

Between Science and Politics: How Arctic Research Survived and Thrived in the Cold War – and Beyond

Purpose and aims

The Arctic today is a hot topic – in terms of political concern as well as climate change. But the roots of this interest are deeper than we often think. During the Cold War the Arctic was a militarized frontier between East and West, in which scientists were important assets for states. Forecasting sea-ice distribution, understanding large-scale weather systems, prospecting for minerals, and many other activities possessed direct relevance to Cold War competition. At the same time, the growth of investment in Arctic research created a new generation of Arctic specialists who increasingly sought contact with colleagues across the Cold War divide. The combination of increasing contacts among scientists with Arctic interests and a changing geopolitical situation from the late 1960s produced a fascinating paradox. The boom in funding for Arctic science caused by the onset of the Cold War fostered competition between the superpower blocs (and made the Arctic a politically fraught area for neutral states such as Sweden). Yet the same scientific institutions that embodied these state goals also facilitated cooperation, particularly in issues of Arctic environmental protection, helping to create a new scientific and political landscape even before the formal end of the Cold War. Sea-ice distribution and Arctic meteorology have become central to understanding environmental change not just in the Arctic region, but in the world as a whole. Excavating this historical relationship between science, geopolitics, and the environment – a formation with great relevance to decision-making in the present as well as understanding of the past – is the heart of our project.

Building upon recent scholarship in history of science and critical geopolitics, our overarching goal is to investigate the role of scientists in articulating political strategies in the Arctic during the Cold War, and to explore how the geopolitical context provided opportunities as well as challenges for scientists. We do so primarily through a study of Arctic scientific institutions selected from the Cold War East, the Cold War West, and ostensibly neutral Sweden. Institutions provide invaluable windows upon how Arctic science was motivated, organized, and aligned with state goals, and played central roles in defining how audiences from policy-makers to the educated public understood the Arctic – interrogating but also defining Arctic spaces. At a pragmatic level institutions also permit an “apples and apples” comparative study of how specific political as well as intellectual contexts influenced the organization of Arctic science. In the Soviet Union, the Arctic and Antarctic Research Institute (AARI) and the Productive Forces Research Council (Russian acronym SOPS) of the Soviet Academy of Sciences were charged with obtaining information on northern spaces through a variety of disciplines, with the goal of boosting the security, prosperity, but also prestige of the Soviet state. The Arctic Institute of North America (AINA) was founded in 1945 as a unique joint venture between Canada and the United States to support a range of scientific activities linked to national defense and national development. In Sweden the Royal Academy of Sciences (KVA) remained the primary institution for Arctic research through 1980, reflecting state reluctance to become significantly involved in an arena made delicate by the Cold War conflict, with the eventual foundation of the Swedish Polar Research Secretariat (SPRS) in 1980 a statement of political as well as scientific intent. All three archives possess strong archives (in various states of organization), solid connections to states, individuals who are either available for detailed interviews or who have extensive personal archives, and an active (and well-documented) presence in scholarly and political circles.

While institutions will take center stage in our analysis, we recognize that the study of institutions is a means to the end of understanding the relationship between Arctic science and geopolitics rather than the end in itself. The project will also draw upon relevant personal and state archives in order to illuminate how individuals perceived their roles within state-sponsored institutions, how states perceived the utility of the instruments they sponsored, and how institutions were able to provide foundations for individuals to forge transnational communities. A particularly promising example

is the relationship between the Canadian Graham Rowley, the Briton Terence Armstrong (a former AINA contractor) and the Russian Samuil Savin. Such examples of cooperation as well as competition can help explain how scientists became key figures in the first major inter-governmental agreements on Arctic governance in the 1980s, such as the Arctic Environmental Protection Strategy. Institutions provide macro-scale windows for charting and exploring the emergence of such concerns – for instance through analyses of grant applications and collective priorities. A study that crosses national borders and at incorporates scales from the individual to the state promises to link research agendas with political motivations in a manner that can explain not only how environmental concerns became important for scientists working on the Arctic, but how states came to view the environment as a site for cooperation. This vision began before the fall of Communism and which has become central to the Arctic Council, the peak intergovernmental body dealing with the region, of which Sweden, Canada, the United States, and Russia are all members.

