated by the charm of his personality, in which rigorous scientific gravity was combined with a childlike, cheerful nature and the

kindness of a wise and always helpful, truly good man. (Marx 1919, p. 130, my translation)

Winter is shown in Figure 16. The portrait, taken later in his short life, captures the scientific gravity mentioned above. The childlike, cheerful nature is perhaps best discerned in his photographic and art work.

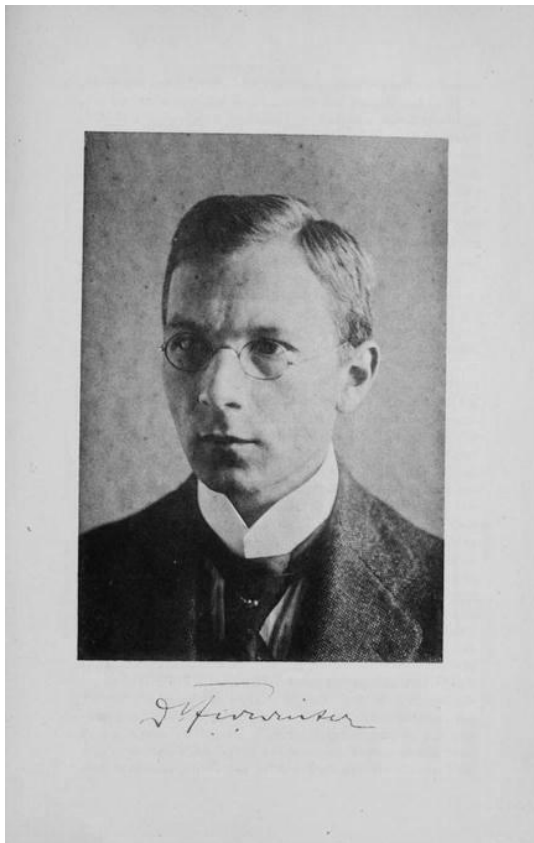


Figure 16: Fritz Winter

(Source: Marx 1919, p. 127)

Figure 17 shows deep sea fish illustrations drawn from nature by Winter. The plate was used to illustrate the zoologist August Brauer's report in the scientific results, but Chun included a reproduction of similar art work in his narrative of the expedition (1903, p. 558).



Figure 17: Deep Sea Fish (Artist: Winter)

(Source: Brauer 1908, Plate XV)

The scientific results of the expedition were published in 24 volumes, and most of the photographs were taken with this scientific readership in mind. Chun's 1903 narrative of the expedition, intended for a more general readership, was praised for its 'wealth of splendid illustrations—six chromolithographs, eight heliogravures, 32 full-page blocks, and 389 photographs and sketches' ('Review' 1901, p. 169). More recently, the illustrations and photographs have been described as stunning (NOAA 2007). Many are excellent scientific illustrations, and some capture the photographer's sense of wonder and awe.

The iceberg motif

Images of icebergs occur many times in visual documentation of the polar regions. These images became embedded in the cultural imaginary, the 'networks interlinking discursive themes, images, motifs and narrative forms that are publicly available at a given culture at any one time, and articulate its psychic and social dimensions'

(Dawson 1994, p. 48). In stories of polar exploration, the cultural imaginary involved the masculinity, adventure and nationalism which had become associated with images of the Arctic and Antarctic. Naturalisation of the iceberg motif enabled readers and viewers immediately to construe its discursive context (Ryall, Schimanski & Wærp 2010).

In the Antarctic, striking artworks of icebergs were achieved by William Hodges and George Forster on the second voyage of James Cook in 1772–75 (Andrews 2007). The eight *Challenger* iceberg images of 1873 present the motif in photographic form (see examples in Figure 1).

In the sub-Antarctic, the German Deep Sea Expedition took a large number of iceberg photographs, with more than twenty included in Chun's narrative (1903). An example is Fritz Winter's photograph in Figure 18. The iceberg is white and pure in a very different image from Cook's fiercely coloured one at Figure 8.

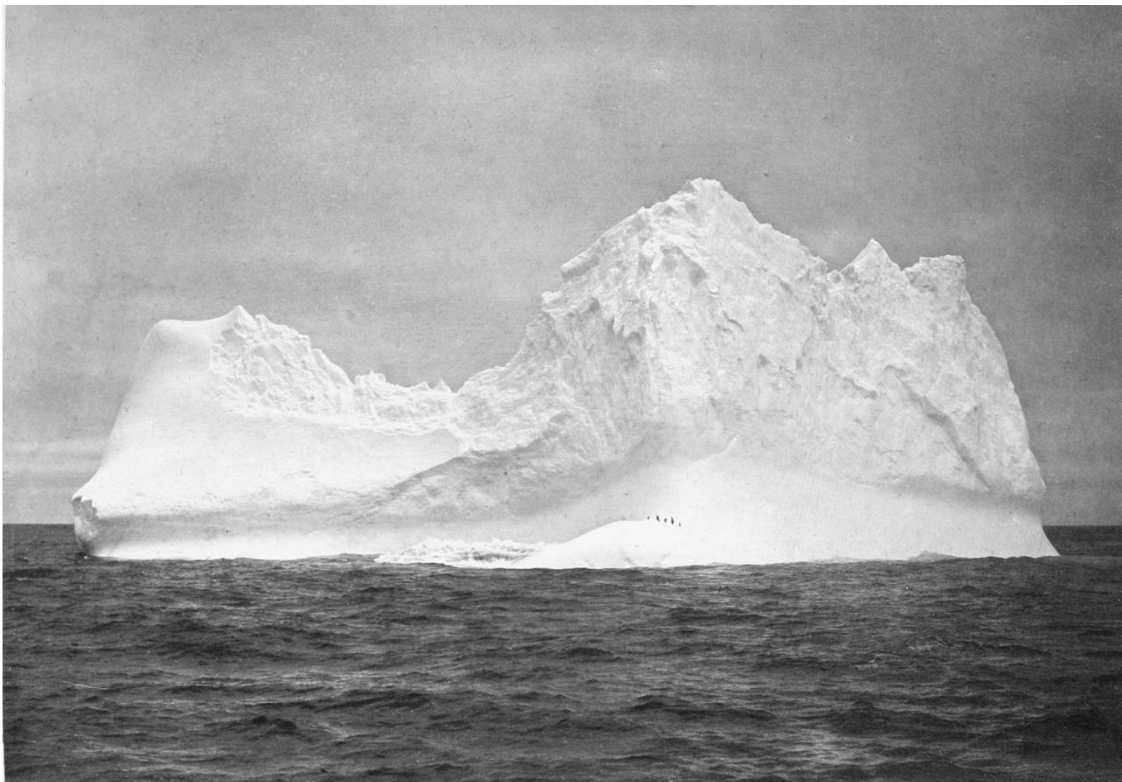


Figure 18: Iceberg 4 Dec. 1898 (Photo: Winter)

(Source: Chun 1903, following p. 216)

Like the *Challenger* photographs in Figure 1, the interest in Figure 18 is in documenting the iceberg as a phenomenon, and the photograph conforms to the requirements of the discipline, well-structured depiction being vital. But science photographers were more than scientists. To varying degrees, their photographic work in Antarctica reflected other aspects of their personalities and interests. Figure 18 shows the textures and angles of the ice, and a group of penguins on it, but it also captures the beauty of the scene. Winter's ways of seeing were circumscribed by youth and experience previously restricted to the Frankfurt am Main locality, but he had that 'childlike, cheerful nature' (Marx 1919, p. 130), was passionate about the natural world and was enjoying the adventure of a lifetime. He reached into memories of familiar architecture at home to describe the icebergs:

They had the most bizarre shapes, some resembled Gothic towers, others ... showed grotto-like cavities, which glittered in splendid blue. (Winter 1900, p. 48, my translation)

Winter photographed Figure 19 from a small boat put out on a relatively calm sea (Chun 1903, p. 216), later making a watercolour of the scene, in pastel tints (Chun, following p. 220). The photograph, composed in horizontals, highlights the enormity of the iceberg compared to the ship.

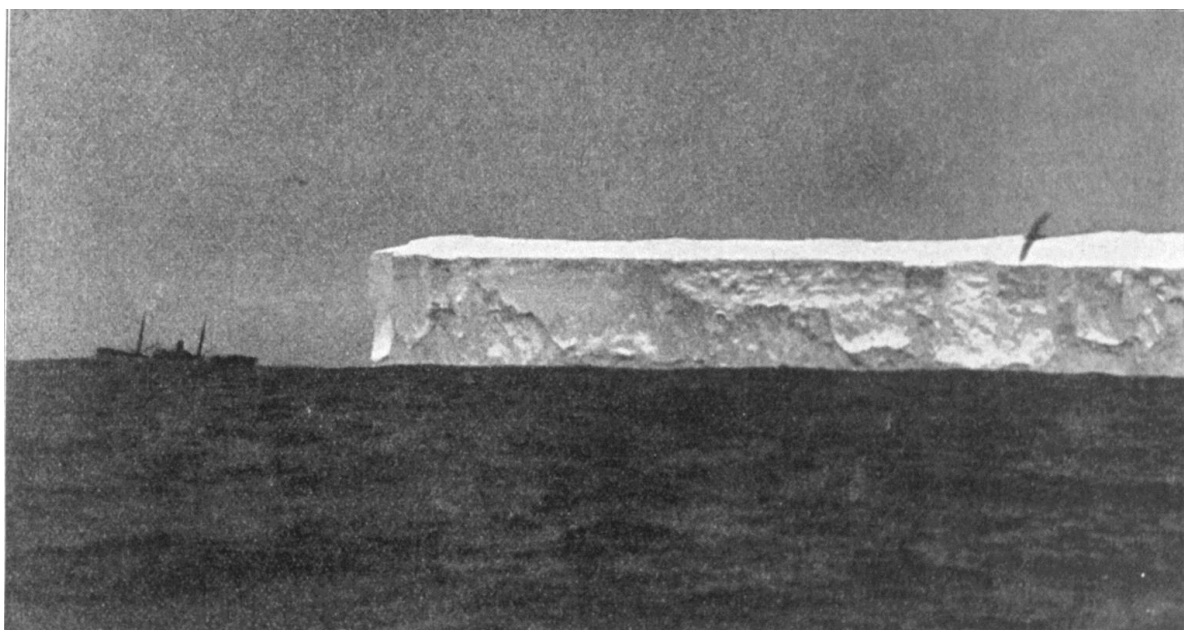


Figure 19: *Valdivia* circumnavigating a tabular iceberg 7 Dec. 1898 (Photo: Winter)

(Source: Chun 1903, p. 219)

Documenting science through photography and art

Heroic Era photographs of Antarctic wildlife represented a direct and significant contribution to the scientific aims of the expeditions. They depict animals and birds, often record their behaviour, and were of great interest and value to contemporary life scientists.

Penguins became a recurring, place-identifying motif in Antarctic photography. Figure 20 is an example, another photograph by Winter, alongside a watercolour clearly based on the photograph, or one very like it. Both images are aesthetically pleasing and scientifically informative, showing penguins and habitat. The colouring in the art work identifies the birds as rockhopper penguins (*Eudyptes chrysocome*), yellow crested and black chinned, which breed on steep, rocky sub-Antarctic islands (Australian Antarctic Division 2012).

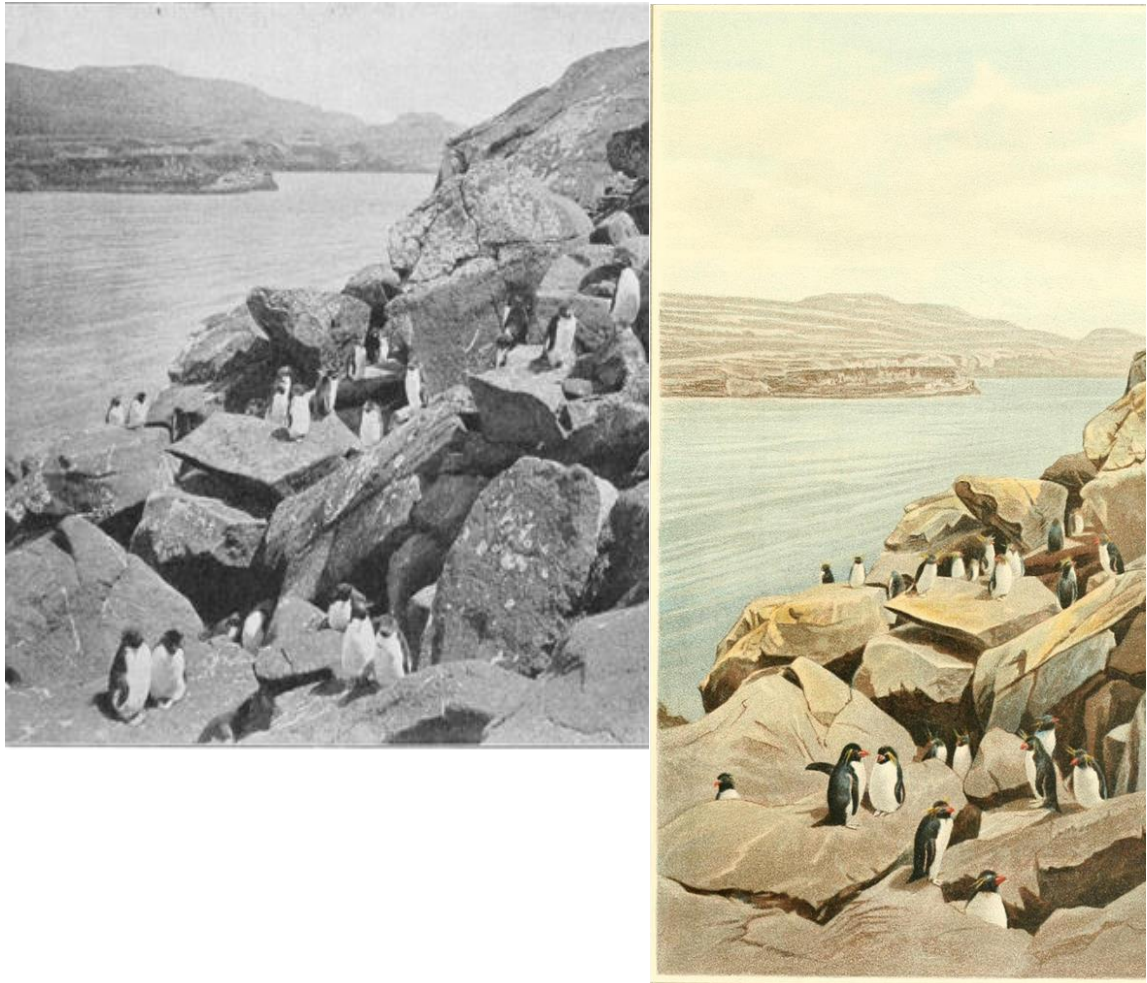


Figure 20: Photograph of penguin colony at entrance to Fine-Weather Harbour, Kerguelen; detail of watercolour of penguin colony (Photographer & watercolourist: Winter).

(Sources: Chun 1903, p. 275; following p. 276)

The Reich's goal of national prestige

The *Valdivia's* month in the sub-Antarctic ice was for Germany a significant resumption of the polar exploration that had begun with expeditions to the North Pole. German states, then on the verge of unification and empire, had anticipated prestige from the Arctic expeditions (Murphy 2002); similarly, imperial Germany on the threshold of the twentieth century hoped for status in science and exploration as a result of the Deep Sea Expedition to the south, a 'nationalistic attempt to keep up with the successful deep-sea expeditions in particular by the British ... *Challenger* expedition' (Glaubrecht, Maitas & Salvini-Plawen 2005, p.152). Kaiser Wilhelm II took an interest in it, and the Secretary of the Interior and other state dignitaries attended the launch.

Chun recognised the benefits of empire. ‘Before the establishment of the German Empire,’ he wrote, ‘one could not have imagined such a scientific expedition equipped by Germany’ (1903, p. 13, my translation). The artwork framing the first page of Chapter Two of his narrative, ‘Equipment’, featured the imperial flag dominant above an arrangement of specimen collection nets and scientific equipment (Chun 1903, p. 12). The photograph of the crowd at departure (Figure 21) also shows imperial flags, conceptual representations of the still relatively new group membership. The Reich appears to have been exploiting the expedition’s propaganda value (Schmidt-Ott 1952).

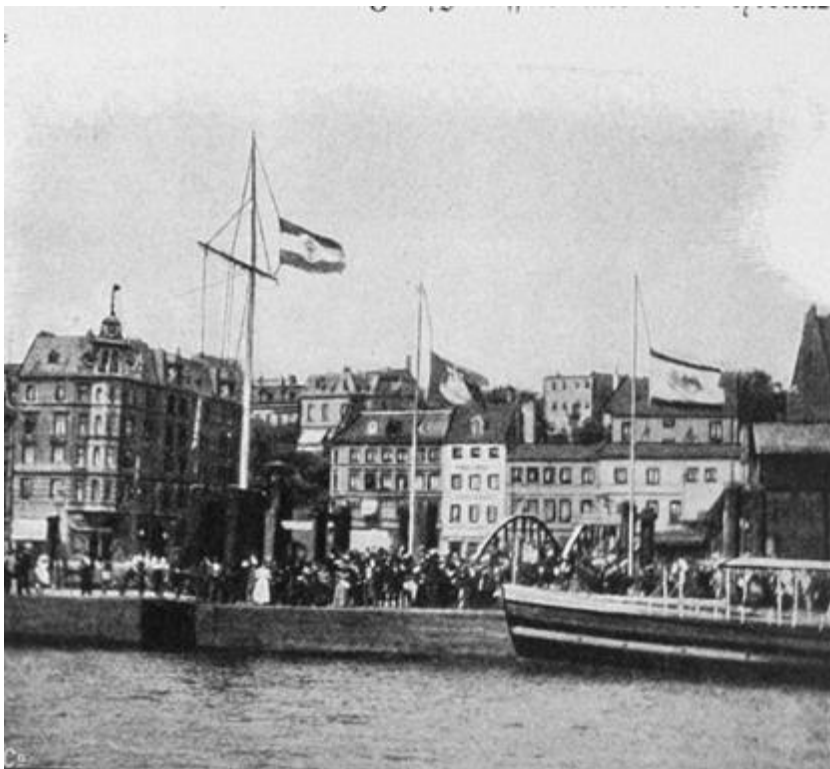


Figure 21: Crowd farewells *Valdivia*, Hamburg, 31 July 1898 (Photo: Winter)

(Source: Chun 1903, p. 13)

The photograph, for German readers of Chun’s narrative, evoked more than nationalism, however. Chun reported that *Valdivia* departed to the tune of a beloved old folk-song, ‘Muß i denn, muß i denn zum Städtle hinaus ...’ — ‘I have to go, leave the town [and you, my dear, stay here]’ — (p. 14). The song and the quaint Hamburg

buildings in the photograph link the expedition to discourses of homeland and family. Germans were taking leave of these in order to bravely explore the farthest seas.

Chun's narrative also has a photograph of a group of dignitaries at the launch, but for the expeditioners, scientific interests dominated, and the ensuing pages of the book are quickly taken up by photographs of equipment and scientific activity. There are a few photographs depicting the lighter side of the expedition (for example, the very large captain being weighed before the voyage, and the frolics on crossing the equator). Otherwise, the illustrations represent scientific activity and scientific findings.

For the nation, however, photographs of the expedition would have significance beyond the scientific; they contributed to Germans' sense of who they were in a changing world. The narrative was very successful at the time (Glaubrecht, Maitas & Salvini-Plawen 2005), and the first (1900) edition was quickly followed by the 1903 reworked and enlarged edition. The photographs were therefore seen by a comparatively large audience.

Summary

Fritz Winter united his two passions, science and art, in the scientific illustration he produced on the Deep Sea Expedition. His sub-Antarctic photographs were mainly icebergs and wildlife, taken for Chun's narrative and the scientific publications.

There are some difficulties regarding the accessibility of the Deep Sea Expedition's photography. Chun's book has not been translated. It has been digitised on the Biodiversity Heritage Library website,¹⁸ but the German gothic script is not easy to read. However, the quality of Winter's photographs continues to attract interest on

¹⁸ <http://www.biodiversitylibrary.org/item/51436> (viewed 12 January 2013)

websites such as NOAA (National Oceanic and Atmospheric Administration)¹⁹ and the European Library's 'Travelling through history: Seas' web pages, using images supplied by the University Library of Regensburg.²⁰

'Ways of seeing'

Winter had considerable talent as a science illustrator. Though very young at the time of the expedition, he must have been drawing from nature for some time, given the skills he had acquired. His 'way of seeing' as photographer was essentially that of science illustrator and artist. In his work, the scientific gaze combines with an emotive and aesthetic one. There is a keen appreciation in Winter's images of the beauty of the sub-Antarctic.

Representations of exploration in the sub-Antarctic

The iceberg and penguin motifs in Winter's work contributed to the early cultural imaginary of the Antarctic. The explorer-hero motif does not occur in the Deep Sea Expedition photography, and in Chun's narrative there is only a passing indication of nationalist feeling. Winter's photographs and Chun's narrative represent the expedition as they saw it themselves—a purely scientific one.

¹⁹ <http://celebrating200years.noaa.gov/rarebooks/valdivia/welcome.html> (viewed 12 January 2013)

²⁰ <http://www.theeuropeanlibrary.org/exhibition-travel-history/detail.html?id=166037> (viewed 12 January 2013)

***German South Polar Expedition (Gauss)*²¹**

The German South Polar Expedition (1901–03) was led by Erich von Drygalski, professor of geography and geophysics at Berlin University, an Arctic investigator and glaciologist. His plan for the expedition profited from the fact that it coincided with a political impetus to seek national promotion (Lüdecke 1995a), and the German government funded the expedition with ‘considerably more than twice the amount voted by the British Government for the [contemporaneous] British expedition’ (Bruce 1901, p. 461). Drygalski’s plan, however, was from inception all about scientific inquiry into Antarctic geography, geomagnetism, meteorology, hydrography, geology and geomorphology.

Under Drygalski’s leadership, the composition and operations of the expedition were holistic, with staff brought into the planning early and given the responsibility of using their initiative (Savitt 2004). However, apart from zoologist-botanist Professor Ernst Vanhöffen, of Kiel University, who had been to Greenland with Drygalski and had also been on the Deep Sea Expedition, and Paul Björvik, an able seaman who had extensive Arctic experience, none of the other members of the expedition had experience at high latitudes.

The purpose-built ship *Gauss* was ice-bound in the Davis Sea, as had been planned, though at just past 66°S latitude, not as far south as the plan. The expedition was consequently seen to suffer greatly in comparison to Robert Falcon Scott’s British National Antarctic Expedition (1901–04), which reached farthest south at 82° 17' S (Scott 1905). On arrival back in Cape Town from Antarctica, Drygalski was refused permission to return to Antarctica for a second phase of investigations. The expedition was felt to be a defeat by its supporters. Nevertheless, magnetic

²¹ The primary sources examined for this study are the published narrative by Drygalski (1904a, 1989), the expedition’s scientific results (Drygalski 1905–31), Drygalski’s article of 1903, his presentation to the Royal Geographical Society in 1904 and the subsequent discussion (Drygalski 1904b), an article by Albert Stehr (1903), manuscripts relating to the expedition’s photographic equipment held at the Leibniz Institute for Regional Geography, photographs reproduced in the aforementioned publications and in an article by Baschin (1901). Secondary sources about the expedition refer only superficially, if at all, to the work of photographers. An important exception is Müller’s 2009 chapter, ‘Photography and South Pole research in 1900’, which links the photographs to contemporary discourses.

observation posts were set up, meteorological records kept, and geological samples taken.

Figure 22 shows the expedition before departure, an informal photograph, very maritime in character, with the leaders wearing navy-like caps with the logo of the expedition 'SPE' (Südpolarexpedition).



Figure 22: German South-Polar Expedition 1901–03

Second seated row, directly behind front two men: Drygalski; to his right, Emil Philippi.

(Source: Baschin 1901, after p. 38)

A number of expeditioners took photographs, including Vanhöffen and Hans Gazert, medical officer and bacteriologist (Drygalski 1989), but the expedition's official photographer was Dr Emil Philippi, a geologist and chemist. For this reason, and due

to time constraints of the Master's project, Philippi's is the only work considered in this study. In his narrative of the expedition, Drygalski wrote that Philippi 'evinced a particular interest and skill in photography, so that he ... took over every aspect of this on the expedition, and it is thanks to him that we have a great number of excellent pictures' (1989, p. 20).

Emil Philippi

Emil Philippi's 'ways of seeing' in Antarctica were shaped by his science background. A young product of the German university system, Philippi (1871–1910) had got to know many scientific people in Germany and abroad (Drygalski 1904a) and already had a promising scientific reputation. He had spent time in Scotland on the study of deep-sea deposits with the former *Challenger* expeditioner Sir John Murray (Rowe 1983), and had published significant papers on geology.²² He was an assistant at the Royal Museum for Natural History at the University of Berlin (Baschin 1901) when selected for the South Polar expedition in 1901. He was unmarried, which was a requirement for all the scientists on the expedition (Murphy 2002), and he was recommended to Drygalski for his scientific skills and his 'particular suitability for the expedition' (Rack 2009, p. 112)—though primarily a geologist, he had skills in oceanography and chemical analysis which would be useful.

He was also 'full of character' (*Geologische Rundschau* 1910, p. 56). In Drygalski's narrative, Philippi is most often mentioned in connection with geology, but it is revealed that he had a keen sense of fun: '... [W]e celebrated Dr Bidlingmaier's birthday, starting with an *aubade*, rendered in accordance with Dr Philippi's principle that a musical offering can only serve its purpose if it causes the greatest degree of disturbance to all concerned' (1989, p. 71). He apparently had an interest in poetry: Drygalski reported that, after arrival in Antarctica, 'Philippi had already dropped his scheme of writing an epic poem, as he was finding all kinds of other things to do' (p.

²² 'Geology in the environs of Lecco und the Resegone Massif in Lombardy' (1897), '*Ischyodus suevicus* nov. sp: holocephalian fossils' (1897); 'Ceratites of German triassic carbonates' (1901).

148). The poetic leanings, however, may have been another expression of Philippi's sense of fun. Drygalski wrote that this humour kept them going through difficult times (1912).

Cheerfulness was an emotional norm deliberately cultivated on the expedition as a positive emotional disposition (Strange 2012). There are many examples of expeditioners' light-hearted original verse in the pages of the 'Antarktisches Intelligenzblatt', a humorous literary newsletter which was written and copied by hand (Lüdecke 1995b), and which sustained spirits especially during the winter. Drygalski's narrative contains some of this verse; cheerful, situational, it may have been at least partly in response to the 'geography of encroaching nihilism' (Pyne 2004, p. 386) all around them. It is a schoolboy humour doubtless better appreciated by the expeditioners themselves than by later readers, but it does set a tone of lightness that is not echoed by the photography, which includes little in the way of shipboard distractions.²³ There is a photograph by Philippi of Drygalski's merry 'christening' as the ship crossed the equator (Drygalski 1904a, p. 109), and a small photograph of two serious-looking members of a music group (p. 373), photographer unidentified, but on the whole the photographs are quite staid. In line with the scientific method upon which the expedition was organised (Savitt 2004), Philippi focused on the external field of study, rather than interior emotions.²⁴

Philippi was above all a hard-working geologist, making field trips in South Africa and on the island of St Paul as well as in Antarctica. He developed a strong work relationship with Drygalski through their common passion for glaciology. Ice has been described as the fascination and leitmotiv of Drygalski's life (Moerder-von Drygalski 1964).

²³ There is nothing resembling the Antarctic Theatrical Company or the Nigger Minstrel Party on the contemporaneous *Discovery* Expedition. Scott's 1905 edition of *The voyage of the Discovery* had photographs of both.

²⁴ He was not the only photographer to have this focus. Frank Hurley's film of Shackleton's *Endurance* Expedition similarly omits the staged plays and singing competitions on the ice-bound ship (Fay 2011).



Figure 23: Dr Emil Philippi

(Source: Drygalski 1904a, p. 29)

In an act of national promotion, *Gauss* was outfitted as far as possible by German suppliers, including the complete photographic equipment. The darkroom was fitted up with all the modern requirements of photography (Bruce 1901). This equipment is not listed in Drygalski's account of the expedition (1904a), nor in the cost estimates presented in the introduction to the English version (Raraty 1989), but manuscripts held at the Leibniz Institute for Regional Geography show that Philippi was closely involved in its selection.

Notes on letters from the Carl Zeiss Company, of Jena, and A. Stegemann Fabrik, Berlin, suggest that the expedition obtained from Zeiss a 9 x 12 cm tripod camera with anastigmatic lens (to correct distortion), telephotographic equipment for a 13 x 18 cm camera, and a travel camera with all accessories from Stegemann. Zeiss also recommended its new Unar high speed lens for general use with hand cameras. The expedition procured equipment suitable for photogrammetry in order to take measurements using photographs. With regard to plates, much consideration was

given to aspects of polar light. The invoice from Aktien-Gesellschaft für Anilin-Fabrikation (AGFA), Photographische Abtheilung, Berlin, listed Isolar and Ortho Isolar plates. Developer was obtained from J. Hauff & Co., Feuerbach, some of it gratis. The expedition also procured Secco film, advertised for very high light sensitivity, the water resistance of finished photographs, and the fact that there would be no haloes in photographs taken against the light (an annotation, 'in snow and ice', has been written on the brochure).²⁵

Photographs used by Drygalski in his presentation at the Royal Geographical Society in 1904 were described in the ensuing discussion as 'extremely interesting and very descriptive of the work done by the expedition' (Drygalski 1904b, p. 150). However, Maurice Raraty, translator of the English edition of Drygalski's narrative (1989), noted that the four hundred illustrations in the first edition, by Reimer, Berlin, were mostly of very poor reproduction quality, and the original plates were impossible to trace.²⁶ Many were reproduced quite small. The images reproduced here, being from the Reimer edition, probably do not do justice to Philippi's skills.

Expectations and reality

The expedition had been seen as 'mark[ing] an era in the rapid development of the German Empire ... the greatest geographical undertaking Germany has ever set her hand to' (Bruce 1901, p. 466). The government saw it very much as an undertaking of national obligation (Lüdecke 1995a). Figure 24, one of a series of postcards issued

²⁵ Information is from Leibniz Institute for Regional Geography, Archive for Geography, Drygalski manuscripts, 66/2. The Explorers' Archives of the Institute received the entire original material of the *Gauss* Expedition in the early 1930s (Reinhard 1934). A pdf of photography-related items held was provided to this study.

²⁶ Some of the only surviving large format photographic prints from the expedition were auctioned by Christie's in 2002. They were described as a folio of seven photographs: Gaussberg... 12 April 1902; Treibender Eisberg (Drifting iceberg), October 1902; Spur des Kaiserpinguins (Emperor penguin track) 8. October 1902; Ostrand der Eisfelder in dem Gauss 11 Monate eingeschlossen war (Eastern end of the ice field in which Gauss was trapped for 11 months) 10 October 1902; Letzte Augenblicke einer Weddell-Robbe (Last moments of a Weddell seal), 10 February 1902; Eisberg, in der Mitte durchgebrochen (Iceberg broken in the middle), 10 November 1902, gelatin silver prints 11 x 15in. mounted on grey card, each titled in ink below the images and signed 'Philippi phot.' (Invaluable 1986–2012).

before departure from Germany, promotes the expedition with images of Drygalski, the imperial flag, an icy expanse, and explorers in heroic pose beneath a spectacular aurora—discourses of nationalism and heroic adventure.



Figure 24: Postcard produced prior to expedition showing Drygalski and flag of the German Empire

(Source: Gazert, Partenkirchen, Germany, reproduced in Lüdecke 2012)

Another postcard in the series gave the impression that the South Pole was the main aim of the expedition (Lüdecke 1995b). 'South Polar' was indeed in the expedition's name, probably with the aim of trading on an interest that gripped the popular mind, but Drygalski himself had never envisaged attempting to reach the Pole (Drygalski 1904a). He repeatedly emphasised that the expedition took place not from motives of physical performance or to excite emotions, but for the benefit of science (Lüdecke, Brogiato & Hönsch 2001). On return home he saw that 'there were people ... with rather different views about the purpose and substance of our expedition from those that we held, demanding reports of dazzling feats, where we had merely

sought knowledge' (Drygalski 1989, p. 372). There were complaints that the reports of the expedition did not sufficiently emphasise adventure and privation (Elzinga 2001). Drygalski acknowledged this absence in his narrative:

The lack of descriptions of perils and adventures has been frequently regretted, although we said nothing about them in order to concentrate on positive experiences, such as how to overcome events rather than fall victim to them. (1989, p. 372)

Other scientifically dedicated expedition leaders would share Drygalski's cynicism about responses to their endeavours. William Speirs Bruce, who led the Scottish National Antarctic Expedition (1902–04) to the South Orkneys and Weddell Sea, later made the observation that

the mass of the public desire is pure sensationalism. Therefore the Polar explorer who attains the highest latitude and who has the powers of making a vivid picture of the difficulties and hardships involved will be regarded popularly as the hero ... while he who plods on an unknown tract of land or sea and works in systematic and monographic style will probably not have such worldly success. (Bruce 1911, p. 236)

Photographing for science

The German expedition set up a considerable scientific station on the ice and also undertook extended sledging journeys, Philippi and second officer Richard Vahsel managing to reach the mainland (Murphy 2002). Photographs were taken, as on other sledging journeys.

