

Reviews

Marc Barbier, *L'artisanat de l'os à l'époque Gallo-Romaine. De l'ostéologie à l'archéologie expérimentale*, Oxford: Archaeopress Publishing Ltd, Archaeopress Roman Archaeology 16, 2016, 140 pag., ISBN 978 1 78491 421 9

Experimental archaeology is increasingly practiced worldwide. This is due to the interest of modern man for both the life of the archaic communities and the ancient working techniques, the utility and profitability of goods manufacturing or cooking.

In 2016, the Oxford's "Archaeopress Roman Archaeology" monograph series published at number 16, the volume signed by Marc Barbier, *L'artisanat de l'os à l'époque Gallo-Romaine. De l'ostéologie à l'archéologie expérimentale*, analysing bone working in the Gallo-Roman world based on experimental archaeology. The work includes: Introduction, State of Knowledge, Supply, Osteology, Origin of Matrixes, Archaeological Furniture, Matrix Sampling and Preparation, Experimental Archaeology, Conclusion, References, Plates and Appendices.

In the "Introduction", the author describes the origin of the experimental research, its stages being developed between 1981 and 1996. The first approach to bone working have proven, on one hand that the industry depended, first and foremost, on the material itself, and on the other hand, it entailed ownership of tools adapted to the transformation of this raw material.

In the "State of Knowledge", Barbier makes a review of the most important publications in the field of experimental archaeology that impacted the study of the working techniques and the reconstructions of bone objects specific to the Gallo-Roman period. The author highlights the importance of experimental archaeology, which may make up for certain poor data like for instance, the space of exploitation, the description of tools and working techniques etc.

In the "Supply", the author proposes from the very start a few key questions regarding the bone worker in the Gallo-Roman period: his rank in the social hierarchy; whether he purchased the raw material; if he worked yearlong; if bone working was in completion of other activity; whether he was sedentary or travelling; whether he sold part of his production. The author underlines that any archaeological experiment is impossible but in relation with these study issues.

"Osteology" includes a few general aspects on bone morphology, from the view of explaining certain typological differences of the raw material, with emphasis on bovine bones.

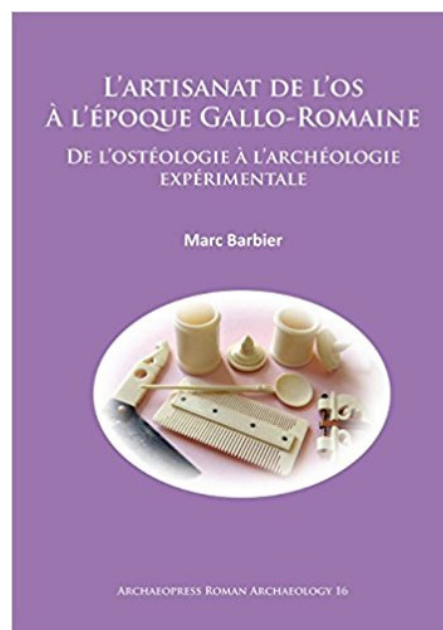
In the "Origin of Matrixes", the author discusses shapes and sizes, as "bone industry is tributary to shapes and sizes". Therefore, the raw material is examined from zoological (selection of animal species – the bones of large domestic species, especially bovines being preferred) and anatomical views (selection depending on bone morphology – long types being preferred), as well as from the view of exploitable skeletal areas (pelvis, ribs, limbs).

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Such analysis is very useful also for archaeozoological studies, as it examines what animal skeletal parts, in this case, of bovines, were especially used and for what kind of objects (fig. 2). We believe that not only the shape, but also the structure of the bone material is equally important in the establishment of the functionality and efficiency of the manufactured pieces (fig. 13-44). As evidence, the author presents in the form of a table the “Archaeological Furniture”, which is in fact a typology of objects based on their shape and functionality and the structure of the bone material they were made of. We believe that a short analysis of the criteria underlying such typology and a description of each object type would have been useful.

“Matrix Sampling and Preparation” discusses how bovine bone plates and rods were made. The making of plates for the handles and teeth of bovine bone triangular combs is rather interesting, as in historiography this comb type is believed to be made of deer antler (fig. 52 and 61). The author also discusses the specimens made of deer antler (fig. 180, 386-392). In the case of bone rods, though seemingly simple, the author proves that both the cutting process of femur and tibia bone unfinished pieces as well as the lathe turning process (fig. 63-81, 190-211) are rather painstaking.