Today states around the circumpolar north invest huge sums annually on science in the Arctic and have a clear interest in research that connects political strategies with research priorities. This function of research institutions has been renegotiated through dramatic geopolitical changes, from the ashes of the Second World War through the Cold War, détente and environmental consciousness, and the post-1991 establishment of new administrative structures for the Arctic. Institutions that provided knowledge of Arctic environments have always combined totemic roles as bearers of national values with the more pragmatic task of acquiring information relevant to statecraft. Good science remains necessary for earning international respect in addition to substantively influencing domestic policy, and that the production of knowledge and the performance of national interests must be considered as two sides of the same coin. Polar research organizations with specific Cold War mandates survived and indeed thrived past 1991, because their capacity to produce knowledge about the Arctic remained relevant within geopolitical frameworks predicated upon environmental protection. The result will be a stronger understanding of the political role of scientific institutions in the present as well as the past.

Survey of the field

The project primarily addresses the history and politics of science during the Cold War and the more general relationship between scientific institutions and political power. Insights are drawn from the field of critical geopolitics, which stresses that understanding particular spaces (such as the Arctic) is an inherently political project, and from more political science-focused studies of governance and science in the contemporary Arctic. Consequently, while the project is primarily envisioned as a work of historical scholarship, and focuses on analysis of primary sources (chiefly archival, but also including oral histories and contemporary publications and official statements), it is intended to produce results that engage with a wider range of fields in the social sciences. Our key contributions will concern the role of cooperation as well as competition in Cold War Arctic science; the role of institutions in creating as well as reacting to geopolitical narratives; and how the development of institutions facilitated the transition from Cold War to post-Cold War Arctic science.

Historians of science have recently devoted much attention to the interplay between science and statecraft during the Cold War. Building on the arguments of Hamblin (2007) that the United States embraced data sharing in the 1950s for self-interested reasons – international cooperation promised environmental data sets larger than its own means could provide – we argue that cooperation, as well as competition, between national research institutions should be considered within the strategic parameters of Cold War politics. Such studies have thus far focused mainly on the United States and Western Europe (though for Canada, see Lackenbauer and Farish [2007]). Doel (2003) has argued that the modern environmental sciences had roots in the need for the United States to know and control strategically sensitive parts of the earth, while Hamblin (2010) has demonstrated how the North Atlantic Treaty Organization (NATO) adopted environmentalism as an instrument of geopolitics. In Canada Turner

(2013) has fleshed out relationships between the state and Cold War scientists. While a number of studies have considered the dynamics of Cold War science in the United States and Western Europe, comparatively little has been written on science in the Soviet Union during the Cold War. Works such as Holloway (1994) and Kremontsov (1997) focus on the early years of the Cold War. Nor has much been written about science and the state during these years in Sweden, with the important recent exception of Lundin, Stenlås, and Gribbe (eds, 2010).

The recently-completed EUROCORES BOREAS project “Colony, Empire, Environment: A Comparative International History of Twentieth Century Arctic Science” has laid useful foundations, drawing attention to a number of issues – such as the importance of field stations. The Carlsberg Foundation-sponsored project “Exploring Greenland: Science and Technology in Cold War Settings” has illuminated the relationship between American, Danish, and other European scientists within that particular Arctic space (Martin-Nielsen, 2013). The project “History of Norwegian Polar Politics” – with which Roberts is affiliated – builds on earlier work by Barr (2003), Friedman (2004), and Hessen (2004) to study the Norwegian Polar Institute’s history, including its connections to the United States and the Soviet Union. Far less has been done regarding the Soviet Union, which here – as in many other historical fields – has primarily been studied within a national framework. Beyond an important analysis of permafrost research and Eastern Siberian development (Chu, 2011), the relationship between Soviet scientists and Arctic policy-makers is yet to be studied – a particularly gap striking given the importance attached to Arctic research throughout the Cold War. Scholarship on Cold War Arctic research in Sweden is almost non-existent. The major reference work (Liljequist 1993) is more an overview than a systematic study, and while the special issue of *Ymer* (2009) presented some intriguing contrasts between mid-century and contemporary Swedish polar politics, this has barely scratched the surface. Benner (2009) has suggested that Sweden still follows a separate path in terms of infrastructure funding and organization, but the origins of that path – which is regarded as decisive in setting the terms for present-day Swedish Arctic research – remains murky. There is no published history of the SPRS (founded in 1980) and histories of the KVA pay negligible attention to its role as Sweden’s peak polar research body during much of the Cold War. The shift in Arctic research priorities from more overtly military goals toward such projects as “Man and the Biosphere” remains to be studied, as does the crucial role of the environmental sciences in complementing or even supplementing military-strategic justifications for Arctic research.

