Munich Spring School: Science, Environment, Infrastructure, and Technology—History of Science in Central and Eastern Europe

Rachel Carson Center

23–27 April, 2014, Munich, Germany

Sponsors: Rachel Carson Center for Environment and Society (RCC)

Conveners: Helmuth Trischler (Deutsches Museum/RCC), Angelika Möller (Deutsches Museum/RCC), Christof Mauch (RCC), Julia Herzberg (Albert-Ludwigs-Universität/RCC alumna)

Participants: Elena Aronova (Max-Planck-Institute, Berlin), Björn Felder (LMU, Department of History), Julia Herzberg (Albert-Ludwigs-Universität/RCC alumna), Christian Joas (LMU, Deutsches Museum), Angelika Möller (Deutsches Museum/RCC), Christof Mauch (RCC), Kärin Nickelsen (LMU, Department of History), Arnošt Štanzel (LMU, Colegium Carolinum), Helmuth Trischler (Deutsches Museum/RCC), Martin Schulze Wessel (LMU, Department of History)

Science and Technology Studies (STS) and environmental studies are rapidly developing fields. Based on interdisciplinary inquiry, they unite a number of theories and subjects elaborated by historians, anthropologists, social scientists, and other researchers. Not just experienced scholars, but an increasing number of graduate students and early-career academics are expressing interest in these fields, choosing the history of science and technology or environmental history as the defining framework for their research. Yet not all universities have introduced relevant study programs. International research schools consequently play a crucial role in helping young researchers and students share their ideas and research experiences, and learn more about new approaches and theories in these fields.

The city of Munich, Germany, was the venue for a spring school held from 23 to 27 April 2014 on the topic of science, environment, infrastructure, and technology. This green city—well-known for being a center for environmental and technological research—immersed students in diverse fields of science, technology, and the environment. This was the first school organized by the Graduate School for East and Southeast European Studies at Ludwig-Maximilians-Universität (LMU) Munich, with the supervision of Professor **MARTIN SCHULZE WESSEL** and Dr. **BJÖRN FELDER**.

Organized across six sessions, the school successfully represented the full spectrum of disciplines by employing a format that combined introductory presentations (lectures, seminars, and master classes) and workshops held by leading researchers in the field. An important educational component of the school was the suggested reading list, which was circulated to participants in advance as a basis for further inquiry. The combined format of lectures, workshops, and readings enabled the school to demonstrate broad and recent trends within the chosen fields, while also providing a space for discussion and exchange of ideas.

The school invited graduate students conducting research into science and technology and environmental history from Ukraine, Finland, Hungary, Germany, Slovakia, Italy, and Lithuania. The selection of several highly motivated graduate students from different backgrounds created a stimulating dialog and close atmosphere. Some participants noted that they applied to the school in order to find new perspectives for their research, while others aimed to learn more about the fields as well as to find answers to some specific research questions. Looking ahead to the report that follows, it is worth stating that the school assuredly met these expectations and requirements.

In his introductory speech at the Deutsches Museum, Dr. **FELDER** emphasized the importance of technology for human society and the interaction between science and society. The first session opened with a fascinating introductory presentation on the history of technology given by Professor **HELMUTH TRISCHLER**. In his talk he considered historiographical trends and raised the issue of defining technology. He stressed that technology does not deal with pure technical innovation only, but it always concerns co-construction, meaning that technological history is closely connected with factors ranging from the social to the environmental. The discussion that followed raised the question of how technological history (and history in general) can be transformed into applied knowledge and what role it plays for the public. Another question addressed the role of individuals in the development of technology, as well as to the centers of technology production in the Middle Ages and other historical periods.

These questions were considered further as part of the workshop on technological history, where participants discussed the volume *Building Europe on Expertise*, which argues that modern Europe is founded on the work of experts. As a concluding part of the first day, Professor **TRISCHLER** held a guided tour in the Deutsches Museum where he communicated the institution's history and presented several expositions, including a unique collection of aviation and space artifacts, a nanotechnology hall, and an open laboratory, among others.

