

Report of the SCAR History AG, and Application for its Conversion to an Expert Group

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Report of the SCAR History Action Group

As one of the activities to celebrate the 50th anniversary of the International Geophysical Year (1957-58) the SCAR XXXIII Delegates Meeting at Bremerhaven in October 2004 agreed to establish an Action Group on the “History of the Institutionalisation of Antarctic Research”, which would operate under the aegis of the Delegates Committee on Outreach and Administration. This was not only a new direction for SCAR, but also created the first international and interdisciplinary group devoted to the history of polar research.

The aim of this working group was to obtain insight into the evolution of Antarctic research since the 1950s, and into the emergence and development of institutions to co-ordinate that research in a pan-Antarctic way through what was first called the Special Committee on Antarctic Research, and then the Scientific Committee on Antarctic Research. The group examined to what degree research in the Antarctic had been driven by scientific criteria, and to what extent compromises were made in the light of political constraints during the Cold War, and in the light of levels of technological development, logistical limitations, and physical hazards. The group also looked at leading polar research figures in the context of different national settings and perspectives. Pertinent in this respect were the different roles played by non-governmental scientific organisations as distinct from intergovernmental organisations or other modes of international organisation. Co-operation in Antarctic research was also examined with an eye to its general orientation and scope as well as to problems associated with multi-lateral or international co-operation. Additional socio-cultural and political background factors were considered, for instance in regard to major nations that chose not to contribute to the IGY. Besides examining the motivation of an individual person or a given country to engage in Antarctic research, the group aimed to review the setting up and implementation of research agendas and the arguments used to justify and promote Antarctic research. The question of funding and its possible effect on the character of an expedition has been another theme.

The group planned to hold three workshops, each leading to a published report and the whole leading to a summary for the Delegates meeting in 2008 at the heart of the International Polar Year, and a history session (which would function as a 4th workshop) during the XXX SCAR Open Science Conference.

The results of the three workshops are reviewed in the Appendix to this report. Each workshop comprised a set of talks, and included ample time for review and discussion. 45 to 60 minutes were allowed for each talk during the workshops, so as to give time to outline each paper and to follow it with a substantial discussion. Informal discussions continued through lunch breaks and the workshop dinner. Each workshop lasted two days. To enable different parts of the SCAR community to be engaged in the process, workshops were held in Europe (Germany, 2005), South America (Chile, 2006), and North America (USA, 2007).

The proceedings of the first SCAR history workshop were published in the Reports of Polar and Marine Research of the Alfred Wegener Institute (Bremerhaven, Germany) in 2007.

The papers of the 2nd workshop will be published by the Chilean Antarctic Institute in Santiago, Chile in 2008.

The Proceedings of the 3rd SCAR workshop on history of Antarctic research will be published in the electronic series of the Byrd Polar Research Center, as part of the Digital Repository of the Knowledge Bank of The Ohio State University.

The papers and posters for the history session of the XXX SCAR Open Science Conference will be published in “Polar Record”.

These four sets of publications constitute a major international contribution to the history of scientific research in the Antarctic during and after the IGY.

The cost to SCAR has been an investment of some \$2000 to \$3000 per year from 2005 through 2008, as a contribution to the costs of organising the four meetings.

Application to Convert the SCAR History Action Group into a SCAR History Expert Group

The three workshops in Munich, Chile and the United States facilitated the development of a very active international group of enthusiasts working on the history of Antarctic scientific research. This group comprises an eclectic mixture of graduate students and PhD students, practicing scientists, Antarctic veterans, historians, and historians of science, as well as experts on the Antarctic Treaty. Given this mix of ages, national backgrounds, and experience, it is not surprising that many new and original ideas have emerged that merit further investigation. Given the wide range of opportunities for further research, and the successful track record of the Action Group, it would seem timely to convert the AG to an Expert Group to enable the various lines of research to be exploited further so as to generate a comprehensive series of monographs on the development of Antarctic scientific research.

