"On" and "For" Four Million

For many people, the Arctic is not just a place to visit for various reasons, but actually their home. As such, polar research can study not only the importance of the Arctic and Antarctic for the world at large, but also what the world can do to help those who live and work there.

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or centuries, polar regions were treated as lying somewhere beyond the edge of the world, both figuratively and literally. Discovering and exploring those areas took several hundred years and cost many people their lives and fortunes. Even today, polar research remains highly challenging, both logistically

and mentally. It is worth bearing in mind, though, that this popular, heroic and romantic vision of the polar regions represents just one possible point of view, especially with respect to the Arctic.

In Poland, polar research was popularized by two prominent researchers with broad scientific interests in the earth sciences, namely Henryk Arctowski and Antoni Bolesław Dobrowolski, and subsequently developed by natural scientists, chiefly in Svalbard. For that reason, we often forget about "the human face" of the Arctic. We fail to see that the region is actually



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An Inuit family, 1917

ACADEMIA POLES AT THE POLES

Out of the around 4 million inhabitants of the Arctic, around 50% live in Russia, 31% in the Nordic countries, 16% in Alaska, and 3% in Canada. The problems they face are typical of the inhabitants of peripheral, poorly populated regions. In addition, they face challenges related to the austere natural conditions of the Far North and climate change (for example, the thawing of permafrost, leading to the devastation of infrastructure). Socially, the Arctic is highly diversified: demographics, standards of living, and the scope of law vary both between the Arctic countries and within each such country. One special feature of the Arctic social landscape is the substantial role of indigenous peoples (a total of 400,000 people) in the governance of specific regions, especially in terms of natural resources.

Major present-day challenges facing the Arctic peoples

include: ecological and environmental issues, the protection of culture, language, and traditions, access to education and health care, and relations with researchers. Earlier work in these areas was largely research done "on" the traditions, languages, and beliefs of indigenous peoples. For that reason, they chiefly comprised ethnography and anthropology and were conducted from Eurocentric perspectives. Today, Arctic research is also done "for" the indigenous peoples and issues important to them: the possibility of increasing their political presence at local, national, and international level (political and legal sciences), sustainable development in the region (economic sciences), and health-related problems (medical sciences). Aspects important from the perspective of the study of international relations include international collaboration in the region, for example the role of international organizations and security challenges.

inhabited by around 4 million people, including more than 400,000 indigenous inhabitants. In the modern era, not only have these people been affected by many of the same processes as those who live in other regions of the world (modernization and globalization), they have also been forced to confront many different, usually negative consequences of climate change around the North Pole. When seen from their perspective, which is still sometimes based on so-called indigenous knowledge, the changing Arctic cannot be thought of as just a topic of scientific study (despite what some researchers believe), just in terms of polar bears and wonderful auroras (despite what tourists tend to think) or potential natural resources (important for governments and corporations) - it is above all the place where these people have chosen to make their home.

Four important questions

Polar research has a relatively long history: it emerged at the juncture of various fields of science as a result of the unique characteristics of the natural environment in the regions located around the Earth's geographic poles. As a result of differences between the northern and southern polar regions, researchers quickly began to distinguish between Arctic and Antarctic research. A closer look at the topics of scientific publications in the field of polar research from the past several decades, whether for the Arctic or the Antarctic (or both simultaneously), reveal the clear dominance of earth and biological sciences in the broad sense. Does this mean that the researchers in the social sciences and humanities have no business studying polar regions?

Surely not: the phrase "polar social sciences and humanities" is coming into increasing use in scientific discourse (although it may come across as contrived or unnecessary to some). There is, as yet, no universally accepted definition of this term, but the most recent international strategies for the development of Arctic research (IASC's "Integrating Arctic Research – a Roadmap for the Future," ICARP III) and Antarctic research (SCAR's "Strategic Plan 2017–2020: Connecting and Building Antarctic Research") do call for efforts to strengthen the role and importance of social sciences and humanities. Why?

First of all, the ongoing changes in the Arctic and Antarctic have prompted greater recognition, not only from most scientists but also from the whole of the international community, of the substantial interdependencies that exist between natural and social sciences, both regionally and globally. The two polar regions have imminently demonstrated, in many ways, that it is nowadays impossible to fully explore and explain any important process or phenomenon through research limited to only one scientific discipline. For that reason, the future of polar research largely lies in interdisciplinary research in close symbiosis with natural sciences, social sciences and humanities, and others field of science, such as medicine and technology.

