

REPORT

DESIGN RECONSTRUCTION OF AN OLD BERING SEA “WINGED OBJECT” FROM CHUKOTKA, RUSSIA

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ABSTRACT

Ideas about the Old Bering Sea ivory-carved art are limited by the current state of the artifacts, which differs from their original appearance. The artistic decoration of an Old Bering Sea “winged object” is recreation based on careful study of original artifacts. The most studied art of the Old Bering Sea culture is its graphic component—the style and details of the ornamentation. An essential part of the decor was also the final surface finish with dyes and inlays, which, due to the selective preservation of materials, has not received proper assessment by specialists. A study of the materials from the Ekven cemetery in the collection of the State Museum of Oriental Art in Moscow has shown that the Old Bering Sea decorative compositions had polychrome decoration, and the engraving, coloring, and inlay made up a single complex in the embodiment of the decorative design. This article provides a photo reconstruction of the color design of a “winged object” from the Ekven Burial 251 as it would have appeared at the time of early Old Bering Sea culture based on the fragments of pigment preserved in the engraving.

INTRODUCTION

In the history of the Yupik and Inuit of Bering Strait, the first millennium AD is remarkable for the extraordinary flourishing of fine art. There are several related ancient cultures at this time, and the artistic tradition of each of them has a certain specificity. One of the most striking is the Old Bering Sea tradition, which spread along the shores and islands of Chukotka in the Russian Far East. The largest monuments of the ancient Bering Sea culture include Ekven, located on the Chukchi coast of the Bering Strait (Fig. 1). This famous archaeological complex, including the remains of a large settlement and an extensive burial ground, was investigated from 1961 to 1974 by the expedition of the Leningrad Institute of Ethnography of the Academy of Sciences of the USSR (Arutyunov and Sergeev 2006) and then, in 1987–2003, by the expedition

of the Moscow State Museum of Oriental Art (Leskov and Müller-Beck 1993).

Our knowledge of primitive art remains fragmentary. Assumptions about Old Bering Sea art are based on the study of numerous and diverse surviving artifacts on bone and ivory, which comprise the majority of the collections. Also limited is our understanding of the actual bone and ivory carving tradition, based on the modern form of the artifacts. Despite the amazing state of preservation of many Old Bering Sea artifacts, their appearance did not escape the effects of time and differs from the original works.

The basis of life for Old Bering Sea people was hunting large sea mammals. Walrus tusk, available in abundance, was the most popular raw material for ornamentation.