During the first three workshops the focus has been on research undertaken during and after the International Geophysical Year, against the background of the institutionalisation of collaborative research under the leadership of SCAR. It now seems timely to expand the time frame and to look at the early history of the development of scientific research in Antarctica, which in effect set the scene for the IGY and the creation of SCAR. We can see a number of key periods for which our research would be worthwhile. A useful starting point would be the search for the magnetic pole in the southern hemisphere, which began around the 1840s. Moving on from that, we have the establishment of the first research stations in the Antarctic region - a French station close to Cape Horn and a German station on South Georgia, during the 1st International Polar Year (1882-1883). Next there was the inception of the so-called “heroic age” of exploration, which was stimulated by the focus on the unknown “terra australis” during the VIth International Geographical Congress (London, 1895). A congress resolution appealed for expeditions to explore the Antarctic Ocean and Antarctica. This led to the first international co-operation in Antarctic research during 1901-1904, following the scientific protocols developed for the 1st IPY. Ten years later the character of Antarctic expeditions had changed quite dramatically, being driven more by personal ambitions and nationalistic goals for conquering the South Pole. During the 2nd IPY (1932-1933) plans for the development of Antarctic scientific research stations had to be postponed due to the financial restrictions imposed by the Great Depression – nevertheless that IPY stimulated further interest in Antarctic research that continued with isolated national expeditions in the 1930s and 1940s, culminating in the Norwegian-British-Swedish Expedition of 1949-1952.

Alongside these land-focused expeditions, between the 1920s and 1950s we see the advent of significant oceanographic research in the Southern Ocean, much of it dedicated to investigations related to the whaling industry. These different periods of investigation in Antarctica and the Southern Ocean set the scene for the IGY, during which the first dense network of stations was established to investigate in a collaborative way various scientific programmes ranging from geology, and geophysics to meteorology, biology and space research. This short review demonstrates that to some extent or other, international cooperation has always been encouraged in the far south. The task of the new EG will be to provide the missing documentation of that development, and to place it in its historical context. This will be a fitting legacy of the present IPY, and an appropriate contribution from SCAR.

The work of the expert group will focus on the historical background for and context to the early scientific expeditions, the nature of their financial and personal support, the leading figures of the early expeditions, and their roles and influence, and the extent to which these expeditions made specific contributions to Antarctic and Southern Ocean science. The Group will also look at the development of the different investigations and their results, not least to see what impact they had on the wider world of science. Many of the questions that the early explorers set out to address were absolutely fundamental to our current understanding of Antarctica, like the question concerning whether or not there was a land connection between east and west Antarctica, or a division by ice covered water. As early as 1910 it was thought that this question could be answered by a trans-Antarctic crossing, something that was not realised until the IGY.

It can confidently be expected that the Group's research will unveil important scientific results that were forgotten about due to the first and second World Wars, or that have been neglected because of the change of the scientific lingua franca to English, since when reports in other languages such as German or French or Spanish have become poorly understood and not well accessed by the younger generation of scientists.

It will also be valuable for the Group to compare the styles and relative successes of different international approaches to research in Antarctica, and to contrast them with purely national endeavours – like those of the race to the South Pole around 1911. Different models for international effort include, for instance, those of:

- 1) the international group of scientists chosen for the first Belgian expedition (1897-1899) under Adrian de Gerlache;
- 2) the multilateral selection of scientists for the Norwegian-British-Swedish Expedition (1949-1952);
- 3) expeditions sharing the results of their meteorological and magnetic observations during a personal co-operation between expedition leaders (1901-1904), like those arranged at the International Geographical Congress in Berlin (1899);
- 4) expeditions arranged under the official umbrella of an international organisation, like the 2nd IPY (1932-1933).

Questions arise, such as - Was this international approach realised in all disciplines on the expedition, or were some disciplines only carried out for a national programmes, and why? What stimuli led to international contributions?

Another question for the Group's research is what happened to new scientific findings that took a long time to elaborate through time-consuming calculations – like Simpson's meteorological investigations on Scott's last expedition? Recent investigations of the meteorological data from Scott's expedition unveiled the fact that Scott's fatal march took

place under very unusual cold weather conditions. We know about Scott's death on the Antarctic ice cap, but what happened to his rock samples? What became of the huge collections of biological material collected by the *Romanche* during the French investigations at Cape Horn during the first IPY? What became of the data and rock samples collected on Byrd's several expeditions, after he had written up a summary of his efforts for National Geographic Magazine? What did the massive Highjump Expedition of 1947 contribute to science? What was the impact on scientific understanding of the British Grahamland Expedition of the 1930s? Analyses of questions like these have to be seen in the historical and socio-cultural contexts of each period.