The expedition also photographed its aeronautical program, measuring air temperature, pressure and humidity at various elevations with the aid of a balloon and kites (Lüdecke 1995a). The chief engineer, Albert Stehr, wrote a report on the balloon ascents (1903), which helped determine the *Gauss* research program, destinations for sledging journeys, and provided information about their probable best eventual escape route from the ice. The *Discovery* Expedition also used a balloon, making the first aerial flight in Antarctica six weeks before the Germans (Scott 1905).

The tethered balloons filled a transitional phase in polar exploration, between the failed Andrée attempt of 1897 and the uses of planes and dirigibles in the 1920s. The Germans' hydrogen balloon, the aeronautic high technology of the time, had been provided by the Royal Prussian Airship Department. Equipped with a telephone, it was secured by a cable 1200 metres long, 60 metres west of the ice-bound ship. On a sunny, still day in March 1902, Drygalski ascended to 480 metres. In the afternoon there were two more ascents, the first with Captain Ruser, to 500 metres, the second with Philippi to 200 and 300 metres, when he took photographs from both altitudes (Stehr 1903). Drygalski, recognising the reader appeal of the balloon's link to the technology euphoria widespread at the time (Müller 2009), later selected photographs for his narrative: a photograph by Vanhöffen of the inflating of the balloon (1904a, p. 272), and two photographs taken from it, Philippi's views from 300 metres (p. 273 and 256), the latter a close-up of the angular ice floes near the ship also visible in Figure 25, a photograph included in the scientific results, in the volume on meteorology. It seems a pity that the more general reader did not get to see Figure 25, which is a striking image.

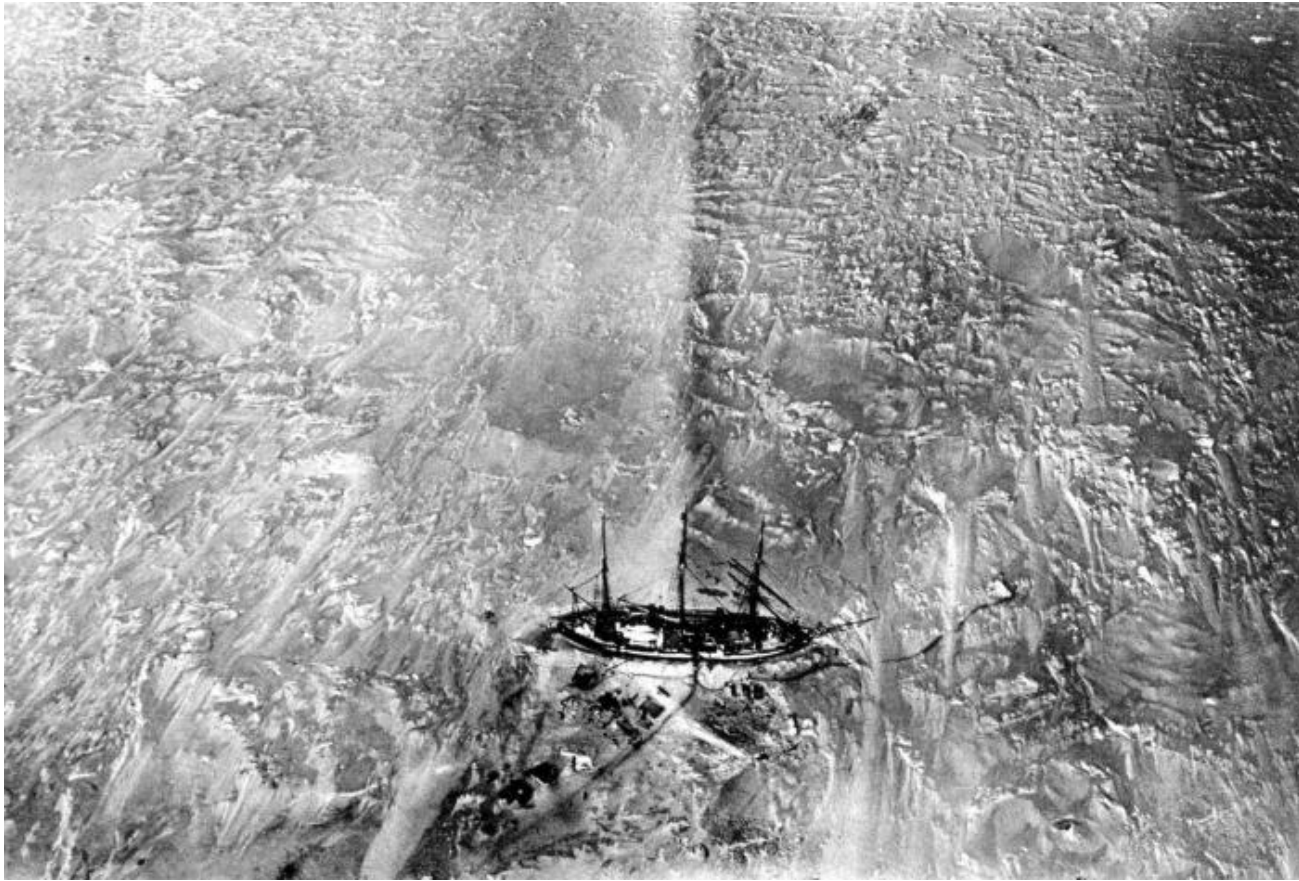


Figure 25: Aerial view of the *Gauss* in the ice, 1902 (Photo: Philippi)

(Source: Drygalski 1905-31, Bd. 3, Teil 1, Plate 1, after p. 337)

Aerial vision, looking precipitously downward at the ship, gives the ‘ship in the ice’ motif a new dimension. The grip of the ice, the power of nature, is made striking in the bird’s eye shot (Mamer 2009). The view conveys a paradox: the explorers were at once dominant, through aerial technology, and dominated, trapped by forces of nature. Their isolation is made to stand out sharply (Müller 2009).

Neither Drygalski’s nor Stehr’s account gives photography more than the briefest mention. Drygalski (1989, p. 158) wrote that Philippi ‘managed to take some fine photographs’ from the balloon, and also that expedition members on the ground all ‘had [their] duty to discharge, even if it were *merely* that of taking photographs’ (my emphasis).

The belief that polar exploration required mechanical solutions arose from confidence in the role of mechanical technology in industrial and military progress (Robinson 2006; Cronin 2010). Intended for reconnaissance purposes and for taking temperature at different altitudes (Stehr 1903), the balloons did not assist much in the German or British exploration. The British scanned the icescape, but engineer Reginald Skelton's diary records: 'No signs of land ... I am afraid as an assistance to exploration down here it has not been a success' (Skelton & Wilson 2001, p. 54).

The photographs recall on the one hand the degree of international scientific cooperation which followed the Sixth International Geographical Congress in London in 1895, but also the international political rivalries of the period. While Drygalski and Scott had agreed to a scientific collaboration with regard to meteorological and magnetic measurements (Lüdecke 2003), nationalism and international rivalries were inherent in the agencies which had supplied the balloons, the Royal Prussian Airship Department and the British War Office. A dozen years later, the two nations were at war.

Philippi took many photographs illustrating topography and wildlife. Though Scott's second expedition photographer Herbert Ponting has been described as the photographer who 'helped establish what is now recognised as the Heroic Age aesthetic characterised by dramatic juxtapositions between human figures ... and icescapes' (Glasberg 2012, p. 91), some eight years before Ponting, Philippi was using similar juxtapositioning to create a sense of the vastness of icescapes (Figure 26). It is significant that Philippi used a group of penguins, not men, in his photograph. The *Gauss* scientists were more interested in wildlife than in promoting the human aspects of the expedition, an attitude that would cost them when it came to appreciation back home.



Figure 26: Iceberg on the western edge of the ice field (Photo: Philippi)

(Source: Drygalski 1904a, p. 500)

Landscapes are both subjective ‘ways of seeing’, and social products, ‘the result of the collective transformation of nature’ (Pringle 1991, p. 43). Like the British, Germans experienced the sublime in polar landscapes, as evidenced in eighteenth and nineteenth century art.²⁷ It is possible that Philippi also had a sensation of it in Antarctica when photographing scenes like the one in Figure 26. It features the iceberg motif and penguins, another symbol of Antarctica. But unlike Ponting, Philippi did not take many such photographs. The concentration in his published images is on scientific activity. ‘The scientist,’ writes Elzinga (2007), ‘has to peel away subjective impression.’ Philippi’s concentration on scientific observation may have been an aid, like the expedition’s cheerful verse, in coming to terms with the encroaching nihilism of the landscape (Pyne 2004), but he did not say.

²⁷ For example, the work of painters such as Caspar David Friedrich (1774–1840), whose ‘Wanderer above the sea of fog’ (1818) and ‘Sea of Ice’ (1823–24) convey simultaneous senses of human mastery and insignificance in land- and icescape (Gaddis 2002).

Drygalski was appreciative of the beauty of ice landscapes. He described looking down a crevasse, seeing 'the most magnificent formations of huge icicles, covered with pyramidal crystals, hanging down into fathomless depths, veritable marvels of beauty' (1989, p. 179). He also made allusion in his narrative to emotional needs for visibly solid landmarks. Writing about the Gaussberg, he said that the mountain was

but a tiny spot in this desert, and yet how important for us, how fundamental to all the expedition's experience! Here we really had rock beneath our feet, and could see the land that we could otherwise only guess at from the shape of the ice above it. The Gaussberg ... was ... a point of association between the South Polar Continent and the other regions of the earth, our life and its familiar images. (Drygalski 1989, p. 178)

Philippi's image in Figure 26 is a scene of beauty, but it offers no solid landmarks, no rock beneath the feet. It is probable that he, too, was struck by both its beauty and its alienness, its lack of association with his own life and its familiar images.

Many photographs were taken to document scientific research, which included the collection of meteorological, magnetic, astronomic, geodetic, glaciological, and oceanographic data. Figure 27 is an eye level view of the *Gauss*, the centre for data collection. The ship, despite the surroundings, has a prosaic air, quite unlike the ship photographs of Cook and Arctowski at Figures 6 and 7.

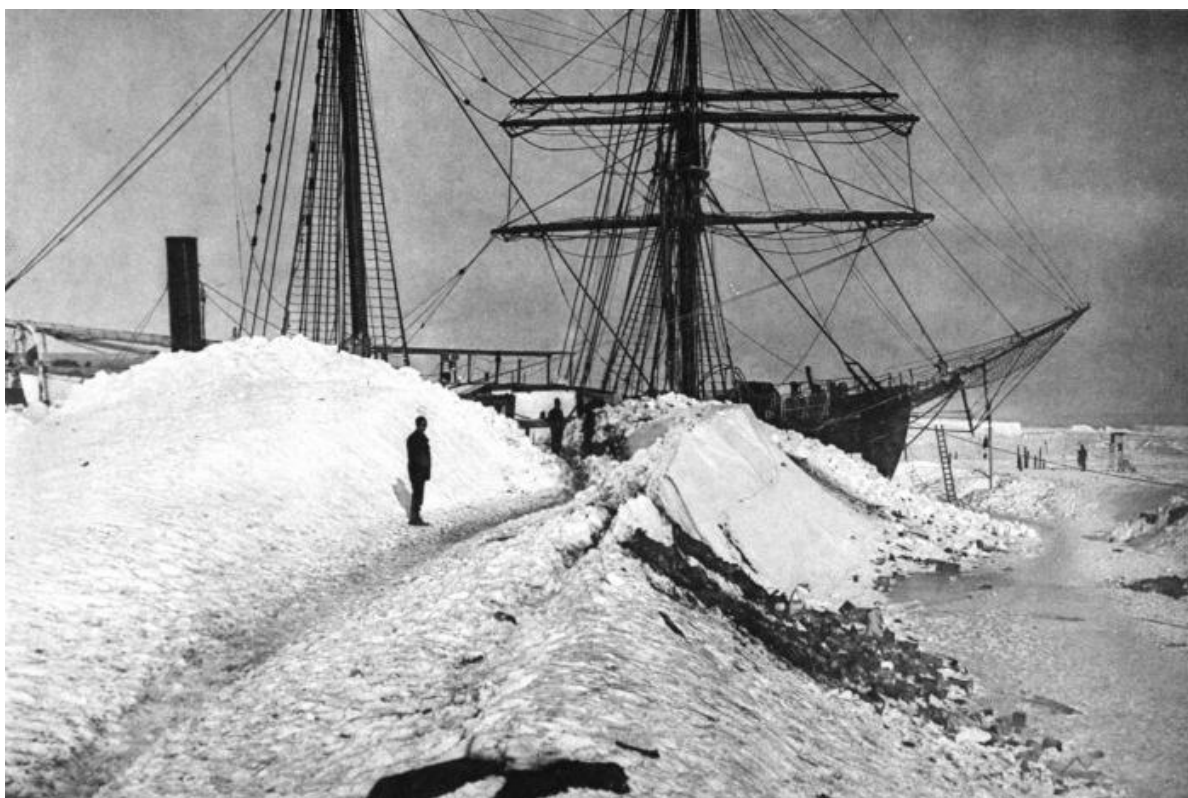


Figure 27: The ice gangway to the *Gauss*, 1902 (Photo: Philippi)

(Source: Drygalski 1905-31, Bd. 3, Teil 1, Plate 6, after p. 337)

There were two holes in the ice at the bow and stern, with blocks and windlasses to raise and lower the nets for biological work and two pieces of equipment for the measurement of the temperatures of the ice and sea. There was also a smithy, kennel and magazines (Drygalski 1903). Most of these were at 40 to 250 meters from the ship, and the only sign of them in the photograph is tide observation equipment near the bow (Drygalski 1904a, p. 337), and beyond that, the meteorological station (Drygalski 1904a, p. 261).

A variation house for magnetic recording instruments was built out of ice blocks on a floe, but the building began to sink as the floe subsided. Figure 28 is an example of Philippi's photographs of expeditioners at work, regrettably not well reproduced for Drygalski's volume 2 of scientific results (1912), where it is small, one of two photographs on the page.



Figure 28: In the sinking variation house, observer standing in water (Photo: Philippi)

(Source: Drygalski 1912a, p. 11)

The photograph shows the scientific work being done under difficulty, but Figure 28 was as close to depicting hardship as Philippi's photography came.

As a geologist and glaciologist, it was Philippi's motivation to understand science that shaped his experience of Antarctica as a place. He was very active in field research, participating in four of the seven sledge-journeys undertaken in 1902, and discovering and ascending the ice-free Gaussberg mountain at the edge of the inland ice some 80 kilometers from the ship. He photographed ice and geological formations, wildlife, and took many photographs of the expeditioners at work. Unfortunately, these last tend to be taken from too far away, or the faces of the men are unclear in reproductions. He took a number of individual photographs, including some of crew members posing self-consciously against sailcloth hung against a wall (Drygalski 1904a, pp. 374, 383, 421, 448). These are hardly successful as portraits, and were probably taken as part of the general documenting of the expedition.

Philippi's photographs reveal little of the emotions in the field (Davies & Spencer 2010) involved in exploring Antarctica. His work appears to aim to follow the basic rule of scientific method, to be detached and objective. But expeditionary photography was a form of fieldwork in its own right (Yusoff 2010), and states of emotion during fieldwork (Davies 2010) nevertheless would have had some effect on

the kinds of photographs he chose to take. Scientific investigation in polar regions is inherently adventurous. But a sense of adventure is not strong in Philippi's photographs.

Comparison with other expeditions' photographers

The photographers of British Heroic Era expeditions are outside the scope of this study, and without a comprehensive examination it is not possible to attempt detailed comparisons; but it is fair to say that Philippi's documentary approach was not dissimilar to that of Reginald Skelton, the naval engineer on the *Discovery* Expedition whom Scott asked to develop an interest in photography (Baughman 1999). There are many references to photography in Skelton's journals (Skelton 2004), but his comments are not reflective, and nothing is recorded about his interpretation of its role. He read polar literature during the expedition, including Nansen's description of his Greenland travels, but his recorded thoughts about these books are of a cursory and general nature, with no comment about the photography.

Skelton produced competent but unexceptional photographs (Wilson 2011), with 'no attempt to create a unique vision of the landscape or to convey anything of the emotional aspect of exploring Antarctica' (Gordon 2009, p. 54). The photographs, as selected by Scott for publication (1905), convey more drama than the German ones selected by Drygalski. Scott's included close-ups of the bow of the ship crashing through ice, photographs of men hauling heavy sledges, and a sketch of a man down a crevasse, to show some of the difficulties and hardships of exploration. The many German photographs of expeditioners at work show Drygalski's awareness of the value of visualisation in promoting easier access to the research for non-specialists (Müller 2009). Unfortunately, the photographs are either too distant or insufficiently well reproduced.

Others on the *Discovery* expedition also took photographs.²⁸ Reginald Koettlitz experimented with colour filters (Jones 2011), but Scott chose not to publish his colour photographs, selecting instead artwork by Edward Wilson.²⁹ The German expedition was interested in colour; a brochure promoting an optical instrument for reproducing it is held in the archive at the Leibniz Institute for Regional Geography.³⁰ But Philippi does not seem to have investigated further.

Scott's book, like Drygalski's, makes only occasional mention of photographing, offering no consideration of the act of photography, and giving no details of the photographic apparatus used. On the other hand, a photographer from an earlier British expedition, physicist-astronomer and photographer Louis Bernacchi, listed in his diary all the photographic equipment of the 1898–1900 British Antarctic Expedition led by Carsten Borchgrevink (Crawford 1998, p. 163), and his narrative makes a brief mention of the difficulties of photography in the Antarctic (Bernacchi 1901).

Bernacchi's photograph of the British flag aloft has been credited being the first photograph taken on the Antarctic continent (Yusoff 2010). Scott's expedition photographs include flags alongside the party which made an attempt at the South Pole. The German expedition's published photographs do not include flag-raising. Given the very generous funding of the expedition by the imperial government, and the pre-expedition publicity, this is surprising. On a sledging journey to the Gaussberg, Drygalski built a cairn in which he placed a document summarising his expedition's achievements to date, and he raised the German flag (Drygalski 1904a, p. 420), but no photograph of this event, or any similar, is included in his narrative.

²⁸ Skelton kept a meticulous record, noting photographer and often location, date, and subject matter. Unfortunately, there is nothing to compare with this 'Skelton Index' for non-Anglophone expedition photography.

²⁹ Skelton's work was exhibited at the Bruton Galleries, London, soon after the expedition, along with sketches by Wilson. Skelton's photographs did not sell nearly as well as the artwork did (Wilson 2011).

³⁰ The Krömsköp did not take photographs, but could reproduce colours by means of three stereoscopic pairs of images, which, by differences in their light and shade, represented the distribution and proportions of the respective primary colours in the object photographed (Leibniz Institute for Regional Geography, Drygalski manuscripts, 66/2).

He did give the name Kaiser Wilhelm II Land to a section of the Antarctic coast,³¹ a political act which inscribed on maps the concept of occupation and claim (Wråkberg 2002). Overall, however, the disconnection between the aims of scientist-expeditioners and the political expectations of the Reich Office of the Interior was clearly considerable.

Representations of identity: an academic leadership

Drygalski's narrative of the expedition did not live up to the public's expectation. The literary style was rather bland and 'almost formulaic' (Raraty 1989, p. xv). He depicted the *Gauss* expeditioners as scientists in happy collaboration, not as heroes. Indeed, they laughed at the idea of heroism. Some feature as 'our heroes' in satirical verses included in Drygalski's narrative, and Philippi is similarly represented in an 'Antarktisches Intelligenzblatt' article describing his exploration of the Gaussberg (Lüdecke 1995b). At a gathering organised by the Stettin Polytechnic Society to honour Drygalski in 1904, a drinking song comparing him to Nansen and calling him 'the hero of the Antarctic night' (Lüdecke 1995b, p. 282) was probably likewise mainly merriment. He was modest. His portrait does not appear until the end of his narrative (1904, p. 665). He gives the frontispiece position to the *Gauss*.

The midwinter solstice on June 22 1902 was celebrated by the expedition with party parcels and a formal drinking session. Like Cook's group photograph at Figure 11, Philippi's in Figure 29 offers an informal view. The men are holding poses, but the effect is natural. Photographed by magnesium flash, Figure 29 is another example of the often very poor reproductions in original Reimer edition of the expedition narrative.

³¹ Someone took the trouble to take a photograph of the saloon portrait of Wilhelm II (also seen in Figure 29). The photograph remains in the Archiv für deutsche Polarforschung at Bremerhaven (Dr Christian Salewski, personal communication, 24 May 2013).



G. Philippi phot.

Sonnwendfeier im Salon.

Figure 29: Midwinter Day in the saloon, 1902 (Photo: Philippi)

(Source: Drygalski 1904a, p. 347)

The viewer of Figure 29 might well form a mistaken impression of the atmosphere. The group's demeanour seems subdued, which is at odds with what is known about the festivity of the occasion and with the general sociability of the expedition. There are glasses on the table and what appears to be a bowl of punch. Apart from these, the men look like an academic group in a meeting. For the leading members of the expedition, this may well have been their preferred way of representing themselves—within a discourse of collegiality. The individual portraits of members included by Drygalski in his narrative are in keeping with the academic tone. It is ironic that critics later condemned the choice of academics to lead the expedition (Murphy 2002). Anonymous marginalia written on a copy of the *Kölnische Zeitung* of 2 September 1902 by someone at the Ministry of the Interior, which had sponsored the expedition, includes the following comment: 'Had one ... not permitted a *scholar*

(Drygalski) to be leader and commander ... but instead ... a naval officer possessing long years of experience in polar journeys ... or a whaler or captain ...' (quoted by Murphy 2002, p. 85).

The expedition enjoyed many comforts, some captured in Philippi's photograph—a spacious officers' mess with paneling in American walnut and several paintings, including the portrait of the Kaiser which he himself had presented, and a portrait of Johann Carl Friedrich Gauss (1777–1855), mathematician, astronomer and physicist, presented by Gauss's old university, Göttingen.³² There was another portrait of the Kaiser in the crew's mess (Drygalski 1904a, p. 66).

The subjects of Figure 29 probably include Drygalski, Vanhöffen, Gazert, Captain Ruser, First Officer Lerche and Second Officer Vahsel. The man who is reading looks like Philippi, who took the photograph, which it was possible to do by means of a string attached to a camera shutter.

A perception of failure

The perception of failure that met the expedition on its return home was refuted in vain by Drygalski. The *Berliner Illustrierte Zeitung*, 6 December 1903, ran merely a picture of the expedition, with no story other than a caption (Murphy 2002). The press naturally preferred stories of inspiring adventure in which peril, courage, tenacity and triumph over obstacles were key features. The Kaiser's response was frosty: a higher latitude reached by the expedition would have been much more useful in the geopolitical context (Lüdecke 1995a). However, Drygalski's narrative of the expedition, which appeared quickly (1904a), sold very well, due partly to its comprehensive illustrations (Müller 2009). It marked an important stage in the history of polar photography: 'photography documented almost every step on the pristine Antarctic expanses' (Müller 2009, p. 237, my translation). Expedition photographs were also among the Antarctic artefacts at the Exhibition of the German Empire at the Louisiana Purchase Exposition (or World's Fair) in St Louis, Missouri, in

³² Gauss mathematically located the Magnetic Pole of the Southern Hemisphere in 1838.

1904 (Official Catalogue of Exhibitors 1904), and were part of a diorama at the Colonial Exposition at Marseille in 1906 (Lüdecke 1995a). Antarctic dioramas installed in the Berlin Institute for Oceanography in 1906 and the Berlin Museum of National History in 1912 (Murphy 2002) would have been based on the photographs.

Drygalski's narrative of the expedition (1904a) includes photographers in the captions. The voluminous scientific results published during the decades after the expedition (Drygalski 1905–31), all with 'on behalf of the Reich Office of the Interior' in the title, and including photographers in captions of illustrations, were described by the Royal Geographical Society, London, as 'finely printed and generously illustrated' ('Gauss Antarctic Reports: Review' 1932, p. 507). Philippi's photographs have been described as useful for scientific research, but lacking the audience appeal of the photographs produced later by Ponting and Hurley (Rack 2009). Drygalski lectured to good crowds all over Germany for a decade after the expedition (Murphy 2002), presumably using photographs. He published some ideas on territorial claims in 1944, which made the case for a claim of Kaiser Wilhelm II Land, where the expedition had been based. This idea was never followed up by German governments (Lüdecke 2006b).

Philippi was the only scientist who had not wanted to participate in Drygalski's desired second phase of the *Gauss* Expedition. Instead, he wished to make further geological investigations in Africa, and left the ship in Capetown with Drygalski's agreement (Drygalski 1904a), two weeks before refusal of the continued expedition was received. It is surprising that Philippi apparently did not want the chance of a second Antarctic experience, but Drygalski wrote that the geologist had achieved all he could there. Perhaps also he was weary of the confines of the ice. Philippi journeyed home through Transvaal, Rhodesia, and German East Africa. As a result of the journey, he produced a paper on South African Dwyka (glacial) conglomerate in 1904. He also published 'Reiseskizzen aus Südafrika' (Travel sketches from South Africa), a more general narrative, in 1905. However, kudos attaching to a second Antarctic stage would presumably have been greater than to these.

In 1907 Philippi became Professor of Geology and Palaeontology at the University of Jena. He was highly respected for his research on prehistoric climates and on glaciology (*Geologische Rundschau* 1910), and published *Eisberge und Inlandeis in der Antarktis* in 1910. The same year, aged only 38, he died of septic poisoning in Egypt, where he had gone to convalesce after an illness (Drygalski 1912b).

In Antarctica today Germany has the Neumayer-Station III and Kohnen-Station. Neither displays any photographs of the Drygalski expedition (personal communication, Sina Löschke, Press Officer, Communication Department, Alfred-Wegener-Institut für Polar- und Meeresforschung, 10 May 2013).

Summary

Drygalski assiduously attributed most of the photographs in his publications about the expedition, showing his belief in the importance of photography.

'Ways of seeing'

Emil Philippi was a versatile scientist who produced many of the photographs of the expeditioners at work, of ice and geological formations and wildlife. His experience of Antarctica as a place was shaped by his motivation to understand its scientific value. His photographs reveal little of the emotions involved in exploring Antarctica.

Representations of exploration in Antarctica

Drygalski's narrative was criticised for not sufficiently emphasising adventure and privation; the photographs likewise do not. They depict the *Gauss* expeditioners as working scientists, not as heroes or nationalists. Individuals are shown in portraits and in field activities, but none is represented heroically. Group photographs emphasise a discourse of collegiality. Some appreciation of the beauty of Antarctica emerges from some of the photographs.

Swedish South Polar Expedition (Antarctic)³³

In the late nineteenth and the beginning of the twentieth century, a strong national patriotism predominated in Sweden, then moving towards the loss of part of its territory through the dissolution of union with Norway, which would come in 1905. A dimension of the formation of modern nationalism and self-understanding in these countries had been their Arctic exploration (Sörlin 2002), from which all the national heroes emerged. Polar science and technology was seen as an avenue through which distinct national identities might be shaped (Lewander 2001, 2003).

Nevertheless, the Swedish South Polar Expedition (1901–03) did not secure government support. The king had given money to the failed *André* Expedition to the North Pole in 1897, which may have served to deter the government with regard to the Antarctic expedition. Another factor was the comparative youth and alleged inexperience of the Antarctic expedition members. The leader, Otto Nordenskjöld, a thirty-two year old associate professor of geology at Uppsala University, was seen by some as an outsider in Swedish polar exploration (Elzinga 2005), although he was the nephew of a noted Finno-Swedish Arctic explorer, Adolf Erik Nordenskiöld (1832–1901), and had himself been to northeastern Greenland. The second-in-command, Johan Gunnar Andersson, twenty-seven years of age, had just completed his doctoral studies, but had taken part in Alfred Nathorst's 1898 expedition to the high Arctic archipelago of Svalbard, and in 1899 had led his own small expedition to Svalbard to carry out further geological investigation (Mills 2003).

Nordenskjöld had to raise private funding.³⁴ In the end, the expedition's costs exceeded this, and he took personal responsibility for the gap, spending a decade paying it off (Nordin 2007).

³³ The primary source examined in this study is the English-language narrative by Nordenskjöld and Andersson (1905, 1977). It has many photographs. Contemporary newspaper, magazine, and journal articles were other sources: a medical journal article by Erik Ekelöf (1904), and contemporary newspaper and magazine articles from the London *Times* (article by Nordenskjöld, reproduced in the *Adelaide Advertiser*, 19 February 1904a, p. 6), *Le petit journal: Supplément du dimanche* (6 December 1903, pp. 385–386), and *The Century Magazine* (article by F.W. Stokes, 1903). One photograph was obtained from the private collection of Dr Fred Goldberg. There are few English-language secondary sources about the expedition, and none dealing with the work of photographers.

In Antarctica, the expedition was beset by major problems. A shore party of six men, headed by Nordenskjöld, stayed on Snow Hill Island off the Trinity Peninsula area of the Antarctic Peninsula through 1902 and 1903, mapping parts of the coast. At the end of the 1902 winter their ship, *Antarctic*, could not reach them as planned, and three men were landed at Hope Bay in an attempt to reach them by going overland. Conditions forced those men to winter there in 1903 in an improvised rough stone hut with minimal supplies. One of these was J.G. Andersson. The *Antarctic* was crushed in the pack ice and foundered on February 13 1903, its crew wintering on Paulet Island. All three parties were rescued by an Argentine naval vessel in November 1903. The expedition nevertheless managed to conduct a comprehensive scientific program, with results since claimed to be 'greater than those of any other up to that time' (Fuchs 1977, p. iv).

The primary narrative accessible to English speakers is *Antarctica or Two years amongst the ice of the South Pole*, by Nordenskjöld, Andersson, Carl Skottsberg and Captain Carl Larsen, which includes a wide variety of photographs taken by various expedition members. Many of them have been retouched with a pen, suggesting that the photographers had difficulty with exposures. They rarely mention photography in the text. It was part of their recording of activities, important—'every photographic apparatus was at work' (Nordenskjöld & Andersson 1905, p. 34)—but routine. Frank Wilbert Stokes (1858–1955), an American artist who had been employed by *Scribner's* magazine as artist member of three Peary expeditions to the Arctic and Greenland from 1892–94, took part in the expedition at his own expense, but did not winter in Antarctica, returning to the United States with many sketches. From among those who took photographs, only Nordenskjöld himself, Gösta Bodman, a physicist, and the medical officer, Erik Ekelöf, will be discussed here, due to the time constraints of the Master's project.

³⁴ Lewander (2002) has shown that Nordenskjöld anticipated commercial gain from sealing and from research into whaling during the expedition.

Despite the previous experience of some in the Arctic, and the experience of the Swedes of snow-covered winter landscapes and the frozen-over Baltic Sea at home, the scenes encountered on the Antarctic Peninsula were unexpected. 'It was a strange world, difficult to describe, so different was it to what I had seen before,' wrote Nordenskjöld (Nordenskjöld & Andersson 1905, p. 34). He experienced 'overpowering feelings ... the same feeling of helplessness as when one stands alone and deserted amidst mighty forces of Nature' (pp. 24–25)—an experience of the sublime. Andersson described his feelings at the frozen entrance of the Crown Prince Gustav Channel:

We stand silent and perplexed ... Mile upon mile of snowy plain, such as we have never seen before ... I had never before been able even to imagine such a picture of the sovereign dominion of ice, as the one offered by this landscape. (Nordenskjöld & Andersson 1905, p. 425)

Stokes wrote: 'Beyond, in imposing grandeur and beauty, was a strange mountainous land—a land of the gods—wrapped completely in an ice-mantle eons old' (1903, p. 2 of 7). One of his photographs or sketches was developed into a painting of the site of the Swedish expedition's winter station (Figure 30).