“Experimental Archaeology” is the largest part of the work, presenting the stages and results of the experiment of making various object classes from bovine bones or deer antler, like for instance, combs, tokens, spoons, medallions, rods, needles, knives, handles, buckles, dice etc. Starting from a short description of the concept, the author presents the making process of a few types of combs, having as models the originals (fig. 82, 106, 119, 151, 156, 164). All comb making stages are described from the plates cutting, polishing, rivets making, plates piercing to the assembly of the three tablet layers and their riveting. The cutting of the teeth is an equally important and difficult stage, as it requires accurate calculations of teeth spacing, sheet thickness and cutting angle. For the completion of this process and limited scraping risk, well fixing of the unfinished piece is required (fig. 89-91, 132, 142, 149). The author presents here also the measures for correcting and adjusting comb teeth edges by the cutting and polishing method (fig. 99-102, 170). Barbier discusses the decoration and decoration technique of the combs, which in most part is represented by incised dots and circles. Certain comb classes contain much more complex decoration elements and require greater efforts and higher skills, like for instance those with zoomorphic style ends (fig. 106-112 and 138-139). In this context, are also presented tool types used in applying the circular decoration and the cutting of the zoomorphic elements (fig. 103-104, 110). One special case, respectively experiment, is represented by the rectangular double-sided combs (fig. 199-120 and 151-153), which, although specific to the Roman environment, also reached the Barbaricum. The author does not discuss their cultural origin and area of distribution, yet by making the experiment proves the way that these combs were made, using, as raw material, bovine bones. Although many stages and techniques are common to the production process of the triangular combs, in the case of those rectangular, there are a few specific technical details, which the author of the experiment applies and explains very well, like for instance

the making of the side plates, the setting and making of the holes for their attachment by riveting etc. (fig. 121-133).

In another series of experiments, Barbier approaches the making of tokens, medallions, rods, spindle weights, needles etc., which required both cutting, sculpting, polishing skills and the handling of the lathe. Thus, in the making of rods, handles, boxes, sewing needles, hairpins, tokens, the author made use of a few types of lathes and cutting knives. The lathe use in the making of certain classes of bone or antler items is a topic discussed in the literature, as, based on written sources, ancient and medieval images, but also on ethnography, it is attempted to reconstruct the necessary tool kits used by artisans in distant periods. Through his experiments, Barbier describes how certain bone items were made, requiring the use of turning procedures. All mentions of the author are based on mathematic computations and practical experiments.

Beside the simple bone cutting, this technique is in fact applied to several stages in the bone objects making process. In the cases of certain classes of objects, like spoons, handles, bone knives, buckles, dice etc., beside cutting techniques, incising and sculpting are applied. In these cases, too, the author used gauging tools, attachment tools and a few types of knives for incisions and sculpting. Most impressive sculpted tools in Antiquity and Middle Ages are those sculpted in ivory. However, according to archaeological data and as proven by Marc Barbier, a series of handles, knife handles, hairpin body ends and rods may be made of antler, especially of deer antler, etc.

In the “Conclusions”, Barbier mentions that everything started in 1981, when on a Gallo-Roman date archaeological site “an exceptional concentration of combs” was identified. In the following 15 years, the author was concerned with the research of the techniques and reconstruction of the necessary toolkit for the production of bone items. Although he does not discuss typological, cultural assignment and geographical dissemination issues etc., his contribution is highly important for understanding the techniques at work in bone processing. Modern tools were used in the performance of the experiments (46, 56, 73, 85, 104, 117, 132), certainly, it would have been much better if the various archaeological circumstances and objects discovered in the Gallo-Roman sites had been connected in order to reconstruct the ancient inventory as well.

The work is supported by a rich bibliography on the discussed topic, by many plates and appendices. Over 580 figures practically illustrate each stage of the manufacturing process of the bone and antler pieces and present the tools diversity and the techniques used during the experiments etc. The graphical quality and colour diversity of the plates facilitate a better understanding of all the aspects of the experimental archaeology practiced by the author. The appendices by the end of the work represent the comparison between the original pieces and the experiment results. Through these archaeological experiments Barbier has proven the way that various bone objects were made in the Gallo-Roman period, which required much knowhow, skills and capacities, from the selection of the raw material to its artistic decoration. The author evidences that beside the necessary knowhow for the practice of this craft, maximum

caution was required, as the process supposed painstaking work, which involved relatively small bone fragments, frail, the slightest mistake or carelessness leading to the scraping or destruction of the unfinished product. The most difficult stages, as also shown by the experiment, are the piercing, even though separate, of the three plate rows and the cutting of the comb teeth.

Marc Barbier's study is firstly an example of completion of an experimental archaeology project in the

field of "bone industry". Secondly, it contributes to a better understanding of the production means of several classes of bone items part of the everyday life of the Gallo-Roman environment. Some of the objects discussed therein are found also in other cultural environments of the late ancient period. These cultural facts allow us to analyse the circulation scale of the knowhow, technology and goods during a certain period of time.