

Object Studies

Porcelain Plaque

What Is This Object?

A porcelain plaque, one of eight set into a tulipwood writing table.

The ceramic plaques are the principal decorative elements of this table. Each consists of a central white quadrangle bordered by medium green, and each has a cluster of flowers and fruit in the center of the plaque. (The combinations of fruit and flowers are different on each plaque.) The green borders of the larger panels are further embellished with a square gold outline and a trailing of gold leaves entwined around them. Each plaque is set into a gilt-bronze frame and mounted into the wood desk. The center front plaque serves as a drawer front, and those at the right and left are doors, each concealing two pairs of drawers. The plaque shown here is the door front on the left side

The table is the work of Joseph Baumhauer, a master cabinetmaker active in Paris during the third quarter of the eighteenth century. The table is made of oak covered with a tulipwood veneer and further decorated with gilt bronze leaves and flowers, along the table legs. It measures 75.6 cm high by 87.6cm wide and 52.1 cm deep (29¾ in. by 34½ in. by 20½ in.). The largest of the plaques, those at the ends, measure 8¼ in. high by 153/8 in. wide (21 cm by 39.1 cm).

The table is in the collection of the Metropolitan Museum of Art, a gift of the Samuel H. Kress Foundation.

How Is the Color Made?

The substrate for these panels, the plaque itself, is the soft-paste porcelain characteristic of products from the Sèvres manufacture until the end of the eighteenth century. Experiments with materials to make hard-paste or "true" porcelain had been ongoing there since the 1740s, but the results were more often used to make figurines and other items in imitation of those for which the Meissen manufacture was famous.¹

Records at Sèvres indicate that the formula for soft-paste porcelain combined a frit (composed of sand and saltpeter with small quantities of salt, alum, Alicante soda and gypsum) with chalk and marl. The composition, shaped into whatever form was required, would be dried slowly and then fired for several days at a temperature that could reach 1200°C. Once removed from the kiln, the plaque was inspected for imperfections. If acceptable, the biscuit was polished to create a

smooth surface for decoration.² The white lead glaze and the green borders were then painted on, and the piece was fired again. The temperature of this second firing—which would have required only about five days, in contrast to the initial firing of seven to ten days—was lower than the first but still high enough to permit the glaze to melt, to fuse to the substrate, and to become transparent. The floral design was then added, painted in enamel colors, and the plaque was again fired.

Gold highlights were added in the final stage. To do this, a mordant was used to create the pattern on the ceramic surface. Gilder's mordants might be distilled mixtures of gum arabic, gum tragacanth, honey, or other sticky substances.³ Most instructions suggest that the mordant be allowed to dry slightly before covering it with a powdered gold or gold-colored material. After careful removal of the excess powder, the now gold-colored design would be burnished slightly, fired briefly to melt and so adhere the gold, and burnished again.

Color:	Used for:	Shades:
White	Ground	
Green	Border	
Green	Leaves, stems	Light, medium dark
Blue	Flowers and highlights on leaves	Light, medium
Red	Fruit and flowers	Medium
Brown	Stems and fruit	
Yellow	Flowers and fruit	Light, medium
Purple	Flower details	Light
Pink	Flowers	Light, medium

The design on this plaque required seven colors: blue, green, red, yellow, brown, pink, purple, plus the white glaze. With the exception of the greens, for which two different compositions appear to have been employed, color variations are due to the coloring technique. Deeper colors used more of the enamel coloring material, applied in layers or in a higher ratio of color to medium.

Information about colormaking at what would become the Sèvres manufacture was collected and tested by Jean Hellot in the 1750s. Those records, some twenty years old at the time this object was created, include several formulas for each of the seven colors used here. Exact identification of the coloring materials used in this plaque remains unconfirmed at this time, but information about typical materials and techniques can suggest how these colors were made.

Many of the Sèvres colors relied on a universal fondant, a single formula into

which the coloring material was added. The fondant would be mixed with the coloring materials, ground, fired for several hours, and then cooled; the last three steps would be repeated until the result was sufficiently transparent. The fondant would then be mixed with the prepared coloring source.

