

Exploring Ice and Snow in the Cold War

Veranstalter: Deutsches Museum, Munich; Rachel Carson Center for Environment and Society (RCC), Munich; Julia Herzberg / Franziska Torma RCC Munich; Christian Kehrt, Helmut Schmidt University Hamburg / RCC Munich; Cornelia Lüdecke, RCC Munich / Scientific Committee on Antarctic Research

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Bericht von: Felix Mauch, Rachel Carson Center for Environment and Society, Ludwig-Maximilians-Universität München

The inherent nature of ice and snow allows historians to view them as multifaceted objects in which environmental and socio-cultural aspects are intertwined with one another. This is especially true of the Cold War era, during which a boom in scientific research on ice and snow took place. Between the end of the Second World War and the collapse of the bipolar world in the 1990s, formerly stable perceptions of the cold, ice, and snow changed. Landscapes like Siberia, Alaska, or the Polar Regions transformed into extensive laboratories for the Arctic sciences. Thus, the goal of the conference, initiated by the Rachel Carson Center for Environment and Society and the Deutsches Museum, was to explore the history of ice, snow, and the Cold War from a number of different cultural and political perspectives and to discuss relevant conceptual approaches. The multidimensionality of the conference's topics was reflected in the disciplinary and national diversity of its participants and the new methodological and theoretical concepts presented in the course of the event.

After the directors of the Rachel Carson Center (RCC), HELMUTH TRISCHLER and CHRISTOF MAUCH welcomed the participants, the conference's conveners, JULIA HERZBERG (RCC/Munich), CHRISTIAN KEHRT (Hamburg) and FRANZISKA TORMA (RCC/Munich), opened the conference with introductory remarks on the analysis of the Cold War from the perspective of environmental history. The conveners therefore understood the word „exploring“ to be not just a descriptive, but also a methodological

metaphor reflecting the possibility of learning from different approaches and meanings of ice and snow, and of conceptualizing and embracing this new field of research.

The keynote speaker, SVERKER SÖRLIN (Stockholm) presented early findings of his ongoing study entitled „Cryohistory in the Making.“ As a turning point in the history of the cryosphere - the part of the Earth's surface covered in ice - he identified the Arctic Sea Ice Minimum in 2007. Sörlin called for a *longue durée* examination of the event in order to more accurately evaluate discontinuities and changes in the perception of the cryosphere. Due to the power of these open debates on the perception of the environment, the history of glaciology and climate change should, in the future, also be told as a story of scientific politics and popular culture.

In the first presentation from the panel „Environmental Knowledge,“ ROGER D. LAUNIUS (Washington) explored the history of the conquest of Antarctic and extraterrestrial spaces in the 1950s and 1960s. Launius interpreted these spaces to be part of a nascent colonialism of unknown territories that had developed in the shadow of the emerging dualistic world system. In terms of methodology, Launius suggested a „middle interpretation“ in which geopolitics and science act as the two intertwined driving forces in the colonization of Antarctica and outer space. In his talk, RON DOEL (Tallahassee) addressed the construction mechanisms of mental interpretation structures of nature and the environment. Doel suggested that, in the Cold War era, national security interests were the dominant motives driving the human relationship to the environment. Still today, he argued, our contemporary values and perceptions of nature are influenced by these past decisions. The following presentation was given by PEDER ROBERTS (Strasburg), who used the sub-arctic island of Bouvetøya as an example to discuss scientific collaboration between Norway and South Africa in the early phase of the Cold War, separate from the hegemony of the superpowers. Also, the limits of attempts to completely control the environment through science and technology became visible as a planned measuring station could not be built because of the ex-

treme environmental conditions. Roberts's presentation was followed by a screening of a film produced by SOPHIE ELIXHAUSER (Aberdeen/Augsburg) together with director ANNI SEITZ. This film about family structures in Greenland concluded the first day of the conference. Based on verbal and non-verbal communication patterns, the producers demonstrated the tension between traditional ideas and the modern ways of life of the younger generations, and proved the high value of personal autonomy in Greenlandic communication structures.

