Finds in Latvia of 13th-century pilgrims’ crosses from the Holy Land

Abstract

The paper is devoted to three mother-of-pearl and two bitumen crosses finds from Latvia. Mother-of-pearl crosses representing two different types of such artifacts. The earliest crosses, in the form of the Kouvokkion of the Tomb of Christ, from Riga and Turaida, are pilgrims’ souvenirs from Latin kingdoms in Palestine. Two asphalt crosses found in Riga are possibly also connected with pilgrimages to the Holy Land. At that time the inhabitants of Livonia could reach the Levant either by a western or an eastern route. The mother-of-pearl cross from Cēsis takes us back to the events of the Livonian War in 1577. This find points out to the considerable role of items of personal piety among the Russian soldiers. The cross could have been made at Athos or in Russia itself using imported raw material.

Keywords: mother-of-pearl, bitumen, crosses, medieval Livonia, pilgrims, Holy Land

Introduction

In medieval Livonia, naturally available materials, such as wood, clay, iron, wool, bone, limestone, leather, etc., were used in crafts, along with imported precious and non-ferrous metals: silver, copper, tin and lead. Objects made of these materials are widely represented among archaeological finds. On the other hand, items fashioned from non-traditional materials merit particular attention for the information they can provide concerning links with distant lands.

Finds of mother-of-pearl crosses

Important in this context are finds of crosses made of mother-of-pearl, or aragonite. The archaeological material from Latvia is rich in objects of personal piety. Thus, an article published by Ēvalds Mugurēvičs in 1974 covers some 500 crosses spanning the period from the 11th to the 15th century. However, only three examples made from mother-of-pearl are known. One of these was found at the Alberta laukums site in Riga (excavation in 1960 by the Museum of the History of Riga, under the direction of Melita Vilsonė). It is in the form of a Greek cross, measuring 19×20 mm (Figure 1(1)). The aragonite plaque is almost 4 mm thick. The cross has a square at the centre, while the arms are triangular, with a projecting base at the base. The upper arm had a hole drilled from the side, at which point it has broken. The front of the cross is yellowish and polished smooth, while the back is brownish and rough. Unfortunately, because the context record is inadequate, the object must be treated as equivalent to a stray find. There is a similar mother-of-pearl cross (Figure 1(2)) from Turaida Castle (excavation by the Institute of Latvian History in 1981, directed by Jānis Graudonis). This piece is only a few millimetres larger than the Riga find, but is flat rather than three-dimensional, having been cut from mother-of-pearl only 2.7 mm thick. There are raised band at the base, seen at the ends of the arms of the mother-of-pearl. The body of the fallen man was covered by rubble and yellowish. The depiction is thought to have been etched into the aragonite. The body of the fallen man was covered by rubble and lay in an unnatural prone position Figure 2. The bones of the skeleton had been shattered. An axe was also found with the deceased and by the left side of the pelvis was a pair of scissors, along with the colour of the knife sheath and the remains of a purse with 16th-century Russian coins. A crossbow bolt recovered near the left knee may indicate a wound to the leg. When the bones were removed, an impression from decoration on a katlan was seen in the cultural layer.

Mother-of-pearl crosses as pilgrims’ souvenirs

Pieces analogous to the crosses from Riga and Turaida have been found in fairly large numbers in Eastern Europe, as well as in Turkey, Syria and Palestine Figure 3. The time of production corresponds to the period of the Crusades: from the 12th up to the end of the 13th century. In the middle Ages the cross had a particular semantic significance in religion as an item of personal piety. In this particular case the choice of material is in itself significant. Semantically, the shell relates to the symbolism of the Mother of God and Jesus Christ, the Son of God being compared to a precious pearl in the womb of the Virgin Mary. The shell was also a symbol of the Tomb of Jesus (Figure 4) and the Resurrection. Even nowadays, mother-of-pearl is a traditional material for making pilgrims’ souvenirs in the Holy Land (Figure 5(9)). It is possible that the rounded form of the projections, with a raised band at the base, seen at the ends of the arms of the mother-of-pearl cross from Riga, was inspired by church domes. It may be...
added that the small chapel, known as the Kouvouklion (Aedicula), located above the Tomb of Jesus in the Church of the Resurrection in Jerusalem, also has a small domed tower. In this ensemble Figure 4, the dome symbolises the Resurrection and the triumph of Jesus Christ over death. The Turaida cross represents the same form. Even though the composition is simpler, the triangular projections at the ends of the flat arms of the cross schematically represent a dome. This is seen from a comparison between the crosses from Latvia and religious symbols found in Palestine, forming a unified typological series (Figure 5(6─9)).

