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# OBSERVING DEPICTING DISSEMINATING

*THE SCIENTIFIC PERSPECTIVE  
IN THE MODERN PERIOD*



Symposium to mark the  
10th anniversary of the founding of the  
Centre for History of Science, Graz  
May 7-9, 2015



# Observing – Depicting – Disseminating

## The Scientific Perspective in the Modern Period

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Celebrating its 10<sup>th</sup> anniversary, the interdisciplinary Centre for the History of Science at the University of Graz is organising a two-day conference on the topic of “Observing, Depicting and Disseminating” and its relevance for the history of science.

In 1776 the Protestant pastor, librarian and naturalist Jean Senebier (1742-1809) described his ideal of a naturalist in his essay concerning the practices of scientific observation as follows:

*„For the observer who seeks to enlighten people, it is not sufficient to have noticed a phenomenon. It is necessary that he reveals it to the senses of those who are not observing and that he, by his own example, instructs all those who are unaware of it.”<sup>1</sup>*

Even though scientific work has changed significantly since the 18<sup>th</sup> century, three components can be found in this quote that still shape our understanding of science today and that have provided the key words for this congress.

### Observing

Observing – as the foundation of any empirical science – is a fundamental human ability used to encode and understand the natural world. Systemizing scientific observations, theoretically questioning them and finally drawing rule-governed conclusions from them distinguishes scientific observations from everyday experiences. The act of observation played a key role in the emergence of empirical sciences. This ocularcentrism in western sciences is not only based on the established methods of empirical observation and research but also on concepts of epistemology and the perception theories of philosophers like Francis Bacon or John Locke. Inextricably linked to this are the invention, development and usage of scientific instruments that enhanced human perception and opened up new vistas, questions and problems within the realm of scientific observations. To what extent do theory and practice correlate in terms of perception and observation? Which ways of observing can be reconstructed in the history of science? What problems of justification arise due to the usage of scientific instruments? How much does the “scientific perspective” change the way we look at the world?

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<sup>1</sup> Senebier, Jean: *L'art d'observer*, Vol. 2, Geneva 1775, S. 2. Own translation.

## **Depicting**

The many different ways of depicting the visible and the invisible world have always been central to the development of the sciences. They represent comprehensive theoretical concepts, serve as epistemic tools or epitomize the coherences of a natural order. Without depicting the results of scientific work it would be impossible to spread these findings for the purpose of scientific progress. Various forms of depiction and techniques of (re-)presentation – from artistic drawings to computer-generated imaging – illustrate the scientific genesis and refer to a dialectic between observer and the observed. How did the relation between perception and depiction take shape in the course of the history of science? What were the aims of documenting and were these aims fulfilled? How much did documenting influence scientific thought?

## **Disseminating**

Passing on and explaining scientific knowledge has always been necessary both within and outside the scientific community. The results of scientific thinking and activity have always been communicated within scientific institutions, such as universities, academies or scientific societies but also in the wider areas of social life. Therefore, questions concerning the various ways of conveying information arise, as well as questions about the target audience. What forms of conveying information were developed in the course of the history of science and which were actually used? In what way did the active conveying of scientific information influence scientific attitudes and opinions? How did the various ways of disseminating information influence the information itself?

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The symposium welcomes scholars of all disciplines interested in the history of science, so that the “scientific perspective” can be approached in an interdisciplinary context from different theoretical standpoints. Questions concerning the general field of observing, depicting and disseminating can be considered as possible contributions, but other suggestions are welcome as long as they address the genesis of sciences and their methods of operating and thinking.

The conference will be opened by the renowned scientist, author and inventor of the contraceptive pill Prof. Carl Djerassi who will deliver his keynote address titled “Beobachten, Darstellen und Vermitteln durch das Theater” (Observing, Depicting, Disseminating through theatre) at the city hall of Graz.

The Centre for the History of Science Graz asks interested parties to sign up for the symposium at [bdv@uni-graz.at](mailto:bdv@uni-graz.at) by February 1<sup>st</sup> 2015. Participants are invited to give a 15-20 minute talk with following discussion on ongoing or completed research projects and papers. Please send your suggestion for a presentation (400 words max.) and a short academic CV along with your application to the address above.