The next part of the conference was opened by MATTHIAS HEYMANN (Aarhus), who analyzed scientific and military activities as part of Danish and US initiatives on Greenland. On an official level, Denmark had sovereignty over Greenland, but on a practical level, the scientific exploration of the island was dictated by the United States. In reflecting upon his research, Heymann noted that he saw a gap to be filled in Greenland Cold War history research, which until now has largely failed to consider the political implications of scientific practices. INGO HEIDBRINK'S (RCC/Norfolk) presentation tied into Heymann's discussion. Using the example of Project Iceworm, a US plan to build a nuclear missile launching site under Greenland's ice caps, he not only identified the expectations and strategies used in polar research, but also visualized the effects of these military activities on the local Inuit population, from a local-historical perspective. Both presentations emphasized that obtaining natural resources was not the primary goal of all efforts in Greenland, but rather the conquest of Arctic space itself. Here, trust in scientific knowledge and technology in conquering extreme environments was almost limitless. Contact with the indigenous population or the use of their knowledge was not of interest.

The next panel concentrated on concrete places of knowledge production. DANIA ACHERMANN (Oberpfaffenhofen) placed the Swiss Federal Institute of Snow and Avalanche Research in Davos at the center of her presentation. Achermann interpreted the exploration of ice and snow as part of a Swiss mental, national defense policy that took the

form of a patriotic duty. In the next presentation, SEBASTIAN GREVSMÜHL (Paris) described Antarctica has both a real and an imagined laboratory that housed diverse underlying ideas of environmental control. He pointed out that the mental construction of the polar region in the twentieth century was closely related to other exceptional environments, such as outer space or deep waters.

In order to create a comprehensive picture of the production of (environmental) knowledge during the Cold War, the following presentations concentrated on the Soviet Arctic sciences. The analysis of continuities and breaks within the Stalinist Soviet Union's exploration of the Arctic allowed JOHN MCCANNON (Saskatoon) to explore contemporary environmental patterns of interpretation. The continual policy of the state to ignore ecological problems can be traced back to the strictly military use of the Arctic environment in the early phase of the Cold War. Potential knowledge concerning the fragility of nature was blocked. Nevertheless, towards the end of Stalin's reign, the pure military interests of the political regime were faced with a new generation of scientists who propagated a less utilitarian agenda and increasingly prescribed to fundamental research traditions. PEY-YI CHU (Princeton) dedicated her presentation to one of these fields of basic research: Soviet permafrost science. Although Soviet scientists were aware that permafrost also existed in other parts of the world, they interpreted its significant presence in the USSR as evidence proving the uniqueness of its environment. The settlement of permafrost regions was seen as a triumph of socialist modernity over nature. Only starting in the 1970s were these territorial expansion plans complemented by discourses on the need for the protection of these areas.

CORNELIA LÜDECKE'S (RCC / Scientific Committee on Antarctic Research SCAR) and CHRISTIAN KEHRT'S (Hamburg) reflections on traditions in German Arctic research complimented one another. Both identified the Second World War as a defining turning point in German Arctic research. The war facilitated a shift from military interests to basic research on snow and ice. Thematically, initial postwar expeditions such as EGIG I

(Expédition Glaciologique Internationale au Groenland) in 1959 focused on surveys and movement patterns of the Arctic ice caps. Thereby leaning on Alfred Wegener's 1930-31 expedition as a model, German polar exploration re-entered the international scientific community. However, a non-military German research agenda, according to the speakers, does not so much speak for a *Sonderweg* of the German polar sciences in the Cold War, but instead reflects the geopolitical and diplomatic position of the Federal Republic of Germany in the postwar era. German Arctic exploration took place specifically in the „Western“ alliance constellation. Missions like EGIG 1 were not only executed in the context of Western European cooperation, but also with the infrastructural and financial support of the United States. As a consequence, German polar research must be understood in the context of the Cold War interests.