Figure 1 Mother-of-pearl crosses found in Latvia: (1) Cross from Alberta laikums. (2) Cross from Turaida Castle ruins. (3) Cross from Cēsis Castle ruins.

It may be noted that archaeological mother-of-pearl crosses were first identified as pilgrims' souvenirs in the works by Russian researcher Aleksandr Musin. Finds of a whole series of such crosses (Figure 5(7,8)) in the 13th-century layer of Atlit Castle provide a clear indication that such crosses were also made in Palestine for pilgrims in the time of the Crusades. This so-called “Pilgrims' Castle”–Château Pèlerin—was a major port receiving pilgrims travelling from Europe to the Holy Land. The find from Cēsis relates to the events of the Livonian War: in September 1577, besieged by the forces of Russian Tsar Ivan the Harsh and facing inevitable capture by the Russians, the noble residents of the castle preferred suicide and blew themselves up. As a result, a soldier of the attacking forces also remained buried under the ruins of the west block of the castle right up to the time of the excavation. In contrast to the crosses showing the form of a Kouvouklion, rectilinear pieces resembling the find from Cēsis are much less common. The author is aware of two crosses from Pskov, one of which has no inscription (Figure 5(3)), while the other, found in a burial in the churchyard of the Church of St John the Merciful (Иоанна Милостивого), albeit very poorly preserved (Figure 5(5)), has remains of a similar depiction of the Golgotha Cross and inscriptions. One more cross of a similar form (Figure 5(4)) has been recovered at the site of Avtunichi, Chernihiv Region, which, starting from the second half of the 14th century belonged to the Grand Duchy of Lithuania.

Figure 2 Skeletal remains of a Russian soldier discovered on the west slope of Cēsis Castle (skeleton no. 7). (1) Iron scissors. (2) Mother-of-pearl cross. (3) Iron crossbow bolt. (4) Iron axe. (5) Fragment of iron knife blade. (6) Remains of a purse with silver coins.

Figure 3 Distribution of mother-of-pearl crosses. (1) Major towns, settlements and fortifications. (2) Find-spots of mother-of-pearl crosses. (3) Finds of uncertain or imprecisely known provenience in Syria and Asia Minor.
Finds in Latvia of 13th-century pilgrims’ crosses from the Holy Land

The cross from Čēsis does not have such an unambiguous connection with pilgrim culture as the crosses in the shape of the Kouvouklion from Riga and Turaida. The find context and the parallels with the find from Pskov illustrate the fact that this town served as the base for the Russian attack on Livonia, where forces from all regions of Russia assembled. The Cyrillic inscription on the cross raises certain questions. There was a boom in distant pilgrimages to the Holy Land during the age of the Crusades, when the Latin States were established in Palestine. Because of the expulsion of the Christians from the Holy Land and the Mongol invasion in the 13th century, pilgrimages from Old Russia were very difficult to make in the next centuries. Likewise, in the time of the Ottoman Empire, Christians from Europe did not have free access to the holy sites of Palestine. 16th-century written sources mention individual trips by Russian envoys, the travellers being protected by letters of safe conduct.}