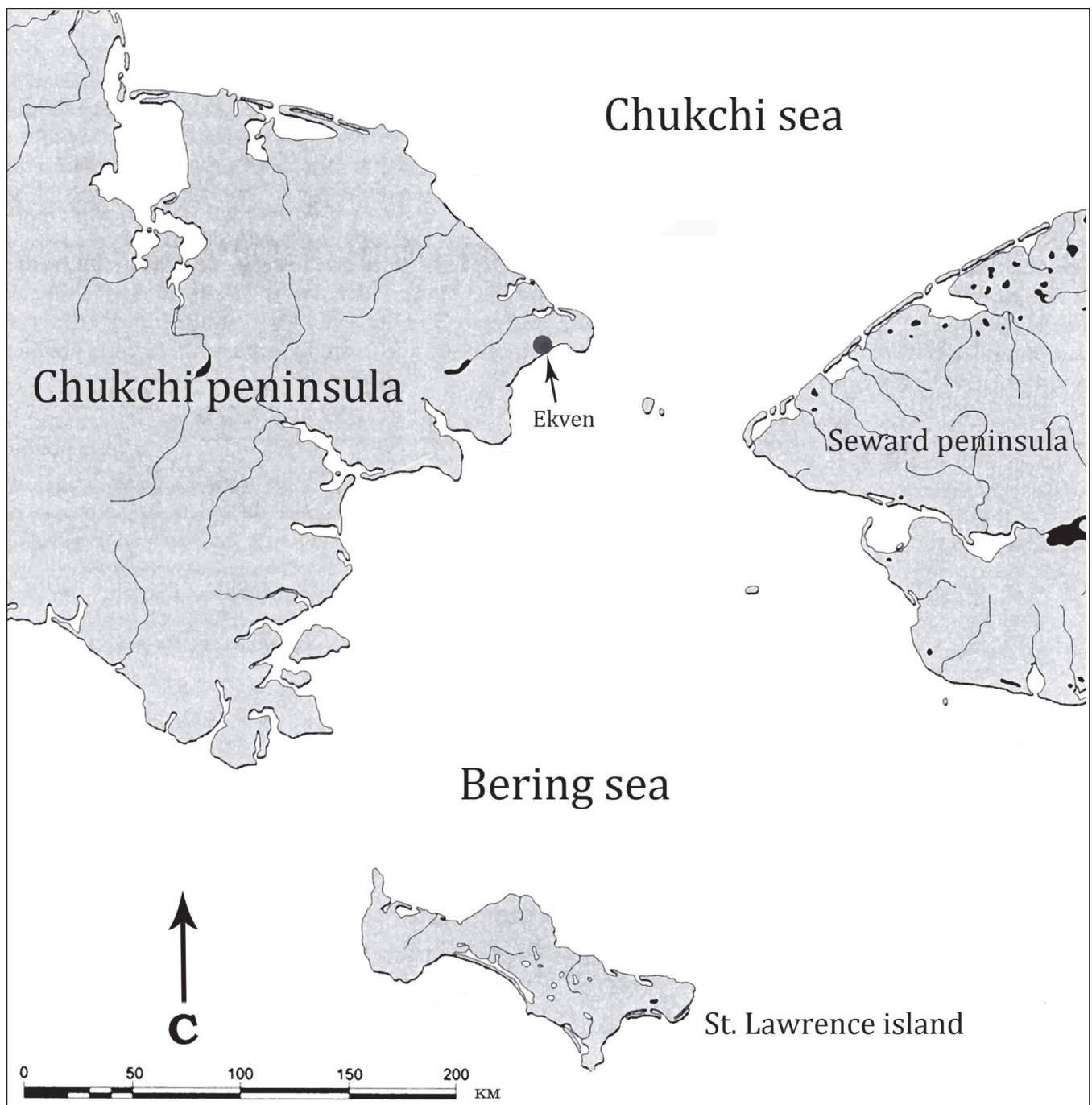


Figure 1. The Ekven burial site on the Chukotka Peninsula, the Russian Far East, and the greater Bering Strait region.

Durable and malleable in processing, it could be used in various ways. The decoration of Old Bering Sea artifacts was facilitated by the easily engravable surface of ivory. The very first finds at the beginning of the twentieth century occurred at the dawn of Arctic archaeology and attracted researchers' attention to the complex and careful ornamentation. Features of engraved compositions were one of the determining criteria in distinguishing and dating ancient Siberian Yupik and Inuit cultures, and today

engraving is the most studied aspect of Old Bering Sea art (Bronshstein 1986).

An essential component of the decoration and graphic design of these items was included as the final surface finish with dyes and inlays. Artifact descriptions often mentioned the preserved inlays and remnants of paint in the engraved lines, dating back to the earliest studies on Arctic archaeology (Collins 1937:287; Larsen and Rainey 1948:72). Yannick Meunier (1992:42–43) was the first to

notice the presence of black and red pigment in the decoration of Old Bering Sea artifacts.

Old Bering Sea ornamental compositions were not just colored with dyes: they were polychrome. In antiquity the engraved lines filled with red and/or black pigments clearly stood out against the milky-white surface of walrus tusk, complemented by the insertion of wood, other types of bone, baleen, and so on. Engraving, dyes, and inlays constituted a single complex in the embodiment of the decorative design, and some ornamental features may have served technological functions. I came to this conclusion after examining the assemblage of Old Bering Sea artifacts from the Ekven cemetery, which is stored in the Archeology of Chukotka collection at the State Museum of Oriental Art in Moscow. Comparison of various artifacts with fragments of dyes in the engraving, as well as preserved inlays, made it possible to identify a number of features of polychrome design that are characteristic for different periods of the Old Bering Sea culture. The results of these visual observations and reconstruction of two objects were published earlier (Sukhorukova 2007, 2012). The reconstruction presented in this article considers a new, more specialized approach to the study of pigments on Old Bering Sea artifacts (Pakhunov et al. 2017).

