

RESTORATION OF THE CLOCK MECHANISM'S DECORATIVE ARCH

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Side A before restoration



Side A after chemical treatment (Charlotte da Behr neé de Medem m'a lessés faire)



Side B before restoration



Side B after chemical treatment (Rud: Guisy ma fait 'a Anzen)

Dated: 18th century, (1771-1786)

Dimensions: 49x35cm

Photographs: Auce Purmale, Jānis Puķītis

INTRODUCTION

The decorative arch is part of a historic clock mechanism from the bell tower of Pope Church. The object is currently undergoing conservation treatment. The church was founded in 1771 by order of Baroness Louise Charlotte von Behr and consecrated in 1786. Built in Baroque style, the church features a tower equipped with a clock with dials oriented towards all four cardinal directions. In 1870, the Courland artist Julius Döring ascended the church tower and recorded an inscription on the clock mechanism identifying Louise Charlotte von Behr as the commissioner and Rud. Guisi Anzen as the maker.

CONDITION BEFORE CONSERVATION

The metallic core of the object is stable and well preserved. The surface was covered with a layer of corrosion products and accumulated dirt, including bird droppings and tar run-offs, which may have fallen on the surface during roof repair or maintenance works. The arch is deformed in its central section, and the decorative central projection at the upper part is missing. The paint layer is layered with corrosion products and dirt; it is cracked, fragile, with local losses.

PAINT LAYER ANALYSIS

The base material is coated with a white paint layer composed of lead white. Decorative layers are applied using green (basic copper carbonate), two red pigments (cinnabar and red ochre), and black (organic black pigment). All identified pigments are bound in oil.

CONSERVATION TREATMENT

The aim of the conservation treatment was the reduction of corrosion products and the stabilization of the polychrome surface while preserving the maximum amount of original material. Areas with flaking paint were locally consolidated prior to further intervention. After consolidation, surface dirt and corrosion products were addressed. Several chemical cleaning agents were tested to identify the most effective and least invasive method. Cleaning was continued using (5%) phosphoric acid applied in compresses, which effectively reduced corrosion without causing paint leaching.



Side A detail before restoration



Side A detail (da Behr neé de) before rest., photo alteration



Side A detail after chemical treatment



Tar run-offs before restoration



Tar run-offs before rest., photo alteration



Tar run-offs after chemical and mechanical treatment



Side B acanthus leaf decoration before restoration



Side B acanthus leaf decoration before rest., photo alteration



Side B acanthus leaf decoration after chemical treatment



Side B detail before restoration



Side B detail before rest., photo alteration



Side B detail after chemical treatment (Guisy ma fait 'a)

DESCRIPTION

The arch was originally mounted on the upper part of the clock mechanism. Following the removal of the mechanism from the tower, the element was separated and stored in a controlled environment in order to limit exposure to aggressive environmental conditions and to slow the deterioration of the polychrome paint layer. The object is made of iron, forged into a flat semicircular form with decorative hook-shaped projections at the upper part. The tapered ends incorporate two square-section pins, originally used to fix the arch to the mechanism. The surface is polychrome, executed in oil-based paints. On both sides, fragments of a French-language inscription - Charlotte da Behr neé de Medem m'a lessés faire. Rud: Guisy ma fait 'a Anzen (I was commissioned by Louise Charlotte von Behr, born Medem. I was made by Rud. Guisi of Anzen) and Baroque-style acanthus leaf decoration are partially preserved. Decorative elements are rendered primarily in red, complemented by green, red, and black details.

After corrosion reduction, large areas of the original paint layer were found to be well preserved and firmly adhered to the metal. Tar run-offs presented the greatest challenge. The most successful approach involved gentle heating to soften the tar, followed by careful mechanical removal. Further removal of tar deposits and treatment of remaining areas of metal corrosion are required. These will be addressed through localised application of acid compresses combined with careful mechanical cleaning. Following corrosion reduction, the metal surface will be passivated, and a protective coating will be applied.