The morning session of the second day was devoted to environmental history, and was held in the Collegium Carolinum, which serves as a center for research on the Bohemian lands with a focus on environmental and infrastructure history and cultural memory. Professor **CHRISTOF MAUCH**, the director of the Rachel Carson Center (RCC) in Munich, opened the day with an introduction to the field by questioning whether nature can be an actor. He emphasized that in environmental history nature is not a stage or backdrop, but rather a performer that shapes humans themselves. The task of the historian is to investigate mutual influence and the ways in which humans and nature shape each other, including invisible changes and the influence that nature has on societies. The outstanding talk by Professor Mauch provoked an intensive discussion on environmental movements and cultural ecology as well as possible scenarios of future development of the field.

This discussion was continued in a workshop held by Dr. **ANGELIKA MÖLLER**, who asked the participants to make short presentations on various aspects of environmental history in eastern and southeastern Europe. Students presented case studies on topics including Croatian forests in the nineteenth century, the decline of rivers in Kazakhstan, and the pulp and paper industry in the Soviet Union. These talks enabled the participants to raise the problems of regulating natural resource use, destroying nature, and developing agriculture.

The concluding session of the day's intensive schedule was held by **ARNOŠT ŠTANZEL**, who gave an introduction and workshop on the history of infrastructure. Organized in a question-and-answer format, his talk stimulated debates as to the meanings of, and the meanings created by, infrastructure. In particular, the participants discussed the issue of physical and invisible borders; the use of technological expertise for political intentions; controlling nature and the role of technology in projects of modernity; the relationship between infrastructure and spatiality; and infrastructure as a symbol or sign of ideology. Alongside this debate, Štanzel suggested a discussion on the role of technology in the European integration and the idea of "hidden integration" on the basis of the proposed reading.

The third day of the school was devoted to the history of science, and was organized around a workshop on science in the Cold War with an emphasis on Russia and the Soviet Union. Professor Dr. **KÄRIN NICKELSEN** gave an exciting presentation on Russian science in the nineteenth century. She built her talk around the challenging questions of how and where the history of science and the history of Eastern Europe intersect. She demonstrated the development of a new culture that held a strong belief in science. The role of scientific expertise in later periods was covered by Dr. **CHRISTIAN JOAS** and Dr. **ELENA ARONOVA**, who started their workshop by outlining key dates of the Cold War to visually demonstrate that, to a large extent, this period saw the

introduction of many significant scientific and technical achievements. This led the participants of the workshop to ask whether the Cold War that shaped science, or vice versa. A short propaganda film created in the mid-twentieth century on SAGE (Semi-Automatic Ground Environment), and a paper by historian of technology Slava Gerovitch, was used during the discussion as a means for participants to begin thinking about possible answers. Both the film and article stimulated debates about the role of propaganda, the development of computing in the Cold War, and of the secrecy and openness of science.

The final day of the school was devoted to the social history of medicine and history of race and eugenics, as well as to discussion of a prominent piece by Michel Foucault. The organizer of the introductory seminar and workshop, Dr. **FELDER**, stressed that the social history of medicine appeared to be a field that would connect the study of medicine and society. One of outcomes of this development was an interest in eugenics, which originally comprised various disciplines from statistics to genetics. In order to demonstrate the ways in which eugenics developed, Dr. Felder gave a presentation on his research on eugenics in the Baltic states. He also showed some historical examples of the "biologization" of the social, and the evolution of bio-politics. A crucial part of his topic included a discussion of Foucault's concepts of bio-politics and bio-power, which emphasize the will of the modern state to extend its control over societies and bodies.

Overall, the participants in the school expressed that the breadth of research topics covered by the school as well as a combined format of activities made for a very productive experience. The school provided an educational program that gave the participants—graduate students and young researchers, not all of whom came to the field with formal training from related programs—a clear understanding of the fundamental ideas of the presented historical categories. Moreover, the school facilitated productive discussions and gave opportunities for sharing ideas and questions, enabling the participants to explore new aspects of their own research. Last but not least, the school played a positive role in establishing contacts among students coming from various countries and institutions. The school closed with the hope that such an event will be organized next year.

-- Elena Kochetkova