There is also always the issue of the influence on scientific research of the advent of new instruments and measuring techniques, for example like radio-sondes in the 1930s, ice coring devices in the 1950s, and satellites in the 1970s, as well as new means of transport like crawler tractors (which came into their own in the IGY) or aircraft (which were first used in Antarctica in 1929). These must not be forgotten in the treatment of the history of Antarctic research.

Looking back in time it will also be helpful to establish the history of important contemporary issues in the Antarctic context, for example to what extent was the role of Antarctica and the Southern Ocean in climate research addressed in the pre-IGY era?

Looking back at the contributions to science of these different pre-IGY periods ought to be quite illuminating as far as the evolution of the scientific understanding of Antarctica and the Southern Ocean are concerned. The value in undertaking such an exercise is that it will enable SCAR to make a significant contribution to outreach activities that can help not only to attract the interest of the general public, but also to stimulate a new generation of polar researchers.

It is proposed that funding for the activities of the Expert Group continue at the same level as before - US\$3000/yr. Results from this small investment have so far proved to be significant in terms of publication.

It is proposed that the new Expert Group be named the Expert Group on "The Pre-IGY History and Development of Antarctic Scientific Research" (History EG for short).

Cornelia Lüdecke
SCAR History Action Group

APPENDIX TO REPORT OF SCAR HISTORY GROUP**The Results of the Workshops of the SCAR History Group (2005-2008)****1st SCAR Workshop on the History of Antarctic Research.****Title: “Steps of Foundation of Institutionalized Antarctic Research”****Date and Location: Bavarian Academy of Sciences and Humanities, Munich (Germany), 2-3 June, 2005**

To answer some of the questions pertaining to institutionalization of Antarctic research, the 1st SCAR workshop on history of Antarctic Research took place at the Bavarian Academy of Science and Humanities (BAoSH) in Munich (Germany) on 2 - 3 June, 2005. It was supported by Ludwig Braun, head of the BAoSH Commission of Glaciology. Each oral presentation had a time slot of 60 minutes, providing time for detailed discussions. Posters were on display throughout the workshop. Prof. Horst Hagedorn, chairman of the BAoSH Commission of Glaciology, welcomed 18 participants from 7 countries (Australia, Chile, Germany, The Netherlands, Russia, Sweden, and USA) on behalf of the Academy. During two days, nine papers and three posters were presented.

Jorge Berguño (Chilean Antarctic Institute, Santiago, Chile) spoke on the dawn of Antarctic scientific consciousness from the Chilean point of view. He described how a sort of elite developed in Chile in co-operation with Antarctic expeditions and with Punta Arenas as focal point for supplies. Comments on Chilean Antarctic claims in comparison with the Antarctic Treaty System were also made.

Adrian Howkins (University of Texas at Austin, Abington, USA) discussed Argentine scientific interests in Antarctica from 1946 to 1959. He distinguished three phases closely connected with changes of government in Argentina: The military or navy period (1946-1951), Peron's period (1951-1956) with the foundation of the Instituto Antártico Argentino, and finally the time after 1956 with the impact of the International Geophysical Year (1957/58). Research in the so-called Argentine sector of the Antarctic Peninsula was carried out with reference to the principle of territorial occupation. In the discussion the peculiarity of the Falkland War down to 65 km north of the boundaries of the Antarctic Treaty System was highlighted making the politicalisation of Antarctic history obvious.

Antarctic veteran John C. Behrendt (Institute of Arctic and Alpine Research, University of Colorado, USA) presented his personal view of the U.S. Antarctic Oversnow geophysical-glaciological research program of the IGY (1957-58). As a graduate student of geophysics at that time, he participated in the Filchner Ice Traverse. All was done in support of later territorial claims by the U.S., which never were presented, because of the development of the Antarctic Treaty.

