



# RESTORATION OF ARCHAEOLOGICAL NEEDLE CASES, HISTORY AND USE IN ANCIENT TIMES

**ANITA BURKOVSKA**, Head of the Conservation Department, Master Conservator of Archaeological Material  
Ventspils Museum, Jaņa str. 17, Ventspils, LV-3601, Latvia  
anita.burkovska@ventspils.lv

In the paper, information on the needle cases of Northern Kurzeme, which have also been referred to as nozzle-shaped needle cases in specialist studies, is summarised and analysed. Needle cases hold a special place among antiquities. Cases are made of trapezoidal bronze tin plates, which are flat, with an empty frame in the middle, the sides are curved and joined (by soldering or riveting). Cases are reinforced with 2 (two) or even 3 (three) decorative encircling hoops. The surface of the plates is richly decorated by an engraved ornamental patterns like silhouettes of various plants; stylized floral ornaments; little suns; ornaments of acanthus leaves, as well as by geometric ornament (Fig.1-4).

## VARIETY OF ORNAMENTS

The top of the needle cases is narrower, usually round at the cut, the opening at the bottom of the box is hexagonal, rectangular and less frequently elongated oval in cross-section. It should be noted that the needle cases restored at the Ventspils Museum are very similar in size. Their length is from 8.9 cm to 9.7 cm and the bottom width is from 2.8 cm to 4.3 cm, the thickness of the opening is 1 cm - 1.5 cm. Outside Kurzeme, needle cases of this type have only been found in the excavations at Turaida Castle and at the cemetery of Ikšķīle Ankeršmitu.

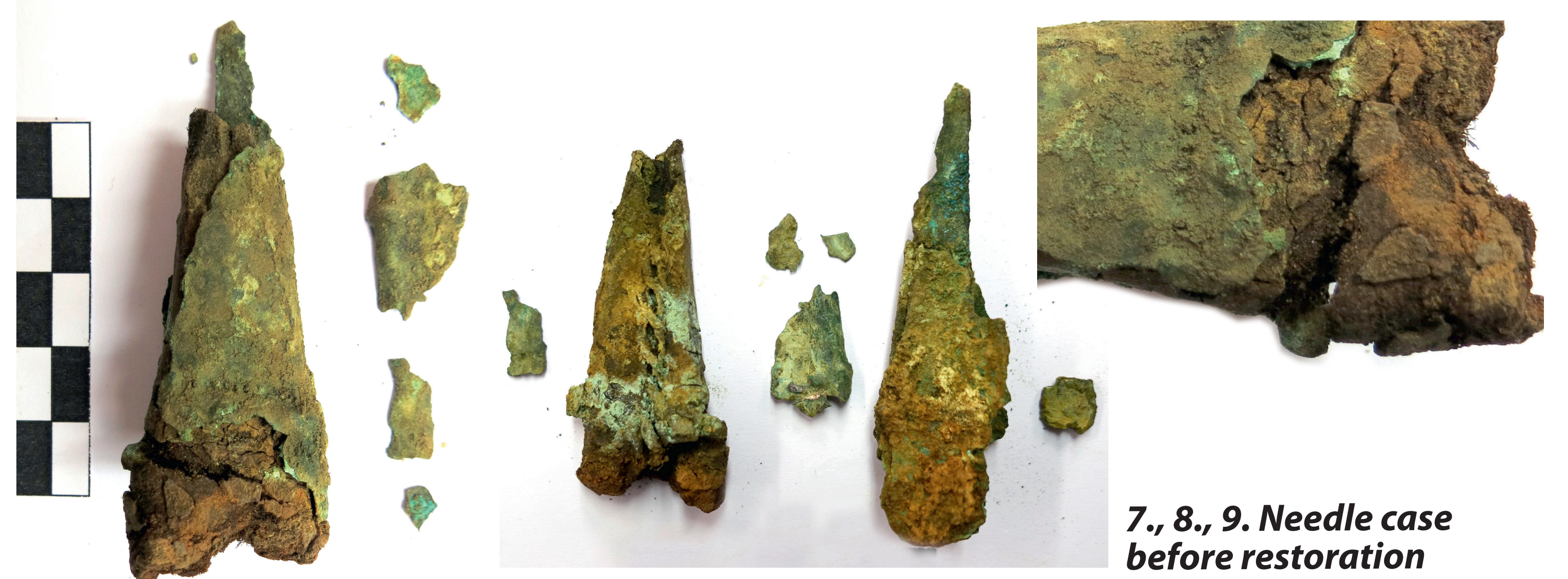
The earliest needle cases are dated from the 15th century but mainly they are dated back to the 16th–17th and 18th centuries. The materials found in the cases are diverse: bronze, fabric (cloth), leather, iron needles, linen threads, and even coins (less commonly) (Fig. 5.). The very interesting needle cases can be dated precisely by these coins. Cases-making techniques - forged, riveted, engraved, woven, sewn and sieved.