THE WINGED OBJECT

Object no. 129 Dr-IV is the rear part of the harpoon shaft, also known as the winged object, from the collection of the State Museum of Oriental Art. It was discovered in Burial 251 of the Ekven cemetery (Figs. 2 and 3). Based on the scope of the burial inventory, features of the ornament, and size, it dates to the early period of the Old Bering Sea culture (OBS-I). In its present condition, the object has the yellow-brown color characteristic of a stained walrus tusk. Despite some surface damage, the engraved design is easy to see. The ornamental compositions include drilled holes, hemispherical recesses, and deep linear slits. Particles of a pasty substance are preserved in the engraved lines. Previously, it was possible to identify only red pigment in OBS-I artifacts (Sukhorukova 2012:117) and, in this case, a rather large fragment at the end of the wing is visible to the naked eye (Fig. 2). Professional photography at high resolution revealed that there was also a black pigment in the filling of the engraving (Fig. 4). The proposed reconstruction of polychrome compositions adorning both sides of the object (Fig. 5), like any archaeological reconstruction, was

approximated. Particular details of the decor have raised questions, some of which are addressed below.

COLOR SCHEME

The available data leave no doubt that the polychrome design of the winged object was based on a combination of three main colors—red and black compositions on an ivory background. A study of the Ekven ornamental artifacts used a chemical-analytical method, demonstrating that the black dye was obtained from soot mixed with clay minerals and the red was made up of powder obtained by abrading fragments of iron-bearing hematite and iron oxide hydrates in various combinations. Multifaceted rock fragments were found in the inventory of many burial complexes of the Ekven cemetery, although not from burial No. 251 (Pakhunov et al. 2017). The color schemes among the various artifacts are heterogeneous—from dark red to light pink—which can be due to variances of raw materials, the introduction of additives, and so on, as well as differential factors of preservations. Based on my observations, the color of the dye can change to off-white, sometimes even within the same line of engraving; the pigment fragments on the winged object have the same indistinct tone. But apparently the “tentatively red” ochre color was of fundamental importance in the decoration, and it was this color that was used in the reconstruction.

RED AND BLACK COLOR DISTRIBUTION

In the decoration of Old Bering Sea artifacts, deeper lines illustrating the main elements of the composition were filled with red pigment, while thin lines with black created an ornamental background (Sukhorukova 2012:117–118). Recent studies have clarified the decoration technique, which was carried out in two stages: first, the entire ornamental composition was painted black, then the red pigment was applied locally on top of the black (Pakhunov et al. 2017:86).

The regularity of dye particles in the engraving of the winged object allowed us to re-create the principle of color applications. Trace pigments were preserved mainly on the flat side of the artifact (Fig. 5, bottom)—multiple black lines and some with reddish tint. Of the latter, a fragment at the end of the wing—from the filling of a triangular element—is noteworthy, as if “shaded” by frequent engraved lines (Fig. 2 fragment; Fig. 4, left). Geometric zones similarly decorated with hatching are often found in Old



Figure 2. The winged object from the State Museum of Oriental Art. Current state. Photo by E. I. Zheltov.

Bering Sea ornamental engraving. This surface treatment provided good adhesion to dyes and was obviously needed for coloring large areas of the composition.

Of course, a number of details of the reconstruction remain controversial. Filling pigment-free etchings with color, I was guided by decoration technique. Where the depth of the lines did not allow me to choose the color with confidence, I used the logic of composition. Particular difficulties arose when reproducing the color of the convex side of the winged object (Fig. 5, above), especially its central part. Microscopic fragments of red pigment were preserved only in a schematic representation of the subtriangular “mask,” with round eyes including inlay in the center. The remaining engraved details, especially the wedge-shaped lines and hemispherical recesses in the center, were painted intuitively.

INLAY

Round inlay inserts and recessed linear slits are typical for finished artifacts of early Old Bering Sea (Sukhorukova 2012:116–117). The inserts have features characteristic of this period, differing by the relatively large diameter of the hole and a filling in the form of an ivory pin (usually of walrus tusk) in a wide ring of mastic. The collection of the State Museum of Oriental Art contains a number of OBS-I artifacts with preserved inserts, and it was not difficult to reproduce an insert in the reconstruction of the winged object. Much more controversial is the filling of symmetrical slits. The long vertical grooves separating the central part and the wings on both sides—not logical from the compositional point of view for coloring and not deep enough for inlaying—should probably be considered an element of the malleable surface design.