Aant Elzinga (Department of History of Ideas and Theory of Science, University of Göteborg, Sweden) gave a talk on the Swedish non-participation in the Antarctic leg of the IGY, and on the personalities involved. It was interesting to see that prominent participants of the Norwegian-British-Swedish-Expedition became rather influential in Antarctic research. But Sweden was not politically motivated to push for activities in Antarctica during the IGY. Instead leading researchers and politicians preferred to link back to an earlier era of exploration and research in the Arctic. The circumstances, among others institution-building within Stockholm University favouring this commitment, were discussed in terms of both

political and research agendas. Furthermore Sweden's role in hosting the conference in 1957 that led to the creation in 1958 of the Special Committee on Antarctic Research, out of which SCAR as it is known today grew forth, was carefully documented.

Peter Abbink (Arctic Centre, University of Groningen, The Netherlands) presented Antarctica as a subject of international politics in the 1980s. This period had been the most dynamic and turbulent in the history of the Antarctic Treaty System due to debates about the possibility of establishing a minerals regime, and due to growing concern for the conservation of the Antarctic natural environment. In the discussions on the renewal of the Antarctic Treaty, different types of legal systems had been involved: he contrasted the German need for exact definitions and the Anglo-Saxon attitude of wait-and-see how things develop.

Johan van Bennekom (retired from Royal Netherlands Institute for Sea Research, Texel, The Netherlands) described the origins and start of Dutch involvement in Antarctica since the mid-1960's, when Dutch meteorologists over-wintered at the Belgian Station "King Baudouin". Dutch interest in Antarctic research grew again in the 1980s in context with the possible revision of the Antarctic Treaty. Whereas governmental organisations were very much in favour of exploitation, non-governmental organisations in the Netherlands played a major role in focussing on the conservation of nature. Dutch Antarctic research gained momentum thanks to the hospitality of other countries, which included Dutch scientists in their expeditions. Now there is a move to try and establish a European station to be used by smaller countries like the Netherlands.

Balthasar Indermuehle (School of History and Philosophy of Science, University of New South Wales, Glebe, NSW, Australia) made a special case study of the history of astrophysics in Antarctica. He identified an astrogeological era from the first discovery of a meteorite during the Mawson expedition (1911-1914) to the large scale meteorites finds in the 1960s, a high energy era with the dawn of high energy and solar astronomy in the 1970's, and a photon era since 1979, with the first optical research program and recent projects in high energy and sub millimetre astronomy. When the Antarctic Plateau turned out to be an ideal place for astronomical observations, the largest single scientific and most international programme at the South Pole AMANDA (Antarctic Muon and Neutrino Detector Array) was organised in a joint venture involving 20 institutions from six nations.

Cornelia Lüdecke (Centre for the History of Science, Mathematics and Technology, University of Hamburg, Germany) focussed on Karl Maria Herrligkoffer's private initiative to equip a "German South Pole Expedition" (1957/58) in a context where the official West German line was one of non-participation in polar expeditions during the International Geophysical Year. Herrligkoffer wanted to continue the programme of the 3rd German Antarctic Expedition (1938/39), which discovered the mountains of Neuschwabenland (now Dronning Maud Land). But his initiative failed, because German geographers did not want to include him in their scientific community; they considered that as well-known mountaineer he was not the right man for the task. It is an interesting case of how scientific credibility or the lack of it interlinks with the possibility or not of meeting an overriding national political agenda.

Unfortunately the Russian colleagues Vladimir Kotlyakov and Maxim Moskalevsky, Institute of Geography Russian (Academy of Sciences, Moscow, Russia) and their co-authors V.V. Lukin, and A. V. Klepikov (Arctic and Antarctic Research Institute of the Roshydromet, St. Petersburg, Russia) could not attend the workshop, but they nevertheless submitted a paper on "Russia in the Antarctic" for the proceedings.

Reinhard Krause (Alfred Wegener Institute, Bremerhaven, Germany) introduced the subject of Georg von Neumayer (1826-1909) as promoter of German Antarctic research. Neumayer's permanent agitation in favour of a German Antarctic expedition since the late 1850s finally led to the realisation of the first International Polar Year (1882/83), in which Germany established a station on South Georgia. That station also served as an observation post to observe the transit on Venus.

