

## **Workshop “Artisanal-Scientific Experts in Eighteenth-century France and Germany”**

Organizers Ursula Klein, MPIWG and Bruno Belhoste, Sorbonne

Time: April 23 (afternoon) until April 24 (afternoon).

Place: Max Planck Institute for the History of Science, Berlin

### **Description of contents**

Beginning in the second half of the seventeenth century, a new social figure entered academic institutions, contributing to their profound transformation: the hybrid artisanal- scientific expert, who resists a rigid classification as either a man of science or an artisan. These hybrid experts, fostered by mercantilist states, argued emphatically in favor of an amalgamation of experimental and local technical knowledge with scientific analysis and text-based natural knowledge. They were at the same time innovative practitioners and literate men (and a few women); many of them were members of academies, public lecturers and authors of texts and other representations of nature and art.

In the eighteenth century the group of hybrid artisanal-scientific experts included apothecary-chemists; mining officials concerned with chemistry, mineralogy, geology and the cameral sciences; arcanists and *Laboranten* working in laboratories of porcelain manufactories and writing note books; inspectors of dyeing performing quality controls in laboratories of dye manufactories and publishing essays on dyeing; military comptrollers experimenting on ballistics and gunpowder and publishing mathematical and chemical treatises; instrument makers; mathematicians; military and civil engineers; “masters of art” (*Kunstmeister*) and architects.

Comparable (to some extent) to modern “scientific engineering” and the “applied sciences,” the hybrid eighteenth-century experts established laboratories, which functioned as stable zones combining science and engineering. In these laboratories (a) the same activities served both the understanding of nature and the improvement of artifacts; or (b) shifts from natural inquiry to engineering, or vice versa, were technically easy and socially encouraged. Historical studies of eighteenth-century artisanal-scientific experts thus contribute also to our understanding of current intersections of sciences and technology.

The workshop aims at a fine-grained comparison of hybrid experts in eighteenth-century

France and Germany. Both states adopted a mercantilist policy and strongly supported hybrid experts. But there were also important differences. France was a unified state, which ran state manufactories in Paris and financed a central and powerful *Académie des Sciences*. Germany consisted of many different states and administrations, and here different scientific societies competed among each other. Such differences presumably affected the social status and role of hybrid experts vis à vis university-based men of science, on the one hand, and artisans and craftsmen on the other. Enlightenment debates about new forms of discipline in the arts and crafts, and artisans' and craftsmen's resistance against efforts of rationalization, may be better understood when put into these contexts.