In the Late Middle Ages, the working of mother-of-pearl encompassed a wider area. There is evidence that, starting from the mid 14th century, ritual objects of this material began to be made, primarily for pilgrims, in Veliko Tarnovo (Велико Търново), the capital of what is known as the Second Bulgarian Empire. Moreover, in cases where access to marine raw material was problematic, aragonite from freshwater mussels was used. Organised shell-working in Veliko Tarnovo is thought to have been connected with the spread of the teachings of the hermitic Hesychasts from Athos. The theme of the Transfiguration of Christ had an important place in the hermitic

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**Figure 4** Pictures of the Kouvouklion of God’s tomb. (1) lead-tin alloy pilgrim badge from hillfort Gorodishahe near village Shepetovka in Ukraine, 12th–13th centuries. (2) Passage of the icon “Palestinian topography”, Jerusalem, 1876. (3) Stamp of canon of the Church of the Holy Sepulchre on the 1175 document. (4) A part of the Mother-of-pearl cross from Alberta laukums, Riga. (5) reliquiarium of Aahen, Antioch, end of the 10th–11th centuries.

**Figure 5** Mother-of-pearl crosses. (1) Cross from Čēsis Castle ruins (Latvia). (2) Cross from Pskov (Russia). (3) Cross from Avtunichi settlement (Ukraine). (4) Cross from Pskov. (5) Cross from Riga (Latvia). (6-7) crosses from Atlit Castle ruins (Izrael) (8) Cross from turaida Castle ruins (Latvia). (9) present-day crosses from Jerusalem (Israel).

**Figure 6** Bitumen crosses from Alberta laukums, Riga.

**Figure 7** Enlargement of bitumen and pyrophyllite crosses. (1-2) Bitumen crosses from Riga. (3) Pyrophyllite cross.

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teachings. And because of its capacity for splitting light rays into the
colours of the spectrum, mother-of-pearl obtained the significance of
a symbol of the divine Light of Tabor. The blossoming of spiritual
life and Christian ritual crafts at Veliko Tarnovo was connected with
the attempt to create a new global centre of Orthodoxy in Bulgaria,
but this was doomed to failure. In the late 14th century, through the
activity of Cyprian from Tarnovo, who became the Metropolitan
of Kiev, Lithuania and all Rus, similar ideas and the Hesychast
movement itself spread further northwards.10

Judging from an inventory, craft activity was well developed at
the Old Russian monastery at Athos already in the 12th century: there
was a scriptorium, an icon workshop and a smithy.11 After a long
interruption, regular contacts between Athos and Russia began to be
re-established, particularly in the 16th century, as indicated not only
by the frequent embassies of the monks in Moscow,12 but also by the
development of the Monastery of Athos into an unusual kind of Greek
language learning centre for Muscovy’s foreign affairs department.13
Thus, it is not impossible that the Cēsis cross was made in Athos or
Bulgaria. It is also possible that the Cēsis cross was made from a shell
found on the shore of the Aegean or Mediterranean coast by a Russian
craftsman inspired by a pilgrimage. Thus, written sources preserve a
report about a visit by the Muscovite Fyodor to Constantinople and
Athos in 1582. It seems that Fyodor was professionally specialised in
the manufacture of crosses.14 The deep relief and quality of the image
on the Cēsis cross also corresponds to the stylistic characteristics of
Moscow art of that time.15

**Determination of the mother-of-pearl**

Since culture-historical analysis in archaeology always benefits
from validation with the help of the exact sciences, in the course of
working with mother-of-pearl crosses, I turned to specialists in these
fields. Questions arise because molluscs whose shells could be used
to obtain a sufficient amount of aragonite to make such crosses do not
inhabit the Baltic Sea. On the other hand, there are various mussels
of the genera *Unio* and *Margaritifera* inhabiting rivers (*Margaritifera
margaritifera*, *Unio crassus*, *Unio tumidus*) whose shells could have
served as material for making small artefacts. Judging from the colour
of the mother-of-pearl used for the Riga cross and the thickness of
the growth layers, it comes from a shell of a mussel from the genus
*Ostrea* (visual examination does not permit determination to species),
distributed in the Black Sea and Mediterranean. The same may be said
of the Cēsis cross, which is likewise so thick that it could not have been
made from aragonite of a freshwater mussel. On the other hand, the
Turaida find is bluish in colour and thinner, which means that it might
have been made from local material. However, the x-ray fluorescence
analysis of all three crosses from present-day Latvia, conducted at the
Assay Office of Latvia, indicates that the aragonite is of marine origin.
Thus, manganese (Mn) is a component of pearls and mother-of-pearl
from freshwater mussels, but this element is absent from the spectra.