Critical geopolitics has emphasized how narratives frame in the way states, corporations, and even individuals act within geographic spaces (Toal 1996). What Dodds has termed “taken-for-granted geographical templates” define both how actors see the world, and what they do within it (2007, p. 4). This approach has particular importance for assessing how Arctic research agendas are formulated. Notably, Keskitalo (2004) has argued that a distinct Canadian understanding of the Arctic, based on the development of a distant frontier, came to dominate conceptions of the Arctic as a region from the end of the Cold War. Keskitalo contrasts this to the situation in Scandinavia, arguing that different national histories (demographic and industrial as well as cultural and political) produced different national conceptions of the Arctic. If nationally specific research traditions clashed in the post-1991 Arctic, how did such separate traditions develop, and why? Few have linked these kinds of narratives with the institutions charged with overseeing science within them – or taken the crucial step of asking how polar research organizations both constructed and reflected conceptions of the Arctic. Elzinga and Bohlin (1989) have considered institutional priorities and polar research more broadly, arguing that institutional imperatives play a significant role in determining research programs. What has not been done is to ask how and why Arctic research institutions in different national contexts emerged (and why they did so at particular moments); what role those institutions played in constructing narratives about the Arctic as well as reflecting them; how national institutions provided vehicles for international cooperation – and how such possibilities were framed by broader political circumstances; and most importantly, why those

institutions were able to embody a succession of narratives from military security to regional development to environmental protection. Roberts has developed a conceptual framework for relating past changes to present decision-making (Avango, Nilsson, and Roberts, 2013), and pointed to the importance of institutions in defining as well as investigating the Arctic.

To sum up: studies of Cold War science provide an essential foundation for this project, while pointing to significant areas of study regarding the conflation of political rivalry with intellectual isolation. Our preliminary work has pointed to connections between Arctic researchers across the Iron Curtain, even during the tense 1950s, and we anticipate providing a more nuanced analysis that considers both competition and cooperation as aspects of Cold War science – rather than the former being depicted as archetypal and the latter as exceptional. This is particularly important in order to understand the evolution of “environmental” imperatives in Arctic science, and the capacity for the institutions that facilitated and symbolized such research to remain important features in the post-1991 Arctic landscape. The methodological and theoretical approaches are linked by the fundamental connection between how spaces are imagined and how they are interrogated. Institutions are excellent windows into these mutually constitutive processes: they are at once instruments for, and symbols of commitment to, the politically important task of doing science in the Arctic.

Project Description

The project is structured primarily as a transnational study of the institutes mentioned earlier, AINA, AARI/SOPS, and KVA/SPRS. The primary team members are Peder Roberts (project leader, responsible for case study 2, to be based at KTH); Lize-Marié van der Watt (responsible for case study 1, to be based at KTH); and Julia Lajus (responsible for supervising case study 3, to be based at the European University at St Petersburg [EUSP]). The studies include states with larger and smaller budgets for polar research and differing levels of involvement with the Cold War. AARI (founded in 1947) grew into the main Soviet institution for polar research during the Cold War, while the SOPS (founded in 1955) had a mandate to apply science to the development of the Soviet Arctic. AINA (founded in 1945 as a joint venture between the United States and Canada) embodied tensions as well as synergies between its two national sponsors while remaining able to perform contract research for a range of state organizations. While the KVA remained Sweden’s peak polar research body by default rather than design after 1945, the growth of national interest in the Arctic during the 1970s and creation of the SPRS in 1980 was located within a geopolitical climate that made Arctic research less politically fraught.