Secondly, the results of much earth-science research done by polar scientists in the late 19th and early 20th century had both purely scientific value and practical applications. Similarly, research in polar social sciences and humanities is increasingly likely to yield theoretical knowledge as well as to contribute to solving many non-scientific problems faced by the inhabitants of the Arctic and the countries and international institutions that are jointly engaged in the governance of the Antarctic region.

Thirdly, current trends in polar social sciences and humanities research are generally consistent with the general trends in these disciplines. What distinguishes this field is the broadly-understood "polar focus" of the topics it addresses. However, the crucial factor is not that the objects of study are situated within the boundaries of the polar regions (as is typical of most of empirical polar research in the fields of natural sciences), but rather that there are certain clearly distinguishable links to these regions. This means that the general scope of polar social sciences and humanities

can be described as encompassing humans and their relationship with the world, including creativity, society as well as its products, both within and outside the boundaries of the polar regions, just as long as these are clearly linked in some way to the Arctic and/or Antarctic.

Fourthly, the trajectory of development evident in polar social sciences and humanities research to date strongly suggests that the field will only continue to develop. Instead of being oriented towards narrow specializations, this development will instead largely rely on interdisciplinary research conducted both within the broad field of polar social sciences and humanities and in collaboration with natural sciences. This will result in the emergence of new epistemological challenges and necessitate the development of skills needed to effectively communicate research findings and transpose them to different branches of science. Also, further development of polar social sciences and humanities will result in the emergence of new interdisciplinary topics, strands, and disciplines in both Arctic and Antarctic research. Anthropological studies will be limited to the Arctic, whereas studies in the field of new approaches to international law or the psychological aspects of human activity in extreme conditions will be more likely to pertain to the Antarctic. The distinction between the two regions will be largely linked to the changes currently taking place in human activity there and the resultant new scientific and social needs.

Three Polish tasks

Reports written under the auspices and for the needs of the Arctic Council and other international organizations as well as the aforementioned strategic documents drafted by international scientific institutions draw attention to several major directions of research within Arctic social sciences and humanities, including sustainable development in the region, the impact of globalization, climate change, and innovation. The complex processes and phenomena underpinning those topics may attract the attention of researchers interested in humanities as well as cultural, social, economic, legal, political, and environmental issues. As for the Antarctic, the main areas of study may include: the international governance of the region, pressure urging greater exploitation of natural resources, and climate change. Since the only periodic inhabitants of the Antarctic are exclusively scientific personnel (despite the fact that more and more tourists have been deciding to visit the region), Antarctic research will most probably pertain mostly to law and politics, economics and the environment, and to the humanities only to a much smaller extent.

As for Poland's priorities in polar social sciences and humanities, a formulation of them was put forward by the Panel on Social Sciences and Polish Polar The Arctic Council, established in 1996 by virtue of the Ottawa Declaration, is an international institution that is currently the most influential for decisions concerning Arctic problems. Its members are eight Arctic countries: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States. Poland is in the group of the first four states (alongside Germany, the Netherlands, and the UK) to receive the status of permanent observers in 1998 (subsequently also granted to France and Spain, China, whereas Italy, Japan, Singapore, South Korea, and the European Commission have the status of applicants). The Arctic Council focuses on sustainable development in the Arctic, which means conservation of the natural environment, comprehensive scientific research, monitoring of the consequences of climate change, and assistance for indigenous peoples. Its interests also include the launch of new shipping routes in the Arctic and the management of the region's natural resources.

Source: Polish Ministry of Foreign Affairs

Research History under the PAS Committee on Polar Research, in the 2015–2018 term (based on the experience amassed by Polish polar researchers to date, the potential for future work in this direction, and the potential expansion of international collaboration), naming three specific interdisciplinary areas of research:

• Maintaining a Polish presence in the polar regions

This area may involve studies pertaining to the history of Polish polar research, Poland's foreign policy towards the polar regions, polar literature in Poland, the Polish community in the Arctic countries, and the development of Poland's research potential in the polar regions.

• The Arctic and the Antarctic as areas of threats to multidimensional international security

In this area, researchers may conduct research in international relations, security studies, and risk management in collaboration with natural sciences, in particular those that focus on environmental protection.

• The Arctic and its inhabitants in the era of globalization as well as climate and environmental change

This area covers studies in anthropology, ethnography, health sciences, sociology, political sciences, economics, and law conducted in collaboration with natural sciences.

By studying what is happening in the Arctic or in connection with the Arctic, researchers can not only develop scientific knowledge but also show respect, care, and a sense of responsibility. And that is exactly how polar research is always to some extent linked to social sciences and humanities, no matter which particular field of science is involved.