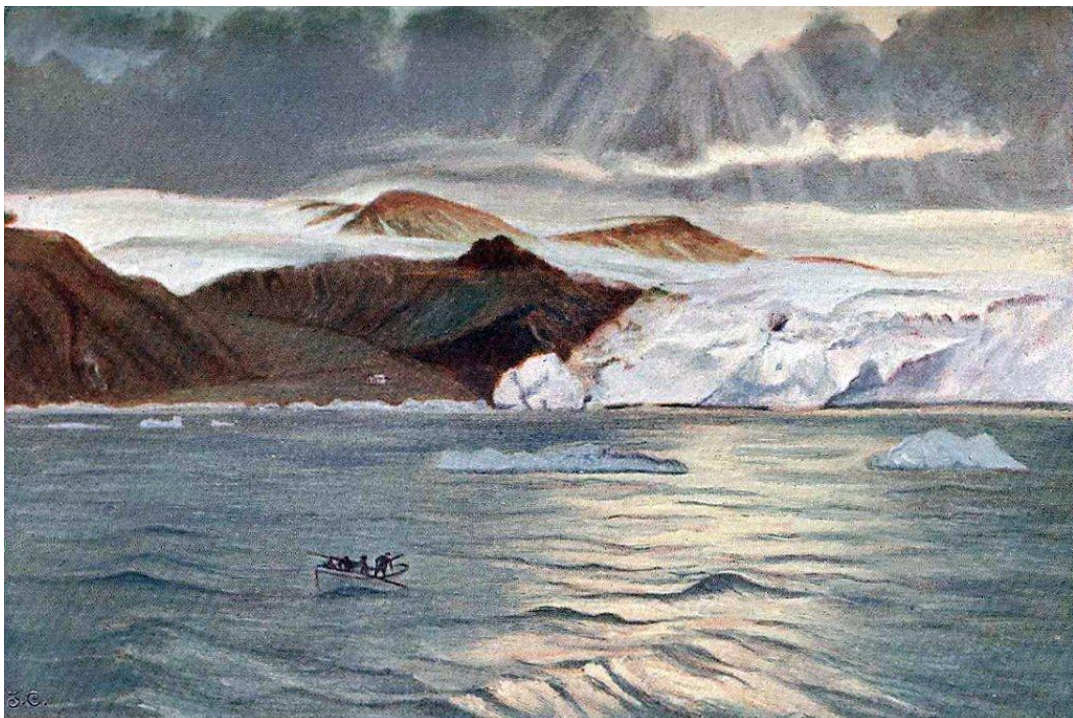


Figure 30: Wintering-station at Snow Hill 21st February, 1902, after a painting by F.W. Stokes

(Source: Nordenskjöld & Andersson 1905, opp. p. 66)

Otto Nordenskjöld

Nils Otto Nordenskjöld (1869–1928) became lecturer in mineralogy and geology at the University of Uppsala in 1894. Before the Antarctic expedition, he led geological expeditions to Patagonia and Tierra del Fuego in 1895–96 (Nordenskjöld 1897), Alaska in 1898, and Eastern Greenland in 1900 (Zimmerman 1929). He had experience in photography on these expeditions.³⁵ He also had access to photographs taken by others. He had, of course, read his famous uncle's books, which were illustrated—for example, *Greenland ...*, the account of the 1883 expedition, which had illustrations drawn from snapshots taken by the expedition photographer (Nordenskiöld 1886), and the 1897 bestseller *Nordost-passagen* (Northeast Passage) (Liukkonen 2008). He had also read Nansen's illustrated *First crossing of Greenland* (Nordenskjöld & Andersson 1905, p. 420). In Antarctic Peninsula waters he recorded studying Frederick Cook's photographs in order to fix their position with relation to the *Belgica* record (Nordenskjöld & Andersson 1905, p. 36). His scientific and family background and his previous travels, with a camera, all contributed to his 'way of seeing' in Antarctica.

The image in Figure 31 is the one Nordenskjöld chose for the frontispiece of his narrative of the Antarctic expedition. It has a professorial air. Like the scientific members of the first German expedition, those of the Swedish one represented themselves as the academics they were.

³⁵ Nordenskjöld's 1898 book, *Från Eldslandet - Skildringar från den svenska expeditionen till Magellansländerna* (From Tierra del Fuego—Depictions of the Swedish expedition to Magellanian countries), P. A. Norstedt & Söners Förlag, was photograph illustrated.



Figure 31: Otto Nordenskjöld

(Source: Nordenskjöld & Andersson 1904, frontis sketch)

Nordenskjöld and other scientists on the expedition were receptive to aesthetic aspects of Antarctica. Unlike members of the German expedition, they wrote at some length about their feelings, and some of their photographs attempt to capture a sense of them. Nordenskjöld was struck by the beauty of Antarctica:

I should like to be an artist, in order to be able to describe the magnificent picture that surrounded us on that memorable night. Above us was the vault of a cloudless sky—first of a light, then growing of a darker blue—in which the stars were slowly kindled one after another ... Where the sun has gone down, the heavens glow an intense dark, blood-red, against which the sharp contours of Lockyer Island, with the precipitous headlands, the snowy dome and the glorious row of glaciers, are distinctly lined. (Nordenskjöld & Andersson 1905, pp. 237–238)

On another occasion he described walking out alone on to the ice,

until nothing met the eye but the dark outline of that precipitous coast, the far-stretching ramparts of snow and the towering blocks of ice. Not a breath of air was in motion, not a sound could be heard ... [T]he mind grasped how infinitely small was the role played by a chance visit of a few men ... to this desert world of ice. (Nordenskjöld & Andersson 1905, p. 158)

When he photographed the iceberg in Figure 32, he was surely responding to the awe and beauty of it, in addition to its interest for science.

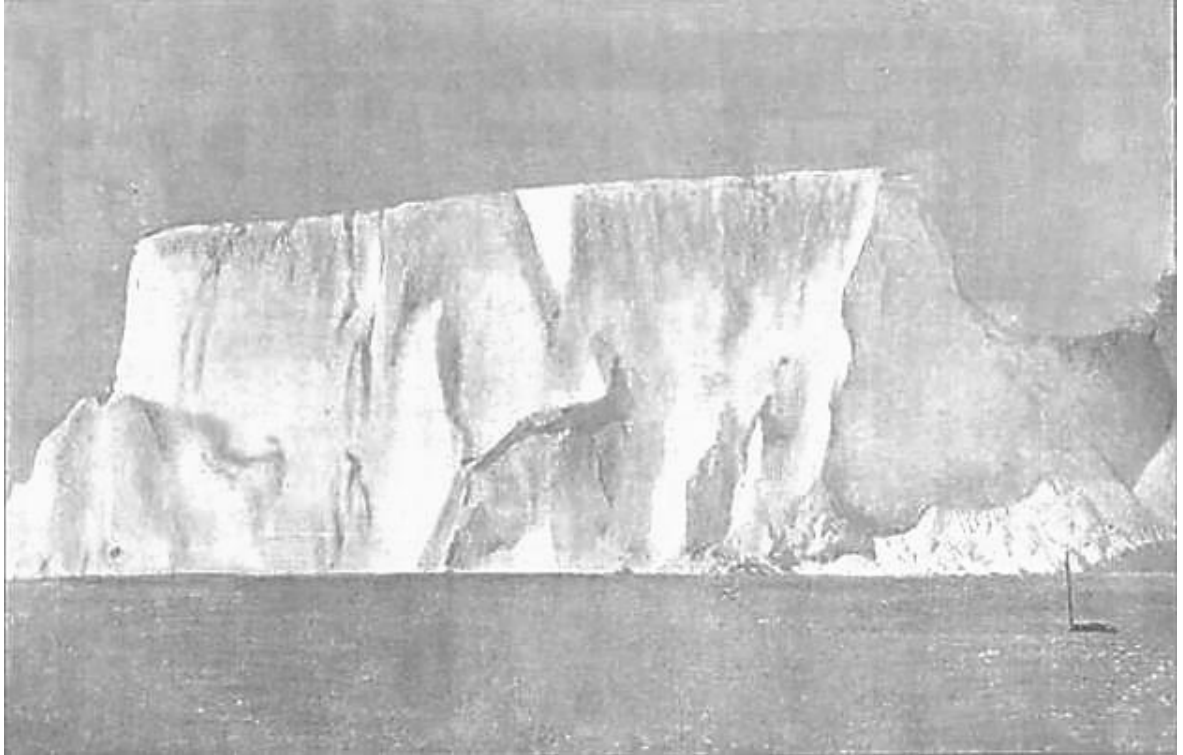


Figure 32: The large iceberg in Admiralty Sound (Photo: Nordenskjöld)

(Source: Nordenskjöld & Andersson 1905, p. 285)

The iceberg is front-on to the viewer, filling the photograph with its bulk and beauty. Nordenskjöld's narrative includes a number of iceberg illustrations. He wrote of them, in a combination of emotional and scientific thought:

... in brilliant sunshine they form a picture the magnificence of which can never be forgotten by those who have once seen it. The icebergs of northern waters are, as a rule, uneven, jagged; often high, but never very extensive ... An Antarctic iceberg of typical form makes a powerful impression chiefly on account of its enormous mass. (1905, pp. 92–93)

Icebergs figured prominently in the visual discourses of Adolf Erik Nordenskiöld's and Otto Nordenskjöld's exploration accounts. Otto's photographs of immense Antarctic icebergs were demonstrations of his penetration into new, unexplored territory, independent from his uncle's eminent record. The extent and diversity of his explorations would eventually make him Sweden's greatest polar authority

(Zimmerman 1929). That he never became its greatest polar hero is due in large part to his own representations of his exploration.

Nordenskjöld also took photographs of individual expeditioners, showing them at work or with scientific apparatus, visually depicting the science discourse surrounding the expedition (see examples in Nordenskjöld & Andersson 1905, pp. 147 and 187).

The goal of international cooperation

Nordenskjöld was a passionate advocate of international scientific cooperation (Rabassa & Borla 2007). On the way south he had discussions in England with Sir Clements Markham of the Royal Geographical Society and with William Speirs Bruce, who was preparing the Scottish National Antarctic Expedition. The Swedish expedition was supported by the Argentine government, which had liaised with Nordenskjöld and supplied food and provisions in Buenos Aires.³⁶ The Argentine support was especially helpful, as no money had come from the Swedish government. In return, José María Sobral (1880–1961), a twenty-one year old second lieutenant in the Argentine navy, joined the expedition to do work in meteorology, magnetism and geodesy—the first man of Argentine origin to be sent to Antarctica. International cooperation only worked up to a point: as the sole non-European in the scientific team, Sobral appears to have experienced occasional exclusions due to language and ethnic background (Lewander 2007). He published an account of his Antarctic experiences in 1904, illustrated with photographs which he took and developed.³⁷ Many have been retouched. Their poor quality, he wrote, was due to his lack of skill as a photographer, together with physical drawbacks in performing

³⁶ The Scottish National Antarctic Expedition (1902–04) also had Argentine assistance. In return for support with fuel, supplies and maintenance operation of the ship, the expedition took three Argentine scientists to the South Orkneys. Charcot's first expedition also received fuel and food from the Argentine government (Genest 2006). Representatives from the Argentine and Chilean governments held meetings in 1906 and 1908 in an attempt to define common interests in the Antarctic Peninsula. These ultimately failed, but the effort was resumed in the 1930s (Howkins 2008).

³⁷ Argentine interest in the Swedish expedition remains strong. A documentary DVD, *Atrapados en el fin del mundo (Trapped at the End of the World)* (Sanchez 2003), subtitled in English, has been produced.

the work and deficiencies in the condition of the photographic equipment (Sobral 1904, pp. 7–8).

After Antarctica, Nordenskjöld became professor of geography and ethnography at Gothenburg University, and continued to make strong contributions to Swedish scientific developments in polar research and the broader geographical and natural sciences, leading expeditions to Greenland and to the tropics (Olaf 1928).

Gösta Bodman

Anders Gustaf (Gösta) Bodman (1875–1960), twenty-six at the time of the expedition's departure, was a provincial doctor's son from Norrbotten, the northernmost county of Sweden, which is crossed by the Arctic Circle. He had come south to Uppsala in 1890 to study physics (Lénárt 2003), but by 1901 he had only a licentiate, equalling the completion of half of the requirements for the full doctoral degree which he would take in 1907 (Weimarck 2001).³⁸ He married in 1906 (Nordenskjöld n.d.), and later became professor of inorganic chemistry and mineralogy at Chalmers University of Technology, Gothenburg, from 1914 to 1940 (Lénárt 2003).

Recruiting scientific staff, Nordenskjöld considered Bodman sufficiently experienced, and he was witty and cheerful (Lénárt 2003), important qualities for a long and isolated expedition. He was one of the earliest contracted to the expedition (Lewander 2002), as physicist and meteorologist managing meteorological and magnetic observations.

Bodman took photographs of expedition members, activities and topography, many of which were included in scientific reports on geographical activity, climate, weather and the composition of rocks (Nordenskjöld 1911, 1916). He was adventurous in seeking interesting photographs, climbing high on the mast of the southward sailing

³⁸ If the process seems to have taken some time, he was not alone in this: the zoologist Karl Andreas Andersson, the same age as Bodman, also took his degree in 1907 (Weimarck 2001).

Antarctic in order to get steep downward views of the ship (Nordenskjöld & Andersson 1905, p. 5, and following p. 91), and an upward view on the way to the crow's nest (p. 101).

Bodman used a camera which took dry glass plates of 18 x 24 cm. It may also have taken smaller plates: the image in Figure 33 is on a 13 x 18 cm plate (personal communication from Dr Fred Goldberg, who owns the plate, 28 January 2012). Bodman also had a Kodak Folding Pocket Camera number 3 which he bought from Numa Petersons Handels & Fabriks Aktiebolag, Stockholm, in 1901 (invoice in the private collection of Dr Fred Goldberg). The Kodak Folding Pocket Camera no. 3 was designed for postcard-size film, which enabled the printing of photographs on photographic paper with postcard backs (Bogdan & Weseloh 2006). A postcard made on the ship, before the landing in Antarctica and left onboard for posting, was shown at Figure 4. The expedition also made photographic postcards of the hut being built, and of expedition members (Goldberg 2005). Many postcards commemorating Heroic Era expeditions exist, some of which are included in books by Goldberg (2005) and Wharton (2007). Most, however, were not produced by the expeditioners themselves.

Identity and isolation

An individual's perception of his or her own identity is enhanced by links to symbols that have meanings grown out of interaction with society (Stryker & Serpe 1982). Photographs sometimes display their subjects with objects which identify occupations. A number of Heroic Era photographers were photographed with cameras, as was Bodman also, in Figure 33. It is an indication of the awareness of the importance of the role of photography on expeditions.³⁹ For Bodman, at the time with only modest academic qualifications, the photographer role may have been an important new perspective in which to enact his sense of identity.

³⁹ Bodman was taking the photograph seen in Figure 35.



Figure 33: Gösta Bodman with camera, 16 October 1903

(Source: Private collection of Dr Fred Goldberg, Swedish Polar Institute, Lidingö, Sweden)

Interpersonal tensions

Figure 34 is Bodman's photograph of the Snow Hill group. Taken on nitrate roll film 6 x 9 cm (personal communication, Dr Fred Goldberg, 28 January 2012), probably with Bodman's Kodak Folding Pocket Camera number 3, it shows the group after breakfast, just before Nordenskjöld, Sobral and Ole Jonassen, the experienced sledger, left on an exploratory sledge journey.



Figure 34: Before we started on our way a photograph was taken of the entire staff, October 1 1902 (Photo: Bodman)

Left to right, back row: Jonassen, Ekelöf, Åkerlund; front row: Bodman, Nordenskjöld, Sobral.

(Source: Nordenskjöld & Andersson 1904, vol. 1, p. 302)

‘The entire staff’ was not a happy one. By then the group had been at Snow Hill for seven months, and recent equinoctial storms had a depressing affect on them all (Nordenskjöld & Andersson 1905). Lewander (2002) notes that, in all the documents later published by the expedition, only a few sentences refer to the psychological wellbeing of the men, but her study of personal papers reveals that conflicts occurred between Sobral and Jonassen, mainly over the latter’s perceived harsh treatment of the dogs, with Sobral writing at one point that he wanted to beat Jonassen to death (Sanchez 2003). Bodman’s diary claimed that Ekelöf was a morphine addict and ‘needed extensive assistance to quit his habit’ (Lewander 2002, p. 107).

Interpersonal problems occurring among isolated and confined groups result from fundamental characteristics of the experience: 'Sustained, close personal contact with other individuals can be extremely stressful ... The stress is cumulative' (Stuster 1996, p. 165). Added to these tensions, the extreme physical environment of polar expeditions may result in psychological changes, with symptoms such as disturbed sleep, impaired cognitive ability and negative affect (Palinkas & Suedfeld 2008). After the expedition, Ekelöf (1904, p. 531) acknowledged that the group experienced 'a certain degree of depression and increased irritability ... especially during the dark season.' Nordenskjöld had made an effort to counter depression with frequent 'little festive dinners, or an extra glass of punch or toddy ...' (Nordenskjöld & Andersson 1905, p. 154). Stress and discord, however, remained largely unresolved, though Ekelöf maintained that 'these disturbances in no case ... [took] the form of melancholia or any other mental disease' (1904, p. 531).

In the photograph in Figure 34 Nordenskjöld's pose is particularly stiff, looking away from the camera—unfortunate, as he is the focal figure, front and central, as the leader. Gustaf Åkerlund, the cook, is also looking away. The others' gazes do establish contact with the viewer—an image act (Kress & van Leeuwen 2006) inviting the viewer to enter into an imaginary relationship with the group. But it is not easy to relate to. As Lutz and Collins point out (2003, p. 371), the multiplicity of gazes in a group photograph may be indicative of ambiguity, each gaze potentially suggesting a different perspective and a different way of being in the scene. There is possibly a suggestion of discomfort here, only explained by accessing written accounts of the expedition, many unpublished.

Early in their stay at Snow Hill, Nordenskjöld had written: 'It was our duty to make every sacrifice in order to uphold the traditions of previous Swedish exploring expeditions, I was ... certain that our little circle could be fully relied on to do so' (Nordenskjöld & Andersson 1905, p. 118). And despite their difficulties, the group managed not only to endure but to achieve much useful scientific research, their investigations comprehensively documented by photography.

Putting men to the ultimate test

Meanwhile, J.G. Andersson, Lieutenant S.A. Duse and sailor Toralf Grunden had been stranded for nine months at Hope Bay. In October 1903 two of them set off for Snow Hill, and on the way had the luck to encounter Nordenskjöld and Jonassen.

Nordenskjöld described them:

It cannot be that these two creatures are of the same race of men who were once my companions on board the *Antarctic*. Two men, black as soot from top to toe; men with black clothes, black faces and high black caps, and with their eyes hidden by peculiar wooden frames⁴⁰ ... Never before have I seen such a mixture of civilization and the extremest degree of barbarousness (Nordenskjöld & Andersson 1905, pp. 307–310)

The three Hope Bay men returned to Snow Hill with the others, where ‘all available photographic plates [were used] to immortalise the newcomers’ (Nordenskjöld & Andersson 1905, p. 316). One of the photographs is shown in Figure 35.

⁴⁰ The wooden frames around the eyes were improvised ‘spectacles like those employed by the Esquimaux, the light being admitted to the eye by a narrow horizontal opening only’ (Ekelöf 1904, p. 522).



G. Bodman fot.

Figure 35: Our newfound comrades on arrival at Snow Hill, 16 October 1903 (Photo: Bodman)

From left: Grunden, Andersson, Duse.

(Source: Nordenskjöld & Andersson 1904, vol. 1, opp. p. 484)

In contrast to the group in Figure 34, the subjects here are very relaxed, and all are relating to the viewer by means of their gazes, which are intense, Duse's particularly so. The photograph links to the discourses of masculine bravery and adventure in the popular literature of the period (Karamanski 1984). It is the happy ending to the heroic *Boys' Own* adventure (Hall 2005). The viewer is linked in an expression of the indomitability of the human spirit. Most expeditioners in the Heroic Era endured privation, but few photographs captured the effects of it as well as Figure 35, taken by an amateur. It encapsulates the contemporary idea of Antarctica as a crucible, putting men to the ultimate test and bringing out the best in them.

Erik Ekelöf

Erik Ekelöf (1875–1936) took his medical degree at Uppsala University in 1898. He was recruited to the expedition as medical officer and bacteriologist, and was the first bacteriologist to carry out an Antarctic ecological study on a seasonal basis (Ekelöf 1908; Sieburth 1961), demonstrating the presence of bacteria, yeasts, and fungi in the soil and air at Snow Hill Island. Little other information survives about Ekelöf. Lewander (2007, p. 182) states that he had a bad temper, possibly related to an alleged drug addiction. After the expedition he published a number of studies, married, and served as physician in provincial centres of Sweden.

Bodman's photograph of Ekelöf in Figure 36 depicts him with the microscope, defining his occupation of bacteriologist and strongly evoking the science discourse that underpinned the expedition.



Figure 36: Ekelöf at the microscope (Photo: Bodman)

(Source: Nordenskjöld & Andersson 1905, p. 497)

The expedition hut

Only two of the non-Anglophone expeditions of the Heroic Era erected huts in Antarctica. The Swedes were the first to do so. The other was Framheim, ‘home of the Fram’, built by the Norwegians.⁴¹

The photograph of the hut or winter station at Snow Hill (Figure 37) is probably by Ekelöf. The Manuscript Department of the University Library, Gothenburg University, holds this image in one of three photographic albums probably compiled by Nordenskjöld, with no indication of the photographer (personal communication, Anders Larsson, University Library, Gothenburg, 22 November 2012). A photograph of the view from the hut by Ekelöf in the 1905 English edition of the book by Nordenskjöld and Andersson (p. 269) has strong similarities to Figure 37: the shore, the basalt hill, the plateau, and the mist. The photographs were possibly taken on the same day.⁴²

⁴¹ The second German expedition attempted to erect a hut, but it collapsed. Four English expeditions built huts in the Ross Sea area between 1899 and 1911. The Australasian Antarctic Expedition built one at Commonwealth Bay in 1911. The Scottish National Antarctic Expedition built a hut in the South Orkneys in 1903. All survive, but the Scots’ hut is in ruins.

⁴² Sobral took a photograph like it (Sobral 1904, p. 207), from almost the same position. It does not have mist, is inexpertly retouched and reproduced very small on the page. He did not discuss it in his text.



Figure 37: Winter station at Snow Hill, 1902–03 (Photo: Ekelöf [?])

(Source: Sepia photographic print, Royal Geographical Society, London)

Photographers often followed the conventions of landscape painting, composing their views with balance, harmony and effects of light in mind (Trachtenberg 1989). It has been suggested that the Antarctic terrain was hostile and resistant to the recasting of European notions of landscape, nature and aesthetic beauty (Spufford 1997; Pyne 2004), but the hazy atmosphere, sombre sea and looming craggy peaks in Figure 37 suggest the romantic pictorialism which pervaded artistic representations of European landscape of the time (Barr 1997). Ekelöf seems to have liked to take wide-angle photographs of land- and icescapes, a number of which are included in Nordenskjöld and Andersson (1905). He may have been influenced by F.W. Stokes' work, or by photographs by Nansen, whose work was often infused with lyricism (Barr 2000).

A comparison with Stokes' painting (Figure 30) shows that behind the photographer of Figure 37 a great glacier entered the sea. The fresh water obtainable from the glacier was one of the chief reasons for choice of the site, which unfortunately turned out to be fiercely windy. Stokes' description of the site emphasised its colours: the azure, turquoise and cobalt blues of sea and ice, the cliff 'a deep yet grayish purple and madder-brown' (1903, p. 6 of 7). The photograph, in sepia, has an austere beauty of its own, capturing a strong sense of isolation. The viewer also draws from it an appreciation of the courage, dedication and endurance required to live in this bleak setting.

The hut was a modified version of one that had been used on a Greenland expedition a few years earlier, a traditional Swedish house with horizontal and vertical sawn timber beams and studs, covered with tongue-and-groove boards. The 25 m² main frame was prefabricated in Stockholm. The foundation beams were laid out with the help of the ship's carpenter and crew, who also set up the gable and wall studs. The rest of the work was completed by the six expedition members who would remain in it. The hut had five rooms: a kitchen, three bedrooms and a central workroom. Unlike other Antarctic huts, no distinction was made in accommodating the leader and other 'ranks' of expeditioners.⁴³ There was an attic under the roof. The outside walls were covered with tarred felt (Goldberg, Wiklander & Capdevila 2001).

Expedition huts were, in every way, very special places. They provided more than shelter; they were workplaces, and were a home away from home for long periods. Expeditioners' verbal descriptions and photographs of huts attest to the 'resilience of the human desire for "homely" places' (Hains 2002, p. 76). The Snow Hill men put family photographs and pictures of pretty girls on their walls (Lewander 2001).⁴⁴

⁴³ No such distinction was made either in the other Scandinavian hut, built by Borchgrevink's British Antarctic Expedition, whereas some of the British huts reflect traditional social structuring (Pearson 1992).

⁴⁴ The continuing unique significance and value of huts as historic sites was acknowledged in the first Antarctic Treaty Consultative Meeting in 1961. In 1972 they were formally recognised under Historic Sites and Monuments. The Madrid Protocol, signed in 1991 and in force since 1998, includes guidelines for designation and management of the sites within its comprehensive framework for the environmental protection of Antarctica (Antarctic Treaty Secretariat 2007).

The ship, *Antarctic*, had a darkroom, but Nordenskjöld does not indicate one in his plan of the hut. There is no mention of a darkroom, either, in Goldberg, Wiklander and Capdevila (2001), which details restoration work carried out at the hut. However, Sobral mentions ‘bottles of developer’ (1904, p. 112, my translation), indicating darkroom work. Of course, a blanket-lined cupboard, such as the British Antarctic Expedition had at Cape Adare (Lambert 2004), would have sufficed.

Far less surprisingly, there is no darkroom space indicated on a diagram of the improvised stone hut erected at Hope Bay (Duse 1905, p. 57). When they left the ship to head for Snow Hill, the three men were not expecting to have to stay on land, but Duse took his large-format camera, also ‘two small Kodaks, with all the plates and films’ which were lost early in their enforced stay (Nordenskjöld & Andersson 1905, p. 434).⁴⁵ Drawings supplement the shortage of photographs in the Hope Bay section of the narrative by Nordenskjöld and Andersson, and some of these are very dramatic. Captain Larsen took photographs of the crushing of the *Antarctic*, which presumably were developed later. Dr Fred Goldberg believes films were developed in Buenos Aires by the newspaper *La Prensa* (personal communication, 5 March 2012). He visited the newspaper to look in the archives, but these had been largely destroyed during times of civil unrest and he did not find any Swedish expedition photographs.

Documenting science

The expedition took many photographs documenting science and its scientific activity. This study has already discussed Nordenskjöld’s photograph of the iceberg (Figure 32) and Bodman’s of Ekelöf at the microscope (Figure 36). Bodman’s photograph of the Snow Hill glacier (Figure 38) illustrates its regular horizontal stratification.

⁴⁵ Duse photographed the building of their hut at Hope Bay.

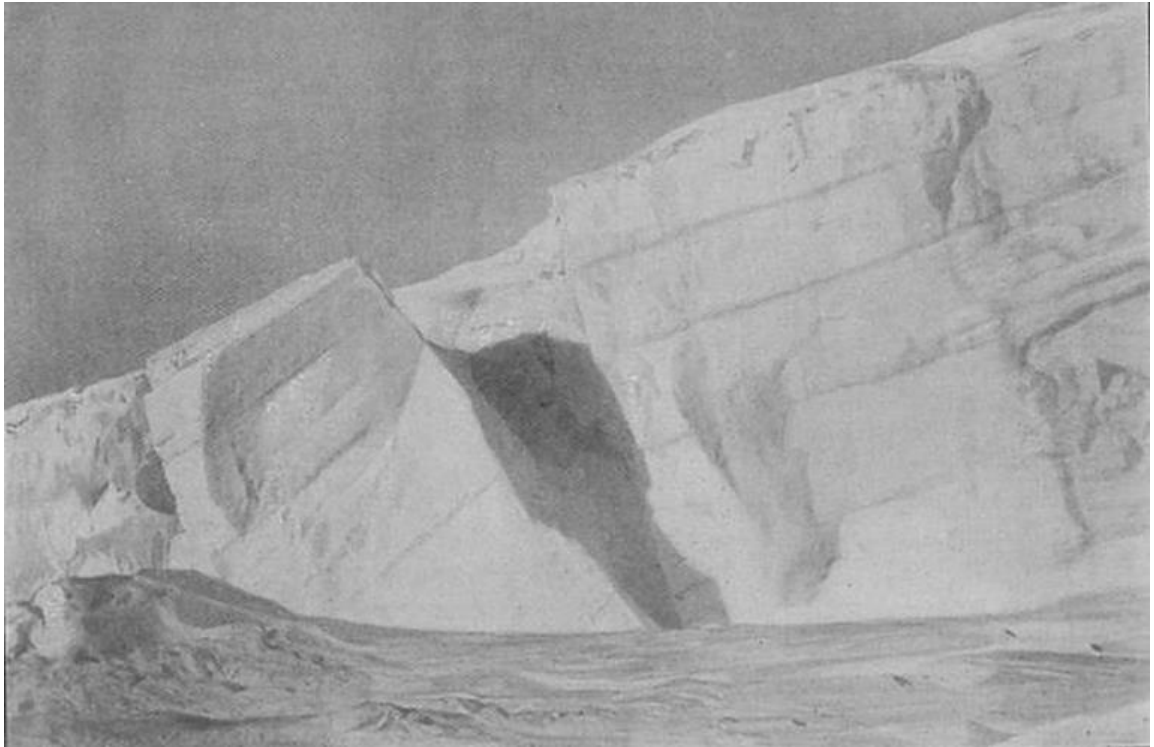


Figure 38: The perpendicular termination (Chinese wall) of Snow Hill glacier, projecting into the sea. (Shows the regular névé stratification.) (Photo: Bodman)

(Source: Nordenskjöld & Andersson 1905, p. 167)

While the scientific basis of the photograph is made clear by Nordenskjöld's caption, the image nevertheless merges Bodman's scientific gaze with an emotive and aesthetic one. It has not been possible to access any writings by Bodman.⁴⁶ However, Nordenskjöld's narrative contains a number of emotive and aesthetic references to ice, including those of Carl Skottsberg, the botanist, youngest of the scientific team, who wrote chapters XVII to XXIII of the narrative:

... for us [the ice] can never lose its charm. How heavy and grey it lies amid storm and mist; how dead, how gloomy! How it glitters, as with a thousand diamonds, in the full flood of sunlight ... What tinges of blue in a hundred shifting shades ... how entrancingly cold and silver-clear beneath the bewitching glimmer of the moon. Vain is every attempt to stand unmoved in the presence of the majesty of the Ice-World. What is there, what can be there, more calculated to call forth overpowering emotions in the human breast? (Skottsberg, in Nordenskjöld & Andersson 1905, pp. 521–522)

Skottsberg had remained with the ship, but he speaks of the ice's emotive impact on all the expeditioners. It is likely that Bodman, too, was not unmoved by the glacier he

⁴⁶ Dr Fred Goldberg, Swedish Polar Institute, Lidingö, has Bodman's diary in his possession. It would be interesting to investigate this source.

was photographing in Figure 38. The image evokes not only the discourse of science; the face of the glacier, diagonally filling the photograph, has the glitter and the gloominess mused on by Skottsberg, and also a sense of irresistible force.

Among the most important scientific findings of the expedition were fossils (Stilwell & Long 2011), including well-preserved fossil leaves, and Nordenskjöld's narrative contains drawings made from specimens brought back to Sweden, for example, Figure 39.

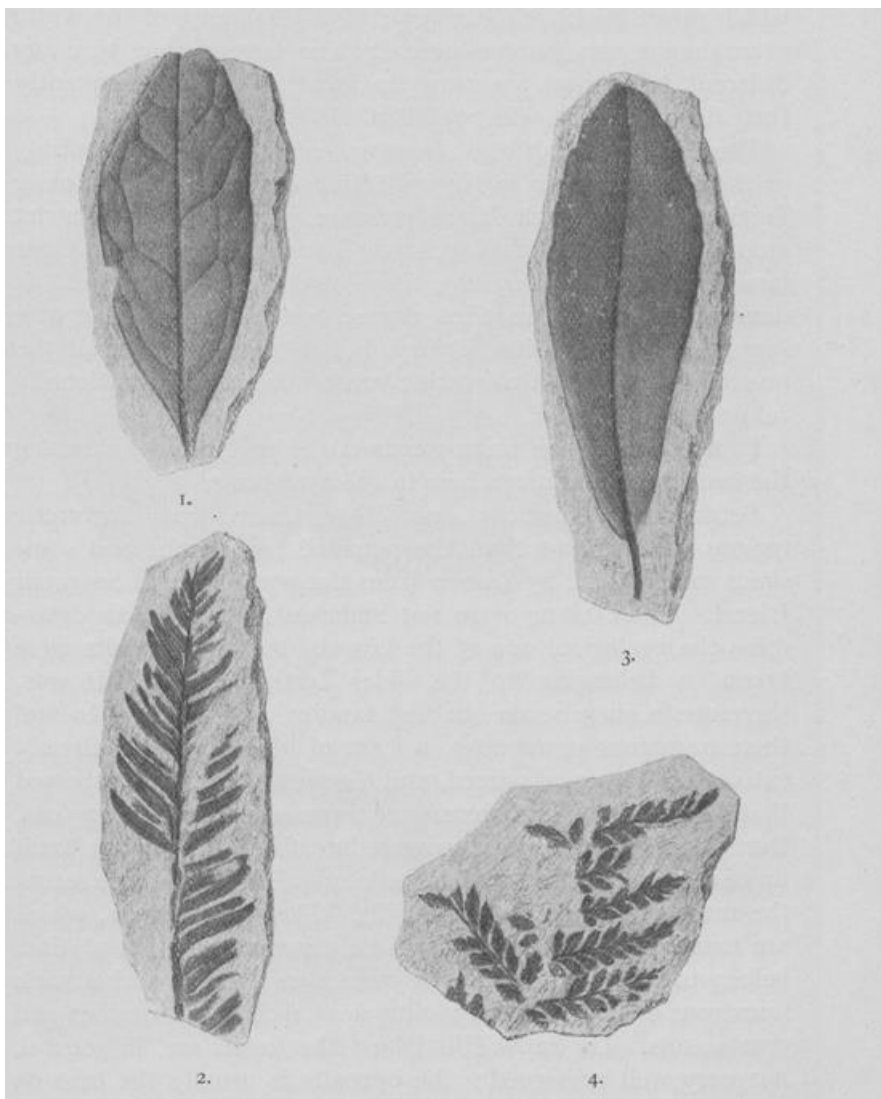


Figure 39: Tertiary plant fossils from Seymour Island (drawings by Professor A.G. Nathorst)

(Source: Nordenskjöld & Andersson 1905, p. 249)

Alfred Gabriel Nathorst (1850–1921) was a Swedish Arctic explorer, geologist and palaeobotanist. He wrote a brief paper on Nordenskjöld's plant fossils (Nathorst 1904), concluding that the Antarctic Peninsula had once been a subtropical environment (Walton 1987). He also placed at Nordenskjöld's disposal (Nordenskjöld & Andersson 1905, p. 248) drawings which were used in the Swedish Expedition narrative and attributed to Nathorst. However, it is known that between 1885 and 1921 Nathorst employed two graphic artists, Carl Hedelin and Thérèse Ekblom, to prepare illustrations for his publications (Grímsson 2011), and the drawings in Nordenskjöld's narrative may well have been by one of these artists. Their work has been described as having 'extraordinary beauty and highest precision' (Grímsson 2011, p. 723)—art meeting science, from the title of Grímsson's chapter about them. Thus the drawings of fossils found by the Swedish Expedition can be linked with the art of the German Deep Sea Expedition, and with photographs taken by members of other Heroic Era expeditions, where a merging of the scientific gaze with an emotive and aesthetic gaze occurs.