The case studies share sufficient commonality to permit comparative study, especially as they cover both sides of the Cold War divide and a state (notionally) in the middle. Moreover, preliminary research by Roberts and Lajus suggests that individual actors associated with those institutions cooperated with increasing frequency through the Cold War, making it a transnational in addition to a strictly comparative study. The project will produce substantive original research on each institution, in the form of academic articles, and an edited volume including contributions from outside the primary research group. A common methodological framework will be used, stressing the importance of context and narratives. What were the political circumstances surrounding the organization (or reorganization) of each institution after 1945? How did nationally-based conceptions of what kind of space the Arctic should be influence their organization and research agenda? What was the relationship between each institution and its state government? What political role did each play in articulating state priorities internationally? What opportunities were afforded individuals for cooperation with colleagues abroad? How did each institution adjust to – or lead – the transition from overtly military to overtly environmental knowledge-making from the 1960s? How did the events of the late 1980s and early 1990s, leading up to the foundation of the Arctic Council in 1996, both confirm and challenge the role of each institution as a vehicle for national Arctic interests?

Conducted primarily by Van der Watt, the first case study will use the comprehensive records of AINA held at Libraries and Archives Canada (Ottawa) in addition to the uncatalogued records held at AINA's current headquarters in Calgary, and the papers of Vilhjalmur Stefansson and David C. Nutt at the Rauner Library, Dartmouth College. Permission to use all records (including many hitherto sealed) has been granted by the Director of AINA, Maribeth Murray. Roberts has already made a preliminary survey of materials at Dartmouth. A limited number of interviews may be conducted with key figures – such as Frederick Roots, Emeritus Science Adviser to the Government of Canada and long-time associate of AINA – but not a systematic oral history program. Particular attention will be given to the relationship between the United States and Canadian backers of AINA, in order to locate its origins within the political concerns of 1945 – both for defending the northern flank of the Cold War West and using science to help develop the northern hinterland. The exhaustive records not only of AINA's official business, but of successful and unsuccessful grant applications and related correspondence, provides an unparalleled window into how the Institute reflected and perhaps also directed trends in research agendas from the 1940s onward. Archival records from the Scott Polar Research Institute in Britain and various archives in Russia suggest that AINA quickly became a well-respected organization across Europe and the USSR. Much remains to be discovered about how AINA's status as a quasi-governmental institution both helped and hindered it in terms of patronage, and how it arguably came to represent Canadian more than American interests. While Van der Watt will take the lead in this case study, Roberts (French speaker) will assist where necessary with any French-language materials from Canadian archives. Should this application be approved, Van der Watt will be offered a position as post-doctoral researcher at the Division of History of Science, Technology and Environment for the duration of this project.

Conducted by Roberts, the second case study will consider how the KVA persisted as the de facto Swedish institution for Arctic science through 1980 despite minimal interest from its membership, and examine the circumstances behind the founding of the SPRS in 1980. Institutional records from the KVA (held at the Academy's Center for the History of Science) will be used in addition to hitherto unexamined records from the SPRS, which remain uncatalogued at the Secretariat's premises in Stockholm. Personal papers will also be used where relevant, principally those of Gösta Liljequist and Valter Schytt, held at the Center for the History of Science. Interviews will be conducted with key figures in the formation of the SPRS, including Anders Karlqvist, Olle Melander, and Eva Grönlund. The primary question will be why the strong interest of particular individuals (notably Liljequist) was able to produce successful careers without an institution to formalize state interest. One hypothesis is that the political sensitivity of Arctic science, especially during the 1950s, made it potentially difficult for Sweden to take a strong national position as a player in the Arctic – and led to particular events such as a Swedish-Finnish-Swiss joint venture on Svalbard for the International Geophysical Year, articulating a geopolitical vision of neutrality (as none were NATO or Eastern Bloc states). The revival of interest in the 1970s coincided with a lessening of political tensions but also an increasing focus on environmental issues. Sweden had taken a lead on this earlier – notably through the 1972 United Nations Conference on the Human Environment in Stockholm – and this new context was likely more congenial to state presence. The case study will consider how these political dynamics were reflected in institutional dynamics, and the SPRS came to form an effective Swedish policy instrument. Roberts is a native Danish speaker and has worked for many years with Swedish materials, meaning there will be no difficulties with language either for interviews or archive work. Van der Watt will assist wherever her strong professional networks within the Swedish polar research “establishment” can aid with obtaining interviews or access to materials.

