

GP 1: Understanding the Environment

Time: Monday 16:30–18:30

Location: ELP 3: HS 2.33

Invited Talk GP 1.1 Mon 16:30 ELP 3: HS 2.33
Competition, Cooperation, Representation. The Many Faces of the International Geophysical Year from the German Perspective — ●BEATE CERANSKI — Universität Stuttgart

Since the 18th century at least, research for understanding the environment has been intrinsically global, especially with regard to data acquisition. It has thus been deeply entangled with both infrastructural and political developments.

In my talk I will follow such entanglements with regard to one of the most prominent undertakings in the history of environmental research, the International Geophysical Year (IGY) 1957/58. IGY's carefully equilibrated innovative data management as well as the negotiation and competitive exploration of new research frontiers in antarctica and space have been analyzed as hallmarks of science during the Cold War. The IGY provides an excellent case study for both scientific cooperation and competition and their relationship with one another. My paper deals with the IGY from the German point of view which until now has not been much studied. Whereas in the FRG/BRD the IGY participation evolved quietly within the national research infrastructure, there was an interesting debate in the GDR/DDR who was to represent the country in the national IGY committee.

GP 1.2 Mon 17:30 ELP 3: HS 2.33
Air, Ice and Smoke: the Discourse Sourrounding an Experimental Model in Meteorology circa 1850 — ●JOHANNES-GEERT HAGMANN — Deutsches Museum, Munich

Simulations play a crucial role in contemporary climate research. The

exploration of describing and, ideally, predicting global weather phenomena through modeling has been a subject of inquiry since the 19th century. Around 1850, Friedrich Vettin (1820-1905), a physician and amateur researcher, investigated air flow using a simplified model. His laboratory experiments visualized the interaction between cold and warm zones on a rotating disk through the use of smoke. This case study revisits the discussion surrounding the unconventional use of experimental models in an emerging discipline. We argue that, despite slow acceptance, Vettin's approach made a lasting methodological contribution to meteorology.

GP 1.3 Mon 18:00 ELP 3: HS 2.33
Ringing and shooting. Thunderstorm defence practices in the 18th century — ●JULIA BLOEMER — Europa-Universität, Flensburg, Deutschland

The lightning rod is regarded as a prime product of the Enlightenment in the eighteenth century: It materialised the benefits of natural science and marked a liberation from superstition. However, this obscures the fact that older protective practices already existed and continued to be discussed and used even after the lightning rod became widespread. In the foothills of the Alps, these were the so-called thunderstorm ringing and thunderstorm shooting. Using the example of two prize questions of the Bavarian Academy of Sciences, this paper shows how the discussion of these practices contributed significantly to the understanding of meteorological relationships. The change from the original pious practices to physical phenomena and their investigation via electrical experiments shows how broad the discussion was alongside the lightning rod and that it was anything but mono-directional.