Rescue and publicity

All the members of the expedition were rescued by an Argentine Rescue Mission commanded by Captain Julián Irizar aboard the *Uruguay*, which brought them back to Buenos Aires, where they were enthusiastically welcomed. The *Boletín del Centro Naval* of Buenos Aires published articles about the rescue (Irizar 1904) and also published speeches given by Nordenskjöld and Sobral in December 1903. The news spread all over the world.

Artists' impressions of the meeting with Irizar were imaginative. In one newspaper illustration (*Le petit journal* 1903), Nordenskjöld is depicted as vigorous, outfitted like a northern hunter, very different from the man as represented in Figures 31 and 34. The discourse is that of explorer as hero: the quintessential brave individual who has travelled far, pitted himself against powerful forces, survived and transcended, returning in triumph (Sörlin 2002), a construction happily used by the press (Riffenburgh 1993), seeking a thrilling story for readers. The representation explicitly

connects the expeditioners with patriotism and hardship: the Swedish flag flies proudly over flimsy tents, in the background the ship *Antarctic*, resurrected from the deep, is heavily iced. Nordenskjöld's own understanding of himself and his expedition was very much at odds with such a representation. An almost comically understated illustration by artist E. Lange, presumably done under Nordenskjöld's direction and reproduced later in the expedition narrative (Nordenskjöld & Andersson 1904, p. 374; 1905, p. 505), could not be more marked.

Nordenskjöld quickly provided *The Times* of London with a lengthy article which was widely reprinted in newspapers in other countries. An Australian newspaper prefaced the article with a comment linking the Swedes' experience with romance and adventure, daring bravery, hardiness, and Nordic culture:

[It] reads like a romance. It is rich in dramatic incidents and situations, in perilous adventures, and records of hardships bravely borne. Throughout their long and trying sojourn in Antarctica the hardy Norsemen appear have displayed a degree of fortitude and daring enterprise that recalls the best traditions of their race. (*Advertiser* 1904a, p. 6)

Nordenskjöld's article itself is not constructed in heroic mode, though it is evocatively written: 'The climate was once mild, and ... there existed then large forests of leaf-bearing trees, where birds sang and strange large animals fed on the herbage' (*Advertiser* 1904a, p. 6). Nordenskjöld, by then faced with the swollen costs of the expedition, quickly came to an awareness of the need for more drama in representations of it. A 1905 letter to his English translator Edward Adams-Ray about an article for *The Pall Mall Magazine* says: 'You would greatly oblige me by writing it as dramatically as you can' (Bonhams 2001–2010, n.p.). However, he did not necessarily show a sense for dramatic impact in all of the photographs he chose for his narrative. Like those of the first German expedition, the portraits of Nordenskjöld and his team show them in keeping with the academics they were (for example, the very formal photograph of the group before departure from Gothenburg, in Nordenskjöld and Andersson 1905, p. 1).

The narrative of the expedition was published in Sweden and Germany in 1904, with an English version in 1905. Much of the expedition's scientific data and many specimens had been saved, and the results of the research were published over the following two decades, with photographs. Antarctic research in botany, glaciation history, meteorology, climatology, and zoology were all greatly influenced, while the expedition's identification of the first Antarctic fossils had an important legacy for paleontology and understanding of plate tectonics (Stilwell & Long 2011).

Nordenskjöld and other members of the expedition did much to disseminate their story and knowledge, providing scholarly journals, newspapers and popular magazines with articles on the progress and later the outcomes of the expedition (Lewander 2007). After the rescue, Nordenskjöld conducted a series of public university lectures (Elzinga 2001), many delivered overseas, with 'a remarkable collection of stereopticon views' as illustrations (*Harvard Crimson* 1906). Forty of these were published in 1907 with the title *Polarvärlden och dess grannländer* (The polar world and its neighbouring countries). A second edition of this popular illustrated work appeared in 1909, with a German translation the same year (Elzinga 2001), and a French one in 1913 (Zimmerman 1929).

There are few English-language secondary sources about the Swedish South Polar Expedition. An early review of Nordenskjöld and Andersson (1905) merely said that 'most of the illustrations are from good, clear photographs' (Adams 1905, n.p.). Photography was not considered at all in Nordenskjöld symposia in Sweden in 2001 (Elzinga et al. 2004) and Argentina in 2003 (Rabassa & Borla 2007). A 2002 article by Lewander finds that the expedition was represented, through misrepresentation and omission, as a more successful one than it was in fact. Photography, again, is not considered, though the selection of photographs for the published accounts of the expedition certainly played a role in the representation of it. Captions of illustrations in the narrative by Nordenskjöld and Andersson (1904) assist in constructing an expeditionary atmosphere of easy good humour, partly through their use of plural

personal pronouns and a mild sense of humour.⁴⁷ As Lewander (2002) found, this representation was not entirely truthful.

Comparison with other expeditions' photographers

As in the narratives of the *Discovery* and *Gauss* expeditions, those of Nordenskjöld and Andersson give no consideration of the act of photography, and no details of the photographic apparatus used. The Swedish photographers, however, attempted to convey something of the emotional aspect of exploring Antarctica. Sweden's historical engagement with the Arctic, and Nordenskjöld's connection to the Arctic through his uncle and his own prior experience, may have provided the background for them to do this.

Lack of heroic status in Sweden

The expedition leaders' scientific achievements were applauded, but the men were not seen as heroes by the media in their own country. The two factors seem to have resulted in an absence of collective memory of Nordenskjöld's expedition (Lewander 2003). The quest for polar heroes may no longer have been a strong feature in early twentieth-century Sweden, in marked contrast to the attitude of an earlier generation. Nordenskjöld's uncle had been highly honoured as one of Scandinavia's new Vikings, painted in 1886 by artist Georg von Rosen in a conscious piece of heroic portraiture (Forselles-Riska n.d.), on the ice, with his ship *Vega* in which he had explored the Northeast Passage. Great celebrations had welcomed his return from that voyage. Similarly, for a later generation, the 1930 homecoming and funeral of the remains of the three Andrée Expedition members was a national event marked by huge crowds and an oration by the king (Sörlin 1999)—as Riffenburgh (1993) has said, the dead hero is the most potent. At the time of Otto Nordenskjöld's Antarctic

⁴⁷ For example: 'Our four-footed comrades. Våra fyrbenta kamrater', 'Our festive Christmas table. Vårt festligt dukade julbord', 'Our new-found comrades on their arrival at Snow Hill. Våra nyfunna kamrater vid framkomsten till Snow Hill' (see Figure 35), 'Out on the ice floes penguins chat in the dusk. Ute på isstyckena hade pingvinerna en pratstund i skymningen', 'Before we started on our way a photograph was taken of the entire staff. Innan vi begåfvo oss i väg togs en fotografi af hela personalen'—there were only six staff in all (see Figure 34) (Nordenskjöld & Andersson 1904).

expedition, Sweden, facing the loss of its Norwegian territory, had been seeking a new sense of national identity, but the Arctic, not the Antarctic, was where Sweden had 'an extended, extra-territorial space of consciousness' (Sörlin 1999, p. 109) with a history of exploration and heroism.

However, Nordenskjöld's expedition was much acclaimed for its strength and manliness by the contemporary foreign press. International press coverage represented the explorers as 'young Nordic men equipped with the appropriate character for missions in the polar regions' (Lewander 2002, p. 103). In recent times, the expedition has been similarly praised, for example, by Sir Vivian Fuchs in his Foreword to the 1977 English edition of Nordenskjöld's narrative.⁴⁸

The Swedish expedition did not make a territorial claim in Antarctica.⁴⁹ Jacobsson (2004) has argued that Sweden's failure to claim territory was due to ignorance and indifference. But it may also have been because of the private and scientific nature of the expedition, the Swedish government having paid only (and only partly) for the publication of scientific results (Lewander 2002). The expeditioners themselves had no territorial aims, not even hoisting their flag until two and a half months after landing at the winter station site. It was May 1 1902, Sweden's spring celebration day, and they flew the flag for observance of the occasion rather than nationalism.

The 1901–03 expedition heralded modern whaling in the Southern Ocean, Captain Larsen starting the first coastal station on South Georgia in 1904–05. On the initiative of Nordenskjöld and Andersson a committee was appointed in 1913 to draw up plans for an Anglo-Swedish South Polar expedition back to the Peninsula, to leave Europe in August 1915 (Palander & Nordenskjöld 1914). The expedition never eventuated, due to the First World War. The Swedish Polar Research Secretariat today operates the Wasa and Svea research stations in Dronning Maud Land in Antarctica.

⁴⁸ In Sweden, there has been recent promotion of the expedition. In 2012 an exhibition of photographs and artifacts was presented at the Grenna Museum, which honours Swedish research activities in the Arctic and Antarctic (Grenna Museum n.d.). A full-scale replica of the Snow Hill winter station was built in the grounds.⁴⁸ The exhibition was titled 'Brave Men'.

⁴⁹ The only formal claim to Antarctic territory during the Heroic Era was made by Great Britain in 1908, with other nations making claims later.

Summary

Many photographs were taken by various expedition members, but photography is rarely mentioned in their writings. Nordenskjöld, and very likely others on the Antarctic expedition, were familiar with the illustrations in books about the Arctic by his famous uncle and Nansen, and Frederick Cook's photographs from the *Belgica*. The Swedes reported their field emotions in Antarctica, with sensations of the sublime, and their photographs show something of these emotional responses.

'Ways of seeing'

Nordenskjöld, Bodman and Ekelöf were all scientists, and all were seeking photographic subjects in line with the scientific nature of the expedition. Their 'ways of seeing' were affected, however, by their different backgrounds. Nordenskjöld had experience of expedition photography, though his experience in remote locations did not prepare him for the sense of alienation he described when confronted with the sublime in Antarctica. Bodman and Ekelöf knew only Sweden, and it is not known how much photographic experience they had.

Representations of exploration in Antarctica

Nordenskjöld's narrative included many photographs of topographical features, wildlife, fossils and scientific instruments, which kept the scientific representation of the expedition in the reader's mind. The photographs represent the scientists as the academics they were, but also capture tensions and joy and the beauty of Antarctica. Nordenskjöld was not bound by sponsoring obligations in his representation of the expedition, and seems to have pleased himself in the selection of photographs for publication. Later, he came to realise that dramatic depiction was important, most importantly for financial reasons. Upon rescue, international press reports focused on the heroism, bravery and fortitude of the men, linking these qualities with their Nordic ethnicity. The survival story lent itself to discourses of masculine adventure and bravery; the photographs far less so, although Bodman's photograph of the Hope Bay survivors does evoke those discourses. In Sweden, the expeditioners have not been seen as heroes: they did not represent themselves as such, and the nation's

extended, extra-territorial space of consciousness was in the Arctic, not the Antarctic.

***First French Antarctic Expedition (Français)*⁵⁰**

Dr Jean-Baptiste Charcot (1867–1936), ‘an uncommon man of diversified knowledge and great energy’ (Drygalski 1937, p. 129) and the founder of contemporary French polar research (Malaurie 1989), led two expeditions to the Antarctic. Both had significant scientific and geographic results, which later appeared in a series of publications by the Institute of France. On his return from each expedition Charcot received a hero’s welcome for his exploration and research.

Charcot had wanted to join the navy, but in deference to his father, Jean-Martin Charcot (1825–93), a renowned neurologist, had trained instead as a medical doctor with particular interests in progressive muscular atrophy and cancer (Teive, Munhoz & Simões 2012). He also had interests in the arts, with connections to prominent literary families, and himself marrying (unhappily and briefly) the granddaughter of Victor Hugo. His father died in 1893, leaving the son a rich man able to pursue his own ambitions. Driven to live up to his father’s name, he wrote that he could not expect to be his equal: ‘I feel a need to find fame elsewhere’ (quoted in Raraty 2004, p. xiv). As well as a lifelong love of the sea, the son was motivated by a yearning for adventure. In his youth he had loved Jules Verne’s novels. He began with voyages to the North Atlantic and one inside the Arctic Circle. In later life he pondered on the attraction of polar regions for him:

I have felt for a long time now that in the midst of [their] desolation and death I had a more vivid sense of delight in my own life. But now I feel that these regions make a kind of religious impression on one. Here is the Holy of Holies, where Nature reveals herself in all her dreadful power . . . The man who forces his way into these regions feels his soul uplifted. (Oulié 1938, p. 96)

During World War One, Charcot was commissioned in both the French and English navies, and after the war he was made a Commandant (Malaurie 1989). In his later

⁵⁰ The primary sources examined for this study of the first French Antarctic Expedition are the published narrative by Charcot (1905, 1906, 2004), an appendix report by Pléneau on photography (1906), the diary of the expedition (Charcot 1908), photographs reproduced in the aforementioned publications, and copies of photographs obtained from the University of Bordeaux, Musée d'ethnographie. Secondary sources about the expedition mostly refer only superficially, if at all, to the work of photographers.

years he continued polar research in the Arctic, at his own expense. He died when the *Pourquoi Pas?* sank in a storm off Iceland in 1936.

The first expedition

The first expedition of 1903–05 was privately funded, partly through the generous support of the national daily *Le Matin*, the proprietor of which was Charcot's brother-in-law. There was some government support in the form of two naval officers' salaries (Lewander 2003), and Charcot, who could call on considerable political influence, persuaded the authorities to recognise it as the official 'Expédition Antarctique Française' under the patronage of the President of the Republic. It was thus represented from the start as a national expedition. Discussions of plans for the expedition framed it within the discourse of the race to the South Pole:⁵¹

The South Pole will thus be attacked from Victoria Land by the English, Enderby and Kemp Land by the Germans, the Weddell Sea by the Scots, King Oscar Land by the Swedes and Graham Land and Alexander I Land by the French. (French Academy of Sciences, quoted in Raraty 2004, p. xvii)

This captured the interest of the public as well as politicians, but in fact, only the English had the intention of attempting to reach the Pole.

The French expedition, including six scientists from various disciplines, undertook a comprehensive scientific program, wintering off the west coast of the Antarctic Peninsula in 1904 and charting previously unknown coastlines. Nineteen volumes of scientific results were published in the years 1906–1908. Charcot published a narrative for the general public in 1906, containing around 300 illustrations, mostly photographic. It was considered an entertaining book (Maurie 1989), but was unfortunately not translated into English until 2004.

Engineer Paul Pléneau (1869–1949) did much of the photography, but Charcot showed interest in it too, taking photographs himself, and noting the type of camera

⁵¹ In line with this, Charcot titled his narrative of the expedition *Le Français au Pôle Sud*.

used for some of the photographs in his narrative. He had Pléneau write a brief account of the photographic work (1906).



Figure 40: French Antarctic Expedition, 1903–05

Pléneau is on the left in the back row; Charcot is in the centre, front row.

(Source: Charcot 1906, p. xvii)

Paul Pléneau

Nothing is known about how Pléneau might have envisioned Antarctica before going there, nor about its effect on him, but, like Charcot, he had an early yearning for the sea and adventure. Born and raised in Bordeaux and Soulac, a seaside town in southwest France, he also had wanted to enter the navy but was discouraged by his family (Fouquet 2012). Instead he did military service, then began checkered tuition in engineering at the Ecole Centrale des Arts et Manufactures in Paris, receiving his

certificate six years later in 1895, and moving back to Bordeaux to work as an engineer of agricultural machinery. By 1902 he was again in Paris, managing an engineering company specialising in steam engines and pumps, and enjoying theatre life. But he had seen an article about Charcot's plan of that time to go to the North Pole, and to this he signed on as engineer: 'This man was leaving on the kind of adventure I yearned for. I could not let a chance like this pass' (quoted in Fouquet 2012, p. 47, my translation). The destination was changed to Antarctica, the intention initially being to search for the lost Nordenskjöld expedition, but also for reasons that probably included added value—'In the south, in contrast with the north, one was bound to discover something new' (Raraty 2004, p. xvi)—and Pléneau sent Charcot an often quoted telegram: 'Where you like. When you like. For as long as you like' (quoted in Fouquet 2012, p. 47, my translation).

Charcot described him thus:

Pléneau is the man you want for these kinds of adventures, strong and sturdy above the average, with unfailing good humour and wit, a joker who can also take a joke well. He accepts all hardship, deprivation and physical pain with a wonderful attitude. (1906, p. 236, my translation)

... a man who didn't know the meaning of fear. (quoted in Lecoq 1936, p. 4, my translation)

During the expedition Pléneau proved to be very versatile, helping out with many of the scientific activities (Emmanuel 1967). It is not known if he had much photographic experience, but photography became his responsibility. After the expedition, he turned again to his engineering career, which took him to Russia and Manchuria. He returned to France with the outbreak of World War One in 1914, joined up as a second lieutenant and was chief observer of the photographic section of the Fifth Army stationed near Rheims (Club de généalogie de Soulac sur Mer n.d.), using the skills he had honed in Antarctica. In 1915 he was promoted to lieutenant, married, and was then sent back to Russia to manage aviation factories. After the

war he returned to civilian engineering in Paris. His life appears to have been a full one, and he maintained a lifelong friendship with Charcot.⁵²

The account Pléneau wrote for an appendix of Charcot's narrative of the expedition is enthusiastic about photography, stating that it had become a highly valuable aid in all branches of science. In particular, Pléneau writes of its usefulness in the expedition's activities concerning topography, zoology, geology and meteorology. He looks forward to the advent of colour photography for its greater realism: 'Its wonderful depiction of this fairyland of ice will be a revelation. The eternal black and white people usually imagine will be replaced by a lavish spectacle illuminated by thousands of lights shining in the sky' (Pléneau 1906, p. 460, my translation).

The expedition had numerous cameras, the preferred lens being an Anastigmat developed by the Demaria brothers to correct astigmatism or distortion. For extended coastal views Pléneau used a stereo-jumelle twin-lens 9 x 18 cm camera with built in binoculars, and a film camera with rotating lens. The expedition also had lighter cameras which could be taken on journeys. These included two Richard verascopes (similar to the camera in Figure 41) which simultaneously exposed two plates from slightly different angles, the images then being placed into a special viewer to create a three-dimensional effect. They also had two Kodaks, easy to use and of insignificant weight with films changeable in daylight, a Gaumont Block-Notes, an early vest pocket strut folding camera for 4.5 x 6 cm film plates, and a Joula Sinnox for 9x12 plates. During the 24-hour daylight of summer the darkroom was constantly busy (Pléneau 1906).

⁵² In 1928 Pléneau embarked with Charcot in the *Pourquoi Pas?* to search for Roald Amundsen, who had disappeared in the Barents Sea while on a rescue mission, but news of Amundsen's wrecked plane ended their voyage (Club de généalogie de Soulac sur Mer n.d.).



Figure 41: Verascope camera

(This camera, similar to that used on the French expedition, was owned by W.S. Bruce, Scottish Antarctic Expedition 1902–04.)

(Source: Glasgow Digital Library)



Figure 42: Viewer for stereoscopic plates

(Source: Louis Gain Legacy, Musée d'Art et d'Histoire Marcel Dessel de Dreux 2009)

Pléneau mostly used a hydroquinone and metol developer, but found Cristallo also gave good results, with the Lumière formula valuable for its small volume and dense consistency. He had difficulties maintaining the temperature of tray water for washing off plates, and fresh water was of course very scarce. Drying the glass negatives was a delicate process, which he achieved in a cramped space by the stove.

Many of the photographs in Charcot's account of the expedition (1906) are reproduced on a small scale, detracting from their impact. In 1906, however, Pléneau gave 146 stereoscopic glass plate negatives to the Musée d'ethnographie de Bordeaux, now part of the University of Bordeaux, where they remain an important collection, digitised and online (University of Bordeaux 2007).⁵³ The examples shown in this study come from that collection.

The ice fairyland metaphor

Pléneau's description of Antarctica as a 'fairyland of ice' ('pays féérique des glaces') echoes the reflections of other explorers. This was not the fairyland of children's stories, more the 'other world' of folklore. It was linked to the yearning for adventure: 'the call of the unknown—the longing for the land of Beyond, the divine force deeply rooted in the soul of man ...' (Nansen 1927, p. 20, quoted in Hastrup 2007, p. 791), and was also an aspect of the 'fascinating interaction between art and science, fact and fantasy' (Andrews 2007, p. 66) in representations of polar exploration. The idea of polar voyagers crossing a boundary into a mythical and mystical land recalls the imagery in Coleridge's *Rime of the Ancient Mariner* and Doré's engravings mentioned on page 27 of this study. It had been a recurring idea in Arctic narratives, with the language of the supernatural used along with that of the sublime (McCorristine 2010). Nansen's seminal narrative of his 1893–95 Arctic expedition had included expressions such as: 'a fairyland—a land of dreams' (1897, p. 101) and 'a fairy tale from another world' (p. 577). Descriptions like these and others flowed into the shared cultural model (Gee 2011) which inevitably influenced

⁵³ Pléneau's photographs are also used in a 50-minute documentary film, *Jean-Baptiste Charcot: La passion des glaces*, a reconstruction of the expedition directed by Joël Foulon (Foulon 2004).

Antarctic explorers' interactions with the scenes they encountered there (Wråkberg 2007).

Arctowski wrote of a 'fairy-like scene', reflecting that Antarctica was like a different world, never before described even in fables (1901a, p. 155). Cook also wrote of a dreamy, fairy-like scene (1900, p. 351), and Nordenskjöld wrote of 'a fairy veil of mist' and 'icebergs ... resembl[ing] white castles in an enchanted city' (Nordenskjöld & Andersson 1905, pp. 170, 158). Charcot used the term 'féérique' ('fairy', 'magical' or 'enchanting') a number of times in his narrative, and Amundsen later wrote of a 'fairyländ of blue and white' ('eventyrland i blaat og hvitt', quoted in Irving 2011, p. 181, where 'eventyrland/fairyländ' also has connotations of adventure). The metaphor, related to romanticism, evokes the powerful sense of enthrallment often experienced by polar explorers.

Photographs attempted to capture this compelling sense of enchantment. Of those examined here, Cook's and Arctowski's photographs of *Belgica* (Figures 6 and 7), and Cook's photograph of midnight in midsummer (Figure 9) suggest it. Pléneau's remarkable photograph in Figure 43 evokes the quality of fable. The ship appears as if being transported on the ice to another world.



Figure 43: *Français* in the pack ice around Wandel Island, 1904 (Photo: Pléneau)⁵⁴

(Source: Glass plate negative, Univ. Bordeaux, Musée d'ethnographie)

The photograph was taken on February 25 1904, near Wandel Island, where the expedition wintered. Charcot described the ice floes as ‘a maze of islets’ (1906b, p. 54). *Français* was a relatively small schooner, emphasised in this image. Its position is highly precarious. The crew knew that Nordenskjöld’s *Antarctic* had been caught in the ice, sinking early in 1903, a year before the photograph in Figure 43 was taken. It is a photograph infused with apprehension communicated by the unique view. Charcot was evidently inspired by it to take a similar photograph of *Pourquoi Pas?* in

⁵⁴ A reproduction of the photograph appears in Charcot’s book (1906b p. 59), regrettably small on the page, there retouched with ink and gouache (Mission du patrimoine photographique 1997).

the pack ice on his second expedition (Charcot 1911b, facing p. 108). Pléneau's photograph, taken at closer range, is the more dramatic of the two.

For practical reasons, the iceberg in Figure 44 is the last of the iceberg motifs that will be presented in this study, although they continue to feature prominently in the photography of other expeditions. Pléneau's photograph is a fitting one with which to close discussion of the motif. It evokes again the idea of Antarctica as 'a gateway to previously unimagined spaces' (Leane 2004, p. 153). The scene is glowing but hazy, the iceberg arch a mystic portal approached by the explorers' whaleboat: the 'fairyland of ice', enticing, nebulous, dangerous, drawing them in—the dangers of Antarctic exploration given metaphorical resonance in a photograph.



Figure 44: 20 m high arch in an iceberg around 50 m high (Photo: Pléneau)

(Source: Glass plate negative, Univ. Bordeaux, Musée d'ethnographie)

In his narrative, Charcot captioned this photograph 'Our Arc de Triomphe' (1906, p. 258), with reference to the Paris landmark. On his second expedition, he photographed another beautiful 'Arch of ice' (Charcot 1910, p. 179), using it at his 1910 lecture to the Royal Geographical Society (Charcot 1911a) as well as in his narrative. He wrote: 'One can never grow tired of this Antarctic architecture, it is so varied and unexpected, now graceful and now grand' (Charcot 1910, pp. 179–180). His photograph has similarities to Pléneau's in Figure 44, but again it is the less dramatic for not having been taken at closer range.

Patriotism

Patriotism was important to Charcot. He later wrote that he loved his country 'to the point of frenzy', and with 'admiration and adoration' (quoted in Hoisington 1975, p. 324). He named his first expedition ship *Français*: 'We represent our country and we do not have the right to fail,' he wrote in his narrative (1906, p. 3, my translation). On the Fourteenth of July 1904 the expedition celebrated France's national day, playing the Marseillaise on the gramophone, firing their small cannon, draping the tricolour around the photograph of President Loubert in the saloon, and decorating the ship with flags (Charcot 1906).

The goal of international cooperation

However, Charcot had his own beliefs about nationalism and exploration in the frozen regions: 'Beyond the Polar Circle, there are no Frenchmen, no Germans, no English, no Danes: there are only people of the Pole, real men' (quoted in Oulié 1938, p. 141). His idea of manliness for polar regions was, of course, not his alone: Lieutenant Duse, of the Swedish South Polar Expedition (Lewander 2001, p. 112), and Nansen, writing about Amundsen (1912, p. xxx), alluded to the same qualities, as did many others. Charcot's 'people of the Pole', however, adds a note of supranational

collegiality. He deliberately chose French staff and crew for the expedition,⁵⁵ but he viewed polar exploration as an international, cooperative, scientific enterprise (Hoisington 1975), and credited De Gerlache, Bruce, Scott, Shackleton, Nordenskjöld and Drygalski with the advice they provided for his own expeditions (Charcot 1911b). On board *Français* were books about earlier expeditions, and the *Belgica* photographs, taken in the area of Charcot's expedition, were consulted (Charcot 1906).

In the years after the expedition, Charcot was active in international discussions at the International Congress for the Expansion of the World's Commerce at Mons in September 1905 ('International Congress for the study of the Polar Regions' 1906), and at the first International Polar Congress in Brussels in 1906 (Mill 1907). He also lectured at the Royal Geographical Society in London in 1905 (Charcot 1905) and 1910 (Royal Geographical Society 1911).⁵⁶

The penguin motif

Penguins were photographed intensively by Heroic Era expeditions. As highly specialised birds of the Antarctic, Southern Ocean and other southern regions, they were of particular interest to contemporary science. Charcot included many photographs of them and their natural behaviour in his narrative. But men were captivated by the creatures and often also represented them in anthropomorphic ways, as little humanoids. The Scottish National Antarctic Expedition (1902–04) took photographs of penguins being serenaded by bagpipes, and Shackleton's *Nimrod* Expedition photographed them in 1908 listening to a grammophone. Before *Nimrod*, the first French expedition also photographed them listening to grammophone music (Figure 45).

⁵⁵ There was one exception, P. Dayné, an Alpine guide, was Italian, though of French ancestry (Charcot 1906). On Charcot's second expedition, an exception was Van Acken, the second steward, who was Belgian, taken on board at Punta Arenas (Charcot 1911b).

⁵⁶ France continues international cooperation in Antarctica today. France has two bases, Dumont d'Urville in Adelie Land (on the opposite side of the continent from where Charcot explored) and Concordia Station, also in East Antarctica, on the Antarctic Plateau. Concordia is operated by scientists from both France and Italy.



Figure 45: Penguins listening to the gramophone (Photo: Pléneau)

(Source: Glass plate negative, Univ. Bordeaux, Musée d'ethnographie)

Charcot described the scene:

I had them listen to 'Open your blue eyes, my darling' [sung by opera singer] Lassalle ... and the penguins appeared to appreciate the great artist's talent, for one of them attempted to get into the gramophone, probably to hear better. (Charcot 1906, pp. 272–273, my translation)

Though something of a scientific experiment, the episode was high in fun value. For readers who viewed the photograph in Charcot's narrative (p. 273), it would have evoked amusement and fascination.

The birds are Adélie penguins, named for his wife by an earlier French explorer Jules-Sébastien-César Dumont D'Urville in 1840 (Ainley 2002). Penguins became instantly locatable icons of Antarctica and engaging publicity items. H.G. Ponting used a

mascot toy penguin to promote his lectures about Scott's last expedition (Millar 2011). The anthropomorphism of penguins continues in images in the twenty-first century.⁵⁷

Penguins occur in photography from other expeditions in this study: as specimens in Figure 13; in Figure 20, showing habitat; in Figure 24, as part of the scenery; in Figure 52, with a French photographer; and in Figure 65, with a Japanese crew member. Penguins were killed and dissected for science, or killed for food or fuel. In Figure 53 they are chick and embryo specimens. In Heroic Era photography generally, as in Antarctic photography since, penguins are prolific, toddling regardlessly and endearingly into camera view, and becoming an integral part of the visual discourse of Antarctica. More than any other motif, their representation differentiates Antarctic imagery from that of the Arctic. Photographs of penguins are part of an 'Antarcticism'—analogous to the 'Arcticism' of Ryall, Schimanski and Wærp (2010)—where images of the natural world, reproduced, naturalised, and taken for granted, come to represent discourses within which expectations of the Antarctic are formed.

Dogs

Dogs, an introduced species, became something of an icon of polar exploration in their own right. Their presence provided explorers with assistance in their work, and often special friendships (Walton & Atkinson 1996). They were frequently photographed, singly, or in groups, or with men.

Dogs have been hunting companions to Eskimo or Inuit peoples in the Arctic for thousands of years (Peplinsky 1996), and Europeans used dog-drawn sleds in Arctic exploration throughout the nineteenth century. Dogs were first used in Antarctica by Carsten Borchgrevink's British Antarctic Expedition of 1898–1900, and subsequently

⁵⁷ Anthropomorphism has become a common film technique for making the unfamiliar knowable and drawing in the viewer. The 2005 motion picture *March of the Penguins* used the technique to become an extremely successful commercial wildlife film.

served on all Heroic Era expeditions.⁵⁸ The dog motif occurs in this study in Figures 24, 57, and in Figure 46 below. These photographs depict dogs in their roles in exploration, polar success, and as pets.

Charcot wrote that his dogs were half-wild, half-civilised. Their great fault was their persistence in killing many penguins. Charcot described each of them in his narrative. They learned to open the hatch in the saloon, and would come there begging for food.



Figure 46: The *Français* saloon. Our huskies asking for food from the hatch. (Photo: Pléneau)

(Source: Glass plate negative, Univ. Bordeaux, Musée d'ethnographie)

Figure 46 is another photograph intended to evoke amusement in viewers, but it also made a discursive connection with them. The expedition, though represented in

⁵⁸ Dogs were banned from Antarctica under the 1991 Protocol on Environmental Protection.

heroic terms in photographs such as Figures 43 and 44, acquired through images such as Figure 46 a context of domesticity, and a representation on the level of ordinary people and their inherited ways of being and valuing.

Using the photographs: slide lectures and publications

On return to France, the minister of the Navy presented Charcot with the knight's cross of the Legion of Honour, and the expedition was hailed by the press as a national triumph (Hoisington 1975).

Glass stereo positive slides were made to be used in lectures, showing topography, caves, icebergs, expedition life, scientific studies and activities, penguins and the ship (Wayfarers Bookshop n.d.). While spending a few days with Pléneau at his home in Soulac, France, Charcot presented a lecture in aid of a local charity organisation, using lantern slides of images created by Pléneau. It was the first of innumerable lectures (Club de généalogie de Soulac sur Mer n.d.; Oulié 1938). Charcot was well aware of the value of illustrated lecturing. His father had been among the first to use visual aids in his public lectures (Hall 1997; Didi-Huberman 2003).

The tone of Charcot's 1906 narrative of the expedition is strongly reflective of his personal response to the Antarctic. The content reveals a man of culture and sensitivity, and his descriptions of the scenery are lyrical and emotionally charged (Raraty 2004). Unfortunately the long delay in translating it into English restricted its accessibility and also that of Pléneau's photographs contained in it.

