## Research Topics

## MAX PLANCK INSTITUTE FOR THE HISTORY OF SCIENCE

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## Courting the Crafts in Qing China

Technology Diffusion and Communication Through Media in

## Seventeenth-Century Chinas

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In the year 1644 the Manchu proclaimed Beijing the seat of their court. Beijing, the Northern Capital, offered challenges as it was far from the prosperous South and had been the capital of the two previous dynasties, the Yuan and the Ming. The new Qing dynasty had to cope with this as they mapped their geography of power.

To legitimize their rule, they both relied on Mongolian heritage and clearly distinguished themselves from the conquered Ming. The imperial center was thus re-shaped to define the empire, politically, intellectually and culturally. A collaborative research project between the Independent Research Group at the Max Planck Institute for the History of Science, Concepts and Modalities: Practical Knowledge Transmission, headed by Dagmar Schäfer and specialist researchers from the Palace Museum in Beijing, (Gugong bowu yuan), looks at the

historical matrix of power and knowledge evidenced by technological knowledge circulation within material production. Examples from the fields of porcelain, enamel, silk, jades, interior design and bronze sculpturing reveal the conditions under which locally produced knowledge moved into the court and was "universalized"; or vice versa, the role imperial knowing played in the construction of standards of validity at the local level.

The researchers at the Palace Museum in Bei-

jing work directly in the architectural complex formerly known as 'the Forbidden City'. As distinguished art historians and experts in restoration practices, they have greeted the opportunity to reexamine their field from the perspective of the history of technology. The cross disciplinary collaboration implements their specialist knowledge and unlimited access to the collections and extensive archives of the museum to trace evidence of knowledge transmission and technology diffusion in its relation to media culture. The archives of the Forbidden City hold a rich array of non-documentary media used in communication, such as sketches, models, samples and tools. The wide assortment addressed by the research gives a new view to what this era thought could be transmitted, how they wanted to transmit it and to whom. Which type of information was chosen, which element of encoding used, which aspects were institutionalized or standardized and which left to free choice, created the atmosphere in which technological development did, or did not, take place.

A capital city is not only a political center. It also has the task of representing the ideals of knowledge construction of a period or a ruler, while maintaining the social, economic and material functions of a city. In addition, it is often a point of entry for new ideas and concepts. Indeed the Qing, the last dynasty, is noted for its exceptional investment in its information infrastructure, including knowledge circulation, its control and promotion. As the court was the decision maker within all fields of material production, these issues were meticulously documented and the documents were carefully preserved. All things and affairs going

on at the court were noted down, including information on craft production.

One may well ask, what can an inquiry into ancient traditions of knowledge circulation, in particular in the sector of practical know-how, offer us today? Qing means and methods of communication were not as fast or as comprehensive as modern information technology. Yet, the infrastructural design of the information systems is not so very different. They both start from the same premise, namely the global gathering of all kinds of data, bits and bytes that are then stored, put on hold and sent out again, or classified, selected and synergized. They also both gather information in diverse ways, stored in various different media; albeit the digital world employs databases of photos, clips, images, and videos, while the analog world of the seventeenth century worked with varied repositories and datasets, text archives as well as sketches, three-dimensional models, tools and sample. Careful examination of the traces left by Qing communication culture offers us an insight into the complex dynamics that historically shaped knowledge in the making.

Chinese officials did not merely keep accounts of raw materials, evaluate labor or care for the logistics of manufacture and decision structures. They were also concerned about issues such as form, processing and design. Samples were sent across the country; sketches or three-dimensional models conveyed the visual image of the product to the emperor and helped to pass on procedural details to the actual hand that produced these items, the artisan, craftsmen or laborer. Any history of technology should also deal with the social relations of ar-



A ceramic workshop in Jindezhen, Qianlong reign. The upper right part of the image depicts a Ming Lu, literally open oven, where the firing process can be observed. From the Geng Dongsheng, Porcelain Masterpieces in the Deshantang Family Collection. Beijng: Cultural Relics Publication House, 2009.

tisan and ruler, the official and laborer, in this case, Manchu, Han-Chinese or Tibetan, Buddhist, Confucian or Jesuit. The Qing world followed patterns of property rights and cultural assessment that placed the official and scholar far above the craftsman, and their practices of citizenship separated rural laborers from the protected sphere of society and trade. Their interest in crafts and concern in technology was not displayed by their honoring of the artisan

or by the recognition of technology as a category, in the modern sense, but by venerating the artifact and its production. To acknowledge the importance of the media itself, we have to naturalize technology within the broader matrix of late imperial Chinese modes of self-fashioning, social, effective networks of action and response and cosmology. In this view the Qing rulers and elites emerge as considerate and wise actors when it came to technological issues;

they courted the crafts, they did not coerce them.

The results of this innovative and fruitful crossdisciplinary collaboration are now published in an edited volume: "History of Exchange of Craft Techniques between the Imperial Court and the Local: from the Qing Dynasty until the Qianlong era (1735-1796) (first in Chinese, an English translation is forthcoming). With an introduction by Dagmar Schäfer (editor), the contributors, listed here with their area of expertise, will be: GUO Fuxiang, jade; LUO Wenhua, Buddhist bronzes; WANG Guangyao, porcelain; XU Xiaodong, enamels; ZHANG Qiong, silk; and ZHANG Shuxian, interior design. The book demonstrates that each of the six chosen fields had significant political, social, ritual and economic functions. Examining the details of practical knowledge transmission and actual production - looking at what information was conveyed by sketches, by three-dimensional models, in texts or through the dispatching of experts, when, where and how, the book reveals what this era considered key-technologies and worthwhile materials, what they saw as basic knowledge or exceptional expertise in material production. For example, some particular issues addressed by LUO Wenhua in his work on technical exchange between the Qing court and Tibet, and XU Xiaodong on the interaction between the court and painted enamel production are consumption and production, the transplantation and transmission of technologies, the consequences of geographical distance between the actual centers of production and the creative centers where designs were configured. Implementing new knowledge such as Tibetan/Nepalese bronze sculpture techniques and European enamel painting at the court, the Qing made effective use of the potential of technology transfer as a political tool for the construction of empire and as a mediator of cultural concerns.

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