(G. Stinkulis) identified the material used to make the Riga crosses as
bitumen with incorporated quartz grains.16 In the course of preparation
of this article, the Assay Office of Latvia performed Raman spectroscopy on the crosses, identifying aluminium and silica oxides
in the granular inclusions of the crosses. The dark matrix was found to
have a high content of carbon, indicating its organic character, which
excludes the possibility that the crosses consist of a monolithic rock
such as pyrophyllite. Thus, the analysis confirmed the conclusion that
the crosses were made of bitumen.

Indeed, an enlarged photograph of the crosses is sufficient to show
that the grey matrix has exuded, forming small bulges projecting
beyond the faces of the two Riga crosses (Figure 7(1,2)). By contrast,
the items from Ovruch have smooth surfaces and feel greasy to the
touch (Figure 7(3)). The entire surface is uniformly shiny and polished,
with red veins. In terms of composition, pyrophyllite consists of
aluminium silicate hydroxide and there should be no exudation from
the layers. Indeed it is a refractory material, with a melting point
of 1540º–1630º17 and could be used to make casting moulds. The manufacture of spindle whorls, quernstones and other rotary elements
from this material demonstrates its resistance to mechanical abrasion
and centrifugal force.18 Bitumen is an altogether different kind of
material: a form of petroleum, with hard mineral materials, gravel or
sand, embedded in the matrix. Bitumen melts at a temperature as low
as 100º and clearly displays a degree of viscosity. Accordingly, it is
concluded that the medieval stone crosses with rounded inclusions
do not all have the same composition and origin and the examples from
Riga have no connection with the pyrophyllite industry of the hills at
Ovruch.

Of course, hydrocarbons were not nearly as important as they are
at the present day. Nevertheless, they did have their uses in those
days as well. In the middle Ages all the known oil sources around the
Mediterranean were strictly supervised by the Byzantines, because oil
was the raw material for “Greek fire”. Bitumen is also known to have
been the incendiary material used in nozzles used to squirt “Greek
fire”. The best-known source of bitumen was the Dead Sea, which
was accordingly known as the “Asphalt Sea”.19 Diodorus of Sicily,
Flavius Josephus and Vitruvius all record that the residents of the
coast of the Asphalt Sea collected the substance, known as Jewish
bitumen and sold it to the Egyptians at a huge profit. Strabo relates in
his Geography that the lake contained large amounts of bitumen,
which would float up from the depths along with bubbling water.
The information given by Pliny the Elder and Isidore of Seville concerning

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**Bitumen crosses**

When the mother-of-pearl crosses were being investigated, two
stone crosses, likewise found at the Alberta laukums site in Riga, also
attracted attention. These crosses, about 20 mm long and 13.5–15.5
mm wide, are 6–7 mm thick, made of a grey material with light-
coloured, rounded inclusions (Figure 6). There are similar crosses
in Ancient Russian material, regarded as being made from Ovruch
pyrophyllite slate. Indeed, production sites have been archaeologically
excavated in north-western Ukraine that specialised in the extraction
and processing of this rock. In the course of excavation, proof of the
production of pyrophyllite crosses has been obtained, in the form of
hundreds of rejected, broken and unfinished crosses.20