Conducted by Lajus, the final case study will focus on AARI and the SOPS. Research assistants will be hired to continue archival work in St Petersburg and in Moscow; and to conduct an oral history program with former associates of AARI and to a lesser extent the SOPS. The AARI component will focus on how this institution took the mantle of the most visible (and effective) Soviet body for Arctic science after 1945, through activities ranging from floating ice stations to geological surveys of Siberia. Such

work brought AARI researchers into contact with Western counterparts, in the process helping to forge an international community of Arctic specialists. The SOPS component will examine how the practical goal of developing the Soviet Arctic was linked to scientific research, and why its research priorities came to shift toward environmental and human development issues very similar to those raised in the West – potentially providing a common understanding for agreements such as the Arctic Environmental Protection Strategy (agreed in 1991). Lajus will be assisted in this task by research assistants hired on an hourly basis to assist with data collection, interviewing, and transcription. She supervises a number of graduate students and early career scholars at the EUSP who can be relied upon to perform these duties at a high level.

Additional archival work is planned for repositories with personal and state papers of relevance to the project. While some of the former will only be revealed as important once work has commenced, we have already identified the Scott Polar Research Institute archives (Cambridge, UK) as a source of relevant papers. Roberts has worked with this institution's rich collections for 1950s polar research far beyond Britain. Relevant papers are also held at the National Archives and Records Administration of the United States (College Park, Maryland).

The major planned deliverables are as follows:

Research article 1: Can Science Serve Two Masters? The Early Years of AINA. Primary author Van der Watt. This article will explore the early years of AINA with particular focus on how a single Arctic scientific institution could be formed in the face of apparently competing priorities – the United States concern for security against potential Soviet attack, and the Canadian concern for developing its northern frontier.

Research article 2: Too Hot for the Cold War? Sweden as a Non-Arctic State. Primary author Roberts. This article asks why the KVA remained Sweden's main Arctic institution up to 1980, and how the broader geopolitical context framed the possibilities for scientists to change this situation as tensions eased and environmental concerns became more prominent.

Research article 3: Applied Polar Research: AARI, SOPS, and Soviet Arctic Development in the 1950s and 1960s. Primary author Lajus. This paper examines how the two main organs for Soviet Arctic science came to coexist, through a study of their different roles within the architecture of the Soviet state, and evaluates how the more applied mandate of the latter could be reconciled with the work conducted by the former.

Research article 4: The Greening Arctic: The Emergence of Environmental Research. Primary authors Roberts, Van der Watt, and Lajus. This paper compares the emergence of environmentally-focused research as a priority in each of AINA, the KVA, and AARI/SOPS (especially the latter). Detailed analysis of the content of grant applications and administrative records will be integrated with a wider analysis of how environmental consciousness emerged in the 1960s and early 1970s as a political priority. The role of this trend in Soviet Arctic politics – leading up to Mikhail Gorbachev's famous 1987 call for circumpolar cooperation in environmental protection – will be particularly important.

Research article 5: Creating a Circumpolar Scientific Community. Primary authors Roberts and Lajus. Drawing upon work from all case studies, this paper will examine how individuals forged personal and professional connections even during the height of Cold War tensions in the 1950s. The paper will present a broader argument about how individual scientists could use geopolitical circumstances to boost their own domestic positions, but also how the growth of Arctic research as a viable career with institutional structures permitted connections to be made across geopolitical boundaries.

Research article 6: The Importance of Being Useless? Prestige and Arctic Research. Primary authors Van der Watt and Roberts. Drawing upon all case studies, this paper explores the implications of an off-hand remark from a veteran Swedish Arctic researcher that science was often particularly valued by his government in the 1980s if it was "useless" – that is, high quality research that attracted critical praise without the potentially dangerous ramifications of practical strategic utility. The key theme is how the

respect earned by good science functioned as a source of state prestige, challenging the conception that the practical benefits of more applied research necessarily possessed greater value to states.