The needle cases are mostly well preserved, with fabric inside, linen threads, and needles impregnated with corrosion products, which in this case favourably affected the preservation of the fabric and threads. The preservation of antiquities was also depended on the composition of the soil: acidic, alkaline, etc. The engraved ornamentation on the surfaces of the cases was not frequently visible before restoration.

Needle cases found in women's ancient tombs are considered to be seamstress's tools. Needle cases were attached to metal belts and straps. The cases were used to store needles stuck in fabric as well as for storing sewing thread (Fig. 5., 6.).

*In the poster, the restoration of the smallest needle box in the Ventspils Museum is shown*

**Needle case VVM 28530/244** (Fig. 7.-12.), bronze, fabric, linen thread, the cemetery of Puzes Lejaskrogs.  
Archaeological excavation of the year 2001, isolated find.  
Dimensions: length is 7 cm, width - 2.4 cm at the bottom part and ~1 cm at the top



7., 8., 9. Needle case before restoration



10., 11. X-ray images of the needle box VVM 28530/244 from the grave 119 of Puzes Lejaskrogs, were taken at the Restoration Center of the National History Museum of Lithuania on June 9, 2016. The X-ray image provides information about the preservation of the needle case, noting that a narrow, flat rod has been inserted into the bottom part of the case for strength, which cannot be seen before restoration.

12. Needle case after restoration

The surface is dirty. It is heavily corroded, ornamentation is heavily covered with corrosion products (it is not fully readable before restoration). Corrosion growths on the surface are visible. The decorative elements of the case fastening have not been preserved. The fabric and linen thread are completely impregnated with copper oxides, they are brittle, in some places also broken. The structure has not been preserved. The case has suffered significant loss of mass. Five separate small fragments have been preserved.

## RESTORATION PROCESS

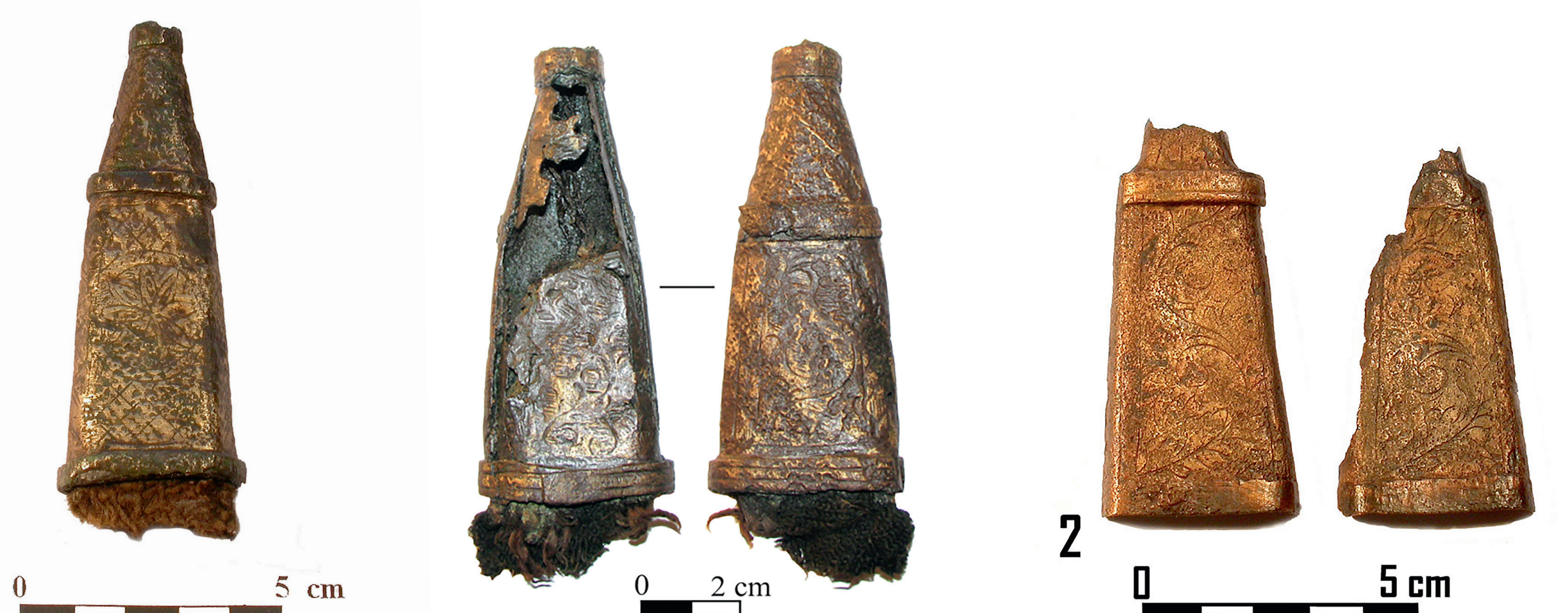
The case has been degreased with acetone. It has been mechanically cleaned with fine diamond drills. In the course of restoration, the case has been successfully dismantled.. Parts are detached from the surface of the box. The parts of the case are cleaned chemically in a 2% citric acid solution. They are then rinsed and neutralized in a 2% soda solution, are repeatedly rinsed and dried. The surface of the parts of the case is carefully cleaned using a fiberglass pencil and neutralized in 5% benzotriazole solution for 24 hours. The surfaces are cleaned with alcohol and dried. The surface of the fabric and the stitching site are softened with a leather softener (distilled H<sub>2</sub>O, glycerin, and alcohol in a ratio of 60:10:30). They are chemically cleaned with a 2% citric acid solution by means of cotton wool compresses, then are neutralized with distilled H<sub>2</sub>O and a 2% soda solution using compresses and dried. The fabric and linen thread (stitching site) are cleaned of dust and corrosion product dust. The parts of the case are covered with 7% Paraloid B72 lacquer and Cosmoloid H80 wax. Assembly of antique is being carried out (Fig. 12.).

