

## SPRING SCHOOL IN SCIENCE, TECHNOLOGY, AND ENVIRONMENTAL STUDIES

### Visualizing the World – Making Sense of Our Environments

#### Call for Applications

*Abisko Scientific Research Station, Sweden, May 6 – 11, 2014*

Jointly organized by:

- The Graduate Program Topology of Technology, Darmstadt University of Technology, Germany
- The Division of History of Science, Technology and Environment, Royal Institute of Technology, Stockholm, Sweden

#### *Topic*

Scientific and technological investigation has always been sensory-based. Natural historians observed and tasted the phenomena that nature produced; experimental philosophers smelled and touched their objects of study; technicians used their ears to diagnose a faulty engine. Throughout the centuries, these professionals developed a multitude of methods and instruments to record their experiences: telescopes and thermometers, scales and seismometers, X-ray and ultrasound sensors. At the same time, they made active use of an array of inscription devices such as ink and paper, engravings and photographs, oscilloscopes and computer screens to *visualize* their recordings. In science and engineering, as in our culture more generally, the visual sense has continuously gained in importance. The increasing use of GPS and GIS data, as well as the popularity of computer applications such as Google Maps and Google Earth, testifies to this trend.

This spring school investigates these processes critically. Although they at first sight may look neutral and objective, instruments and inscriptions always incorporate specific epistemological premises and reproduce a particular interpretation of the world. Recorded findings are intimately connected to power – as are revealed by issues as different as the surveillance of criminals made possible by means of electronic tagging, the creation of consumption profiles by collecting smart-phone user data, and the application of intelligence satellites to track enemy movements. By the same token, processed data have political and economic implications; images and graphs never simply mirror the world in an indifferent manner. Sensory experiences and sensory instruments perceive nature – whether social environments or natural environments – in specific ways, anticipating and encouraging particular forms of understanding, modeling, and planning, while discouraging others. Remote-sensing data from earth-resource satellites, for example, are never innocent. Think about the monitoring of global sea levels, the mapping of deforestation activities, and the search for mineral deposits.

The spring school brings together teachers, graduate students, and postdocs working on the relationship between inscriptions and power, between visualized sensorial data and political and economic intervention in social and natural environments. It aims at creating an atmosphere of joint discussion across disciplinary boundaries, focusing on the following topics and questions:

- The co-construction of data and instruments on the one hand and the five senses on the other – with a special focus on technologies of visualization.
- The importance of remote-sensing devices and their inscriptions in perceiving environments: meteorological instruments, satellite-mediated data, computer applications, simulations, and forecasts.
- The concepts and tools of monitoring public space: Internet surveillance, population screenings, cell phone positioning.
- The political and economic power of objectified data: environmental statistics, resource surveys.
- The role of images in economic, political, and military affairs: air-surveillance photos, emission charts, land-use maps.

#### *Teachers*

- Petra Gehring, philosophy, Darmstadt University of Technology
- Gabriele Gramelsberger, philosophy of science, Berlin Free University
- Mikael Hård, history of technology, Darmstadt University of Technology
- Sabine Höhler, Science and Technology Studies, Royal Institute of Technology, Stockholm
- Jens Lachmund, sociology of science, technology, and the environment, University of Maastricht
- Nina Wormbs, history of science and technology, Royal Institute of Technology, Stockholm

#### *Format*

The spring school is open to doctoral students, doctoral candidates, and postdocs in the area of science, technology, and environmental studies. It is carried out in the period May 6 – 11, 2014, at the beautifully situated Abisko Scientific Research Station, close to the polar circle in northern Sweden (<http://www.polar.se/en>). It will consist of a mixture of lectures, plenary discussions, group-work, and poster presentations. As an opening treat, a field trip to the Kiruna station of the Esrange Space Center is planned (<http://www.sscspace.com/>). In addition, time will be allotted for walks in the area, informal discussions, and social events. Participants who are interested in prolonging their stay are referred to, e.g., the STF Mountain Station Abisko.

Participation fee (excluding travel costs): 460 € / 4,000 SEK. The fee includes food and lodging, in addition to a one-way bus-ride from Kiruna to Abisko on the first day.

### *Call for Applications*

The organizers welcome applications from doctoral students and doctoral candidates working in areas related to the topic of the spring school. Participants are expected to:

- Prepare the school by reading pre-circulated texts (ca. 200 pages)
- Bring with them and present a poster of their current research project (size A1)
- Take active part in discussions and group work

Successful participants will receive a certificate and 4 ECTS. Please notice that participants are expected to meet up in Kiruna (not Abisko) at 2 pm. on May 6, 2014. The school ends in Abisko after breakfast in the morning of May 11, 2014.

We encourage interested scholars to submit an application no later than November 15, 2013. Applications are expected to include a brief statement describing your motivation to take part in the spring school, a one-page summary of your present research, and a brief CV. Applicants will be notified no later than December 13, 2013. The participation fee of 460 euros or 4,000 Swedish crowns is due on January 31, 2014; in urgent cases, a fee waiver might be granted (only possible in case pending applications are successful). Please send your application to [sabine.hoehler@abe.kth.se](mailto:sabine.hoehler@abe.kth.se)

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