

# THE 16TH – 18TH CENTURY ARCHAEOLOGICAL CERAMIC ARTEFACT RESTORATION IN THE MUSEUMS OF LATVIA

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### INTRODUCTION

Throughout the years the specialists of the history museums of Latvia accurately choose items for restoration and conservation, considering their state of condition, exhibition plans of museums, display conditions, scientific research needs, and accessibility for public viewers.

Unfortunately, in most part of archaeological excavations only sherds of pottery are found, rare are the cases when archaeologists have been lucky to find whole items, usually there is a half of an item, or even a remaining quarter of the vessel body.

Part of the vessels had already been restored before in the 1920s and 30s. It was done in poor quality – fragments were glued together with no precision using unsuitable glue, and the surface of fragments was smeared. The dismantling of these glued together fragments is very time consuming because glue does not react to solvents and proves to be harder than the original material of the objects.

The restored artefacts at present are used as characteristic examples to illustrate the cultural and social processes which were going on during Middle Ages on the territory of Latvia. At present extensive research on the types and uses of ceramic ware found in the archaeological excavations on the territory of the Turaida Castle is conducted by historian Ieva Ose in cooperation with specialists of the Turaida Museum Reserve. The catalogued information is in the process for upcoming publication. The restored items add also specifically to the picture of ware used in Turaida Castle in the 15th to 18th centuries.

The poster shows restoration of four, the most characteristic vessels of the 15th–18th century found on the territory of Latvia. It also points out the problems restorers had to address in their work.



### Restoration of the earthenware bowl (No. TMR 29139.) From the archaeological collection of the Turaida Museum Reserve.

The Turaida Museum Reserve collection comprises a light brown glazed earthenware container with handles on its opposite sides; the body of the bowl is structured on three symmetrical stumpy reliefs or legs; the top of the bowl is wide; its rim is turned down. It is a find from archaeological excavations in the territory of Turaida Castle carried out in 1991: layer 2, square 11 of the excavation site. The making of the bowl dates to the beginning of the 18th / 19th centuries. There are 3 fragments of the body: the largest one consists of 9 glued pieces, the second fragment consists of 2 glued pieces, and the third is a single standing piece. Pieces were glued together with dark glue; in places the glaze was scratched and damaged. Although most part of the ceramic bowl was missing, the existing fragments made it possible to visualize its shape and to perform the restoration. Two handles and one of the 3 feet were intact.



Before restoration.



Process of restoration.



After restoration.



Before restoration.



Process of restoration.



After restoration.

### THE RESTORATION PROCESS

1. The body fragments were cleaned, residue of adhesive removed, surface was treated with a mixture of distilled water and alcohol.
2. The cleaned fragments were glued together.
3. Missing parts were formed by removing the mould from analogous parts of the original, to create the mould plasticine was used.
4. The Protesil material matrices were filled with gypsum polymer, worked over, glued to the original.
5. Separate matrices for the handle and bowl legs were made. The parts were cast using gypsum polymer and glued to the worked over parts.
6. All the glued seams and gypsum fragments were worked over with putty. The process was repeated many times by drying and polishing the putty.
7. Corresponding to the original, matt ceramic paint was applied to the newly created and worked over fragments. Finally, varnish was applied.

### Restoration of the 17th–18th century decorative plate (No. A9965: 353a), Valmiera Castle mound. From the archives of the Archaeology Department of the Latvian National History Museum.

Earthenware plate, polychrome glazed plant and stripe motif. During the excavation 10 fragments of different sizes were found, some of them today are missing. The restoration work on these items was very complicated. The body material was loose and had to be enforced. The polychrome oven tile glaze was heavily damaged due to salts and moisture in the ground.

The plate was already restored in the 1920s. At that time, archaeologists had glued fragments together right on the excavation site. This was done inaccurately using hard, dark colour irreversible adhesives, which smeared the surface of the fragments. They were difficult to dismantle because the old adhesives did not dissolve, and over time they had even become harder than the original clay the ware were made from. In some places the glaze was damaged, it was scratched, worn out, with losses and in some parts it was detached from the body of the vessel.



Process of restoration.



Process of restoration.



Process of restoration.

### THE RESTORATION PROCESS

1. Dismantling of the previously glued fragments by applying acetone compress to dissolve adhesive, then mechanically cleaning the seams of the fragments with a scalpel.
2. Fixation of the glaze by impregnation with 7% Paraloid B-72 alcohol solution – the permeable glaze is impregnated, but the peeling fragments of the glaze are glued to the surface by injecting the glue under each fragment and pressing them.
3. The plate fragments are glued with 15% Paraloid B-72 alcohol glue.
4. For casting missing parts with the help of Protesil shapes from existing plate fragments were created.
5. By accurately adjusting the newly created shapes in the place of the missing fragments, new fragments were cast with the help of gypsum.
6. The newly created fragments were worked over and sandpapered.
7. All the cast fragments and glaze losses were covered with a thin layer of acrylic putty, dried and worked over with fine sandpaper.
8. Drawings of plants and lines on the glaze were copied with the help of carbon paper and afterwards transferred to the surface of the object.
9. The restored fragments were tinted and retouched with acrylic and ceramic paints.



Before restoration.



The front after restoration.



The back after restoration.