Afterwards, ANNE M. JENSEN and GLENN W. SHEEHAN (Barrow) explored the history of military research conducted by the United States Naval Arctic Research Laboratory (NARL) in Alaska. The speakers' main focal point was the appropriation of knowledge from the indigenous Iñupiat by foreign researchers. NARL scientists strategically used the Iñupiat experience with ice and its properties as well as local flora and fauna in order to generate an understanding of the environmental conditions in Alaska. In the end, the Iñupiat themselves became research subjects. In ethnographical examinations, scientists attempted to transfer the genetic ability of the Iñupiat to adapt Euroamericans to the extreme cold. Despite the neocolonial behavior of the researchers, interviews conducted in Alaska indicate that a large part of the indigenous population reported a positive experience concerning their relationship with the scientists.

In the last conference panel, concrete historical actors and their environments shifted to the center of attention. PASCAL SCHILLINGS (Cologne) described Reinhold Messner's 1989 Antarctica expedition as an „applied technology of the self (Foucault).“ In his journey, Messner was accompanied by enormous public interest that he used as a

platform from which to call for environmental protection in Antarctica. This scenario led Schillings to use the media as producers and mediators of a societal narrative of nature and wilderness in the final phase of the Cold War. This story once again showed how public opinion acted as an essential factor in the relationship between humans and nature. JAMES R. FLEMING (Waterville) presented his biographical study on Harry Wexler, whom he described as an „entrepreneur“ in the conceptualization of atmospheric research. As such, Wexler neglected financial and political considerations and dedicated himself completely to a reflective science. According to Fleming's talk, Wexler was not a mere „cold warrior,“ but positioned himself as an actor at the interface of politics, research, and the media. Therefore, Wexler could be considered the prototype of a public scientist. In her paper, FRANZISKA TORMA (RCC / Munich) linked an analysis of the documentary film „Voyage to the End of the World“ (1976) by Yves-Jacques Cousteau to mentality and environmental historical questions. Torma argued that in contrast to geopolitical claims of power, the film stages the fragile nature of the environment. Torma's concentration on iconographic narrative strategies made it possible to understand the film as a rejection of any direct colonial or strategic claims. However, ideas of the „eternal ice“ as a human-less space were connected to subtler forms of European interpretational sovereignty.

In the conference's final commentary, PAUL JOSEPHSON (Waterville) summarized the basic discussion points addressed in the course of the conference. The relationship between the state and science as well as the specific role of the military as an influencing factor of applied research could be identified as a general motif in the environmental history of the Cold War. The dominance of the geophysical sciences was identified as being a part of these developments. Its research findings, which were applicable to useful military research on fields such as nuclear power, was seen by most states as the most worthy of sponsorship. Biological and ecological research, on the other hand, played a subordinate role in science during the Cold War. Metaphors about the conquest and control of icy environ-

ments established themselves as central vocabulary in the language of science that facilitated the utilization of environments and local populations under the dogma of progress. Furthermore, the power of language became obvious in the numerous identified narratives in which nature had been conceptualized as different or even hostile towards humans, and its conquest was regarded as a heroic achievement of progress. Overall, the Cold War must be seen as a fundamental catalyst for research on ice, the cold, and extreme environmental conditions. The „International Geophysical Year“ (1957-1958), the participants agreed, represented a meaningful caesura in the genesis of the Arctic sciences.

All participants agreed on the fact that further research and modified research questions are indispensable. Aside from internal research aspects such as the exploration of gender aspects or perceptions of nature in science, the participants identified questions concerning environmental knowledge and its production outside of the scientific community as pertinent to this endeavor. Next to an explicit examination of indigenous populations, the role of the public is also important in this respect. The meaning of rising environmental movements and their actors is also just beginning. Were there any naturalists like John Muir, Henry David Thoreau, or Rachel Carson in snow and ice environments?

