

Imitation and Innovation: Cultural Influences in Glassmaking in Early Modern Europe and China

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Early European experiments into porcelain-making were strongly related to glassmaking for the basic and long-lasting misunderstanding that Chinese hard-paste porcelain was a vitreous rather than a clay-based material. Glasshouses in Venice (c.1500), in Nevers (c.1675), in Munich (c.1680), and in Dresden (c.1700), made white glass by adding bone-ash or chalk, whereas early European ceramicists, such as those in Francesco I de Medici's (1541–1587) workshop in Florence (since 1575), and potters in Rouen and Saint Cloud (since 1673 and 1683 respectively), produced earthenware, typically coated with a tin-based glaze in order to achieve closer resemblance to Asian wares. 'True' hard-paste porcelain, however, was first fired in Europe only with Ehrenfried Walther von Tschirnhaus (1651–1708) and Johann Friedrich Böttger's (1682–1719) experiments in Dresden in 1708, and led to the establishment of the Meissen manufactory there in 1710.[\[i\]](#)

For the focus on my talk on Chinese influences over European glassmaking, Tschirnhaus' enduring research into the composition of porcelain is highly important as he ran several glasshouses, the primary of which, the Königlich-Polnische Kurfürstlich Sächsische Glasfabrique (1699–1760) not only offered him the environment to test different clays, but principally engaged in the manufacture of glass – mostly colorless, but occasionally of opaque color.[\[ii\]](#) Opaque glass had become popular in Venice during the Renaissance, when marbled and chalcedony glass imitated hardstone, and white, as well as translucent green and blue glass, served as vessels that could be richly enameled allowing the painted and occasionally gilded inscriptions and heraldry to visually separate from the colored ground. Other undecorated *lattimo* objects, however, simply presented alternatives to *cristallo* glass, and are neither enameled nor imitations of porcelain, as their forms are none present in ceramic production. [\[iii\]](#)

Altogether, in the sixteenth and seventeenth centuries, white glass represented glass rather than porcelain type objects and were made in white instead of colorless glass for their clean background for enamel colors, or the elegant aesthetics of their uniform polychrome color and shape. However, it is worth highlighting also a couple of European artifacts that differ importantly in their color scheme and lack of decoration from porcelain counterparts but that closely resemble them in shape and fulfill the same utilitarian purposes. Objects like colorless glass covered dishes and

glacières repeat in glass vessel types manufactured by the most celebrated porcelain factories, such as Meissen and Sèvres. They testify to an influence of porcelain over glass that had stylistic and thereby cultural dimensions as well as economic consequences. New types of table ware, such as *glaciers*, do not only illustrate the ever more intricate dining customs and newly fashionable variety of domestic objects employed in elaborate table settings, but further signalize the adoptability of one object type in media such as porcelain, glass and silver that together formed part of the display since the seventeenth century. As textural descriptions and rare depictions of buffets and dining tables illustrate, precious domestic treasures were further ennobled by pairing them with non-functional glass table ornaments, *trionfi*, silver and gold mounted hardstones and shells, and East Asian import goods.^[iv]

As the fascination with imported Chinese artefacts continued and a fashion for *chinoiserie* developed, glasshouses throughout Europe developed products that adapted shapes and iconographic features known from East Asia in order to both imitate and emulate ‘exotic’ Chinese wares. This phenomenon was neither short-lived nor was it limited to Europe, but, indeed, grew into a truly cross-cultural influence when also Chinese glassmakers imitated in glass enameled porcelain of the Qianlong period.

^[i] As Ulrich Pietsch discusses, it seems plausible that Tschirnhaus learned of the fine white clay used for the production of porcelain in China by reading Marco Polo, Gaspar da Cruz (act. in 1569), Matthäus Dresser (1536–1607), or Jan Nieuhof (1618–1672), all of whom described the addition of ‘a certain sort of soil’ to the batch formula. Tschirnhaus, however, may not have known the exact composition of this white clay, for it was his colleague Böttger who seems to have discovered the necessary kaolin, and who presented to August the Strong (1670-1733), Elector of Saxony (1694-1733) and King of Poland (1697-1706) the first successful samples of European hard-paste porcelain. See Ulrich Pietsch, ‘Tschirnhaus und das europäische Porzellan’, in Staatliche Kunstsammlungen Dresden (ed.), *Ehrenfried Walther von Tschirnhaus (1651-1708): Experimente mit dem Sonnenfeuer*, Dresden: Staatliche Kunstsammlungen Dresden, 2001, pp. 68-73.

^[ii] Gisela Haase, ‘Tschirnhaus und die sächsischen Glasshütten in Pretsch, Dresden und Glücksburg’, in Staatliche Kunstsammlungen Dresden (ed.), *Ehrenfried Walther von Tschirnhaus (1651-1708): Experimente mit dem Sonnenfeuer*, Dresden: Staatliche Kunstsammlungen Dresden, 2001, pp. 61 and 63.

Haase quotes (p. 63) from a letter Tschirnhaus wrote to the philosopher and mathematician Gottfried Wilhelm Leibniz (1646-1716) on October 6, 1700, praising the successes of the newly established Dresden glasshouse and alluding to the

advantages he personally saw for his porcelain research, saying that ” ... dass vornehmste ist dass [ich] nunmehr ein stettes fewer umsonst habe, da [ich] vieles propiren kan, und dass [ich] herrliche glässer werde haben können, umb die opticom ad talem perfectionem zu bringen, wie ich in Idea habe” (original correspondence in the Landesbibliothek Hannover, block 135).

[\[iii\]](#) An elegant Netherlandish goblet in the Corning Museum of Glass shows strong similarities with turned ivory pokals produced in princely workshops in Renaissance Bavaria.

[\[iv\]](#) Wolfram Koeppel (ed.), *The Art of the royal Court: Treasures in Pietre Dure from the Palaces of Europe*, exh. cat., New Haven and New York: Yale University Press, 2008, pp. 232-237, 248-249, 252-256, 271-273, and 278-279.