Summary

Many photographs were taken, mainly by engineer Paul Pléneau, and included in Charcot's narrative of the expedition, along with an enthusiastic report on photography as an aid to science.

'Ways of seeing'

Pléneau was an engineer, trained in the discipline of an applied science, but he was a man with a yearning for adventure. He was moved by otherworldly aspects of Antarctica, a mystical impression reflected in some of his photographs and derived partly from a shared cultural model from narratives and photographs by polar explorers across nationalities, which he could have learned about from the library on board. The scientist in Pléneau became enthusiastic about photography's value to science.

Representations of exploration in Antarctica

Charcot had a shrewd understanding of publicity (Merle des Isles 2005) and a keen sense of the kinds of photographs which would enhance his representation of the expedition. They blend scientific themes with adventure, patriotic pride, camaraderie and domesticity. Penguin and dog photographs present the iconic status of the native bird and the introduced explorer animal, and are a means of enhancing human interest in representing the expedition.

Second French Antarctic Expedition (Pourquoi Pas?)⁵⁹

Charcot's second Antarctic Expedition (1908–10), heavily supported by the government and also by the public (Raraty 2004), further charted the west coast and islands of the Antarctic Peninsula and carried out a comprehensive scientific program. His ship this time was the *Pourquoi Pas?* ('Why Not?'), his fourth ship of that name, which had for some time been a motto in Charcot's life, linked to a personal flag he flew on his ships: black and white divided in half diagonally, with a black question mark on the upper white triangle near the hoist (Raraty 2004).

Among the 1500 books on board the *Pourquoi Pas?* were scientific works and travel books which would certainly have included narratives of other Antarctic expeditions illustrated by the photographs of Cook, Nordenskjöld and others. Albert Senouque, a physicist, was in charge of scientific photography. Others also took photographs, including Louis Gain, the expedition's botanist and zoologist, and Charcot himself. The three are shown in the photograph in Figure 47.

⁵⁹ The primary sources examined for this study are the published book by Charcot (1910, 1911b), his article (1911a), the appendix report by Albert Senouque (1910), photographs reproduced in the aforementioned publications and in a scientific report of the expedition (Anthony & Gain 1915), and copies of photographs obtained from the Institut océanographique (Fondation Albert Ier de Monaco), the Collection Mimdi, and the Bain Collection, Library of Congress. Secondary sources about the expedition mostly refer only superficially, if at all, to the work of photographers.

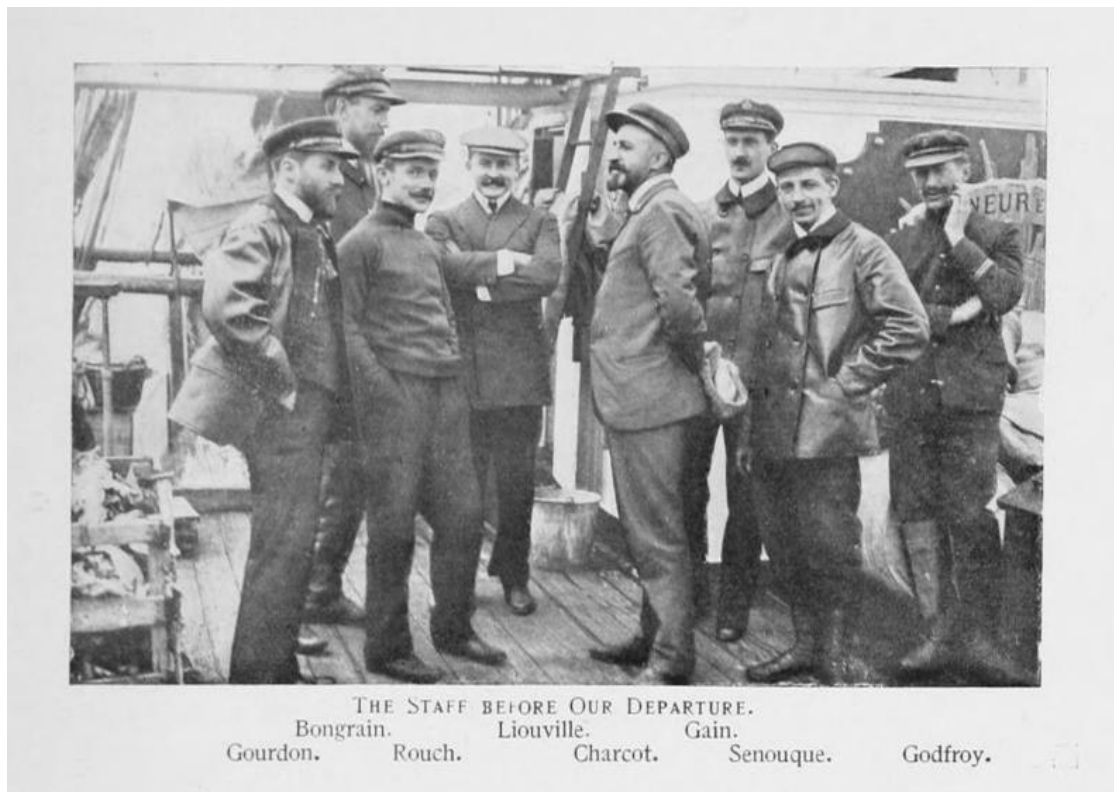


Figure 47: French Antarctic Expedition, 1908–10

(Source: Charcot 1911b, facing p. 24)

Albert Senouque

Before the expedition, Albert Senouque (1882–1970) gained photographic experience observing and photographing solar eclipses in Sumatra and Spain (Merle des Isles 2010). In Antarctica he took many glass plate photographs of wildlife and topography (Musée national de la Marine 2012).⁶⁰

The report Senouque wrote (1910) for Charcot's account of the expedition is very different from Pléneau's. The four paragraphs are narrowly technical. Senouque wrote that during the voyage he took photographs of coastlines using a 200 mm focus lens mounted on a hand-held 13 x 18 camera body. On land he used the same lens in a phototheodolite arrangement of two cameras, the plates of which could be brought into exactly the same plane. From the differences between two pictures taken simultaneously, measurements of the region were obtained. Mounting a

⁶⁰ The Musée's inventory lists its 22 photographs with Senouque as presumed author. They were shown in the 'Charcot: les passions des pôles' exhibition in Paris in 2006.

telephoto lens on the same apparatus gave him detailed photographs of coasts, mountains and glaciers more than twenty miles from the winter base. Biological specimens were photographed immediately, using a vertical view camera with a 120 mm lens giving a magnitude of four times.

A series of positive glass plates (slides) was made during the expedition, which Charcot later used in lectures (Chapelay 2006). The expedition also took some cinematographic film. Through his father, Charcot knew Louis and August Lumière, who had invented the first practical cinematograph in 1895. The Lumières were financial supporters of Charcot's expeditions, also providing the cinematographic equipment. Arnold (1971, p. 49) quotes Senouque: 'I did not make any suitable movie films. The camera was very cumbersome. It never worked well because the films were always jamming'. However, an official film of the expedition was released in France in 1911 as *Incidents of the Antarctic Expedition of Dr Charcot*. All that remains of the original approximately 20-minute release is a 12-minute fragment (National Film & Sound Archive 2012).⁶¹

After Antarctica, Senouque continued to use his photographic skills, accompanying Eugene Renaux in his 1911 Michelin Grand Prix winning biplane flight (Michelin 2010–2012), and photographing also from the 1913 *Icare* balloon flight, which passed 10,000 metres (Bienaimé 1913). A 1914 balloon flight in which he participated reached 34,000 feet (Recks n.d.).

Louis Gain

Louis Gain (1883–1963) has been described as a pioneer of documentary reportage (Musée d'Art et d'Histoire Marcel Dessal de Dreux 2009), with a parallel scientific and photographic career beginning in Antarctica and extending to Africa and Central Asia. Described as a man of culture, humour and adventure, drawn to the study of natural science since childhood but also a lifelong natural athlete (Musée d'Art et d'Histoire

⁶¹ A twelve-second clip from the footage, showing the bow of the *Pourquoi Pas?* making its way through ice floes, can be seen on an archival film website (Critical Past 2011).

Marcel Dessal de Dreux 2009), he later served as director of the National Bureau of Meteorology (Emmanuel 1967).

On the Antarctic expedition, Gain kept a notebook illustrated with photographs, in which he described the dreamlike experience of sailing in the gloom among icebergs of 'pale mauve and deep violet' (Autissier 2003, p. 241). His appreciation of the effects of colour led him later to experiment successfully with Autochrome plates. He presented a museum in Dreux, his provincial home, with 4,000 glass-plate, stereoscopic and Autochrome photographs taken between 1908 and 1918 (Ministère de la Culture et de la Communication n.d.).

Many of his black and white photographs were included in Charcot's narrative of the expedition (Charcot 1910, 1911b). Charcot also used mostly Gain's photographs at his Royal Geographical Society lecture in 1910 (Charcot 1911a). Other photographs by Gain were published for the first time in a recent article by solo yachtswoman Isabelle Autissier. There is a private collection of Gain's photography, Collection Mimdi, held by Marie-Isabelle Merle des Iles, heir to the Gain and Jules Rouch estates, who has written a book about the members of the expedition (Merle des Iles 2010). The book contains 150 handsomely reproduced photographs, but many are unattributed. Also included is a CD with 70 anaglyph photographs to be viewed through the 3D glasses provided, presumably in an attempt to recreate the experience of viewing stereoscopic plates. Photographs from the various Gain collections have featured in recent travelling exhibitions in France (Musée d'Art et d'Histoire Marcel Dessal de Dreux 2009).

Jean-Baptiste Charcot

Charcot is known to have been a talented painter of seascapes (Bogousslavsky 2004). With this artistic sense, he had an awareness of the importance of the role of photography, and the French editions of his narratives of expeditions acknowledge the various photographers, and also sometimes note the cameras and the kind of

plates used. Many of the photographs were taken by Charcot, with a Kodak (Charcot 1910).

Patriotism and adventure

The translated version of *The Voyage of the 'Why Not?' in the Antarctic*, by Philip Walsh, has no appendices and fewer photographs than the French version, though the images are reproduced on a larger scale. It is 'considered something of a classic' (Riffenburgh 2006, p. 373). On its publication in 1911, a *New York Times* article described Charcot:

[a] purely scientific explorer whose quiet but not the less arduous work is not apt to be recorded in song and story, and whose own record of that work therefore makes no wide appeal to those interested in polar exploration solely from its adventurous side.
(n.p.)

The assessment is only partly true, for Charcot loved adventure and his accounts of both expeditions describe dramatic times battling the ice and appalling weather conditions. There is also humour and emotion. These aspects are reflected in the photography he selected for his books.

Figure 48 is a photograph taken at the departure of the *Pourquoi Pas?* from Saint-Malo, where it had been purpose-built. The photograph captures the public interest and excitement generated by the expedition. In the crowd, men and boys make up the majority, indicating the appeal to a masculine sense of adventure, but there are also many women, which may attest to the romantic attraction of exploration. The dignitary being assisted on board is thought to be Paul Doumer, a member of the Chamber of Deputies,⁶² who named the ship at the launch ceremony. Other photographs of the occasion show many flags. 'The launch was perfect,' wrote Ernest Gourdon to his mother (quoted in Merle des Isles 2010, p. 9, my translation). 'For us on the bridge, it was a very moving moment to feel this wooden hull come to life.' The resumption of French involvement in the Antarctic, begun by Admiral Dumont

⁶² Doumer was elected president of the republic in 1931.

d'Urville's expedition (1838–1840) and continued by Charcot's earlier expedition, was drawing on the emotional power of national identity.

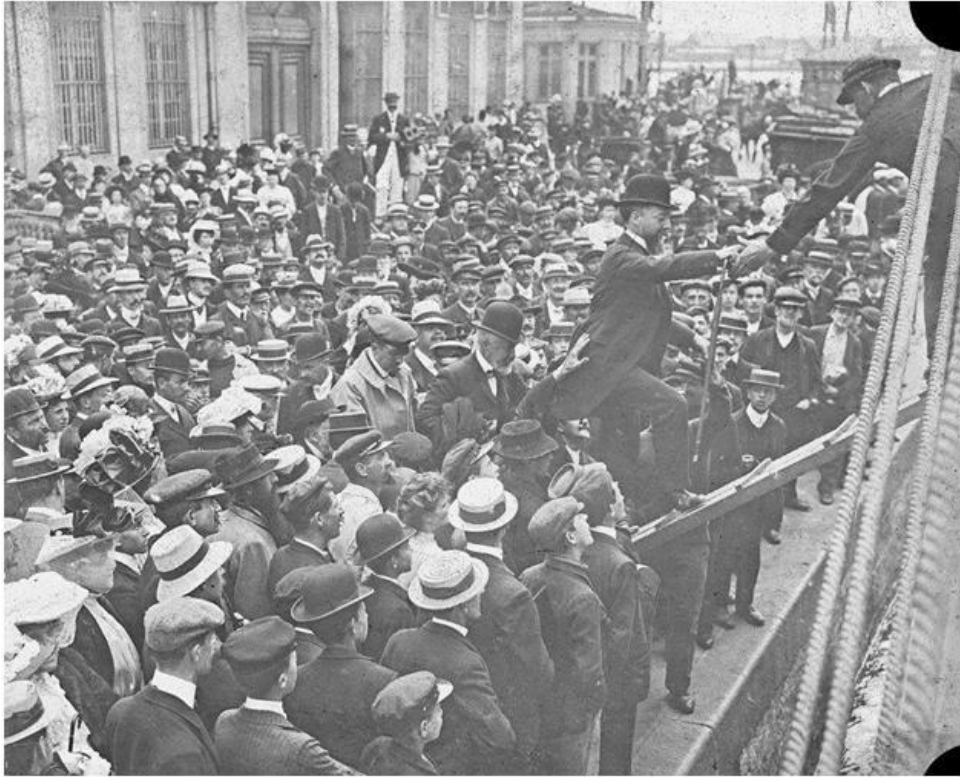


Figure 48: Departure of the *Pourquoi Pas?* from Saint Malo 1908 (Photo: Gain)

(Source: Glass plate negative, Institut océanographique, Monaco)

Like the *Français*, the *Pourquoi Pas?* survived perilous seas in the south. Charcot photographed his ship moving through ice floes (Figure 49).

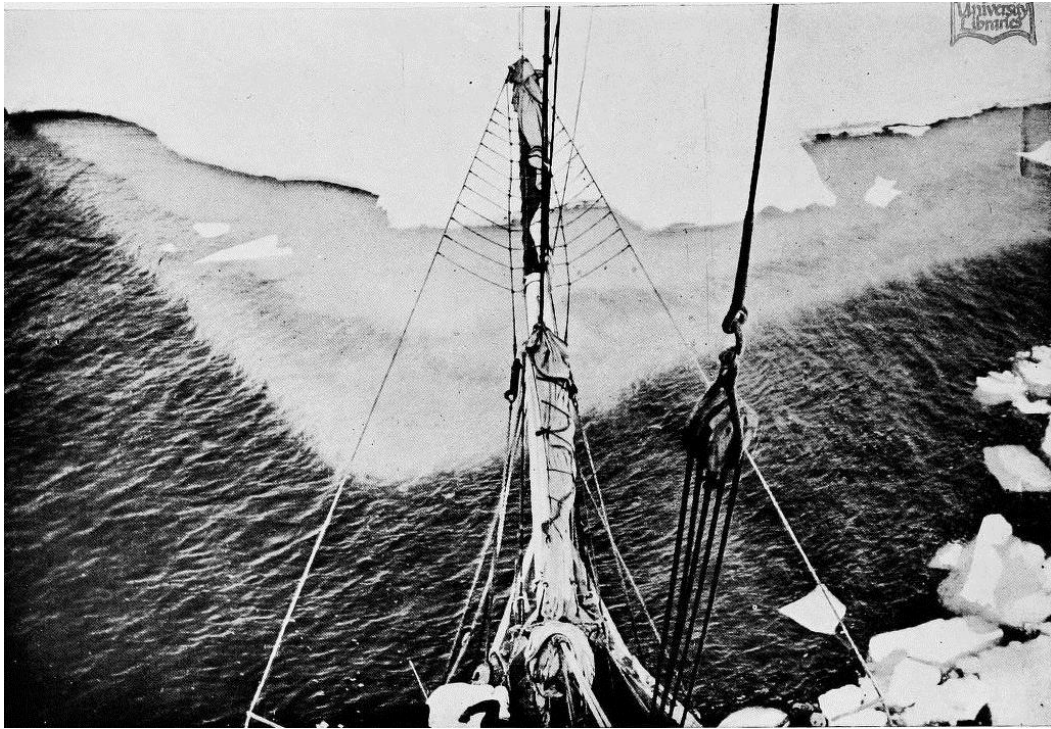


Figure 49: The *Pourquoi Pas?* charging a big floe (Photo: Charcot)

(Source: Charcot 1911b, p. 293)

Charcot could have photographed the ice floe safely from the deck, but by climbing up in the rigging he achieved a point of view which would intensify the viewer's appreciation of the danger: clearly, he wanted an adventurous image. Other photographers also climbed masts for their images. Cook records climbing to the crow's nest for bird's-eye views of the pack ice (1900), and Bodman also climbed high for photographs reproduced in the narrative by Nordenskjöld and Andersson (1904). Ponting was photographed spread-eagled across planks rigged out from the side of the *Terra Nova*, filming the ship moving through pack ice (Ponting 2001, p. 40). The footage he thus obtained in late 1910 has been called unique in its time (Riffenburgh & Cruwys 1998), but some time between late 1908 and early 1910 Senouque had shot footage from up in the rigging as the *Pourquoi Pas?* moved through pack ice (Critical Past 2011)—an example of how lesser known expedition photographers may be overlooked in the literature.

The restricted community and its effects

In Figure 50 the *Pourquoi Pas?* is shown in Antarctica, secured not far from where the first French expedition had wintered.



Figure 50: Our quarters, spring, 1909. The *Pourquoi Pas?* Petermann Island (Photo: Senouque)

(Source: Charcot 1911b, facing p. 166)

Charcot identified the photographer as Senouque (Charcot 1910). Ponting's biographer H.J.P. Arnold criticised Senouque's photography for extreme contrast, lack of tonal range, and poor composition, and claimed that the photographs 'demanded much of the retoucher's art when they were published in book form' (1971, p. 49). An extended view of the same scene in a Louis Gain exhibition catalogue (Musée d'Art et d'Histoire Marcel Dessal de Dreux 2009, pp. 4–5) is acknowledged as retouched, but retouching is not conspicuous in the Senouque photograph. The image has been carefully composed, lining up the main elements—the background mountain range, the middle-ground inlet and the foreground ice mounds—in sections of broad, sweeping arcs that give the photograph a sense of very wide space. Senouque knew the French Alps well, both for their beauty and their dangers (*Advertiser* 1904b), and possibly for their relationship to concepts of

the sublime (Wråkberg 2007). He may have had concepts of the mountain picturesque based on images of them, and may have tried to infuse the photograph in Figure 50 with such concepts.

There is a solitary human figure on an ice mound near the ship, but footprints in the snow indicate the presence of others. The photograph also shows prefabricated wooden cabins erected for meteorology, seismology and other research. The image is attractive, peaceful, but with a strong sense of remoteness.

At the time, Charcot was experiencing sensations of parallel universes:

In spite of myself I look for the familiar outline of the masts of the little *Français*, and I should be in no way astonished to see a human being coming towards me ... It is certain, at least as far as I am concerned, that if 'every separation, even the most looked-forward-to, has its grief,' a coming back, on the other hand, has its sweetness. This impression of a persistence of life at our old winter quarters is so strong that their nearness to Petermann robs this station of its feeling of isolation for me, and I am frequently obliged to make an effort to convince myself that we are really all alone in the Antarctic. (Charcot 1911b, p. 149)

A number of his first expedition members were also with him on the second, but he was missing others: 'our beloved comrades, Matha and Pléneau, who would be with me once more, had not inexorable duty kept them away' (Charcot 1911b, p. 60). The great value of comradeship in polar exploration is a constant theme in the literature. Comradeship offset some of the depression and other tensions inherent in long periods of isolation (Palinkas & Suedfeld 2008). Charcot was well aware of the potential psychological dangers inherent in isolated and restricted groups.

... most of us are watching one another, trying (to use the expression of one of my colleagues) to 'study the psychology of the restricted community' ... It is certain that this life in common, with no possibility of finding distraction from temporary failure of nerves, with no hope of being able to take a meal alone or in other company, has its painful moments ... Characters are made to show themselves as they really are, with their weaknesses or defects no longer under the mask by which ... one hides them in ordinary social life. (Charcot 1911b, p. 210)

The members of the expedition celebrated Shrove Tuesday in 1909 with improvised fancy dress, '... a general masquerade, very merry, though simple' (Charcot 1911b, p.

158). In Figure 51, Louis Gain is second from left at the rear, dressed as an explorer, with rifle and butterfly net (Merle des Isles 2010). Naval officer Maurice Bongrain and geologist Gourdon are also in the picture, and so are R. Paumelle, the mess steward, and Modaine, the cook, indicating an egalitarian spirit in the expedition.⁶³ The photograph, taken by Charcot with a Kodak, is not well focused. It is like a family snapshot, with common attributes of the snapshot as outlined by Batchen (2008): it is taken of friends by an amateur photographer with a handheld camera in order to produce a personal memento; it combines humour with a formality borrowed from the professional studio tradition; the subjects are centred and looking directly at the camera.



Figure 51: Shrove Tuesday masquerade, 1909 (Photo: Charcot)

(Source: Charcot 1911b, p. 159)

The depiction of an occasion of fun and relaxation added an important aspect to the representation of the expedition. Like the dogs at the hatch in Figure 46, Figure 51

⁶³ Not as egalitarian as it might have been: the first names of many crew, including Modaine's, are not given.

made a discursive connection with ordinary people viewing its context of camaraderie and simple fun. 'The greatest merriment prevails,' wrote Charcot (1911b, p. 158), 'and the rest of the day is treated as a holiday'

Charcot had observed, and himself experienced, some illness and depression on his first expedition. There had been very early discord between himself and three members of the scientific team, one of whom was Adrien de Gerlache, who described the situation as unbearable (Lewander 2003). The three men had left the *Français* in Brazil,⁶⁴ and the experience alerted Charcot to the perils of the restricted community on an expedition.

Documenting science

Louis Gain made penguins his research speciality. In Figure 52, he is shown photographing them.



Figure 52: Photographing in Antarctica, 1908–10

(Source: Glass plate negative, Collection Mimdi)

⁶⁴ De Gerlache nevertheless remained a lifelong friend of Charcot (Raraty 1998).

The published scientific results of the expedition consisted of 28 quarto volumes, seven concerning physical sciences, and 21 about life sciences, depicting specimens such as those in Figure 53, photographed on Deception Island, some by Senouque.

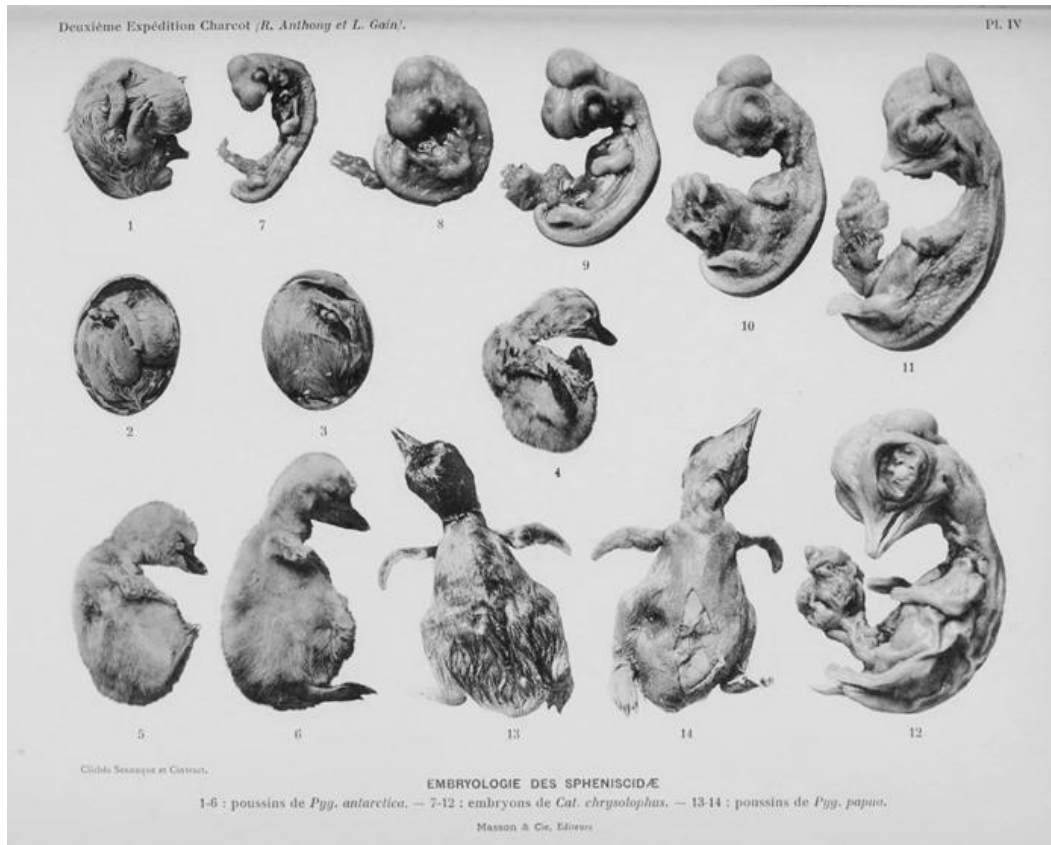


Figure 53: Chicks of *pygoscelis Antarcticus* (chinstrap penguin), embryos of *catarrhactes chrysolophus* (macaroni penguin), chicks of *pygoscelis papua* (gentoo penguin) (Photo: Senouque and Cintract)

(Source: Anthony & Gain 1915, Pl. IV, after p. 28)

There are six plates of such photographs in the 1915 book on avian embryology by Raoul Anthony and Louis Gain, with many drawings from nature done by Gain. The life sciences, then referred to as natural history, have always had a strong visual dimension (Potts 1990). Images have affective power, which ensures that even scientific illustrations can never be purely neutral records. While conveying factual information, they also function within a framework of ideological assumptions about the world they represent (Asma 2001). In the case of the photographs in Figure 53,

there is an assumption of entitlement to kill for research.⁶⁵ The birds are objectified, and the photographer-scientist is able to study them impersonally. The photographs were not intended for the general reader, who might experience some revulsion. Another photograph attributed to Senouque, a grisly image of a leopard seal cut open to reveal entrails and foetus (Musée national de la Marine 2012, numéro d'inventaire 2005.9.8), does not appear to have been published at all.

However, some Heroic Era popular narratives did contain photographs of specimens similar to those in Figure 53. As well as photographs of live wildlife, Cook included photographs of dead penguins' heads and feet (Figure 13) and seal heads and skulls (Cook 1900, p. 281), Chun included a photograph of a *Eudyptes* penguin prior to hatching (1903, p. 277), and Scott's narrative of the *Discovery* Expedition had heads of a sea leopard and a crab-eater seal, with mouths propped open (1905, vol. ii, p. 475). Some of these photographs might be seen by general readers as grotesque, but they also reminded the public of the scientific representation of the expeditions. Charcot seems to have preferred to use live wildlife photographs in his narratives. He included a photograph of seal autopsies in the first expedition narrative (1906, p. 117), but taken at some distance.

Charcot as hero

With his affluent, prominent and professional background, Charcot was the kind of explorer-hero particularly admired during France's Third Republic (1870–1940), in which the middle class was social model and matrix (Hoisington 1975). But the foundation for transforming individual heroism into quests for national glory had been laid by earlier representations of discovery and exploration, when men of science were 'canonised as heroes of the nation' (Terrall 1998, p. 235). Charcot had

⁶⁵ In the modern world, the killing of animals for scientific purposes involves ethical considerations and compliances. In Antarctica and the Southern Ocean, measures have been taken to protect wildlife through the International Convention for the Regulation of Whaling (1946), the Convention for the Conservation of Antarctic Seals (1972), the Convention on the Conservation of Antarctic Marine Living Resources (1982), and the Protocol on Environmental Protection to the Antarctic Treaty, or the Madrid Protocol (1991). Killing for scientific purpose is regulated (Australian Antarctic Division 2011).

earned his place in this canon. The hero stature accorded to him unites the scientific with the patriotic.

Photographs taken during Charcot's two expeditions represent him as having a collegial approach to exploration and patriotic service. He valued camaraderie and shared endeavour, and the photographs at Figures 40 and 47 show him central, but part of the group. There is just a suggestion of a dreamer's or visionary's gaze, seeming to look beyond. Most individual portraits of Charcot do not emphasise the heroic mode: an often reproduced photograph (Figure 54), which appears to have been taken years after the Antarctic expeditions, again has a quiet, introspective, academic air.⁶⁶



Figure 54: Jean-Baptiste Charcot

(Source: glass plate negative, Bain Collection, Library of Congress)

⁶⁶ Another often reproduced image, a low angle shot of Charcot aboard the *Pourquoi Pas?* has been cropped from a wide angle photograph (photographer unidentified) which includes another man. The result of the low angle view and the cropping is a more heroic pose.

When news came of his death in 1936, Louis Gain paid tribute: 'Explorers of the frozen regions concur that Charcot was one of the greatest of them, for his knowledge, his bravery and extraordinary goodness' (1936, p. 221, my translation). Gain also quoted from the preface by Paul Doumer, later president of the republic, to the 1910 edition of *Le Pourquoi Pas? dans l'Antarctique*: '[Charcot] has devoted his life to adding to the renown of his name and to the glory of his country' (p. 244, my translation).

Charcot's body was recovered from the waters off Iceland and returned to France, where he was honoured with a funeral ceremony at Notre Dame Cathedral, attended by President Albert Lebrun. The eulogy (quoted in Hoisington 1975, p. 315) referred to him as 'an intrepid explorer of the polar regions, an apostle of action and knowledge, a sailor and a geographer who had dedicated his life to scientific research for the honor of his country'. He had led a life of scientific quests and seafaring adventure in the service of France, all stamped with his own personality, which was perhaps best epitomised by R.F. Scott, who called him the gentleman of the Pole (Maurie 1989).

Comparison with other expeditions' photographers

The photographers from Charcot's expeditions should be compared with those from the earlier Heroic Era expeditions. Pléneau and Charcot appear to have been more emotionally engaged than Skelton and Philippi, responding to the beauty, mystique and drama of exploration in Antarctica, as well as to occasions of human interest. Senouque and Gain, scientists indefatigably active at field work in Antarctica, were perhaps less interested in responding emotionally to Antarctica in their photographs; their work, however, reflects engagement with beautiful scenes (Figure 50), and sometimes evokes the mystique of Antarctica. 'Clouds round the hanging glacier and floes halted in the channel', by Senouque (Charcot 1910, p. 229) has resemblances to Cook's photograph at Figure 9. Gain's images evoke the excitement of the adventure

(Figure 48) and the drama of the voyage ('Threatening blocks of ice', in Charcot 1910, p. 61), as does Charcot's image in Figure 49.

Summary

Charcot's expeditions were very much involved with discourses of adventure and patriotism.

'Ways of seeing'

The three photographers studied here had varied backgrounds and 'ways of seeing'. Charcot loved adventure and used it to define himself. With his training in medical science and his inborn artistic sense, he had an awareness of the importance of the role of photography on his expeditions. Senouque had travelled widely before the expedition. He knew the French Alps well, and had gained photographic experience doing scientific work in Sumatra and Spain. Gain came to Antarctica as a largely inexperienced man of culture, humour and adventure, passionate about the study of natural science. On the expedition he developed photographic skills to the point where he could later base a career on them.

Representations of exploration in Antarctica

Their photographs represent the expedition as patriotic, scientific, and offsetting the tensions of isolation with occasions of simple fun. As expedition leader, Charcot's approach was collegial. The image represented in photographs of Charcot has a suggestion of the academic strain in a man who was approachable, generous of spirit, adventure-loving and patriotic.

Both Charcot's narratives of his expeditions represented them as scientific. The book of the first expedition included photographs of apparatus and scenes illustrating the scientific aspects of the expedition. It also contained appendices on scientific work in geography, hydrography, meteorology, magnetism, life science and bacteriology, geology, and glaciology. The original French edition of the second expedition narrative was set up similarly (Charcot 1910).

Charcot had a keen sense of his audiences, and in his narratives he made discursive connection with ordinary people, including photographs of camaraderie and simple fun. The contemporary appeal of the photographs lay not only in their depiction of the exploration of a remote and mythical place, but in the discourses of cultural pride which flowed through them. There is a visual language which contemporary French readers would have associated with their inherited ways of being, behaving, and valuing (Gee 1990)—heroic endeavour and patriotic pride, egalitarianism and camaraderie, and a sense of humour.