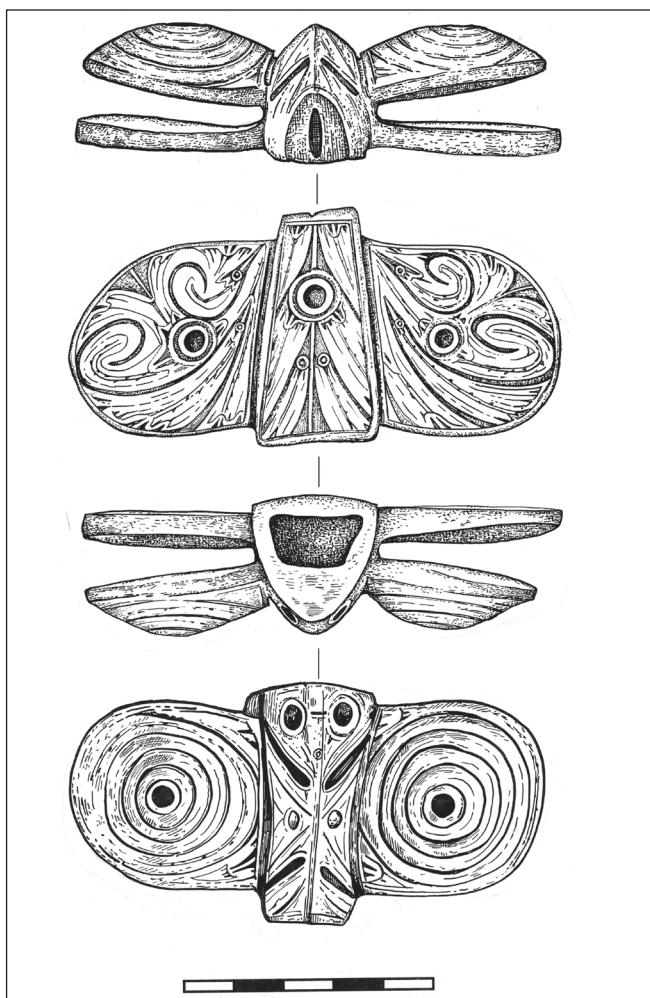


Figure 3. The winged object from the State Museum of Oriental Art. Drawing by N. S. Survillo.

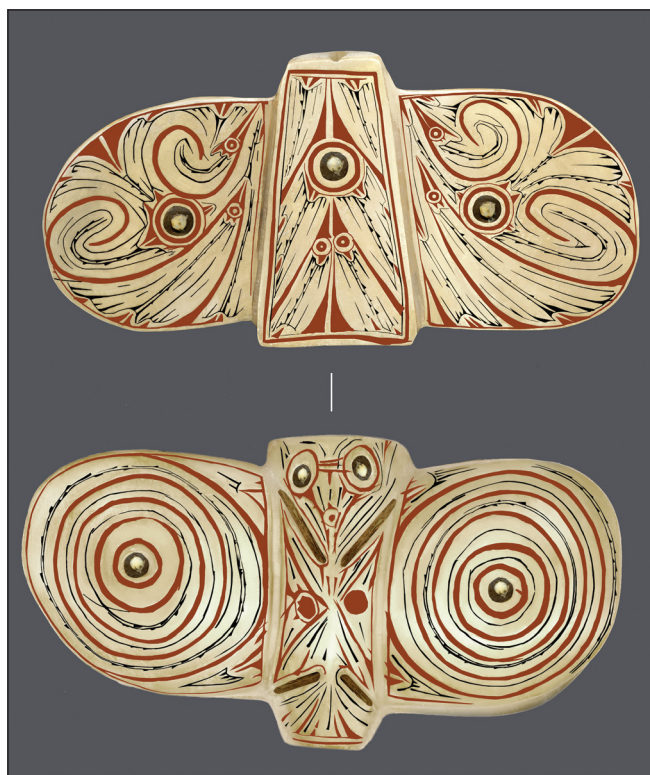


Figure 5. A photo reconstruction of the color design of the winged object. Photo by Elena S. Sukhorukova.