Cornelia Lüdecke added a short contribution on the Belgian attempt to institutionalise polar research (1905-1915) and the German point of view, which gave insight into the failed initiative of an early polar organisation, to which Berguño and Elzinga referred to several times during their talks. The presentation stimulated a discussion on the conditions surrounding the advent of the short-lived International Polar Commission (IPC) that was instituted just before World War I.

In a poster presentation, Jason Davis (Department of Geography, Ohio State University, Columbus, OH, USA), explained the changes to Antarctic identity rhetoric as demonstrated by papers published in the National Geographic Magazine. The poster of David Michael Dodd (Royal Society of Victoria / University of Melbourne, Melbourne, Australia) addressed the Australian context of the history of Antarctic research, referring to the input of European scientists like the German Georg von Neumayer. The poster of Helmut Honik (Filchner Archive, Munich, Germany) and Cornelia Lüdecke introduced the subject of Bavarian officer Wilhelm Filchner (1877-1957), leader of the second German Antarctic expedition to the south eastern part of the Weddell Sea and linked to the Filchner-Archive at the Bavarian Academy.

The workshop was sponsored by SCAR together with a number of German agencies and associations, the Deutsches Zentrum für Luft und Raumfahrt (Oberpfaffenhofen), Deutsche Gesellschaft für Polarforschung, und Schwerpunkt Geschichte der Naturwissenschaften, Mathematik und Technik (University of Hamburg) and Spaten-Löwenbräu Gruppe.

The proceedings of the first SCAR history workshop were published in the Reports of Polar and Marine Research of the Alfred Wegener Institute in Bremerhaven (Germany):-

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A full text can be downloaded at <http://epic.awi.de/Publications/Lde2007b.pdf>

2nd Workshop of the SCAR Action Group on the History of Antarctic Research.

Title: "Multidimensional exploration of Antarctica around the 1950s"

Date and Location: Ministry of Foreign Affairs, Santiago (Chile), 21-22 September 2006

The 2nd workshop of the SCAR History Action Group took place at the Ministry of Foreign Affairs in Santiago (Chile) and was supported by Jorge Berguño from the Instituto Antártico Chileno and his team. José Retamales, Director of the Instituto Antártico Chileno in Punta Arenas welcomed 21 participants from 7 countries (Argentina, Australia, Chile, Germany, The Netherlands, Sweden, and the USA). Mariano A. Memolli (Director Nacional del Antártico, Argentine) and Jan Huber (Director of the Antarctic Treaty Secretariat, Buenos

Aires, Argentine) were among the participants, as well a journalist, who made some interviews and reported about the workshop through the Internet. Thirteen papers were given, covering a relatively broad range of perspectives.

Eugenio Genest (Instituto Antártico Argentino) traced the development of Antarctic research in Argentina from its inception as part of geographical exploration including the period of Argentinian co-operation within the international polar years.

Jorge Berguño (Instituto Antártico Chileno, Chile) dealt with the intellectual sources of the Antarctic Treaty, starting with early negotiations between Argentina and Chile in 1906-1908. Finally in 1958 three versions were discussed at the Washington Conference. 1) an Antarctic status quo, 2) an Antarctic condominium, or 3) an Antarctic international regime. In the end Antarctica became a peaceful region dedicated to scientific research. The presentation provided important information for understanding the historical background and dynamics of the negotiations that led to the Treaty.

Jason Kendall Moore (University of Tasmania, Australia) showed the long distance that the idea of progress of the 18th century as championed by the French Encyclopaedia promoting knowledge as a means of bettering humanity had to travel, until it arrived as an ingredient of the Antarctic Treaty including the first nuclear test ban.

Peter Abbink (Arctic Centre, The Netherlands) focussed on the policy behind the Belgian-Dutch Antarctic co-operation in the 1960's. Non-scientist Gaston de Gerlache de Gomery, son of Adrian de Gerlache, leader of the first Belgium Antarctic expedition (1897-1899), as leading figure gave it a more political character. Belgium owned the Antarctic base and paid two third of the costs, but did not involve the usual institutions and organisations co-operating in Antarctic research, like the Belgian SCAR committee. In contrast to this the Dutch contribution at the time was more independent of the government, involving the usual structure of academic institutions, which led to a kind of clash of cultures between these two countries with respect to their Antarctic efforts in the years following the IGY.

