

# Seeing the World Differently: Qing Art and Optical Devices

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## Abstract

When European optical devices were first introduced into early modern East Asia, these devices affected not only viewing experiences and ideas about vision, but also the production of art. The effects of optical devices on premodern Japanese art are well established, but the Chinese case remains little explored. Although the scientific field of optics did not develop significantly in China prior to the mid-nineteenth century, from the seventeenth century onward Qing domestic production and use of lenses and optical devices resulted in significant relationships with art at the imperial, elite, and popular levels. From eyeglasses and telescopes to the zograscope, peepbox, and more, optical devices were inseparable from art produced at all social levels and around the empire during the seventeenth, eighteenth, and nineteenth centuries. The production and consumption of these new works, as well as what they depicted and how, varied with place, format, and audience. All cases, however, presented innovations that challenged established ideas about how to experience the world through the act of looking.

Across the entire social spectrum, late imperial Chinese art related to lenses and optical devices produced during the last centuries of imperial rule demonstrates specific and unprecedented instances of interaction between visual and material culture, science and art, and the domestic and the foreign. Optical devices and the viewing experiences that they mediated created varying levels of foreign intervention into Chinese art, vision, and visibility. However, the consistent but diverse methods of Sinification of all these elements and the reliance on domestic production rather than imports offers new insights into how Qing art engaged the West without being limited to the court or the capital. Integrating the histories of science and art, this paper examines several case studies of optical devices and their related works of art to begin tracing these interactions during the Qing dynasty.

**Key words:** optical devices, peepbox, microscope, magnifying lens, Qing dynasty art, visibility, Sino-Western cultural relations