Analysis and Conservation of Maurice Quentin de La Tour’s Portrait of the Princesse de Rohan

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Paper Conservator
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The portrait of Marie-Sophie de Courcillon, Princesse de Rohan (1713–1756), by Maurice-Quentin de La Tour was acquired by the Nationalmuseum in 2014 (Fig. 1). The pastel had earlier suffered a severe mould development and an infestation causing many damages to the surface of the media layer. In 2015, it was treated and studied together with another pastel by de La Tour, the Portrait of Voltaire (Fig. 2), in collaboration with international scientists. This project provided us with information about the pastel’s history and technique, the artist’s palette, and enabled us to outline the artist’s working process.
Technical Description

Visual examination, condition checking and a thorough photographic documentation provided us with information on pigments, binders and fixatives.²

Paper Support

The pastel is executed on blue paper pasted onto grey cardboard (61 x 50 x 0.5 cm). Blue paper is characteristic for Maurice-Quentin de La Tour, who favoured it over the parchment used by other 18th century pastellists such as the Swiss Jean-Étienne Liotard (1702–1789). Unlike white writing paper, it had a fibrous texture resulting from very little sizing, and was ideal for grabbing pastel pigments (Fig. 3). It also came in a middle-tone nuance, which was convenient for making quick portraits of sitters who had little time. The pastel consists of two separate pieces of paper pasted together. The paper join runs transversally below the chin of the princess and is entirely covered by the pastel layer (Fig. 4). Four additional strips of paper are glued on the periphery. This is commonly found in works by 18th century pastellists, probably as a way of matching the size of the paper with the strainer. De La Tour usually made several sketches of his sitter’s face. The chosen preparatory sketch was then attached to other pieces of paper in order to create the finished portrait.³ In this case, the portrait of the princess is only on the upper piece of paper. The Portrait of Voltaire was also a preparatory drawing but it was apparently never used for the completion of a final portrait.

De La Tour would normally paste preparatory drawings on blue paper on a stretched canvas to make them sufficiently sturdy to later be framed.⁴ Due to an infestation, the original strainer and canvas were removed at an earlier time. The portrait of the princess is now entirely pasted on a grey cardboard (Fig. 5), while the peripheral paper strips were probably cut to the size of the mounting board in order to fit a new frame. The transfer to a new mount happened after the 14th of May 1877; this is the latest date visible on the newspaper clips glued to the back of the board. These paper strips were earlier used to secure the pastel in the frame.

Analysis of the Pastel Layer

The pastel layer is still preserved despite former treatments and damages. One can still sense the rich and velvety texture of the blue cape in four shades of blue (Fig. 6). Pigments analysis indicates that the blues consist of a subtle combination of Prussian blue with copper-based pigments.⁵ Prussian blue mixed with carbon black pigments create darker modulations in the dark areas of the garment, while slightly greenish copper-based pastel strokes mixed with white produce the lighter shades that highlight the cape. The artist builds up pastel layers in order to convey a three-dimensional effect. Thinly applied strokes highlight and redefine the flesh areas. They are a combination of red and yellow iron pigments with white calcium carbonate, while the carnation of the cheeks is made of vermilion, which is a mercury-based red pigment, mixed with white (Fig. 7). The identified pigments are typical for the 18th century pastellists’ palette as listed in Paul-Romain de Chaperon’s 1788 treatise.⁶

Photographic techniques such as infrared photography have also contributed to visualising the carbon-based medium of the underdrawing. It consists of a black wet medium applied thinly with a brush to delineate the features around the eyes and the mouth. Blotchy areas on the dark side of the face are applied broadly, possibly with a brush.

Framing

The pastel was framed in a Rococo frame. The wooden backboard bears a sticker of the Exposition des cent pastels, housed in the Galerie Georges Petit in 1908. The transfer to a new mount and
reframing occurred between 1877 and 1908, after both the strainer and original frame had suffered insect-related damages. This explains why the mounting cardboard fits the frame rabbet precisely.

**Condition on Arrival at the Nationalmuseum**
The pastel had suffered a severe mould attack in the past as a consequence of a water damage that left a tideline in the lower area of the pastel. Humidity had condensed behind the glass, next to the pastel, because the art work was hanging on a humid or a cold wall. White mycelia spots were particularly visible in the blue and black areas of the garment and at the back of the pastel. (Fig. 8).

Mould-related damages are very common on pastel paintings. Pastel sticks are made of organic materials extracted from plants and animals, which are nutrients favoured by microorganisms. Condensation can arise in glazed framings in an unstable indoor climate, contributing to the formation of mould.

![Fig. 3 Macrophotograph of the blue paper support.](image1)

![Fig. 4 Detail of the paper joint.](image2)

![Fig. 5 Back of the pastel.](image3)

![Fig. 6 Detail of the blue cape.](image4)
Conservation of the Pastel

In order to remove mould spots and accumulated dust from the pastel surface, the pastel layer was entirely cleaned using a 1 mm Pasteur pipette connected to a vacuum cleaner containing a Hepa® filter. Mould spores were trapped by the filter, which prevented them from spreading in the atmosphere. A few hairs attached to the end of a glass pipette were used to remove mycelia and loose dust. The cleaning was a meticulous process, part of which was carried out under a microscope. In this case, many spots could not be removed because they were dry and adhered tightly to the pastel layer (Fig. 11).

Local retouching was necessary on some mould spots and on the tideline, to improve the visual coherence of the pastel. Pastel crayons were used; their pointy end allowed a precise application.
Slightly harder than classic pastels, they enabled us to retouch even the surfaces where the pastel layer had become smooth and the support had lost its fibrous texture.

The paper support was consolidated and loose areas secured to the cardboard using Japanese paper hinges glued with starch paste (Fig. 12).

The pastel was reframed in an airtight conservation box, to prevent the introduction of moisture next to the pastel layer and the risk of further mould growth (Fig. 13). The box was fitted in the newly-restored frame after an anoxic treatment against insects had been carried out.

The conservation of the Portrait of the Princesse de Rohan, together with the preparatory drawing of Voltaire, by Maurice-Quentin de La Tour, was a unique opportunity to study the atelier practices of one of the major 18th century pastellists.
Fig. 12 Pastel secured to the cardboard with Japanese paper hinges.

Fig. 13 Airtight conservation framing sealed using a hot spatula.

Notes:
2. In collaboration with the RAÄ (Swedish National Heritage Board, Visby), the CATS (Centre for art technological study, Copenhagen), and Dr Julia Schultz (Stuttgart University).
5. Jorgen Wadum, David Buti and Johanne Nielsen, CATS analytical reports, Copenhagen, 2015. X-Ray fluorescence (XRF), Fourier transform infrared spectroscopy (FTIR) and Raman spectroscopy were used to identify pigments.