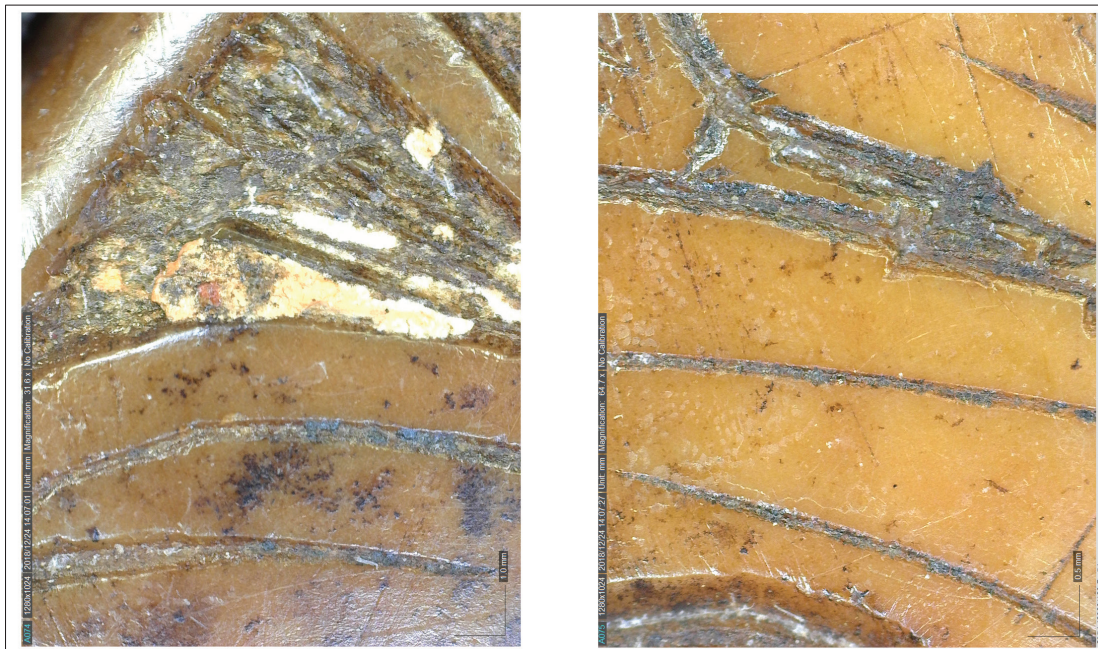


Figure 4. Micro-photo of features of the engraving from fragments of pigments. Photo by A. S. Pakhunov.

Clearly intended for inserts are two pairs of converging slots in the composition with the “mask,” which are, of course, semantically important elements of the image clearly intended for inserts (Fig. 5).

Apparently, unless the inlay itself had a special symbolic meaning, the color of the inserts had to stand out against the red and black lines of the ornamental composition. The available data do not permit complete confidence in the color of the reconstructed inlay. In the filling of the round holes, the original inserts from another OBS-I artifact with dark brown mastic were used as a model. But its composition has not yet been investigated, and it is also not entirely known whether such a color was used in antiquity. Linear grooves are filled with pieces of wood as the most logical inlay material for this kind of recess. But fragments of wood could have been painted as well, and other materials may also have been used, such as baleen, bark, plant fibers, etc.

CONCLUSION

The specifics of bone and ivory decorating are an important criterion for identification and periodization of ancient Yupik and Inuit cultures. Some of the most striking aspects of the Old Bering Sea art are the sophisticated engraved compositions, combining various linear configurations with small and even microscopic geometric elements. Three main types of the Old Bering Sea ornamentation and, respectively, three evolution stages of the Old Bering Sea culture are recognized: early (OBS-I), middle (OBS-II), and late (OBS-III). The classification was first proposed by Henry B. Collins (1937:46–49, 85–92) in the 1930s and later completed by Mikhail Bronshtein (1986). Though still up to date, the classification can be significantly refined. OBS decorating implied a complex sculpture and graphic design followed by a polychrome surface finishing. Apart from having a generalizing semantic meaning, engraving also served as a visual aid in expressing individual object semantics, amplifying and enriching dimensional details. The peculiarities of inlayed graphic compositions were defined by form, purpose, and religious intent for the artifact, while individual engraving details were defined by coloring techniques.

Judging by the Ekven finds, the polychrome decoration of the ivory was preserved throughout the entire existence of the Old Bering Sea culture. The winged object reproduced here dates to OBS-I. The evolution of the artistic tradition produced variable colors, engravings, and

inlays. With the gradual demise and disappearance of Old Bering Sea art, polychrome lost its meaning, and the symbiosis of the three decorative technologies—engraving, pigments, and inlay—lost its relevance. Inlay ultimately turned into an independent decorative means, and coloring became exclusively auxiliary to highlight the lines of the engraving.

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