*From the five fragments, it has been possible to stick one fragment to the case (using "INTERDENT" glue) and to find the place for a fragment on the edge of the needle case. The other fragments cannot be attached because it is impossible to identify their locations.*

Over several years, a conservator of the Ventspils Museum has been restoring needle cases found in the course of archaeological excavations at the cemetery of Puzes Lejaskrogs in the periods of 2001–2002 and 2005–2006, at the cemetery of Zlēku Gaisiņi in 2004, as well as during the excavations at the burial mounds of Jūrkalnes Drēbnieki in 2008, at the Paventes Hill-fort (Zlēkas Parish) in 2004 and elsewhere in an effort to preserve a unique archaeological cultural heritage of Latvia for future generations.

## REFERENCES:

Vijups A. Nozzle-shaped needle cases in Northern Kurzeme. - Articles of the Ventspils Museum/ Vijups A. Uzgaļveida adatu kārbīņas Ziemeļkurzemē- Ventspils muzeja raksti VII, 2012.- 55-78. lpp.



1. Nozzle-shaped needle case from the cemetery of Puzes Lejaskrogs. Grave 119.

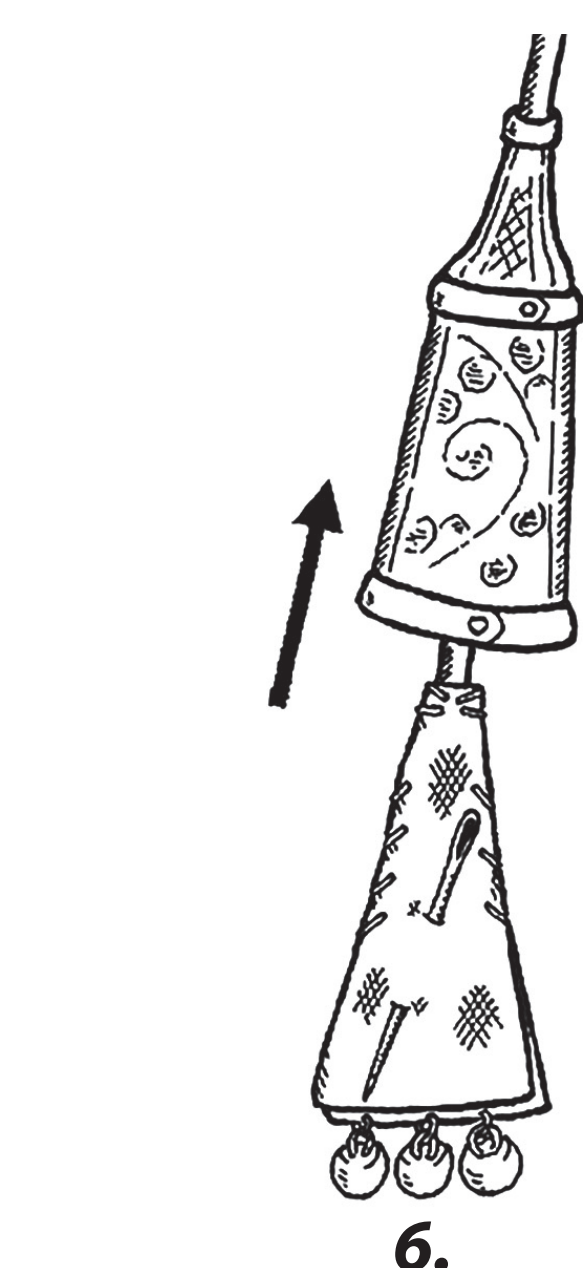
2. Nozzle-shaped needle cases from the cemetery of Jūrkalnes Drēbnieki. Grave 2.

3. Nozzle-shaped needle cases from the cemetery of Puzes Lejaskrogs. Grave 22.



4. Nozzle-shaped needle cases from the cemetery of Zlēku Gaisiņi. Grave 10.

5. The cemetery of Zlēku Gaisiņi. Inside view of the case. Grave 36



6. Functional role of the nozzle-shaped needle case (Reconstruction by Armands Vijups, Ventspils Museum Deputy Director - Leading Researcher)