Adrian Howkins (University of Texas at Austin, USA) presented Chilean Antarctic science in the period 1946-1959 in the national context. The sovereignty dispute concerning the Antarctic Peninsula between Chile, Argentina and Great Britain was shown to dominate the political context in which Chilean Antarctic science developed. The author provided important input to a broader view of the general politicisation of the International Geophysical Year.

Mauricio Jara (Universidad de Playa Ancha, Chile) analysed Chilean newspaper sources describing the context and content of the Indian initiative presented to the United Nations in 1956, when India called for Antarctica to be internationalised and to become the world's only region in which all atomic and thermonuclear tests were to be forbidden.

Consuelo León Wöppke (Universidad Marítima de Chile, Chile) dealt with the same time period, in which other newspaper headlines like "When Titans Clash, Something has to Give" described the U.S. thinking on Antarctica in the mid-1950's as seen from the contemporary Chilean point of view. Everything was seen through the lens of the Cold War, when the United States was competing with the Soviet Union on several fronts, among which Antarctica was the least dangerous. Nevertheless, the author argued that the Antarctic theatre offered an ideal forum in which to display military power in the name of international scientific co-operation.

Cornelia Lüdecke (University of Hamburg, Germany) discussed German naming in Antarctica after the 3rd German Antarctic Expedition (1938/1939), which had discovered the mountains of Neu-Schwabenland (now Dronning Maud Land). The German names had not been made official due to World War II. This became a problem when a new Antarctic map was to be produced by the German cartographer Hans-Peter Kosack in the early 1950s. The problem of naming was discussed in the framework of a planned German expansion to the Southern Continent during the Third Reich.

Irina Gan (University of Tasmania, Australia) described the “Preparation for the first Soviet Complex Antarctic Expedition 1955-1957 and the Australian response” in the context of politics and science. Many official and unofficial Russian committees were engaged in planning the expedition, which established the large scientific station Mirny and the two smaller stations Pionerskaja and Oasis in the sector claimed by Australia. After the IGY it seemed that science may have been one way of gaining a political foothold on the Antarctic continent, but, as the author showed, it led to a far greater level of international scientific co-operation than was possible using political means only.

The perspective discussed in Gan’s paper was contrasted to the Australian perspective and concerns of the time highlighted by Nelson Llanos Sierra’s (Universidad Marítima de Chile, Chile) presentation on “Chile and Australia: Antarctic Relations in the mid-1950’s”. It was shown how the Antarctic context was physically and politically altered by the establishment of Soviet bases in Australian Antarctic Territory. These bases also generated much apprehension among other nations active in the region, who doubted that the Soviet motivations were purely scientific. In this context, Chilean diplomats tried to establish a common polity with Australia to counteract possible Russian advances as well as to limit the extent of British influence on the Australian Antarctic policy and the IGY. The importance of geopolitics regarding Antarctica was nicely underlined in the paper.

Within this framework the logic of risk assessment in the planning for the IGY, a paper prepared by Lisbeth Lewander (University of Göteborg, Sweden) was also pertinent. She took a historical and social point of view in looking at the IGY, referring to individual, organisational, and symbolical aspects. Risk assessments as well as risk communication were crucial issues at that time and still are today.

The early European attempt to launch an Ice Coring Project in Antarctica (the European Antarctic Project, EAP) long before the European Project for Ice Coring in Antarctica (EPICA) was subject of Aant Elzinga’s (University of Göteborg, Sweden) paper. He demonstrated that the early attempt failed because of the high cost and an inability to agree about a suitable multinational managerial structure in the 1970s. Nevertheless it became the forerunner of the successful EPICA project by the involvement of important actors originating in the discussions of the 1970s. The relevance of the geopolitical agendas of various nations was also touched upon.

Finally Adolfo E. Quevedo Paiva (Argentinean Army) presented his bilingual (Spanish and English) book on “Argentinian geographical discoveries in Antarctica – Discoveries south of the Weddell Sea” and Alberto Sepúlveda (Diplomatic Academy of Chile) reviewed the new book edited by Consuelo León Wöppke et al. on “La Antártica y el Año Geofísico Internacional: Percepciones des de fuentes chilenas, 1954-58”.