Norwegian South Pole Expedition (Fram)⁶⁷

Polar exploration in the Arctic had played a role in the consolidation and promotion of nation building in Norway, defining it in relation to Sweden as it approached its independence, which came in 1905 (Eglinger 2010). Roald Amundsen (1872–1928) won the support of polar hero Fridtjof Nansen for his successful Northwest Passage voyage in the *Gjøa* in 1903–06. He then set about raising funds for a North Pole expedition, which was to have scientific goals. He received some funding from the Norwegian government and from private sources, but overall had great difficulty securing financial support and ultimately had to go into debt himself. In 1910, hearing that the North Pole had been reached, he changed his plans to the South Pole. He abandoned his scientific goals (Larson 2011), but kept his new destination secret for a time because of concerns that funding could be revoked.

Antarctica was seen as the last exciting empty space left on maps of the world (Conrad 1924). Important geographically as part of the effort to discover the last terra incognita, the South Pole was also politically significant, underscoring the national rivalries between states in the years leading up to World War One (Robinson 2011). The drama of the race to reach it first was a critical factor in stimulating public interest in expeditions. Amundsen's Norwegian South Pole Expedition (1910–12) had one aim: to be the first to get there.⁶⁸

Amundsen and photography

Amundsen appreciated the value of photography for fund-raising, and made sure sponsors' products were displayed in photographs taken on the expedition. The photograph of the expedition celebrating Midwinter Day (Figure 55) features prominently bottles of the sponsoring Ringnes Brewery (Barr 1997).

⁶⁷ The primary sources examined for this study are the published book by Amundsen (1912), photographs reproduced in the book, and others obtained from the the National Library of Norway, the Fram Museum, Oslo, the National Library of Australia, and the Royal Geographical Society, London. Most secondary sources about the expedition mostly refer only superficially, if at all, to the work of photographers. However, Barr (1997) and Lund (2010) are exceptions.

⁶⁸ Amundsen did, however, include appendices in his 1912 narrative, relating to scientific aspects.



Figure 55: Midwinter Day, 1911⁶⁹ (Photo: Lindstrom)

From left: Bjaaland, Hassel, Wisting, Hansen, Amundsen, Johansen, Stubberud and Prestrud.

(Source: Glass plate negative, National Library of Norway)

It is quite an arresting photograph, with the table and those seated at it providing a vector engaging the viewer by drawing the eye along it to the flags arranged like a shrine at the back. In images, vectors are part of a narrative process (Kress & Van Leeuwen 2006). A story is being told about the expedition and the relationships of its members. There is no hierarchy evident. Amundsen is depicted as one of the group, and partly obscured. As in the case of Frederick Cook, the photographs he chose for his narrative were mostly not focused on himself. Except for Hansen, the men are looking intently at the camera—an image act (Kress & van Leeuwen 2006) establishing contact with the viewer. Their gazes invite the viewer to enter into an imaginary relationship with them. Their expressions are resolute, in keeping with the symbolism of the flags and the associated cultural model (Gee 2011) of loyalty. In his

⁶⁹ The National Library of Norway captions the photograph 'Festmiddag i Framheims stue' (Banquet in Framheim's saloon) (blds_NPRA0644). I have used the caption given to it by Amundsen in his narrative (1912, vol. 1, p. 362).

National flags were also used as part of the decoration for their Christmas celebration (Amundsen 1912, p. 158).

narrative, Amundsen described his men as ‘the brave little band ... that promised to stand by me ...’ (1912, vol. 1, Dedication).

Amundsen’s aim was to make a comprehensive photographic record of the expedition (Barr 1997). His ship, Nansen’s *Fram*, carried a whole library of Antarctic literature, including the ‘excellently illustrated’ books of Scott and Shackleton (Amundsen 1912, vol 1, p. 134). However, Amundsen himself appears to have been uninterested in learning about photography (Lund 2010). In preparation for the expedition, he organised for the men to be taught some elementary photography by one of Norway’s famous professional photographers, Anders Beer Wilse (Lund 2010), but he himself took no lessons. Wilse later wrote that Amundsen was of the opinion that if he took enough pictures, some would be usable. As it turned out, however,

[Amundsen] lost many thousand kroners income, because he did not have proper pictures when he came home. I remember I worked hard to make proper slides for his lectures from the hopeless amateur material he had produced (Witse 1943, p. 141; quoted in Barr 2000, p. 588, in translation from the Norwegian).

The lack of a professional photographer or artist may be one reason why Amundsen’s success failed to capture the public imagination as Scott’s and Shackleton’s expeditions did (Fox 2005). A motion picture was made (Diesen 2009), but it has inadequacies. The original film material is held at the Norwegian Film Institute and the National Library of Norway. It has been inscribed on UNESCO’s Memory of the World Register in recognition of its historical value, but is incomplete (UNESCO 2012).

A number of men took photographs. They appear to have been amateurs, but some were well experienced as expeditioners in frozen regions. Amundsen had been on the *Belgica* Expedition and in the Arctic. Sverre Hassel, Helmer Hanssen and Hjalmar Johansen had been to the Arctic. Because of this experience, and also because the north of Norway lies within the Arctic Circle, the ‘way of seeing’ of these men regarding Antarctica is believed by some to have been very different from the way

explorers from other countries saw it, less alien and threatening (McInnes 2009, p. 210), more of an extension of the home terrain (Huntford 2010).

Olav Bjaaland

Olav Bjaaland (1873–1961), who took many of the expedition's surviving photographs, was a ski champion. Skiing became the national sport of Norway, thanks largely to Nansen's use of skis in his Arctic exploits (Houltz 2010). Bjaaland had no Arctic experience and was from Telemark in southern Norway, where the countryside is scenic but settled, quite unlike the more remote north. He had previously travelled only as far as Chamonix in France, for a ski event (Huntford 2010). The Alps have associations with the 'northern sublime' (Wråkberg 2007), the blend of wonder and dread which many have experienced in polar regions; but Bjaaland's description of his first sight of the Ross Barrier in Antarctica contains similar feelings of strangeness to those previously described by Swedish expeditioners:

It is a strange feeling that grips one as the sight now reveals itself. The sea is still as a pond, and before one stands this Great Wall of China and glitters. Far off, it is like a photograph that has just been developed on the plate.

By letting one's thoughts wander over the surface, one finds oneself in a melancholy mood. (quoted in Huntford 1987, p. 97)

The majority of photographs taken by the expedition are 'situation photographs ... without ... careful compositional elements' (Barr 1997, p. 50). Amundsen's description of one of Bjaaland's photographs (Figure 56), taken on the way to the Pole, is of a length uncharacteristic for his references to photography, but typically he discusses it in the context of overcoming an obstacle.

Bjaaland took an excellent photograph ... which gives a very good idea of the difficulties this part of the journey presented. In the foreground, below the high snow-ridge that forms one side of a very wide but partly filled-up crevasse, the marks of ski can be seen in the snow. This was the photographer, who, in passing over this snow-bridge, struck his ski into it to try the strength of the support. Close to the tracks can be seen an open piece of the crevasse ... The photographer got over the bridge and back with a whole skin, but there could be no question of risking sledges and dogs on it, and it can be seen in the photograph that the sledges have been turned right round to try another way. The two small black figures in the distance, on the right, are Hassel and I, who are reconnoitring ahead. (1912, vol. 2, p. 86)



Figure 56: Hell's Gate on the Devil's Glacier (Photo: Bjaaland)

(Source: Amundsen 1912, vol. 2, facing p. 86)

Figure 56 is one of many of the Norwegian expedition's photographs situated within discourses of strategic planning and preparation, logistics, tactics, objectives and goals achieved. The photograph is one of several which Amundsen reproduced with permission of the *Illustrated London News*, which indicates that he had promptly sold a number of photographs to the press.

Polar success

The Heroic Era's dominant exploratory discourse, the race for the Pole, finds resolution in the photographs Bjaaland took there. On Friday 14 December 1911 he wrote in his diary: 'We reached the South Pole at 2.30 today, tired and hungry' (quoted in Huntford 2010, p. ii). The famous small photograph at the Pole (Figure 57) is the only print in the world taken from the original negatives of the event.



Figure 57: At the South Pole, 1911 (attributed to Bjaaland)

(From left: Amundsen, Hanssen, Hassel and Wisting)

(Source: Photograph, b&w, sepia toned, 7.6 x 12.6 cm, National Library of Australia)

Amundsen listed two cameras among his equipment, but his own tripod one malfunctioned. Bjaaland is generally believed to have taken the photograph with his Kodak camera, the only one taken to the Pole. This was described as a Kodak 3 x 3 inches, adapted for using either plates or films. There were three spools of film and one dozen plates. The expedition's amateur photographs have been described as 'pruned to the basic essentials' (King 1989, p. 151). As Huntford wrote (1987, p. 44): 'Thus it was that the photographic record of the last great journey of terrestrial discovery depended on snapshots, taken in the spirit of a holidaymaker who wanted to bring home a few mementoes.' Nevertheless, for the newly independent nation of Norway, the image of success in Figure 57 was a nationally important one, stamped, engraved, printed and reprinted in books, magazines, films, and on posters and postcards (Lund 2010). It is a strongly symbolic photograph which has been described as 'a masterpiece of simple, striking composition' (Barr 1997, p. 50).

Flag raising

Photographs were taken during the Heroic Era to commemorate the ritual act of flag raising at significant places. The photographs record explorers formally enacting 'sovereignty performances' (Dodds 2011, p. 232)—political theatre performed in the name of patriotism, and within the wider spheres of imperialism and territorial acquisition, for 'in the polar regions, as elsewhere in the world, [explorers] were empowered to act and behave as if they were invested with monarchical authority' (Dodds 2011, p. 233). British expeditions, for example, took such photographs at Cape Adare in 1899, at 'Farthest South' in 1903 and 1909, at the South Magnetic Pole in 1909 and on reaching the South Pole, though second to do so, in 1912.

For individuals and their nations, being first to a place, and planting a flag, meant primacy, stature, and also a claim to possession (Seed 1995). Antarctica had become the object of expansionist geopolitics. Formal rituals were crucial ways for imperial powers to 'demonstrate some degree of control, and desire' (Griffiths 2007, p. 113), but sovereignty performances needed to be made visible to the world. Explorers performed the rituals of spatial possession; photographers textualised the rituals for popular and governmental consumption, performing an important role in the process of Antarctic spatial acquisition (Jacobs 1996; Collis 2004).

As a result of the Heroic Era, discoveries and territorial claims in Antarctica by Britain far outweighed those of other exploring nations (Beck 1983). Territorial claims, while suspended by the Antarctic Treaty, continue to be embedded within the political discourses of claimant states (Rothwell 2010; Dodds 2011), and photographs and films of sovereignty performances remain a strong symbolic part of this.

However, national flags incorporate a broad range of meanings and are rich in emotional connotations. They not only represent the concept of national possession, but encompass the knowledge, values, history, and memories associated with that nation (Eriksen & Jenkins 2007; Butz 2009). Amundsen reported his team's strong emotions at the flag-raising moment:

Pride and affection shone in the five pairs of eyes that gazed upon the flag ...Thus we plant thee, beloved flag, at the South Pole, and give to the plain on which it lies the name of King Haakon VII's Plateau. (1912, vol. 2, p. 122).

Beyond national concerns, the photograph also reflects what Nansen described as 'a victory of human mind and human strength over the dominion and powers of Nature; a deed that lifts us above the grey monotony of daily life ... the triumph of the living over the stiffened world of death' (1912, vol. 1, p. xxix).

Amundsen's slides

Amundsen's first port of call on his return from the Antarctic in 1912 was Hobart, where he gave his negatives to local photographer J.W. Beattie. Printed labels within the glass of some of the first lantern-slides produced say: 'Prepared by J.W. Beattie, Hobart' and 'Colored by T.W. Cameron, 110 Lygon St, Carlton Victoria' (Christie's 2012).⁷⁰

Other slides were made by Anders Beer Wilse. Those which Amundsen used in his lectures were rediscovered in 1986, and Huntford's book, *The Amundsen Photographs* (1987), contains many of the images. The lantern slides show that Amundsen preferred retouched and coloured images for his lectures, which were an important source of income (Lund 2010). He believed colour increased the entertainment value for audiences. He first lectured with lantern slides and film footage in Norway from September 1912. His lecture scripts survive, but there is no indication of how the slides or moving images were integrated into the lectures (National Film & Sound Archive 2012).

⁷⁰ Amundsen needed the slides for lectures. He was in Hobart only thirteen days. It is not clear why two photographic companies were involved in the making of them. J.W. Beattie specialised in magic lantern slides, but T.W. Cameron's colouring service (Hartrick 2003) may have been considered superior. The negatives may have been sent to Cameron to be made into slides and coloured.

Figure 58 shows another of the South Pole photographs, as a print (as used in Amundsen's book of 1912) and as a hand-coloured lantern slide, which he used in lectures.



Figure 58: Images of Oscar Wisting and his dogs at the Pole, 1911 (attributed to Bjaarland)

Left: photographic print; right: lantern slide for lectures.

(Sources: Left: Royal Geographical Society, London; right: the Fram Museum, Oslo)

Photographers, including Frederick Cook and Otto Nordenskjöld, often remarked on the white monotony of the Antarctic scene. The last thing a fund-raising lecturer wanted was an effect of monotony on his audience, and the Amundsen slides must be considered in this context. In the photograph of Wisting and the dogs, the red of the flag and the brown of the sledge flank the focal figure, and colouring has added interest to a featureless sky and to the ice. The colourist has delineated a horizon. The Pole appears as a distinct mound marked by little peaks of ice. For lecture

audiences, the defined image of the South Pole goal, though artificial, may well have been more appealing. Hand-colouring, however, was not pleasing to everyone. Scott's widow, Kathleen, who went to one of Amundsen's lectures, thought it made the photographs look 'faked' (quoted in Huntford 1987, p. 8).⁷¹

Polar heroes

Scandinavian popular interest in polar exploration in the late nineteenth and early twentieth centuries involved glorification of the explorers as individuals (Wråkberg 1999). Newly independent Norway linked the manly exploits and resolution personified by polar explorers to Viking rhetoric as part of its representation of itself as a nation (Houltz 2010). The heroes remain an important aspect of Norway's national image. Amundsen is celebrated at the Fram Museum at Bygdøy in Oslo, along with Arctic heroes Nansen and Otto Sverdrup, and commemorated at Troll, Norway's year-round research station in Dronning Maud Land, Antarctica. Bjaaland is featured in a museum exhibition in his home county, West Telemark (Morgedal 2013).

The representation of Amundsen

Amundsen was an obsessive, lonely figure, sometimes arrogant and impatient (Brown 2012), and a man of strong antagonisms (*New York Times* 1928), who nevertheless could inspire loyalty in his expedition comrades. His approach to exploration was a rational rather than romantic one, focused on geographic discovery and setting records (Elzinga 2012), and on logistics and survival techniques more than on the aesthetic aspects of Antarctica (Elzinga 2007). This 'way of seeing' would have influenced the subjects selected for the expedition's photography, as well as his ultimate selection for his narrative.

⁷¹ The Fram Museum in Oslo has assembled many of the lecture slides in an exhibition with a 163-page brochure, 'Cold recall—Reflections of a polar explorer' (Kløver 2009).

But Amundsen was skilled at publicity generation. In the years following his success at the Pole, he took pains to create for himself a public persona of polar hero, in order to heighten the appeal of his financially lucrative lectures, but also because it was imperative to him that his fame continued (Elzinga 2012). In line with this, he chose the portrait in Figure 59 as the frontispiece for volume 2 of his 1912 narrative of the expedition.



Figure 59: Roald Amundsen

(Source: Amundsen 1912, vol. 2, frontispiece)

He looks very much the polar explorer, on skis, and wearing a wolfskin anorak of Eskimo design. It is similar to that worn by Frederick Cook in Figure 5, and may be the same one Amundsen wore during the *Belgica* expedition (Cook 1900, p. 266). He

gazes away from the viewer, into an icy distance. The pose strongly suggests the visionary explorer qualities of the man, but also the less approachable aspects of his personality: he was competitive, taciturn, stubborn and intractable. He was also always larger than life (Brown 2012), 'the symbol of the self-realised man, a person who takes control of his fate, who bends it to his will' (Cronin 2010, p. 112).

He represented himself in other outfits also. The frontispiece photograph to volume 1 of his 1912 narrative showed him head and shoulders, in profile, in a suit, and looking very serious, perhaps rather academic, which would have appealed to readers seeking something deeper than a 'race to the Pole' book. It is followed by another head and shoulders photograph where he wears a cap resembling a seafarer's, the band embossed (Amundsen 1912, vol. 1, facing p. 1), similar to that worn by other members of the expedition in photographs facing page 50, 92 and 102. Unlike the poses in the other men's photographs, Amundsen's head is turned to the side, his gaze intent, giving him an urgent look. Significantly, however, Amundsen is, if anything, under-represented in the photographs chosen for the book. As well as the portraits of other expedition members, there are many photographs of them engaged in activity. Amundsen was an assertive leader, but at the same time, in the field, he was one of the team. In Figure 55 he is self-effacing; in the South Pole photograph (Figure 57), he is one of the little group, but at the rear.

Frederick Cook and Fridtjof Nansen were continuing influences on Amundsen's life. His own hero status as conqueror of the South Pole was somewhat eclipsed by the intense universal mourning that followed the discovery of the bodies of Scott and his companions a year later. In 1918–20 he led an expedition (which included Wisting and Hansen) to the Northeast Passage in the Arctic, and later made an aerial attempt to reach the North Pole, which failed. In 1926, Amundsen and others (including Wisting and the American polar explorer Lincoln Ellsworth) made the first crossing of the Arctic from Spitzbergen to Alaska in the airship *Norge*. But after the flight Amundsen, at fifty-two, announced that he would undertake no further exploration (Sverdrup 1959), and he was described as becoming embittered and withdrawn (Lüdecke 2011). He disappeared on 18 June 1928 while flying on a rescue mission in

the Barents Sea. He was eulogised in the international press as a modern Viking hero, tragically dead (Cronin 2010). In Norway he was deeply mourned.

Other heroes

Amundsen was not the only member of the Antarctic expedition represented in heroic mode. The photograph of Wisting in Figure 58 shows him with flag, sledge and dogs, in the act of achievement. But Amundsen's representation of Hjalmar Johansen (1867–1913) at Figure 60 is different. Johansen had an impressive background in polar exploration. He had been with Nansen on the unsuccessful dash for the North Pole in 1895–96, when the two men spent nearly a year in a dug-out in the permafrost (Vogt 1961), and he had written an account of the experience (Johansen 1899). He was accustomed, and apparently content, to taking a subordinate place on expeditions, as the title of his book *With Nansen in the North* suggests, but on the South Pole expedition he and Amundsen came into conflict when Johansen accused the leader of failure to look after his people (Albretsen 2003). Amundsen alleged mutiny, and Johansen was dismissed on their arrival back in Tasmania. He did not participate in the heroic reception of the expedition in Norway, and in 1913 he took his own life.

Johansen has been described as quiet but friendly man, physically strong but with a long term weakness for drink (Albretsen 2003). Amundsen included three photographs of him in the 1912 edition of his book: one, an oval portrait on a page with eight others, where he is in profile, his expression serious, and where he is wearing an outfit like the others', including the seafarer cap mentioned earlier; and two photographs of him as a packer, one of which is shown in Figure 60.



Figure 60: Hjalmar Johansen packing provisions, 1911

(Source: Glass plate negative, National Library of Norway)

The photograph shows Johansen at base camp, called Framheim, where passageways and storerooms had been excavated in the snow, 'the assimilation of an indigenous art of dwelling' (Wylie 2002, p. 258). Amundsen described the weighing and packing of a mixture of pemmican and sausage, provisions for the polar journey, in one of these ice tunnels: 'The Crystal Palace at present reminds one strongly of a grocer's and chandler's store ...' (1912, 1, p. 323). Johansen's steady gaze suggests that he is stolidly contented with the task. Figure 60 is a simple situation photograph, technically flawed, but the subject is engaging with the camera, which captures something of the character of the man. Johansen's polar experience would have made him a supportive figure at Framheim. Ironically, his characteristics of stoicism and dedication were probably the causes of his conflict with Amundsen, who did not tolerate interference from other members of the expedition (Lüdecke 2011).

The heroic hunter-explorer

The South Pole Expedition photographs include some of the men as hunters. In Figure 61, an unnamed expeditioner with a knife stands over a seal. Hunting marine mammals has a long tradition in Norway, and was a highly exciting activity for expeditions limited in other forms of physical recreation (Mocellin 1988); but either there was an embedded ambivalence in expeditioners' attitudes to killing, or they preferred to represent themselves as personally against it. Amundsen wrote: 'By nature I am fond of all animals, and therefore prefer to avoid injuring them. Therefore, it is not at all in my nature to go hunting' (quoted in Huntford 1987, p. 89). But the expedition needed seal meat and enjoyed 'exciting seal hunt[s]', with Amundsen laughing at the efforts of hunters to kill crab-eater seals (Amundsen 1912, vol. 1, pp. 177-178).



Figure 61: Seal hunt on the Ross Barrier

(Source: Glass negative, National Library of Norway)

The photograph's situated meaning (Gee 2011)—the specific meaning a word or phrase can take on in specific contexts of use—is triggered by the words 'meat' or 'food' in Amundsen's written texts: the contemporary viewer would have assembled a situated meaning involving justification for the killing. Alternatively, without the trigger of intertextual knowledge, the viewer might draw on the figured world or cultural model (Gee 2011) of the safari hunter standing over his trophy kill for the souvenir photograph, made more dramatic by its low angle. Antarctic seals had no fear of humans and were easily killed, but this is a large animal and the photograph looks impressive. The image combines the polar setting with resonances of the iconic nineteenth-century heroic hunter-explorer figure (Brander 1982).

Comparison with other expeditions' photographers

Amundsen had read Shackleton's *Heart of the Antarctic* (1909), the narrative of the *Nimrod* Expedition (1907–09), published in 1909 with hundreds of photographs ranging across all aspects of the expedition. Lewis-Jones (2008, p. 21) writes, 'More than any explorer before him, [Shackleton] embraced photography as the key to his public fame'. He had more cameras than Amundsen: nine still cameras, including a stereoscopic and one with telephotographic apparatus, a cinematographic camera, and cameras brought along by some of his men (Riffenburgh 2004).

Shackleton's personal approach to photography, like Amundsen's, was somewhat impromptu, but he had an eye for the dramatic and picturesque, which Amundsen and his men seem to have lacked. Gordon (2009, p. 55) writes that Shackleton's landscapes are some of the most interesting photographs from his expedition, 'demonstrat[ing] an eye for unusual ice formations arranged into striking and poetic compositions'. Shackleton included three evocative photographs of ice caves in *The Heart of the Antarctic*. There are landscape photographs in Amundsen's narrative, but none of beautiful landscape details.

Shackleton had constructed his expedition in imperial and patriotic terms, and among the most important photographs in his book were those taken to commemorate flag raising at 'farthest south' and at the South Magnetic Pole. Amundsen's patriotism is also a strong theme in his expedition narrative, which contains a number of photographs featuring flags for decoration at times of celebration, as well as at the South Pole.

At the time when he published his narrative, Amundsen is not likely to have seen Ponting's photographs from the contemporaneous Scott expedition. Lindstrom's photograph of Midwinter Day celebrations (Figure 55) may, however, be contrasted with Ponting's representations of the imperial underpinnings of the British expedition in photographs such as 'Scott's 43rd birthday' and 'Midwinter Day dinner' (Millar 2009), with many flags and banners dominating the background. Figure 55's smaller Norwegian flags might remind the viewer of Norway's more modest status in the world. This was no globally-spread power, but a small country with a proud history nevertheless.

The photographs in Amundsen's narrative are many, wide-ranging, and carefully selected to represent it as a success story with human interest—as well as photographs of the icy landscape, there are many of the men, on deck, digging the foundations of Framheim, sewing, at other work, at recreation, with dogs, trying on leather goggles, individual photographs of the men in various outfits, the cook with cakes, and so on. While they effectively illustrate the book, individually most are not striking photographs which capture the imagination.

Summary

Amundsen appreciated the need for a comprehensive photographic record of his expedition to reach the Pole, but his organisational skills let him down when it came

to photographic equipment. The dominant exploratory discourse of the time nevertheless finds resolution in the photographs his team took at the Pole.

'Ways of seeing'

Amundsen and three of his men had experience in the Arctic, and Amundsen in the Antarctic. The backgrounds of the men and the availability of illustrated polar literature combined with the expedition's goal-oriented and logistically highly organised character to produce photographs that amply illustrated Amundsen's narrative and his lectures.

Representations of exploration in Antarctica

The photographs taken during the expedition assisted Amundsen in his representation of it as efficient and effective, an enterprise of experts. They are situated within discourses of strategic planning and preparation, logistics, objectives and goals. Amundsen was not interested in a scientific context, but purposeful adventure and fervent patriotism are evoked in the images. The landscape photographs in Amundsen's narrative seem to be there only for a functional purpose. Photographs became part of the context for the hero narrative which Amundsen created for himself, but few of the expedition photographs focus on the leader, unlike Ponting's character studies of Scott. Amundsen liked to portray himself as a team-man, and many photographs depict members of his 'brave little band ... that promised to stand by me ...' (Amundsen 1912, vol. 1, Dedication). He was, however, very much the leader, and the volume two frontispiece photograph of himself in furs encapsulates the polar-hero characteristics he wished to represent.

Japanese Antarctic Expedition (Kainan Maru)⁷²

The Japanese had no history of polar exploration, and the Japanese Antarctic Expedition (1910–12) was not a national enterprise. It was the initiative of Shirase Nobu (1861–1946), a former army lieutenant, who petitioned support from his government with reference to Japan's need to establish a modern, scientific image in the world (Stevenson 2011). His plan sparked considerable debate throughout Japan, but no money was forthcoming from the government. The expedition was eventually supported financially by Count Okuma, a prominent nobleman. For Japan, the expedition nevertheless came to mark a pinnacle, 'a statement of belonging: a chance to stand alongside the expanding and exploring nations of the world and compete for the same frontier' (Stevenson 2010, p. 4).

Shirase claimed he had wanted to be a polar explorer since childhood (McInnes 2009). In the years leading up to the Antarctic expedition, he made claims in popular periodicals and speeches, and later in autobiography, of having done Arctic exploration, saying that he had been enthused by a teacher at Buddhist school (Ishifune 2011), and by Sir John Franklin's account of his Canadian Arctic expeditions (Shirase & the Japanese Antarctic Expedition Supporters Association 2011). In apparent contradiction of these statements, Stevenson (2010) found no traces of Shirase's interest in polar regions before 1909.

News of claims by Peary and Cook to have reached the North Pole caused Shirase, like Amundsen, to plan instead for Antarctica. He used Shackleton's *Nimrod* Expedition as a blueprint for his plans, but his Japanese-language sources were newspapers and periodicals, and he was not as well informed as he might have been. The expedition, in the *Kainan Maru* (Southern Pioneer), reached the Ross Sea in 1911 but failed to penetrate the pack ice and had to winter in Sydney.

⁷² The primary sources examined for this study are the published narrative of the expedition (Shirase & the Japanese Antarctic Expedition Supporters Association 2011), photographs reproduced in this book and in another edition (Shirase & Japanese Antarctic Expedition Support Committee 1984), and others obtained from the Shirase Antarctic Expedition Memorial Museum, Nikaho, Japan, and the Royal Geographical Society, London. Secondary sources about the expedition mostly refer only superficially, if at all, to the work of photographers.

Photographs may have been taken by several expedition members, but the two designated cameramen were Miisho Seizō and Taizumi Yasunao.⁷³

Miisho Seizō and Taizumi Yasunao

Miisho Seizō⁷⁴ (1878–1947) was the expedition's medical officer. Taizumi Yasunao (1888–1960) was cinematographer, an assistant cameraman of the Japanese M. Pathé Film Company who had been sent by Count Okuma for the purpose of filming. His experience was limited (Stevenson 2010). Miisho is identified as the photographer of two of the images discussed here. Taizumi was primarily concerned with filming, but is likely also to have taken photographs.

Copies of nineteen photographs taken by Miisho during the expedition's stay in Sydney were given recently by the Shirase Antarctic Expedition Memorial Museum in Nikaho, Akita Prefecture, in Northwest Japan,⁷⁵ to the Australian Museum (2011). Figure 62 shows Shirase and other members of the expedition with some Australians.

⁷³ Miisho and Taizumi are shown as insets in Figure 64.

⁷⁴ The medical officer is listed as Mii in Hamre 1933, and described as a physician. His training, however, was in pharmacology (Shirase & the Japanese Antarctic Expedition Supporters Association 2011).

⁷⁵ The website is in Japanese: <http://hyper.city.nikaho.akita.jp/shirase/>

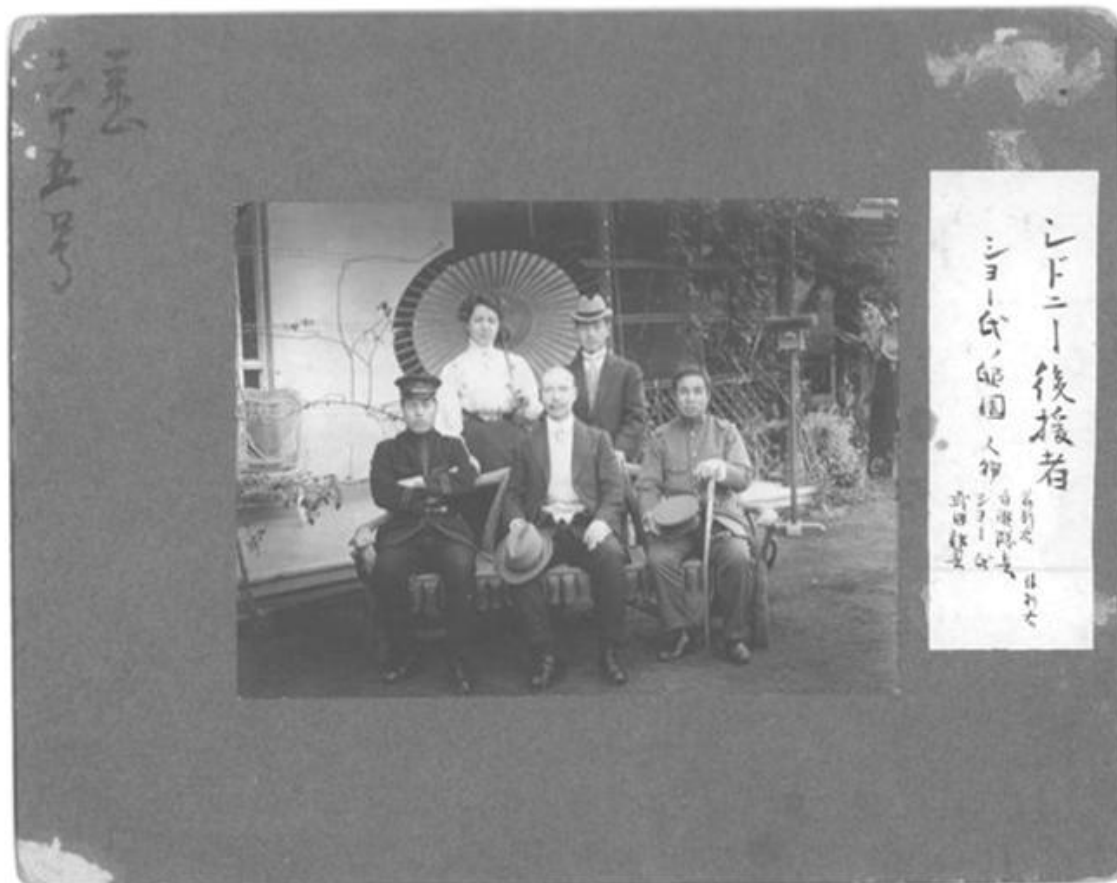


Figure 62: Supporter in Sydney: garden of Mr Show/Shaw [?], 1911 (Photo: Miisho)

Front row, left, Academic Director Takeda; right, Shirase

The expedition had made camp in the Parsley Bay Reserve at Woollahra, where local people appear to have been friendly (Woollahra Local History Centre 2003), but the official attitude was suspicious and hostile, with sentries put on duty (*The Argus*, Melbourne, May 16 1911, cited in Kou 1993, p. 367). *The Bulletin* published a front cover caricature of the expedition, depicting ‘several dubious looking dark-skinned polar explorers standing on Sydney’s coast ... in heavy coats, smirking with hats pulled low, and in the background, one of their number ... taking photographs of the bay’ (Stevenson 2011, p. 241). Fortunately, Professor T. Edgeworth David, a veteran of the *Nimrod* Expedition, was able to intervene on the Japanese’ behalf, and as a result, tensions eased markedly. Shirase later wrote to David: ‘You were good enough to set the seal of your magnificent reputation upon our bona-fides, and to treat us as brothers in the realm of science’ (*The Argus*, Melbourne, November 20

1911, quoted in Kou 1993, p. 370). Douglas Mawson, preparing for his own Australasian Antarctic expedition later that year, also visited the Japanese (Shirase & the Japanese Antarctic Expedition Supporters Association 2011, p. 93).

The expedition reached the edge of the Ross Ice Shelf in Antarctica in January 1912.