In the eighteenth century, coloring sources were often based on formulas or prepared enamels purchased from dealers. Their preparation was similar to that for the fondant—repeated melting and grinding of a coloring source (the metal oxide) with other substances that would improve the color or its characteristics in some way. Once prepared, the color and fondant would be ground together. Instructions often specify that this should take place on a mirror rather than in a metal or stone mortar, so that the ingredients are not contaminated by substances that could alter the color.

Instructions for creating zaffer blue, a color found on the plaque, called for firing the zaffer in a reverberating furnace for about twelve hours, followed by the addition of vinegar and by grinding and washing. This prepared zaffer was then mixed with the universal fondant and melted on a high heat. The resulting glass was broken up and ground again—at this point it could be used as an underglaze, painted directly on the ceramic form.⁴ To adapt this formula to painting on a glaze as here, the zaffer would be dissolved in aqua fortis, washed, and then combined with an equal portion of fondant. Ground in water, it would then be used as enamel paint. Other coloring materials were prepared in approximately the same way: mixing the coloring source with a fondant and perhaps other ingredients to improve its qualities, followed by multiple melting, cooling and regrinding steps, until the coloring material was determined to be good enough for use.

How Is the Object Used?

Historians who study the French luxury markets of the eighteenth century have noted the close ties between the fashion for furniture that incorporated exotic or unusual elements and the *marchands merciers* who sold such items.⁵ These commissioner-dealers often stocked unfinished or partly-assembled goods, allowing the purchaser some choice in the assembly or finishing of a piece of furniture. It was not uncommon to design a chest or other object around an existing Chinese or Japanese oriental lacquer panel, for example. The incorporation of porcelain panels into desks, tables, even coaches—especially fashionable items in the 1760s and 1770s—offered to consumers, besides the subtle luxury of choosing design details and color schemes. Another aspect of their luxury, obvious to anyone who knew of the fragility of porcelain, was the risk of damage during regular use. Within these descriptions, colored ceramic plaques serve a function that is not much different from that of other decorative ceramics such as vases or figurines. Each affirms the taste and wealth of the

owner, qualities confirmed by the delicacy of the decorative motifs as well as by the uniqueness of each item and its cost. Here colors would be integral to the declarations of tastefulness evident in the choice of skillful coloring and in the choice of a fashionably colored border. The notions of quality, the idea that these colors were good, were embedded into those decisions too.

Notes:

Note 1: Antoine d'Albis, "Two Controversial Decisions by Alexandre Brongniart," in *The Sèvres Porcelain Manufactory: Alexandre Brongniart and the Triumph of Art and Industry, 1800–1847*, ed. Derek E. Ostergard (New Haven, Conn., 1996), 150–51.

Note 2: Antoine d'Albis, "Le Four et les Problèmes de Cuisson" *Dossier de l'Art*, No 54 (January / February 1999): 42–48; Antoine d'Albis, "Steps in the Manufacture of the Soft-Paste Porcelain of Vincennes, According to the Books of Hellot," in *Ancient Technology to Modern Science*, ed. W. David Kingery (Westerville, Ohio, 1985), 257–71.

Note 3: [Jean Hellot], *Recueil de tous les procédés de la porcelaine de la Manufacture royale de Vincennes, décrits pour le roi: Sa majesté, s'en étant réservé le secret, par arrest du 19 aoust 1753*, [1753–54], BMNS, Y.51bis, p.58; Process of the comte d'Egmont for gilding porcelain, 1741, BMNS C.1/4.

Note 4: [Hellot], *Recueil de tous les procédés de la porcelaine de la Manufacture royale de Vincennes*, 68.

Note 5: Carl Christian Dauterman, "French *Marchands Merciers* and Furniture with Porcelain Plaques," in *Decorative Art from the Samuel H. Kress Collection at the Metropolitan Museum of Art: The Tapestry Room from Croome Court, Furniture, Textiles, Sèvres Porcelains, and Other Objects* (Greenwich, Conn., 1964): 105–15; Carolyn Sargentson, *Merchants and Luxury Markets the Marchands Merciers of Eighteenth-Century Paris* (London, 1996), 46–52.