The workshop was sponsored by SCAR, together with the Chilean Antarctic Institute and the German Society for Polar Research.

The papers of the 2nd workshop will be published by the Chilean Antarctic Institute in Santiago, Chile. The review of papers is finished, and after collection of the last revised papers it is planned to publish the proceedings in 2008.

3rd Workshop of the SCAR Action Group on the History of Antarctic Research

Title: “National and Trans-national Agendas in Antarctic Research Since the 1950s”

Date and Location: Byrd Polar Research Center, Columbus, Ohio, USA, 25–26 October 2007

The 3rd Workshop of the SCAR History Action Group was organised at the Byrd Polar Research Center (Columbus, Ohio, USA) with the local help of the Assistant Director Raimund E. Goerler and his team. Sessions were held on 25 and 26 October 2007. About twenty participants attended from six countries (Australia, Chile, Germany, Great Britain, Sweden, and the USA).

After the welcome speeches and a review of the work of the history of the Action Group, which was founded in 2004, the workshop started with Peder Roberts (Department of History, Stanford University, USA), who asked the question “What has all of this got to do with Science?” He then presented a commentary on ‘Rhetoric of scientific devotion in the planning of the International Geophysical Year (IGY, 1957–1958).’ His answer showed that on the surface everything functioned as an emblem of international cooperation in scientific endeavour. However, people have to ask how and why the IGY came to possess that symbolic value, and to consider it as an integral part of a broader (geo-)political picture.

Jason Kendall Moore (Centro de Estudios Hemisféricos y Polares, Viña del Mar, Chile) then gave a paper on ‘Playing Dice: Toward a scientific explanation of U.S. leadership in the formation of the Antarctic Treaty of 1959.’ Moore focused on the inconsistency of American leadership, with a number of other factors, that nearly led to the treaty’s non-ratification, and which exposed the non-commitment of U.S. officials to their own policy.

Rip Bulkeley (Exeter College, Oxford, UK) analysed ‘The role of Antarctic diplomacy in the origins and conduct of the IGY.’ He noted that France became the first and still is the only country with an Antarctic claim to install a permanent station outside of “its” sector, 46 years after the signing of the Treaty.

Jorge Berguño (Chilean Antarctic Institute, Santiago, Chile) explained ‘The search of an organizational framework for Antarctic research (1948–1985).’ The course of the IGY demonstrated that binding undertakings and concerted action in scientific programs could be achieved without transferring all the authority to a single scientific body. In 1958, the International Council of Scientific Unions established the Special (later Scientific) Committee on Antarctic Research (SCAR). In 1985, SCAR was fully incorporated as a permanent observer in the mainstream of the Antarctic Treaty System (ATS).

In this context, M. Consuelo León Wöppe (Universidad Marítima, Chile) presented an interpretive analysis of ‘The state of Chilean science before and during the International Geophysical Year.’—before the Chilean emphasis shifted to the role of political and scientific elites in shaping public opinion.

Cornelia Lüdecke (University of Hamburg, Hamburg, Germany) referred to a country that did not actively take part with polar expeditions in what is today called the 3rd International Polar Year, as she spoke about ‘The International Polar Year (1957–1958) as reflected in German media.’ The time of the Cold War was characterized by the use of military terms to describe interests in Antarctica.

This was clearly visible in the analyses of western German newspapers, and even in popular books on Antarctic research of the 1950s.

Ann M. Dozier (University of Rochester, Rochester, New York, USA) gave a lively report on her investigation of 'Getting the Science Done: perspectives from McMurdo,' during three austral summers between 2002 and 2005. She observed how organizational bureaucracy and the scientists' professional autonomy created inherent tensions, and how these were exacerbated by the uncertainties of conducting science in a polar environment.

Jason David (The Ohio State University, Columbus, Ohio, USA) dealt with 'The development of biology as a discipline in Antarctica.' He discussed the growth of biology in the amount of research undertaken, particularly on the Antarctic continent, and its connection to larger trends in both the history of biology and the context of Antarctic science.

Adrian Howkins (University of Texas, Austin, Texas, USA) talked about 'British Antarctic science, 1944–1959,' which first was increased on the Antarctic Peninsula before the advent of cooperation and international research efforts. Finally, Britain sought to harness the scientific goodwill generated by the IGY to bring about political change in Antarctica, leading to the Antarctic Treaty of 1959.

