
The Earliest Upper Palaeolithic Personal Ornaments of Altai: technological and functional variability

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Abstract

Personal ornaments made of organic and mineral raw materials are the most common and characteristic manifestations of ancient symbolism observed in the Upper Palaeolithic assemblages from North and Central Asia. The first symbolic behaviour found across this broad territory comes from the Initial and Early Upper Paleolithic assemblages of Altai Mountains dated 50.0–30.0 ka cal BP. The early use of beads, pendants and other items of personal adornment, marked for this territory, are often considered in discussions about the genesis of ancient symbolism and modern human behaviour. Here we present new data from detailed comparative analyses of personal ornaments from the earliest Upper Palaeolithic assemblages of Denisova cave, Ust-Karakol-1, Anuy-2 and Kara-Bom sites. Our research focused on the production sequences and functions of artefacts following technological, use-wear, experimental and petrography analysis.

The production of Upper Palaeolithic personal ornaments was based on a variety of local and imported raw materials: mammoth ivory, teeth from herbivorous and carnivorous mammals, tubular bones from small mammals and birds, eggshell, freshwater mollusc shells, and soft stones including serpentine, agalmatolite, marble and talc. The consistent selection of particular raw materials to produce certain recurrent types of ornaments suggests that the earliest Upper Palaeolithic inhabitants of Altai had stable preferences and an existing tradition of ornament usage.

Our research shows that the earliest personal ornaments of Altai involved several different production sequences. The production of adornments included selecting and transportation of raw materials, the receipt of blanks, processing by planing, scraping or grinding, drilling a hole or cutting a ring cut for hanging, ornamentation, and polishing. The treatment of mammoth ivory included the most extended and strictly successive operations. The operating sequence of producing the beads, plaques, and diadems consists of removing the cement cover, soaking, then excising the elongated blanks, and planing the blank plates, making a large perforation excising a deep groove on opposite faces then drilling from both sides.

Functional analysis shows that the collection of earliest Upper Palaeolithic ornaments from Altai has several types of use-wear traces resulting from contact with threads and straps, clothes or human skin. The pendants made of the animal teeth and soft stones, the elongated bone beads, and the flat eggshell, ivory and bone beads show characteristic wear patterns resulting from suspension. The ivory plaques, some stone pendants, some of the eggshell

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and soft stone beads had the utilization traces observed testify to the attrition of the surface by the thread fastening the artefact to clothing. The bracelets, diadems and rings, display similar sets of use-wear traces, including smoothing and polishing due to contact with soft organic material and scratches and micro-gouges resulting from casual contacts with other objects.

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