Timetable

Archive visits	Participant	Dates
Libraries and Archives Canada (Ottawa)	Van der Watt	2015
Rauner Library, Dartmouth College (Hanover, USA)	Van der Watt	2015
National Archives and Records Administration (College Park, USA)	Van der Watt	2015
SPRS (Stockholm)	Roberts	2015-16
KVA Center for the History of Science (Stockholm)	Roberts	2015
Riksarkivet (Stockholm)	Roberts	2015
Arctic Institute of North America (Ottawa and Calgary)	Van der Watt	2015
Kluane Lake Research Station (Whitehorse)	Van der Watt	2015
State Archive of Scientific/Technical Documentation (St Petersburg)	Russian team	2015-16
State Archive of the Russian Federation (Moscow)	Russian team	2015-16
Russian Academy of Science Archives (Moscow)	Russian team	2015-16
Russian State Archive of Economics (Moscow)	Russian team	2015-16
Scott Polar Research Institute Archives (Cambridge, UK)	Roberts	2015
Follow-up archive visit (North America)	Van der Watt	2016
Key Deliverables		
First article submitted to journal		February 2016
Second article submitted to journal		August 2016
Third article submitted to journal		February 2017
Fourth article submitted to journal		August 2017
Fifth article submitted to journal		December 2017
Sixth article submitted to journal		December 2017
International workshop		August 2017
Edited volume manuscript submitted		December 2017

Implementation and project management

The project will produce at least six articles in peer-reviewed journals (such as the *Journal of Historical Geography*, *Environmental History*, *Canadian Journal of History*, *Cold War History*, *Russian Review*, or *Social Studies of Science*) in addition to an edited volume resulting from the international conference. This conference will be held in Stockholm in the late summer of 2017, bringing together scholars working on similar case studies in different geographical areas (further details in the International Networks section). The conference will serve as a capstone to the project, and contributions from project members and also from others will be published in an edited volume bringing together perspectives from across the entire circumpolar north. Throughout the project both Roberts and Van der Watt will post shorter articles on aspects of their work in blog form. We do not include a budget for website design or management as we plan to run the blog from a WordPress platform that Roberts has already registered.

Significance to the research area

The project is significant within the context of historical and geopolitical scholarship because it focuses on how Arctic science constituted a means for states to gain both knowledge and prestige in the context of the Cold War, while laying the institutional foundations for a comparatively smooth transition to post-Cold War Arctic research and governance. It will make a substantive and original contribution to the history of Arctic science and politics during the Cold War, and to the genealogy of institutions active in

the present. New knowledge will be gained of how scientific institutions fostered cooperation as well as competition across national boundaries, an issue with significance to scholarship in twentieth century history of science more generally, and to historical studies of Cold War politics. The project also addresses how and why scientific institutions become vehicles for states to establish legitimate presence in Arctic decision-making while pursuing high-quality science. Individual states but also inter-governmental bodies such as the European Union that have articulated a desire to participate in Arctic decision-making have significantly increased their expenditure on Arctic science and research infrastructure in recent years. Even countries perceived as outsiders to the Arctic, such as South Korea, China and Japan, are investing heavily in Arctic science as means to legitimize their presence in the region (the right to propose scientific research is one of the few rights that Arctic Council observer states possess). The history of Arctic scientific institutions is thus an essential component of understanding how and why states use science to justify claims to authority in the Arctic today.

Preliminary results and pre-studies in research area

Roberts and Van der Watt have collaborated on one published article, on the politics of Norwegian-South African cooperation in the Arctic, while Roberts and Lajus have collaborated on a further article (in preparation) concerning the British geographer Terence Armstrong's role as a bridge between Eastern and Western Arctic researchers during the Cold War. Roberts has published a monograph on how Antarctic science functioned as an instrument of commerce and nationalism in addition to legitimizing political projects, drawing on much of the geopolitical literature used in the current project. Roberts recently worked on the European Research Council project "The Earth Under Surveillance: Climate Change, Geophysics, and the Cold War Legacy" (including a chapter on sea ice forecasting during the Cold War) and is co-editor of a volume resulting from the project, scheduled to be published by Palgrave Macmillan in September 2014. Van der Watt has augmented a doctoral dissertation on South African Antarctic research – involving significant oral history as well as archival research – with more recent studies of collaborative Arctic change research programs, through the International Study of Arctic Change (ISAC). Van der Watt has combined this project management work with original research on the geopolitics of polar science. Both Roberts and Van der Watt have studied the connections between science, geopolitics, and state research institutions within the context of the Antarctic, using case studies from both Scandinavia and the British Empire (Roberts 2011; Van der Watt 2012; Roberts, Van der Watt, and Dodds, 2013). Lajus has worked extensively on the history of Soviet polar research during the first half the twentieth century and is beginning to work on the more recent history of Soviet Arctic science.