Overall, the conference offered an overview of the basic tendencies and overarching development in this new research field. By focusing on ice and snow, the conference was able to connect the history of the Cold War to environmental historical issues. The plethora of approaches used in the conference indicated that a history of ice and snow in the Cold War has numerous connections to scientific, political, environmental, and cultural history that can be put to good use in further research approaches.

In the future, the Cold War could perhaps be interpreted in a new way, if science concentrates more on the matter from which its name was derived: the cold.

Conference Overview:

Welcome and Introduction

Helmuth Trischler (Deutsches Mu-

seum/RCC), Christof Mauch (RCC/Munich), Julia Herzberg (RCC/Munich), Christian Kehrt (Hamburg), Franziska Torma (RCC/Munich)

Keynote

Sverker Sörlin (Stockholm): The Birth of Cryohistory: The 2007 Arctic

Sea Ice Minimum as an Event and the Slow Growth Legacies of Glacial Decline

Panel I: Environmental Knowledge

Chair: Helmuth Trischler (Deutsches Museum/RCC)

Roger D. Launius (Washington): Creating Open Territorial Rights in Cold and Icy Places. Cold War Rivalries and the Antarctic and Outer Space Treaties

Ron Doel (Tallahassee): Constituting the Arctic Environment: Military Funding, Polar Warming, and the Rise of the Physical Environmental Sciences

Peder Roberts (Strasburg): Meteorology on the Margins of the World: Norway, South Africa, and Bouvetøya in the Early Cold War

Panel II: Cold Spaces: Greenland

Chair: Sophie Elixhauser (Aberdeen/Augsburg)

Matthias Heymann (Aarhus): Exploring Greenland: Denmark, the US Military, and Technology in the Cold War

Ingo Heidbrinck (RCC/Norfolk): 'Camp Century' and 'Project Ice-Worm': Two Experimental US Military Facilities on Greenland during the Early Years of the Cold War

Panel III: Sites of Knowledge: Laboratories

Chair: Christian Kehrt (Hamburg)

Dania Achermann (Oberpfaffenhofen): Snow and Avalanche Research as Patriotic Duty? The Institutionalization of a Scientific Discipline in Switzerland

Sebastian Grevsmühl (Paris): Deconstructing Laboratory Visions of Antarctic Research since 1900

Panel IV: Sites of Knowledge: Practices 'East'

Chair: Julia Herzberg (RCC/Munich)

John McCannon (Saskatoon): Soviet Arctic

Science 1945-1953

Pey-Yi-Chu (Princeton): From Merzlotovedenie to Geocryology: Soviet Permafrost Science in the Cold War

Panel VI: Sites of Knowledge: Practices 'West'
Chair: Frank Uekötter (RCC/Munich)

Cornelia Lüdecke (RCC/SCAR): Traditions in German Arctic Research

Christian Kehrt (Hamburg): EGIG I and German Polar Research Traditions

Anne M. Jensen / Glenn W. Sheehan (Barrow): Inupiat and Cold War Science in Alaska / Cold Arctic, Cold War

Panel VII: Representations: Metaphors and Narrations

Chair: Franziska Torma (RCC/Munich)

Pascal Schillings (Cologne): An Exploration of the Self, Reinhold Messner's Antarctic Expedition 1989

Panel VIII: Representations II: Actors and their Environment

Chair: Julia Landau (Bochum)

Robert Fleming (Waterville): Cold Regions and Cold War: Harry Wexler as Scientific 'Entrepreneur'

Franziska Torma (RCC/Munich): Staging 'the Cold' as Environment: Jacques-Yves and Philippe Cousteau's Journey to Antarctica (1975/1976)

Final Discussion and Comments

Paul Josephson (Waterville)

Tagungsbericht *Exploring Ice and Snow in the Cold War*. 27.01.2011–29.01.2011, Munich, in: H-Soz-Kult 08.07.2011.