The sight of the setting sun lighting up the Antarctic mountains was wondrous to behold. Anyone can read about paradise in story books. Now before our very eyes lay beauty to rival the abode of the immortals. (Shibata 2010, p. 65, translated from Shirase 1913)

Shirase and a five-man 'dash patrol' (Shirase & the Japanese Antarctic Expedition Supporters Association 2011), made a 160 mile journey in the direction of the Pole, but conditions forced them to halt at 80°05'S. There they planted a flag and saluted the Emperor. Miisho was the photographer. While they were away, a coasting party explored Edward VII Land, while the *Kainan Maru* surveyed eastward. Shirase had incorporated science into his plan for the expedition, apparently in accordance with British precedence. The Japanese, however, had little scientific understanding, having only one (under-qualified) scientist in the expedition,⁷⁶ and some of the conclusions they reached in Antarctica have been found to be seriously flawed (Stevenson 2011).

The first account of the expedition to be published was by Tada Keitchi (1912a). It included photographs, as did the same author's expedition diary (1912b). Shirase's own account (1913), 'a dramatised narrative' (Ross 2011, para. 4), contains many photographs. *Nankyoku-ki* (Records of Antarctica), the factual and scientific report by Shirase and the Japanese Antarctic Expedition Support Committee, also appeared in 1913. A Shirase Memorial Edition (1984) contains six full-page colour plates, a double-page panorama, and 60 full-page black and white photographic plates. A recent English translation (Shirase & the Japanese Antarctic Expedition Supporters Association 2011) contains many photographs not previously published.

⁷⁶ This was Takeda Terutarō, a former professor's assistant and also secondary school teacher (Stevenson 2011), who is shown in Figures 62 and 64 (in rear, third from right).

Other accounts of the expedition were published over the years, including a Scientific Research Appendix to *Nankyoku-ki*, published in the 1984 Expanded Memorial Edition (Shirase & Japanese Antarctic Expedition Support Committee 1984), but containing no photographs due to the lack of clarity of those in the original report (Ross 2010). Half the moving picture footage taken by Taizumi was damaged due to poor storage (IDFA n.d.), but a 16 mm. cinematographic record survives and is held by Waseda University.⁷⁷ It is described by McInnes (2009, p. 301) as ‘a series of vignettes of men and wildlife in Antarctica, on film that is heat damaged, overexposed, and poorly framed’. But elsewhere it has been said to impress viewers even today as the first documentary film of any significance from Japan (Nornes 2003).

The literature’s fullest treatment of the expedition in English is recent. There are two doctoral theses: B.N. McInnes’s ‘The forgetting of a hero: Antarctic explorer Shirase Nobu’ (2009), and W.R. Stevenson III’s ‘The spirit of adventure: Japanese exploration and the quest for the South Pole’ (2010). There are also comprehensive notes in the recent English translation of the expedition narrative (Dagnell & Shibata 2011). These authors all worked with expeditionary and biographical information previously accessible only to Japanese speakers. None includes an examination of the photography.

Other than these, an earlier twelve-page article by Ivar Hamre (1933) is an adaptation of a Japanese volume on South Polar exploration by M. Harada and O. Matsuyama (no date), which in turn was based on the 1913 *Nankyoku-ki*. The Hamre article is important because without it, little would have been known about the expedition beyond Japan. Hamre mentions Taizumi, but has nothing further on photography. Exceedingly brief accounts of the expedition’s progress had appeared in *The Geographical Journal* through 1911 and 1912 (‘Monthly Record’ 1911a, p. 79; ‘Monthly Record’ 1911b, pp. 628–629; ‘Monthly Record’ 1912, pp. 220–221). From

⁷⁷ A fragment was shown, with other Antarctic expedition films, in March 2012 at BFI Southbank in London (BFI 2012).

the more recent period, there is also a brief article by Wouters (2002); again, no mention of photography.

Shirase as hero

In his writings, Shirase attempted to reinforce a particular adventure-hero image involving indifference to physical discomfort in an unforgiving and isolated environment, and an indomitable attitude. McInnes (2009) and Dagnell and Shibata (2011) convey Shirase's autobiographical claims on face value; Stevenson (2010, p. 113), however, argues that Shirase was foremost a legend of his own making, a man who won support for his expedition by self-fashioning from adventure literature and its heroic icons, remaking much of his past according to an idealised image: 'He made himself into a legend to achieve his great adventure.'

McInnes (2009) describes how Shirase identified closely with the *bankara* persona—a muscular, rough-and-ready traditionalist, determined, serious, independent, shunning the temptations of Western civilisation, and preferring informality to the perceived constriction of Japanese etiquette. An effect of this would be to limit Shirase's brief heroic status in Japan: cultural models changed over time, and the tension between *bankara* and its counterparts had already come to be seen as old-fashioned by the time of the expedition. Shirase and the expedition fell out of popular memory in Japan and were not resurrected until mid-century.

The formal portrait Shirase chose for his narrative of the Antarctic expedition (1913) shows him in army uniform (Figure 63). He had joined the army in 1879, at the age of eighteen. In 1893, he joined the Kuril Islands Expedition of Shigetada Gunji (Stevenson 2010) and spent the winter in Shimushu Island, at 50°44' N. He later claimed to have also spent time in the Arctic (Stevenson 2010). He then fought in the Russo-Japanese War (1904–05). By 1910, when the photograph was taken, he was an army-reservist, but to the 'humble and unworthy soldier in the Imperial Army', as he described himself in a 1910 fund-raising speech (Stevenson 2010, p. 42), self-representation as a Japanese soldier was obviously very important.



Figure 63: Shirase Nobu 1910

(Source: Shirase & the Japanese Antarctic Expedition Supporters Association 2011, p. 14)

The photograph had first appeared in the journal *Tanken Sekai* (Exploration World), described by Stevenson (2010) as the mouthpiece of late Meiji exploration and adventure, and a crucial supporter of Shirase's expedition. Shirase had been writing articles for the journal since 1909, the same year that it ran a story about Shackleton's *Nimrod* expedition.

Like the polar hero images of Cook and Amundsen, Shirase's appears to have been carefully constructed. If it is true that much of his background story was a fabrication, the construction of his pre-Antarctic *curriculum vitae* has similarities to Cook's post-Antarctic one. Like both Cook and Amundsen, he was careful to choose for his

publicity and publications photographs of himself that represented him in the hero role. Like them, he was also photographed in furs (Shirase & the Japanese Antarctic Expedition Supporters Association 2011, p. 22), a photograph that appeared in *Tanken Sekai* in 1912. It was not a studio portrait, and he looks engulfed in the furs. But in Figure 63, dignified in army uniform, he was able to draw on the nationalism and patriotic loyalty of Japanese readers and viewers.

His concept of an adventure-hero, like Cook's and Amundsen's, does not appear to have demanded personal preeminence in expedition photographs. In the group photograph (Figure 64), he stands aside from the centre, somewhat lost in the crowd. His polar obsession apart, he was at depth a quiet, unassuming man.



Figure 64: All the members of the Japanese Antarctic Expedition, New Year's Day 1912

Captain Nomura, centre and standing; Lieut. Shirase, also bare-headed, on his left; Miyake, 3rd from left in back row, with soft cap; Miisho, inset, second from right; Taizumi, inset, third from right.

(Source: Photographic print, Royal Geographical Society, London)

The commemorative photograph is a typical large-group photograph with subjects in rows on more than one level, and positions in the centre allocated to the important figures (Lenman 2005). The insets in the upper right are expedition members unable to be in the main photograph. They include Taizumi and Miisho, one of whom may have taken the photograph. Most of the men are looking at the camera, their expressions quite serious. The image thus appeals to the viewer to engage with the represented participants in the solemnity of the occasion—the first ever Japanese expedition on its second attempt to reach Antarctica, within two days of sighting the continent. Tada Keitchi, secretary of the post-Sydney part of the expedition, holds a small flag. The dangling feet in the front row take away some of the image's formality, humanising it.

The man in the centre is Captain Nomura Naokichi, whose navigational skills were complemented by proficient draughtsmanship and skills at painting and drawing (Shibata & Dagnell 2012). He had sailed as a boy to fisheries north of Japan, and served in the Russo-Japanese War. He was probably mostly self-educated, and only obtained his formal captain's certificate in 1909 (Shirase & the Japanese Antarctic Expedition Supporters Association 2011), but he impressed the crew of Amundsen's *Fram* when they met in Antarctica (Hamre 1933), and was described by a reporter for the *Sydney Morning Herald* as:

Full of authority and the immutable repose of the Oriental, he was quietly courteous in demeanour. He is a little old man⁷⁸ with a greyish moustache and a wizened face. But he is keen-eyed and seems to be possessed of immense resolution and capable of enduring great hardships. (October 13 1911, quoted in Kou 1993, p. 368)

Here he wears a jerkin, possibly made of the same Karafuto dog fur which the polar party appears to be wearing in Figure 66 (Shirase & the Japanese Antarctic Expedition Supporters Association 2011, Appendix V, p. 271).

Miyake Yukihiro, also pictured in the group, was a young sailor educated in the United States. He translated for the expedition. He also had a talent for painting.

⁷⁸ Nomura was actually 44 at the time of the expedition.

Several of his *sumie* ink paintings are held in the Shirase Memorial Museum in Nikaho City (Dagnell & Shibata 2011). The expedition included two Ainu, members of Japan's indigenous people. Yamabe Yasunosuke (back row, centre, by the mast), who published his memoirs in 1913 (Siddle 1996), and Hanamori Shinkichi (behind and to the left of Shirase), had both called for Ainu independence, and had joined the expedition hoping to raise the profile of the cause (Harrison 2007). They were dog handlers. In the photograph they are on the outside fringe, a parallel to the Ainu position in Japanese society. Shirase, however, had faith in the value of Ainu knowledge. His polar patrol's waterproof sealskin snow boots were of Ainu design and make, and the sledges were of Ainu design (McInnes 2009). The Ainu crew members were devoted to Shirase (Stevenson 2010), who had spent some time in their homeland on one of the northern Japanese islands.

Informal photographs of New Year celebrations are shown in Figure 65. New Year is the most important festival in the Japanese calendar (Dagnell & Shibata 2011, p. 373), and Shirase welcomed this one with great expectation:

... a year in which so many of our hopes were vested, had arrived at last. We rose very early and dressed in full uniform and cap, we presented ourselves outside Lt. Shirase's cabin. First we paid respectful homage to the portraits of our Emperor and Empress, and then we exchanged New Year greetings ... our faces all seemed full of life and our laughter rang with a new energy. (Shirase & the Japanese Antarctic Expedition Supporters Association 2011, p. 113)



Figure 65: Japanese Antarctic Expedition's New Year's Day 1912, 69.40 ° S, 171.15° E

(Translation by Mana Inoue)

(Source: Shirase & Japanese Antarctic Expedition Support Committee 1984, opp. p. 37)

The smallest photograph, showing an Adélie penguin with a crew member, is the only one that visually situates the occasion on the ship and in Antarctic waters. In the other, mid-shot photographs, Shirase, to the right, is mixing comfortably with the men, which would be in accordance with the preference for informality attributed to him by McInnes (2009). The New Year celebrations served a vital morale-raising

purpose. Like other expeditions, the Japanese, on their very small ship, suffered from serious internal tensions. One of the graver conflicts was with Tada Keitchi, whose diary (cited in Stevenson 2010, p. 216) claimed that Shirase was unable to unify his men, and that Nomura and Takeda made most of the important decisions.

Flag raising

The photograph in Figure 66 shows a flag raising performance. The flag was flown on a bamboo pole revolved by a triangular tin weather-vane (Hamre 1933), the Emperor was saluted, and Shirase named the area Yamato Snowplain, using the poetic name for Japan.



Figure 66: Shirase Nobu (centre) and 'dash patrol' salute the Emperor (Photo: Miisho)

(Source: Shirase Antarctic Expedition Memorial Museum, Nikaho, Japan)

The spatialising strategies at work in Antarctic photographs are often limited by the conditions. The 'dash patrol' was enduring severe weather, and the background (apart from shapes which seem to be a sledge and dogs) is the reduced visibility of whiteout conditions.

Behind the photograph lies acute disappointment. Shirase described the moment:

That, contrary to my expectations, I had to return home without having left my footprint on the Pole is a source of great bitterness to me, and the reason I felt I must apologise to the nation. That I planted the Japanese flag at [only] eighty degrees five minutes south and then returned to my homeland was completely unavoidable. Had we gone on, the team would only have collapsed on the ice field. (quoted in McInnes 2009, p. 191)

He had fallen short of his goal. McInnes (2009, p. 47) quotes Watanabe Seiichirō (1994):

... Lieutenant Shirase's life had only one 'highlight' – when he planted the Japanese flag on the Yamato Yuki-hara; the rest of his life was a fabric woven of endurance, false starts, misfortune, mistaken intentions, frustrations and poverty.

Nevertheless,

he had taken the Japanese flag further south than it had ever gone before. By doing so, he was convinced that he had joined the league of great explorers and proven the capacity of the Japanese before all the world. (Stevenson 2011, p. 168)

Shirase later tried unsuccessfully to persuade the Japanese government to make a formal territorial claim (Shirase & the Japanese Antarctic Expedition Supporters Association 2011). The Yamato Snowplain is in the eastern corner of the Ross Ice Shelf, in what became known as the Ross Dependency. By virtue of discoveries by James Ross in 1841 and the Scott and Shackleton expeditions in the Heroic Era, Great Britain claimed the region, but transferred the claim to New Zealand in 1923. Japan renounced all territorial claims in Antarctica in the 1951 Treaty of Peace that formally ended World War Two. Figure 66 is nevertheless a momentous image—the commemoration of the first presence in Antarctica of Japan, a nation with no tradition of exploration. Today the Japanese have a National Institute of Polar Research (NiPR n.d.) which conducts research in Antarctica under the name of the Japanese Antarctic Research Expedition. Shirase photographs are prominently displayed in the small NiPR polar museum. Japan was one of the first twelve members of the Antarctic Treaty Contracting Parties in 1960.

Wildlife

Members of the Norwegian expedition, themselves hunters, who met the Japanese in the Bay of Whales, were shocked by their attitude to the killing of wildlife.

Thorvald Nilsen, the Norwegian second-in-command, wrote about the encounter:

On the ice close to the vessel was a seal ripped open, with part of its entrails on the ice; but the seal was still alive. Neither Prestrud nor I had any sort of weapon that we could kill the seal with, so we asked the Japanese to do it, but they only grinned and laughed. (Nilsen 1913, p. 348)

The lower image in Figure 67, taken January 14, 1912, shows a Japanese expeditioner stalking a seal. In the upper image the seal is slaughtered. The photograph is taken from too far away, but it nevertheless has an inadvertent, arresting shadow dance quality. The upper image—the twist of the human body, the arms and weapon upraised in the act of killing, the animal helpless beneath the onslaught—has a silhouetted ruthless vigour that takes it, for the modern viewer, to the level of symbolism.

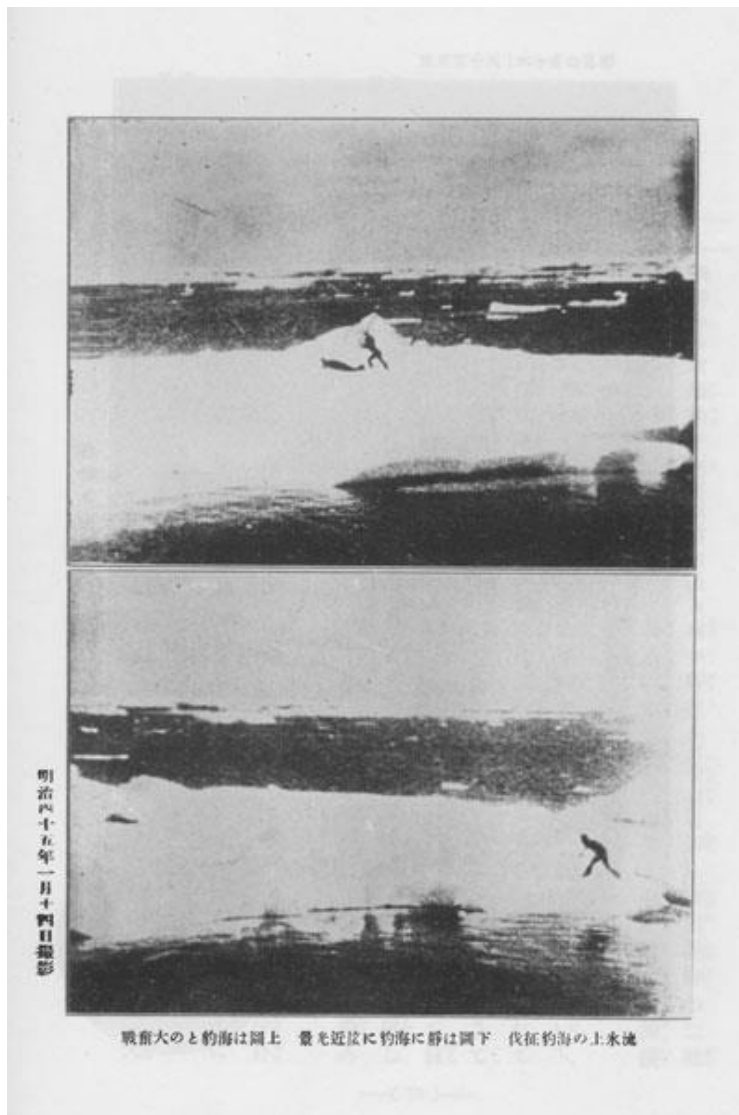


Figure 67: Japanese Antarctic Expedition 1912. Seal hunting on the ice.

(Translation by Mana Inoue)

(Source: Shirase & Japanese Antarctic Expedition Support Committee 1984, opp. p. 71)

Shibata (2010, p. 66) clarifies the Japanese attitude to seal killing in two excerpts from her translation of Shirase's *Nankyoku-ki*. From these excerpts, it is clear that the Japanese would not have seen the animal as a victim, but as a malevolent opponent.

Hanamori had taken a shot at a seal ... The youngest sailor, Shibata, happened to be passing by. The seal was in agony from the wound it had received from Hanamori, and lay dying in the water, unable to move and bathed in its own fresh blood. Seeing this, Shibata hurriedly threw off his clothes and tied a life-line round his waist ... he jumped straight into the sea ... Spectators ... cheer[ed] him on and urg[ed] him to finish it off. Shibata ... was doing battle with a seal that must have been at least six shaku [2 metres] long. Though the huge seal was injured, it was fighting on its own ground and was as fierce as any lion. However ... Shibata ... expertly dodged its angry fangs. The

battle lasted several rounds, but the temperature of the sea was -0.5°C ... our hero ... was forced to retire from the fray.

We spotted a large seal lying on the ice ... the men went for the seal, full of courage and shouting with excitement now that they had at last found a worthy opponent ... the enemy bared its fangs and fought back. Its mouth opened wide and it stuck out its blood-red tongue like some huge serpent. The four men finally subdued their foe by a concerted attack from all sides during which it was ... beaten down in a veritable frenzy of blows.

The day before the photographs in Figure 67 were taken, twenty-two seals were killed (Hamre 1933). Dagnell and Shibata (2011, p. 390) note that at this time the influence of Buddhism on Japanese culture was waning, and killing animals for food was now acceptable, 'but with no tradition of hunting the Japanese had probably not yet developed appropriate codes of behaviour'. The excerpts above show that, for the Japanese, the photographs would have been constructed in terms of human hero battling deadly opponent. But not dissimilar constructions were sometimes made by westerners: Figure 61 showed the Norwegian slayer in heroic mode, and Herbert Ponting described killer whales as 'evil' and 'sinister' (Ponting 2001, pp. 71 and 89).

Photographically, the Figure 67 images are the poorest in this study. It is not known who took them, but they have flawed focus and exposure. In comparison, posed photographs in the Sydney garden by Miisho (Figure 62), and of the expedition, photographer unidentified (Figure 64), are properly composed, focused, and exposed. Miisho's photograph of flag-raising (Figure 66) is properly composed, but not well exposed, due to weather conditions. It is likely that, as on other expeditions, several men were taking photographs. Taizumi used German camera equipment (Zeiss and Goerz) and American (Eastman) film (Stevenson 2010). He shot about 1800 feet of Eastman Kodak film, with, according to Dagnell and Shibata (2011, p. 381), a hand-cranked English camera, the Warwick 16 mm with a $f=3.5$ Zeiss lens. He 'found cinematography in Antarctica extremely difficult—as it was all white except for the penguins and people he had difficulty focusing, and the shutter had a tendency to freeze' (Dagnell & Shibata 2011, p. 381). Similar difficulties would have been encountered by those doing still photography.

Penguins also came in for harsh treatment from the expedition. At the same time, the birds were recognised as Antarctic icons and used in illustrations in Shirase's narrative to represent the expedition's achievement. The expedition carried its own taxidermy equipment (Stevenson 2010), and many specimens were brought back to Japan.

Comparison with other expeditions' photographers

The choice of photographic subjects in the narrative of Shirase's expedition is similar to that of other Heroic Era photographers: expedition members, sea and ice, penguins and seals, activities associated with the voyage and the sledge journey, and formal commemorative photographs. Unlike most other narratives, however, it includes photographs of taxidermied birds and fish (Shirase & the Japanese Antarctic Expedition Supporters Association 2011, p. 241). These, together with appendices on meteorological observations and on rock fragments found in the stomachs of penguins, accentuate Shirase's representation of the expedition as a scientific one.⁷⁹ Taizumi's film, shown to excited audiences on the return to Japan, also emphasised the scientific importance of the expedition, prominently featuring the instruments of science on board (Stevenson 2010).

The Japanese had seen some other expeditions' photographs. Shirase had met a polar-enthusiast journalist, Midoro Masuichi, who had a copy of Shackleton's 1909 *Nimrod* narrative. On the way south, in Wellington, Shirase acquired a copy of his own, as a gift. Miisho's photograph of the dash patrol (Figure 66) has some resemblance to Shackleton's 'Farthest South', with its line-up alongside the flag. As Stevenson (2010) notes, Shirase's account of his 'farthest South' resembles that of Shackleton, so it would not be surprising if the photograph was based on the same source. As part of fund-raising, Shirase had participated in lantern slide lectures where images of Scott's and Shackleton's expeditions were shown (Stevenson 2010).

⁷⁹ Stevenson (2011) points out that most of the explanations in the Appendices clearly come from outside sources. He believes much of the Appendix was aimed at future projects envisaged by those involved with the expedition.

Captain Nomura's only chart of the Antarctic was a photographic print of Shackleton's map from the *Nimrod* narrative (Stevenson 2010). A British journal, *Travel & Exploration*, and Scott's book, *The voyage of the Discovery* (1905), were also referred to (Stevenson 2010).

Unlike Shackleton, the Japanese photographers seem to have taken little interest in the Antarctic ice- and landscape. However, a watercolour sketch by Captain Nomura showing the *Kainan Maru* in the pack ice (Figure 68) is an example of 'a remarkable body of drawings, paintings and woodcuts, many of which have an emotional quality which sets them apart from similar work resulting from European expeditions to the Antarctic' (Shibata 2012, p. 86).



Figure 68: *Kainan Maru* struggles through icy seas (Watercolour: Nomura)

(Source: Shibata 2013, *Japan Society Proceedings*, 2012, no. 149, p. 86, courtesy of the Hakui Historical Museum, Ishikawa-ken, Japan)

The candid informality of the celebration photographs in Figure 65, especially the bottom one, is different from the approach of most other expedition photographers, for example, Cook's *Belgica* Christmas dinner photograph (Figure 11), Philippi's Midwinter Day (Figure 29), and Lindstrom's Midwinter Day in Framheim's saloon (Figure 55). In view of expedition tensions, Shirase may well have wanted a photograph in happy and harmonious celebration with his crew.

Summary

The Japanese expedition photographs depict wide-ranging expedition activities, from sedate group photographs to lively celebration, dignified and patriotic commemoration, seal-hunting, and taxidermied specimens.

'Ways of seeing'

Little is known about the backgrounds of those who took the photographs. It is presumed that they were untraveled and that their limited experience involved mainly pharmacology studies on the one hand (Miisho) and cinematography training on the other (Taizumi). Shirase himself had some traveling experience in the Kuril Islands, but the 'way of seeing' through which directed the expedition and its photography was essentially that of an inspired amateur who derived his polar understanding from books and newspaper articles.

Representations of exploration in Antarctica

The photographs in Shirase's narrative displayed to Japanese readers the exploits of an extraordinary expedition with patriotic and scientific goals. On the whole, they are inexpert photographs, inadvertently representing the relatively amateurish qualities of the expedition. Portraits in the narrative, reflecting the adventurous and heroic qualities of the leader in a manner consistent with his ideals, were not expedition photographs, but were taken professionally. To western readers, the overall representation is a blend of the familiar and the anomalous: typical Heroic Era images with a Japanese flavour.

Second German South Polar Expedition (Deutschland)⁸⁰

German polar protagonists promoted early twentieth century exploration in the Antarctic in terms of imperial purposes. Antarctic exploration offered the nation a prominent way to demonstrate its imperial strength on the world stage (Luedtke 2010). The second German South Polar Expedition (1911–12), under Wilhelm Filchner (1877–1957), was funded mainly from a lottery, but Filchner's ability to gain some assistance from state sources suggests an Antarctic research program remained an important aspect of official nationalism.

Many photographs were taken on the expedition but the main thing that is remembered about it is the problem resulting first from Filchner's choice of crew for the *Deutschland*, and then from his inability to deal with the very serious interpersonal frictions that developed between scientific and sailing personnel. These were exacerbated by sustained isolation while the ship was trapped in an eight-month ice drift. It was 'almost certainly the most dysfunctional of all the Antarctic expeditions' (Guly 2012b, p. 198), with even 'homicidal feeling' (Murphy 2002, p. 102). Captain Vahsel died, apparently of syphilis (Ludecke 1995a, p. 226), while the ship was ice-bound, but this did not ease the conflict. There was a mutiny against Filchner when the expedition returned to South Georgia. The literature on the expedition tends to focus on these difficulties.

Filchner wrote that it was 'a worthy goal to provide the opportunity for my Fatherland to participate in this noble competition among nations to explore our globe and especially the polar zones' (Filchner 1994, p. vii). He named his ship *Deutschland*. With his advanced training in mathematics and geodetics (Murphy 2002), and as an army officer at the time, he had gained the reputation of a daring explorer-scientist as a result of travels in Russia, China and Tibet (Filchner 1903, 1906). Drygalski had reservations about Filchner's ability to lead (Rack 2009);

⁸⁰ The primary sources examined for this study are the published book by Filchner (1922, 1994), photographs reproduced in the book, and others reproduced in Krause (2011) and Brennecke (1921). Secondary sources about the expedition mostly refer only superficially, if at all, to the work of photographers.

however, Filchner's plans were warmly supported by Nordenskjöld, who later wrote an Introduction to Filchner's book. Filchner also consulted with and was encouraged by polar explorers Bruce, Shackleton, Amundsen, and Scott (Filchner 1922). In 1910 he undertook a test expedition to Svalbard with five scientists (Hornik & Lüdecke 2005). The expedition had some problems, but managed useful scientific outcomes (Zimmermann 1911). But of the five scientists, only two ultimately went to Antarctica, and one, Erich Barkow, there became part of the group opposing Filchner.

In Antarctica, Filchner's aim was to investigate whether it was divided by an ice inlet between the Weddell and Ross Seas. He planned to do oceanographic, meteorological and magnetic measurements as well as geological observations during sledging trips (Hornik & Lüdecke 2005). He did prove that there was no dividing inlet from the Weddell Sea, but many scientific goals were unachieved.

Representations of the leader

The portrait of Filchner at Figure 69 was his choice for his narrative of the expedition (*Zum sechsten Erdteil*, 1922). He rarely smiled for photographs but the gaze here is not unfriendly. He is dressed similarly to the leaders of the first German expedition in Figure 22, and the Swedish expeditioners in Nordenskjöld and Andersson (1905, p. 1), and the representation could be described as 'at ease' military or naval.



Figure 69: Wilhelm Filchner

(Source: Filchner 1922, p. 9)

Filchner had met with R.F. Scott in London in 1911. Scott had hired the professional photographer H.G. Ponting for his own expedition.

He considered photography was of such importance in exploration that it was his intention to make a special department of the art, and he asked if I would like to take charge of that part of the enterprise. (Ponting 2001, p. 2)

Ponting's representation of Scott as a leader of courage and determination, and as a man at work and among comrades, would make immediate and lasting visual connection with the public (Millar 2011). Filchner also considered photographs important: he procured for his expedition eight 9 x 12 cm and two 13 x 18 cm cameras, mostly provided by Goerz and Zeiss, and all the necessary equipment for developing over 3,500 plates in a darkroom built on board the *Deutschland* (Filchner 1922). Like Scott, he had a lifelong interest in fine arts. But he had no official

photographer, and the German expedition's images of the leader lack the empathy of Ponting's photographs of Scott.

In Figure 70 Filchner looks uncomfortable at the edge of a group of six expedition staff, four of whom would soon become his opposition. The photograph was taken early in the expedition, on board a vessel made available to them in 1911 by South Georgia's whaling manager. A Filchner supporter, the scientist Erich Przybyllok, later wrote that anti-Filchner talk had already begun circulating (1912[?]). Filchner was thirty-four, but here looks older. He hardly looks the leader of the group.



Figure 70: Filchner expedition members in 1911, during the stay in South Georgia.

(From left): Felix König, Johannes Müller, Erich Barkow, Wilhelm Brennecke, Fritz Heim, Wilhelm von Goedel, Wilhelm Filchner. (Müller, Barkow, Brennecke and von Goedel were all members of the opposition group.)

(Source: Krause 2011, p. 110)

Filchner did not use the photograph in his narrative. In fact, apart from the portrait in Figure 69, Filchner is shown in only two images, and not clearly. There is overall far less photographic focus on individuals than in accounts by Cook, Nordenskjöld or

Amundsen. Filchner's selection shows that he wanted the focus to be on Antarctica, rather than members of the expedition. The choice of the portrait at Figure 69 may suggest he was attempting to construct something of a hero representation, but it is not convincing. Perhaps he felt he already had such an image, as a result of his earlier travels. Perhaps, also, it indicates the flaw in his personality as far as leadership was concerned: an absence of insight regarding empathetic command. Murphy describes Filchner as 'a cold fish—undoubtedly upright and honorable in his dealings with his comrades but distant, with little sense of humour and lacking the common touch, so evident in Shackleton and Scott, that inspires devotion in subordinates' (2002, p. 98). Filchner seems to have travelled best alone, or with very few people. His journey in Russia was solo (Filchner 1903), and only his wife and a geographer-physician accompanied him in China and Tibet (*National Geographic Deutschland* 2013).

The narrative and its photographs

Filchner's 1903 memoir of his Russian trip has been described as colourful (Murphy 2002); the China and Tibet journey, on which he took photographs (Filchner 1906), was 'a real-life H. Rider Haggard novel, featuring all the elements of European exotic romance' (Murphy 2002, p. 87). His Antarctic narrative, however, has none of these characteristics. There were thirty-five people in the expedition, and personnel management was clearly not Filchner's strength. Apparently aiming at a narrative that avoided controversy (possibly out of a sense of honour), he ended up making it somewhat bland. An early review (*Geographical Journal* 1923) deemed it well illustrated. There are 115 images and many maps and sketches. But many of the photographs are less than engaging.

A large proportion of the photographs are scenes showing the ship, icebergs and various types of ice. The latter are the book's most significant contribution to the expedition's visual representation as scientific. Many photographs were also taken in South Georgia, the site of a successful whaling station. These may have been taken to inform potential German commerce. The other photographs range across dogs and ponies, activities, the men, and wildlife, in that order of number.

Filchner does not claim credit for any photographs in the narrative, but his diary mentions taking some (Kirschmer 1985), and his narrative records that he shot some cine film (1922, p. 315).⁸¹ A number of others also took photographs, including Wilhelm von Goedel, the ship's doctor, Conrad Heyneck, the engineer, and a crew member, Ernst Müller. The discussion here is limited to work by these three, due to the time and space constraints of the Master's project. Filchner credits each of them with their photographs. Nothing is known about how much experience these men had, or about their 'ways of seeing'. The 'way of seeing' represented is more that of Filchner, who selected the images for the narrative.

The men were clearly photography amateurs, and, unlike Amundsen, Filchner does not appear to have arranged tuition for them. They were probably also without experience in high latitude travel. However, Filchner had 'a comprehensive and extensive library' on board (Filchner 1922, p. 18, my translation), which is likely to have included polar exploration books with photographs, such as the report of the *Challenger* Expedition, Nansen's books, Scott's narrative of the *Discovery* Expedition, Shackleton's *Nimrod* Expedition book, Nordenskjöld's, certainly that of Drygalski, their compatriot, and also that of W.S. Bruce, who had voyaged in the Weddell Sea. The photographs in these works could have prepared the *Deutschland* amateurs for the scenes that would meet them, and could have given them ideas for their own photography.

Wilhelm von Goedel

Little is known about Wilhelm von Goedel (1881–?), shown in Figure 70. The nobiliary particle 'von' may suggest an aristocratic family, but it can also appear in the names of commoners. Von Goedel became the expedition's only doctor when the other one became ill and could not continue past South Georgia. He also carried out biological and zoological work (Rack 2009).

⁸¹ The footage by Filchner is no longer locatable (Krause 2011).