However, already twenty years ago specialists of the Faculty of
Geography and Earth Sciences of the University of Latvia (A. Sabiele,
G. Stinkulis) identified the material used to make the Riga crosses as
bitumen with incorporated quartz grains.21 In the course of preparation
of this article, the Assay Office of Latvia performed Raman spectroscopy on the crosses, identifying aluminium and silica oxides
in the granular inclusions of the crosses. The dark matrix was found to
have a high content of carbon, indicating its organic character, which
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the bitumen from the Dead Sea has been reiterated in all the medieval
treatises on natural history. The Assyrians, Phoenicians and Egyptians
are known to have used bitumen extensively as a waterproofing agent
in construction and shipbuilding. Moreover, the Egyptians used it in
mummification: the Persian word mumiyā itself means bitumen or
tar. The medicinal properties of “Jewish bitumen” are described in a
treatise by the well-known Arab scientist Avicenna.20

The significance of bitumen crosses

Archaeological finds of objects made of hydrocarbons brought
from distant lands are exceptionally rare. Moreover, it is very difficult
for archaeologists to determine the origin of such materials. A good
example of scrupulous collaborative research is the analysis of pieces
of bitumen from the well-known 7th-century royal burial mound with a
boat burial at Sutton Hoo (England), which demonstrated that these
samples belong to the Dead Sea family of bitumen. Accordingly,
along with many other finds from the burial site–textiles from the
Levant, a vessel from Egypt and table silver from Byzantium–the
bitumen represented a prestigious item of luxury brought from afar.21

Much more intensive contacts between Europe and the Near East
developed in the time of the Crusades. Knights and pilgrims returned
from the distant lands could describe not only the sacred sites they had
visited, but other wonders of the east as well, including the uses and
natural forms of hydrocarbons: burning fountains and Greek fire.21

Of course, in those days nobody saw the connection between a small
item of bitumen that had been brought back and the lethal invention
of Greek engineers or the fountains of oil. A cross of “Jewish bitumen”
constituted a sacred and magical relic from the Dead Sea of Biblical
fame.

Conclusion

The advent of Christianity in the East Baltic brought the population
new opportunities in the sphere of religious life. They became part of
the pilgrimage movement, which encompassed the whole of Europe at
the time and included travel to the Holy Land. The subject of distant
pilgrimages is, as yet, quite a novel theme in the research literature in
Latvia. Accordingly, crosses made from materials not available in the
East Baltic, such as mother-of-pearl and bitumen; represent the most
vivid archaeological evidence of trips to the Biblical sites.

The examination of mother-of-pearl crosses from present-day
Latvia has shown that this is not a homogeneous group in terms of
form and dating of the objects. In terms of their form, the crosses
covered in the article may be divided into two groups. The early finds,
from the 13th century, recovered in Riga and Turaida and depicting the
Kouvouklion of the Tomb of Christ, are pilgrims’ souvenirs from the
Latin States of Palestine. On the other hand, the context of the
Cēsis cross recalls the tragic events of the Livonian War. This find
indicates the significant role of items of personal piety among the
Russian soldiers. The Cyrillic inscription raises the question of its
manufacture outside of the Holy Land–for example at Athos, Bulgaria,
or in Russia itself, using imported material. Among Ancient Russian
archaeological finds there are many crosses made from different
kinds of rock: amber, limestone, grey slate, crocoite, stellite, jasper,
lazurite and marble. Because of the crosses from Riga, a further
group can potentially be identified–crosses of bitumen, relating to
distant pilgrimages and originating from the Holy Land. In order to
confirm or reject this idea, there is a need to identify pieces made from
bitumen among the stone crosses of Ancient Russia and to continue
investigation of the hydrocarbon material that the crosses are made
of. Starting from the 17th century, when medieval symbolism was
beginning to disappear, mother-of-pearl became extremely popular
and in addition to a variety of religious items, such objects as mother-
of-pearl buttons and jewellery also became widespread in Europe,
along with a great variety of everyday items inlaid with mother-of-
pearl: tobacco boxes, weapons, fans, furniture and so on. On the
other hand, the use of bitumen for similar kinds of small items or in
jewellery did not see further development and the bitumen crosses
discussed here remained as a minor detail in the historical mosaic of
the Crusades.

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Conflict of interest

Author declares that there is no conflict of interest.

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