John C. Behrendt (University of Colorado, Boulder, Colorado, USA), a veteran of IGY, reminded us of the 'First (1957–1958) Geophysical Investigation of the Filchner-Ronne Ice Shelf (FRIS).' He discussed the results including the determination of maximum ice thickness (1,300 meters) of the southern-most area of the FRIS, which was in significant contrast to re-measurement of this area in the 1990s, when only 1,100 meters were found, suggesting significant melting during the interval.

A paper on 'The shaping of a European effort in paleoclimatology,' by Aant Elzinga (University of Göteborg, Göteborg, Sweden), focused on the discussion of the European Antarctic Project (EAP), abandoned in 1975, and the multi-national European Project for Ice Coring in Antarctica (EPICA), which started up in 1995. It was shown how ice core drilling and interpretation of records from the "archives" of ice-sheets so important for current discussions about global climate change also has historical roots that go back to the IGY and early ice core drilling efforts in Greenland (from Camp Century to GRIP and GISP 2). Tensions in Danish-Swiss-US collaboration and European experience in Greenland were factors that must be taken into account to understand the origins of EPICA.

Irina Gan's (University of Tasmania, Australia) paper was titled 'To the Great Unknown: Soviet IGY Antarctic Expeditions of 1955–1958.' She showed the setbacks and obstacles encountered by the 2nd Russian Antarctic Expedition in particular, which almost resulted in failure of the whole Soviet IGY commitment. Nevertheless, obstacles were overcome and plans finally concluded successfully.

The final paper was given by Lisbeth Lewander (University of Göteborg, Göteborg, Sweden) on 'Swedish polar politics, 1955–1970,' when Cold War developments in the Far North were urgent concerns, which had an impact on Swedish undertakings in polar areas. Archival studies showed that occasionally decision makers were hesitant about what course of action to take, such as in the case of the political status of Antarctica in the 1950s.

Tim H. Baughman (University of Central Oklahoma, USA) gave an after-dinner speech on 'Amundsen, Cook, and the *Belgica*, the first international scientific and multi-national expedition to the Antarctic.'

The 3rd SCAR workshop was supported by SCAR, together with the Byrd Polar Research Center and the Friends of the Byrd Polar Research Center (Columbus, Ohio, USA), the Frederick A. Cook

Society (USA); Schimank-Stifung (Hamburg, Germany); and Deutsches Zentrum für Luft und Raumfahrt, Oberpfaffenhofen (Germany).

The Proceedings of the 3rd SCAR workshop on history of Antarctic research will be published in the electronic series of the Byrd Polar Research Center, as part of the Digital Repository of the Knowledge Bank of The Ohio State University.

The Final Session of the History AG takes place as Session 5.7 during the SCAR / IASC Open Science Conference

Title: “Polar History and Institutionalization of Polar Research: The International Polar Years”

Date and Location: St Petersburg (Russia), 10 July 2008

During the history session we expect to have six oral papers. The opening will be made by Aant Elzing (University of Goteborg, Sweden) on the historical changes in polar research – seen through the lens of the four IPYs. S.A. Chernouss (Polar Geophysical Institute. Arctic Atmosphere Laboratory. Apatity Murmansk) will discuss the world first complex optical instrument observations of aurora in the arctic in 1899-1900 carried out by Jose Sykora. Cornelia Lüdecke (University of Hamburg, Germany) presents Trans-Arctic air-routes, the 2nd International Polar Year (1932-1933) and the involvement of the German science community. Adrian Howkins (University of Texas at Austin, USA) paper focuses on US Antarctic science, 1946-1959. A. Zaitsev (IZMIRAN, Troitsk, Moscow region, Russia) will talk about “Science and the people on the Pole (the US – Soviet exchange program”. In the end David Walton (British Antarctic Survey, Cambridge, UK) will present international science in Antarctica as a history of SCAR.

Additionally there will be 12 posters, altogether adding up to a contribution by 18 persons from 10 countries (Australia, Brazil, Chile, China, Germany, Norway, Russia, Sweden, UK,USA). It is already arranged to gather the presentations for a publication in “Polar Record”.