

SCAR History of Antarctic Research Action Group

Report on Session 5.7

„Polar History and Institutionalization of Polar Research The International Polar Years“

**SCAR/IASC Open Science Conference
St. Petersburg, Russia, July 8th - 11th, 2008**

History and institutionalization of polar research in context and during the International Polar Years was the theme of five oral papers and three posters in session 5.7 during the SCAR/IASC Open Science Conference in St. Petersburg, Russia, on 9 July 2008.

Unfortunately three contributions of the 18 planned were withdrawn and one author had died before the conference. In addition, one speaker and six posters failed to show up, possibly due to the high cost of the overall conference, circumstances regretted by the actual participants. Here follow some highlights regarding the papers presented and the main thrust of the poster session.

Aant Elzinga (University of Gothenborg, Sweden) gave a very well structured survey of the historical and epistemological changes in polar research as seen through the lens of the four International Polar Years (IPY). Long time series of meteorological and magnetic data of the 1st IPY (1882-1883) gathered in an inductivist mode, provided a base line data set of the Arctic. The 2nd IPY (1932-1933) combined hypothesis-driven research with new Arctic data to test hypotheses on physical processes, while the 3rd IPY (International Geophysical Year 1957-1958) expanded this approach and applied systematic measurements to Antarctica and the upper atmosphere, opening up new avenues for science. Finally the 4th IPY of today includes social and cultural sciences and interdisciplinary as well as bipolar approaches, global modelling and integrative Earth-system science, making it epistemologically systemic, constructivist, realist and predictive.

Cornelia Lüdecke (University of Hamburg, Germany) described the development of trans-Arctic air-routes by airship as an important background factor and context in the case of the 2nd IPY (1932-1933). She demonstrated convincingly that the idea of launching the 2nd IPY actually had its origins in a discussion within the International Society for the Exploration of the Arctic by Means of Aircraft (Aeroarctic) in the latter half of the 1920s during the planning of the expedition with the airship LZ 127 "Graf Zeppelin". The idea was

supported by the German Naval Observatory (Deutsche Seewarte) in Hamburg, but not by Alfred Wegener who was just in the process of planning a cross-sectional survey of the meteorological conditions over Greenland by means of aerological measurements at three stations in 1930-1931. Indeed there were three separate programmes in the offing at the time, all of them enjoying the support by the same constituency of the German science community.

Adrian J. Howkins (University of Texas at Austin, USA) examined the US contributions to Antarctic research in the Antarctic Peninsula between 1946 and 1959, when Great Britain, Argentina, and Chile intensely disputed the issue of territorial sovereignty in the region. Using a number of hitherto little known archival sources he brought forward new historical evidence that confirmed how, far from the often told story of a harmonious process in which science lived its own life and singly gave birth to a multinational political regime, the actual historical record reveals mutual entanglements and deep dynamic interaction of science, environment, and politics as important definitive factors in the process that led up to the signing of the Antarctic Treaty in 1959.

Alexander Zaitsev (IZMIRAN, Troitsk, Russia) reported vividly on the US-Soviet exchange programme during the IGY (1957-1958) and its character as well as many interesting events that took place within its framework at two different sites - 1253 km apart - on the Antarctic continent. The one collaborative site was the American station at the Geographic South Pole, the other was the Russian station Vostok at the Geomagnetic South Pole. In the wake of the IGY and thanks to the formation of the new political regime that followed it, involving 12 nations as Consultative Parties, between 1964 and 1986 joint US-USSR programmes were set up and operated at Vostok and McMurdo. This was seen as a significant testimony of the peaceful use of Antarctica under the auspices of the Antarctic Treaty.

The final paper was by Jessica M. Shadian (Barents Institute, Kirkenes, Norway). Her thesis was that since 1882 the global political context has transformed the role of the polar regions in global politics. Taking a long-term historical perspective she interpreted the history of the IPYs and governance of science as examples of a reinvention of politics and science at the Poles in the Post-Westfalian era. A comprehensive analysis of the polar programme of the IPYs, she demonstrated, helps to illuminate a better understanding of the contextual relationship between science and politics. She furthermore discussed questions as, how does the IPY reflect shifting power and authority of scientific knowledge over time?

The history session had an audience of more than 40 people who participated in very interesting discussions.

During the poster session Jason M. Davis (The Ohio State University, Columbus, USA) displayed the development and practice of Antarctic systems of property. He distinguished and characterized three primary models of property ownership (state-controlled, community-managed, and privatized), illustrating the differences with salient examples of assumptions and principles implicit in different International Antarctic Agreements as well as a case study of how the issue of property ownership was perceived and managed at an Antarctic base.

Julia A. Lajus (St. Petersburg Branch of the Institute for the History of Science and Technology, Russia) described the interplay of internationalism and nationalism in Soviet Arctic research in the period from 1920 and onward into the 1930s. She discussed the controversies among scientists on the issues of international co-operation especially in polar oceanography and meteorology. Especially she considered the 1926–1927 debates around the organization of a joint Soviet-German research enterprise in the Barents Sea, and the character and conditions of Russian participation in international organizations as well as in the course of the 2nd International Polar Year.

Finally Paul A. Berkman focussed on peace and science “in the interest of all mankind”. He presented hitherto unknown documentation from historical archives of the Eisenhower Administration in the USA of the 1950s. These documents reveal that prior to the Antarctic Treaty there was a more general precursor agreement respecting the international use of outer space, an agreement that essentially embodied the same spirit whereby the superpowers were united in the peaceful utilization of international spaces, starting with Antarctica during the Cold War.