Palace Fire-Gilding in the Qianlong Period: Material Technology and Fabrication Techniques

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Abstract

Significant breakthroughs in gold plating technology were made in the mid-eighteenth century during the Qianlong reign (1736-1796). These resplendent innovations can be closely connected to the endeavour to integrate political and religious power within the empire. With considerable expenses, the Qianlong emperor built lamaseries in an effort to attract pilgrimage groups from the Mongols, and these temples adopted sophisticated gilded works such as gold-plated copper roof tiles and statues.

In the meantime, globalization in the eighteenth-century allowed China to collect high-quality materials for gold plating technology due to frequent material and technology exchanges with other countries. Gold was sent to the Qing court as a form of tribute from local governments and vassal states after the conquest of the former Mongolian region of Zhungaria in 1755. Mercury for making gold amalgam relied on import shipping of the British East India Company. The high-quality Japanese copper imported since the Kangxi period was for copperware manufacturing as a fire-gilding substrate. This article first aims to raise our understanding of resource and knowledge management on fire-gilding technology based on documentary sources including gold and copper deposits, laws and regulations for gild artisans, and tributes of gilded artifacts.

Archival documents of the Imperial Household Department record a series of materials and techniques for complicated gilded copper manufacturing in part of Buddhist temple construction. Those documents indicate the Qianlong emperor's great attention to the standardization and management of gilding techniques. This article also addresses the deep influence of Tibetan handicrafts such as sisa forging, rubia cordifolia burnishing, and multi-layered gilding techniques that had been introduced by Nepalese, Tibetan, and Xinjiang artisans on gold plating technology in the Qing dynasty. Therefore, it is concluded that the success of resplendent fire-gilding innovations during the Qianlong emperor's reign was not only due to considerable experimentation and resources spent,

but also the intensive scientific and artistic exchange between various cultures.

Keywords: Qianlong emperor, gilding technique, forging, copper, Nepalese artisans, multiculturalism, Tibetan style