In his account of the expedition, Filchner generally refrains from references to discord, but his diaries are another matter. Early references to von Goedel are not unfavourable: the doctor intends to train as a biologist after the expedition; they celebrate his birthday; he is consulted medically (Kirschmer 1985). Later, with the ship ice-bound, relations deteriorate to the point of paranoia. In August 1912 von Goedel is described by Filchner as ‘a very nasty fellow, capable of anything’ and ‘a false cur’ (Kirschmer 1985, p. 108 & p. 110, my translations), often drunk and abusive, and very hostile towards Filchner, who writes in October 1912: ‘At night I sleep on a bench in my room so that von Goedel can’t shoot me through the wall’ (Kirschmer 1985, p. 113, my translation).

The conflict continued after the expedition. In an ‘exposé’ which Filchner wrote at a later period in his life (1994, pp. 196–214), and which indicates that he was prone to interpersonal difficulties throughout his career, he describes how, after the expedition, he accused von Goedel of slander and challenged him to a duel with pistols, which von Goedel declined. The doctor apparently was then working at the Surgical Clinic in Berlin.

Despite his problems with the man, Filchner included twelve photographs taken by von Goedel in his published account of the expedition. It is assumed that Filchner, like Shackleton, had a contract regarding use of photographs (Rack 2009). Two are set in Grytviken in South Georgia, another shows one of the Sandwich Islands, and there are two photographs of the station hut, one before completion, another after it was wrecked by shifting ice. There is a photograph of Filchner and officer Alfred Kling in an icy scene, taken at some distance. Other photographs depict sea ice conditions, and there is one of a dog.

The expedition built a substantial wintering station on an iceberg at the edge of the ice shelf in Vahsel Bay, but within a day a spring tide had caused the station iceberg to break away from the rest, totally wrecking the building (Figure 71).



Figure 71: After the catastrophe on Station Iceberg, 18 February 1912 (Photo: v. Goedel)⁸²

(Source: Filchner 1994, p. 116)

Filchner blamed Captain Vahsel for choosing an unreliable site, claiming later that the captain had deliberately sabotaged the main objectives of the expedition (Barr 1994). As a result of the catastrophe, expedition morale plummeted, the friction between Filchner, Vahsel and others was exacerbated, and without a depot on the icecap the overland program was ruined (Murphy 2002). The *Deutschland* became ice-bound a month later, remaining so for eight months. The photograph in Figure 71, taken from below, strongly suggests the unreliability of the site and encapsulates the dysfunctionality of the expedition. One may speculate about the emotions von Goedel was feeling as he took the photograph: shock, dismay, and perhaps some malicious satisfaction. It was a metaphor for Filchner's shattered expedition goals.

⁸² In an unfortunate repeat of the disaster, the German Antarctic Filchner-Station, installed in 1982 on the Filchner-Ronne Ice Shelf in the Southern Weddell Sea, and operated by the Alfred Wegener Institute, Bremerhaven, had to be abandoned when the calving of an immense iceberg in 1998 took the station with it (Hornik & Lüdecke 2005).

Documenting scientific activity

Nevertheless, efforts continued to be made to collect scientific data and to photograph scientific activity. Wilhelm Brennecke, whose hydrology research would add significantly to knowledge of the meridional circulation of the southern oceans (Mills 2005), included one of von Goedel's photographs (Figure 72) in his report, which, like Filchner's book, was delayed until after the war.



Figure 72: Sounding the depth of the Weddell Sea and taking water samples with a small Lucas-equipment mounted on the sea ice.⁸³ (Photo: v. Goedel)

(Source: Brennecke 1921)

The men are holding a pose for the photographer, necessary for the long exposure times of Heroic Era cameras. The photograph has been retouched to add clarity. It is a simple photograph of men at work, but in an extraordinary setting. Images of expeditions in Antarctica often contain such contradictions, the prosaic moment in an extraordinary context. The subjects do not look like heroes; in another setting, they could be road-workers or similar.

⁸³ The Lucas machines were equipped with 8,000 metres of piano wire (Krause 2011). The location of the hole in the ice, relative to the ship, is shown in Figure 75.

Science sometimes collaborated with commercial interest. Sealing and whaling were involved in the plans of some Antarctic expeditions, as they had been in Arctic exploration. Nordenskjöld had proposed sealing as a means of strengthening his financial base, and some commercial activity appears to have taken place (Lewander 2002). In 1904, the Nordenskjöld expedition's Captain Carl Larsen put the experience to personal use when he started his own whaling enterprise in Grytviken, South Georgia, approximately 805 kilometers from the Antarctic Peninsula.

Late in 1911, during the Filchner expedition's stay of more than a month at Grytviken, von Goedel photographed the grotesque sight in Figure 73: whales, inflated with an air compressor via a pneumatic hose inserted through the blubber, being towed to the whaling station.

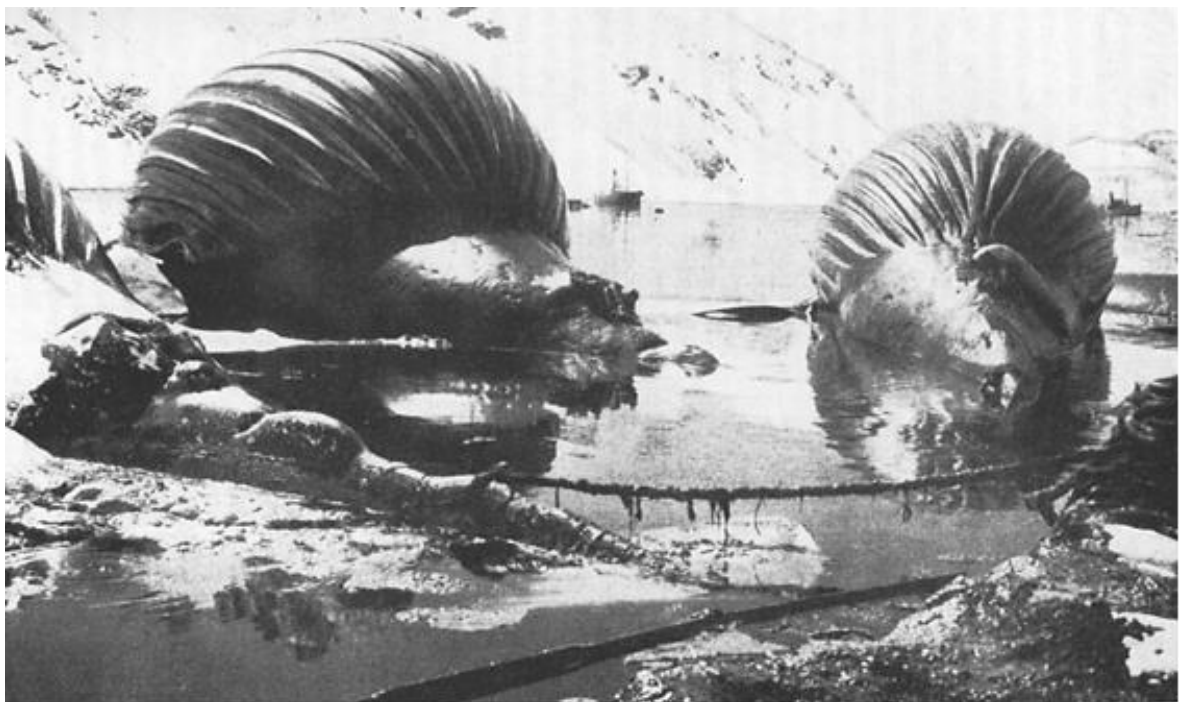


Figure 73: Floating inflated whales, Grytviken, South Georgia, 1911 (Photo: v. Goedel)

(Source: Filchner 1994, p. 49)

At the time the whaling station was enjoying great financial success. Cultural attitudes did not generally see whaling as morally suspect, but places like Grytviken were putrid slaughterhouses. Frank Hurley was disgusted by Grytviken: 'It is

impossible to view the trade with other than loathing' (Hurley 1912–61, Item 2, part 37). Von Goedel's photograph may be informed by a similar repugnance, but it is more likely underpinned by Germany's interest in Antarctic whaling, which dated back to a whaling and sealing expedition of 1873–74. Filchner's narrative (1922) included a whole chapter of detailed information about whaling, which was an important source of oil, lubricants, and also glycerine for nitroglycerine used in explosives in Germany's pre-World War One armaments program.⁸⁴

Whale stocks declined through the first half of the twentieth century and the Grytviken station closed in 1966. The bones of many whales remain visible in the area where von Goedel took his photograph. Despite measures taken to protect whales through the International Convention for the Regulation of Whaling (1946), controversy still rages in the Southern Ocean over Japanese whaling, declared to be for scientific research.

Conrad Heyneck

Deutschland's chief engineer, Conrad Heyneck, took nineteen of the photographs which Filchner used in his narrative. The subjects are mainly ice and icebergs, with some of expedition's structures, a balloon release, and one of the scientists with the ship's cat. Heyneck is not otherwise mentioned in Filchner's book, but he is known to have belonged to the opposition group (Rack 2009, p. 80). On return to South Georgia he was left behind with them to wait for a whaling vessel to complete its hunt before travelling with it to Buenos Aires, where Filchner had gone directly.

The photograph of Heyneck at Figure 74 is one of several taken of participants in the expedition, apparently on board the *Deutschland*, but the Filchner Archive at the Bavarian Academy of Sciences, where they are held, has no information on them.

⁸⁴ By the mid-1930s extensive German whaling operations in Antarctica had been developed, culminating in the Third Reich's German Antarctic Expedition (1938–39) to investigate options for a local whaling base (Lüdecke & Summerhayes 2012). Nothing came of this investigation.

There appears to be a date of 1912 on Heyneck's photograph. He is more relaxed than the men in the other photographs, and is smiling.



Figure 74: Conrad Heyneck

(Source: Hornik & Lüdecke 2005, p. 58)

Heyneck's photograph in Figure 75 gives an overall view of the expedition's winter station, with structures set against the sky. One of the Manchurian ponies is shown; in the saddle is possibly Kling, who liked to ride them. The horses were used for hauling in the construction of the station house, and for bringing in blocks of ice for drinking water. A pony was also shown in Figure 71, apparently hauling. They were later left behind to run wild on South Georgia (Headland 1984).



Figure 75: Ice drift. Overall picture of the winter station 9 May 10 a.m. (Photo: Heyneck)

(From left: doghouse; measurement hole in ice; house for measurement of absolute geomagnetic values; station building)

(Source: Filchner 1922, p. 321)

Documenting scientific activity

Figure 76 shows scientific activity. Like deep sea soundings (Figure 72), balloon and kite releases for atmospheric investigation were routinely performed. In all, 255 ascents were performed over 209 days (Barkow 1913, cited by Hobbs 1915, p. 385). The balloon releases showed the same kind of temperature inversion the concurrent Scott expedition was finding in the Ross Sea, indicating this was a common feature in Antarctica (Turney 2012).



Figure 76: *Deutschland* in the Weddell Sea, 26 March 1912. Balloon release. (Photo: Heyneck)

(Source: Filchner 1922, p. 303)

Ernst Müller

Little is known about the last photographer included in this study, Ernst Müller, assistant engineer. He took two of the photographs included in Filchner's book. In both cases, they involve people.

Deutschland was trapped by ice at 71° 20' S, 26° 40' W in March 1912 and began an eight-month drift generated by the Weddell Gyre. 'Uncertainty and waiting,' an Antarctic historian has said, 'are the warp and weft of Antarctic history' (Professor Tom Griffiths, quoted in *ANU News* 2012), but added to *Deutschland*'s interpersonal tensions the effect of ice imprisonment on the crew would have been very great. In September, there was movement in the ice: 'Our groaning ship was repeatedly shaken severely' (Filchner 1994, p. 185). Release was at last possible. As the ship began moving steadily towards open water, Müller took a snapshot of twelve members of the crew (Figure 77), relaxed, drinking, playing cards.



Figure 77: Ice drift. Celebration in the crew's mess, 1912 (Photo: Müller)

(Source: Filchner 1922, p. 185)

It is a candid snapshot, composed of close-ups which take up the whole frame, and capturing how participants relate to each other in a specific moment in time. Their attention is totally consumed by the card game and the talk. They look like a group of everyday men in a sailors' tavern

This is the only photograph in the present study definitely known to have been taken by a crew member. Filchner wrote of Müller that he 'managed to read the entire dictionary, from A to Z, including the supplement, during our drift' (1994, p. 142). From this it might be deduced that Müller was conscientious, but not very imaginative, given that there was a considerable library on board.

Comparison with other expeditions' photographers

Like Shackleton's *Nimrod* Expedition (1907–1909), Filchner's expedition had no official photographer, but many took photographs. Unlike Shackleton, Filchner had

no artist on board, and none of the photographs in his narrative were taken by himself. Some of the most striking illustrations in Shackleton's narrative are artworks by George Marston and photographs of beautiful ice features by Shackleton. A strong patriotic theme is also evident. There is nothing comparable to these in Filchner's narrative. On the whole, Filchner's selection is similar to that of Drygalski (1904): photographs with generally small, if any, emotional engagement with humans or landscape, and no flags to appeal to nationalistic sentiments back home.

A perception of failure

As with Drygalski, German supporters of polar exploration were severely disappointed in Filchner, and there was once again a perception of national failure. Filchner's return to Germany was followed immediately by controversy and inquiry as to his conduct on the expedition (Kirschmer 1985). There was no hero's welcome. No exhibitions of the expedition's findings took place. The expedition results were not jointly published, as was the usual custom, and Filchner did not publish his narrative until years later, in 1922, when Germans' minds were on their struggles associated with the peace and hyper-inflation that followed World War One.

In retrospect, Filchner seems to have seen the value of having a trained expedition photographer. He undertook photographic and cinematographic training at Pathé Frères and UFA, Germany's government-supported film studio, in order to participate in an Arctic expedition under Roald Amundsen (Hornik & Lüdecke 2005). He also did pilot training, but the expedition never took place due to the outbreak of World War One.

Filchner served a year on the Western Front and was then transferred to the Intelligence Service of the Admiralty, ending up in neutral Norway, where he became good friends with Fridtjof Nansen. Unfortunately, he managed to be accused of espionage. He escaped back to Berlin but was there tried for negligently betraying German secrets. He was acquitted due to lack of evidence (Barr 1994). After the war he wrote and travelled.

No heroes for Germany

Until its unification in 1871, Germany lacked the economic and political resources necessary for extensive exploration of new worlds. The short pre-unification series of expeditions to the Arctic in 1868 and 1869–70 under Carl Koldewey did not enjoy success (Fleming 2000). The image of the hero-explorer as a German was consequently absent from cultural models. After 1871, the German Empire envisaged the ordeals of polar explorers as a means of promoting national unity among the former separate states, and also of providing other nations with evidence of German tenacity and discipline (Herz 1896, as cited in Murphy 2002, p. 157). But the leaders of German Antarctic expeditions represented themselves as scholarly and scientific. They are not remembered by their nation as heroes, in the way British and Norwegian polar explorers are. As polar scientists, they were also perceived as falling short of expectations, because their scientific achievements included no news-making 'firsts'. Germany thus gained little in the way of national prestige (Murphy 2002).

Not surprisingly, no photographs of the Filchner expedition are displayed at Germany's research stations in Antarctica today (personal communication, Sina Löscke, Press Officer, Communication Department, Alfred-Wegener-Institut für Polar- und Meeresforschung, 10 May 2013).

Summary

Wilhelm Filchner compiled for publication in his narrative a range of photographs taken by a number of expedition members. He recognised the importance of photography and credited all the photographers. The photographs are useful documentation, but are generally neither striking nor imaginative. There are few photographs of individuals. Many of the photographs are technically flawed, sometimes retouched, standard illustrations of icescapes and of expedition work activities.

'Ways of seeing'

Of the three photographers discussed here, very little is known about their backgrounds, and nothing about what motivated them to sign up for the expedition. Perhaps, like many hundreds of other young men who applied for places on Heroic Era expeditions, they were inspired by contemporary adventure literature. If so, their Antarctic experience must have been a disillusionment.

Representations of exploration in Antarctica

The photographs, like Filchner's text, are somewhat prosaic, not evoking any great sense of adventure, nationalism or heroism. Filchner erred on the side of a circumspect, unemotional account. The resulting visual representation of the expedition could be said to lack reader and audience appeal.

Part D: Conclusion

Findings

The overall objective of this study, to collate background information and literature on the comparatively neglected lesser known Heroic Era expedition photographers, and to offer a discursive examination of photographs, has been achieved. The findings of the study are now summed up in sections that reiterate the research questions.

The photographers, their backgrounds, their ‘ways of seeing’

Most of the lesser known photographers had a science background (geology, chemistry, physics, botany, zoology), or an applied science one (physicians, engineers). There was also a science illustrator, a novice cinematographer, and a ski champion. Their personal backgrounds, relevant prior experience and roles on the expeditions varied.

These photographers came to Antarctica with their own ‘ways of seeing’, formed by factors personal and professional, as well as historical, geographical, and cultural. These ‘ways of seeing’ had complex effects on how they reflected upon and structured the Antarctica they saw through their lenses, and which they in turn communicated to others. As human beings, they responded in individual ways to the scenes they encountered. As expeditioners, ‘ways of seeing’ were affected by expedition goals and group dynamics. Scientists’ ‘ways of seeing’ were adapted to subjects that illustrated or explained their scientific work.

Some photographers arrived in Antarctica with ‘ways of seeing’ prepared, to an extent, by their nation’s involvement in the Arctic. Arctic exploration was an important element in the way Nordic nations shaped their narrative, and familiarity with the tradition of Arctic image-making may have influenced the Nordic photographers in representing Antarctic expeditions with images able to convey psychological and emotional nuances as well as straightforward actuality. The Germans based their expeditions largely on scientific principles, and with more

limited polar backgrounds tended to produce photographs that were straightforward representations of science-related activity, with limited human interest. On the other hand, the French, also with little polar context for their 'ways of seeing', produced photographs with a range of representations, from straightforward science to human interest, due undoubtedly to the wide-ranging interests and talents of Charcot and his photographers. The Japanese alone were complete outsiders in aspects of polar exploration, polar science, and polar photography.

Relatively little is known about the interpretations of the role of photography held by these men. Pléneau wrote that photography was a highly valuable aid in all branches of science. Others' beliefs in its importance may be inferred by their commitment to the comprehensive taking of photographs, always under great and at times extraordinary difficulties. Perception of the value of photography is also shown in the extensive photographic equipment procured. Philippi is known to have been closely involved in the first German expedition's selection of equipment. Amundsen arranged for members of his expedition to have tuition.

Most photographers had only a narrow repertoire of basic camera skills when they started their expedition work. During their time in Antarctica, some, such as Frederick Cook and Louis Gain, were to develop their skills considerably. Others also expanded their skills, using various kinds of cameras, photographing in difficult conditions, making photographic postcards, self-photographing. Most of these photographers were educated men able to draw on personal resources of intelligence and culture. Some may have been influenced by members of their expeditions who were also taking photographs, or who were artists. Most were able to draw on the published experience of earlier polar photographers.

Within the social interactions that occurred on Antarctic expeditions, ongoingly constructed senses of individual identity were built around overlapping and shifting perspectives of being photographer as well as scientist or doctor, expedition leader or crewman. The expansion of their photographic skills had positive outcomes for these amateurs, and for their expeditions. There is a close relationship between

identity and skills acquisition (Gee 2001). For the photographers, these aspects of identity added to an 'ongoingly produced' construction of self (Davies & Harre, 1990, p. 6), the 'clusters of stories' (Anzaldua, 1999, as cited in McCarthy & Moje, 2002, para. 22) they had to tell themselves and which others could tell about them. Work, photographed in all its aspects, had an important role to play not only in individual senses of identity, but in the relationship each worker formed with Antarctica.

The kinds of images they captured, and their audiences

The scientist-photographers' sense of audience for their work would have been primarily a scholarly readership for publications about the expeditions. They would have envisaged readers of their own disciplines, including other nationalities. Also prominently in mind, however, would have been the wider audience, polar expeditioners' most important support (Robinson 2006)—the readers of the more popular accounts, the audiences for fund-raising lectures, the financiers of further expeditions. For this audience, photographers' work is 'a labour which ... speak[s] more forcefully and authoritatively ... than the explorer's voice' (Yusoff 2007, p. 223).

For this vital wider audience, expeditions were represented in photography through a recurring interplay of inherited motifs and metaphors which involved intersecting discourses arising from science, adventure, nationalism, cultural values of heroism and manliness, and concepts of the sublime. Popular narratives reminded readers of the scientific nature of expeditions with photographs of scientific activity, equipment, topography and wildlife, and sometimes specimens. Adventure was evoked in photographs of threatening seas and sea ice. Some of the most powerful metaphors were ships in the ice, images evoking romantic and forbidding aspects of nature, some suggesting psychological aspects of ice-bound expeditions—men risking all in exploration of the farthest seas. The naturalisation of iceberg and penguin motifs in the cultural imaginary enabled readers and viewers to develop expectations of the Antarctic and to construe, with a sense of familiarity, the related discursive contexts—exploration putting men to the ultimate test, polar heroes, national prestige and patriotism. The motifs constructed a portal to 'another world

altogether', as Arçtowski put it, a world where readers and viewers would find adventure underpinned by proud cultural, national and patriotic values.

Some lesser known photographers were experimental. Cook experimented with night photography (Figure 6), using magnesium powder flash, achieving contrast between ship, rigging and sky in a dramatic image. Philippi photographed from the balloon (Figure 25), Charcot from up in the rigging (Figure 49). Bodman also photographed, and Senouque took film footage, from high in their ships. No experimentation with colour has been found in this study, however, though colour filters were used extensively by a member of Scott's *Discovery* Expedition (Jones 2011). Autochrome plates were commercially available by the time of Charcot's second expedition, but are not mentioned as part of the photographic equipment. Amundsen, Shirase and Filchner are not known to have carried them. Similarly, no experimentation with composite photographs has been found. The use of composite printing, where two or more negatives were combined to make a print, was well established at the time in both commercial and amateur photography (Ennis 2002). In Antarctica, Ponting made composites, and Frank Hurley became adept at manipulating photographs in order to deliver, through falsity, what he felt was a truer idea of the subject (Thomas 1990). The lesser known photographers of other expeditions seem to have sought no more than the images they saw through their lenses. This would have been due in large part to their relatively novice experience, but also to the scientific training of most.

Photographic equipment

On the whole, expeditions were well supplied with up to date photographic equipment, and many members also took their own cameras. Large format cameras and glass plates were most used, but easier roll-film cameras were abundant. To be of greatest use, photographs need to be accompanied by notes on location, conditions, exposures and settings (Wilson 2011). Photographers kept records of variable detail; many are meagre, and some do not survive. Chun, Drygalski, Charcot, Nordenskjöld and Filchner, authors of narratives about their expeditions, all credited

the various photographers with their work. Charcot, however, was the only author to include reports on photography in his narratives, and sometimes to include camera makes in his captions.

Representations of exploration in Antarctica

Lesser known Heroic Era expedition photographers represented their exploration in differing ways, from long ordeals to mostly cheerful adventures, but always at work to fulfil stated expeditionary objectives. In this, they resemble their British and Australasian counterparts. Thematically, images of the Heroic Era also have much in common with each other. This is because of the limited subject material—ice, ships, mountains, seals, penguins, and so on; but is also due partly to the science background many shared. A common Antarctic heritage was developing as a result of availability of expedition narratives and photographs, and of interaction between expeditioners of different nationalities in correspondence and at meetings.

There are a number of examples of international interaction. De Gerlache, Cook, Nordenskjöld, Charcot, Scott, Shackleton, and the Scottish National Antarctic Expedition's William Speirs Bruce and Robert Mossman, as well as Arctic explorers, were present at the International Congress for the Expansion of the World's Commerce at Mons in September 1905 ('International Congress for the study of the Polar Regions' 1906). De Gerlache, Drygalski, Nordenskjöld and Duse, Charcot, Mossman and his fellow expeditioner Robert Rudmose-Brown, and Arctic explorers were at the first International Polar Congress in Brussels in 1906 (Mill 1907). Philippi and Edgeworth David (who would be part of the British Imperial Antarctic Expedition the following year) were at the 10th International Geology Conference in Mexico in 1906 (Puche & Mazadiego 2011). Shackleton and Louis Bernacchi (British Antarctic and British National Antarctic Expeditions), were present at Charcot's lecture to the Royal Geographical Society in 1910 (Royal Geographical Society 1911), and Shackleton and Bruce at Amundsen's lecture to the Royal Geographical Society in 1912 (Royal Geographical Society 1913). Filchner had extensive contacts with Nordenskjöld, Scott, Shackleton (Hornik & Lüdecke 2005) and Bruce (Filchner 1922).

The outsider in all this was Shirase, who had to make do with Japanese newspaper and periodical accounts of narratives of expeditions (Stevenson 2010).

Expeditions and photographers learned from each other across the years and across national boundaries. Photographers were exposed to the work of earlier photographers, sometimes before expeditions, sometimes by means of the illustrated books carried on board.

Although there are thematic similarities, the photographs provide a vivid sense of the contrasting characteristics of different expeditions. The Deep Sea, first German and Swedish expeditioners represented themselves as scientists involved in scientific discovery. The Belgian and French expeditions were represented as adventures (in the former, combined with ordeal), engaging with the mystique of Antarctica. The Norwegian expedition was depicted as survival- and Pole-focused, but also with a strong element of patriotism. On the other hand, the second German expedition's photographs have a miscellaneous quality, perhaps a reflection of dysfunctionality. The Japanese expedition's photographs are like other Heroic Era photographs, but also different, reflecting both Shirase's desire to emulate and his cultural and historical singularities.

Discourses of cultural pride flow through much of the work. There is a visual language which contemporary audiences would have associated with their inherited ways of being, behaving, and valuing (Gee 1992), idealised, as is the nature of discourses. Many of the photographs represent courage. Some convey a sense of patriotism, but on the whole their imagery is less nationalist than in some of the photographs of Scott's and Shackleton's expeditions. This may be because the British, with an empire straddling the globe, were more habituated to imperialist discourse. Scott and Shackleton, in particular, were represented by their photographers as polar-hero explorers. In the portraits they chose for their books, and in pre- and post-expedition publicity, Cook, Amundsen and Shirase took some pains to represent themselves in heroic mode. Each of them seems to have been a complex blend of sincerity and humility overridden by obsession, which is reflected in the photographs chosen for their narratives. Those taken during the expeditions tend to depict these men more as team members than as heroic leaders. For suitable portraits for their books, they turned to professionals for photographs that represented them in heroic mode. Cook, Amundsen and Shirase were shrewder media manipulators than other leaders. Nordenskjöld, for example, became aware of the advantages of dramatic depiction too late to help him offset the crushing financial burden left over from his expedition.

Photographers responded at varying levels to Antarctica as a place. For some, it was simply a new part of the world to be investigated or conquered. But admiration of its icy beauty is evident in the work of most. Forbidding and dangerous aspects also occur frequently. Beyond reality, the ice fairyland motif evokes the powerful sense of enthrallment often experienced by polar explorers, seemingly crossing a boundary into a compelling, enchanted land. Photographers attempted to capture these elements, drawing on the intense appeal of the idea of a remote and mythical place being explored and investigated, adding their own impressions to the idea, and communicating their representations to their audiences.

Lasting awareness of photographers' expeditionary work is promoted by a number of factors, the most important of which is the availability of skillfully written narratives.

Leaders and photographers wrote books or articles, but none gives photography more than passing mention, although Frederick Cook wrote some articles on it many years later. Narratives of expeditions remain in print, but there are or have been problems with accessibility of others. Carl Chun's book is accessible on the Biodiversity Heritage Library website,⁸⁵ but in German gothic script. It has not been translated into English. Narratives by Drygalski, Filchner, Charcot (the first expedition) and Shirase were not translated into English until very many years after the originals appeared.

Another important factor in continuing awareness of the photography is the proactiveness of archives in keeping it in the public eye. There is in none of these countries an organisation comparable to the Scott Polar Research Institute, Cambridge, or the Royal Geographical Society, London, which preserve, curate and promote images from British expeditions, as well as, to a far less extent, some photographs from Amundsen's and other expeditions. However, the Byrd Polar Research Center at the University of Ohio keeps a Frederick A. Cook website and has been involved with important *Belgica* symposia. France also has collections, albeit dispersed, which promote Charcot expeditions. The Musée d'ethnographie de Bordeaux, University of Bordeaux, has digitised many of Pléneau's photographs. An exhibition was held in 1991 and a catalogue produced. The Musée de la Marine held an exhibition, 'Charcot: les passions des pôles', in Paris in 2006. Photographs from various Louis Gaim collections have been exhibited throughout France. The Norwegian Polar Institute in Tromsø has Norway's largest collection of polar-historical photographs (Barr 1997). Many are digitised and accessible online. The Fram Museum in Norway honours Amundsen with displays and offers digitised photographs on its website. In 2011–12 Amundsen centenary celebrations took place there and at many other places around the world. In Sweden there has been recent interest in Nordenskjöld, with the Grenna Museum holding an exhibition in 2012 titled 'Brave Men' and featuring photographs and artifacts.

⁸⁵ <http://www.biodiversitylibrary.org/item/51436#page/30/mode/1up>

Drygalski, Filchner and Shirase appear to get less promotion. The Leibniz-Institut für Länderkunde (Institute for Regional Studies), Leipzig, has forty-eight boxes of documents and photographs from Drygalski's expedition, for which there is a finding aid in the archive building. A centenary exhibition was held there, with twenty-six poster boards of interpretational material about the expedition. Little has been made available online. The Archiv für deutsche Polarforschung (AdP) (Archive for German polar research) at the Helmholtz-Zentrum für Polar- und Meeresforschung, Alfred-Wegener-Institut, Bremerhaven, has two albums of approximately 300 Drygalski expedition photographs, which are in an extremely poor state of preservation, but are being digitised. They have one portrait of Filchner (personal communication, Dr. Christian Salewski, historian and archivist, 16 May 2013). The Deutsche Geodätische Kommission, Munich, supervises a Wilhelm Filchner archive located in the Bavarian Academy of Sciences, but again, there is little online.

Japan has a Shirase Antarctic Expedition Memorial Museum with a website in Japanese. Occasional exhibitions occur, but little promotion seems to penetrate beyond Japan.

The scholarly literature has been found to provide only a small number of studies concerning photographs from the successful Norwegian expedition, and very little on photographers from Belgian, German, Swedish, French and Japanese expeditions. The present study will therefore make a worthwhile contribution to the body of knowledge on photographers of the Heroic Era.

Concluding remarks

Attitudes to history shape the way human societies view their present and envisage their future. Lesser known Heroic Era expedition photographs infuse the history of the period with a vivid visual dimension that provides a basis for interpretations of intellectual, moral, psychological and other issues that have continued to this day in scientific, national and international questions regarding Antarctica.

Interaction between these expeditions and their audiences helped construct the very idea of Antarctica. Their work evokes the lived experience of the Era's excitement and drive, and contributes to a sense of how late nineteenth and early twentieth century science was energised by Antarctic exploration.

It is to be hoped that researchers with access to original photographs and other primary sources will produce further understandings of these photographers and their work. I would have liked to know more about the photographic equipment used and the experience of photographing in Antarctica, information which might be found in unpublished manuscripts such as diaries. It would also be interesting to know if any of these expedition photographers experimented with colour. A study which brought to light Reginald Koettlitz's work with colour filters on Scott's *Discovery* Expedition was published only recently (Jones 2011), after examination of archival material. Speakers of German, Swedish, French, Norwegian or Japanese might spend productive time considering archival sources for similarities and differences relating to cultural contexts.

Science dominates contemporary representations of Antarctica. Artistic representations are inserted into the scientific context and inevitably play a secondary role. It is nevertheless important to develop the study of alternative or complementary representations, including historical perspectives. Most Heroic Era photographers were scientists themselves, but there are, to a greater or lesser degree, elements of aesthetic appreciation in their work. A further area which could be productively researched involves going deeper than I have been able to, given the time constraints of a Master's project, into the tension between emotive and aesthetic qualities of Heroic Era images and systematic analytic and scientific motifs present in them.

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Appendix

Information on camera makes, models and lens types is given in some, but far from all, accounts of expeditions. Table 1 is a summary.

Table 1: Photographic equipment taken on expeditions

Expedition	Photographic equipment
Belgian Antarctic (<i>Belgica</i>) (1897–99)	French and German cameras, Zeiss lenses and glass plates.
German Deep Sea (<i>Valdivia</i>) (1898–99)	Large-format cameras, also 7 Moment-Apparats.
German (<i>Gauss</i>) (1901–03)	Zeiss 9 x 12 cm tripod camera with anastigmatic lens, telephotographic equipment for a 13 x 18 cm camera; a travel camera from Stegemann.
Swedish (<i>Antarctic</i>) (1901–03)	Large format cameras, also Kodak Folding Pocket Camera no. 3.
French (<i>Français</i>) (1903–05)	Stereo-jumelle twin-lens camera, 2 Richard verascopes, 2 Kodaks, a Gaumont Block-Notes, a Joula Sinnox, a rotating lens film camera, and lenses incl. Demaria Anastigmat.
French (<i>Pourquoi Pas?</i>) (1908–10)	Large format & smaller Kodak cameras, a cinematograph.
Norwegian (<i>Fram</i>) (1910–12)	Cinematograph & cameras including Bjaaland's 3 x 3 inch Kodak.
Japanese (<i>Kainan Maru</i>) (1910–12)	Zeiss and Goerz cameras, Warwick cinematograph.
German (<i>Deutschland</i>) (1911–12)	Ten cameras provided by Goerz and Zeiss; all necessary equipment for developing over 3,500 plates.