National and international collaboration

The Division of History of Science, Technology and Environment at KTH Royal Institute of Technology is one of Europe's strongest research clusters in Arctic humanities and social science research. Roberts and Van der Watt will work alongside Sverker Sörlin and Dag Avango, both highly-regarded experts in the history and geopolitics of the polar regions, and key participants in the projects "Arctic Norden" and "MISTRA Arctic Futures" (two phases). The Division is regularly visited by renowned researchers in polar history and geopolitics, including recently Tom Griffiths (Australian National University) and Urban Wråkberg (Barents Institute, Kirkenes). The recently opened Environmental Humanities Laboratory is further evidence of the Division's intellectual dynamism. At the European University at St Petersburg, Lajus has built a strong center for history of science, technology, and the environment that enjoys extensive connections with scholars in Europe and North America. KTH and EUSP have a pre-existing working relationship, making it possible to maintain close administrative and academic connections between the Stockholm and St Petersburg-based portions of the project.

The project will have an advisory committee consisting of Ronald Doel, Associate Professor of History at Florida State University and leader of "Colony, Empire, Environment"; Robert Marc Friedman,

Professor of History of Science at the University of Oslo and expert on the history of the Norwegian Polar Institute; Annika Nilsson, Senior Fellow at the Stockholm Environment Institute and member of the Mistra Arctic projects in addition being an expert on contemporary Arctic research politics; and Stephen Bocking, Professor of Environmental Resource Science and Studies at Trent University and expert on the history of science in the Canadian Arctic. The committee will meet once in each of the three years of the project and provide commentary and advice to the main participants. All four committee members have been briefed on the project and have formally agreed to participate should the project proceed.

Roberts is affiliated with the History of Norwegian Polar Politics group, which recently has been awarded a substantial grant by the Norwegian Research Council. Both Van der Watt and Roberts have strong connections to the polar history and politics group at the University of Tromsø. Roberts has strong links to the Center for the History of Science at the KVA – whose Visiting Research Scholarship he held in 2007. Roberts is a (non-funded) member of the wider network associated with the project “Science and Modernization in Sweden: An Institutional Approach to Historicizing the Knowledge Society”, hosted by the KVA and funded by the Marianne and Markus Wallenberg Foundation. Roberts and Lajus are both members of the new Mistra Arctic Futures program “New Governance for Sustainable Development in the European Arctic”, and have strong connections to Carina Keskitalo and other researchers at the Arctic Research Center of Umeå University. Research on AINA will benefit from cooperation with Christina Adcock (Assistant Professor of History and Canadian-American Studies at the University of Maine), who has collaborated with Roberts on a forthcoming special issue of the *Journal of Northern Studies* on transnational Arctic environmental history.

Comparisons are planned with institutions and traditions in other states, particularly through the major final conference. In addition to the scholars already mentioned, we aim to invite researchers working on Cold War Arctic science in Germany (Christian Kehrt, Helmut-Schmidt-Universität, Hamburg); Denmark and Greenland (Janet Martin-Nielsen, University of Aarhus); Iceland (Asdis Jonsdottir, Icelandic Center for Research-RANNIS); and Britain (Klaus Dodds, Royal Holloway-University of London and Michael Bravo, University of Cambridge).

It is not anticipated that this project will be linked to a Horizon 2020 application, but the idea has not been definitively excluded.

Roberts is a medverkande with minor responsibilities in another VR application in the current cycle, titled “En gemensam känsla för det globala: Upptäckarkänslor i geografi och oceanografi 1900-1960”. His work in this project relates to the cultural dimensions of deep-sea oceanography in the middle of the 20th century and will have essentially no overlap with the present project.

Ethical Issues

All interviews will be transcribed in full and subject consent obtained in writing before the transcript is considered authorized.

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