

The Cave of Fontéchevade: Recent Excavations and Their Paleoanthropological Implications

Philip G. Chase, André Debénath, Harold L. Dibble, and Shannon P. McPherron

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Reviewed by LEONID VISHNYATSKY

Institute for the History of Material Culture, Dvortsovaya nab. 18, St. Petersburg 191186, RUSSIA; paleo@lv8699.spb.edu

This collective monograph summarizes the results of more than a century long history of research in the cave of Fontéchevade (Charente, France), with particular reference to the work conducted by the editors and principal authors of the volume from 1994 through 1998. Since the middle of the 20th century, for students of the Paleolithic period and human evolution, the name Fontéchevade has been associated, first of all, with two big questions of our prehistory, one related primarily to hominid phylogeny, and the other to industrial taxonomy. The first is the problem of presapiens, and, the second, the Tayacian problem. It is exactly these two subjects that the authors had in mind when they were designing and carrying out their field project, and that they have aspired to clarify in this book, using both old and new data from Fontéchevade.

The volume includes 13 chapters divided into three parts. The first part, written by the editors, consists of two chapters (1–2), describing the history of research at Fontéchevade and the methodology of excavations conducted between 1994 to 1998. The second, and lengthiest part, unites nine chapters (3–11) devoted to different kinds of materials obtained in the course of old and new fieldwork and their analyses. These chapters contain information about the sedimentology and stratigraphy of cave deposits (W.R. Farrand), the results of the paleoclimatic reconstructions based on magnetic susceptibility data (B.B. Ellwood), the results of the electrical resistivity survey of the cave and its surroundings (S.P. McPherron and B.B. Ellwood), the description and analysis of fossil human remains (P.G. Chase and V. Teilhol), chronological data, including ESR and ¹⁴C dates (P.G. Chase, H.P. Schwarcz and T.W. Stafford), faunal taphonomy (P.G. Chase), some of faunal collections (J.-F. Tournepiche), and lithic inventories from the Upper Paleolithic (L. Chiotti) and other parts of the sediments (H.L. Dibble, S.P. McPherron). Finally, in the third and last part of the book (Chapters 12 and 13), the editors provide a reconstruction of the processes of the site formation, discuss the implications this reconstruction has for our understanding of the character of human occupation of the cave, and formulate their conclusions regarding the presapiens and Tayacian problems.

The book contains a lot of useful information about Fontéchevade, but its main merit lies in the fact that it gives an excellent example of how new and refined excavation and analytical methodologies can contribute to the solution of old “accursed problems” of human prehistory. In my view, it just cuts the last ground from under the feet of

the European presapiens theory, and may as well prove to be the last nail into the coffin of the “Tayacian industry.”

The main points, as I understood them, can be summarized as follows:

- cave sediments were formed due to the action of very different processes, with most of the materials coming from the overlaying plateau (through chimneys) and from the cave walls and ceiling;
- only a small part of what originally was considered archaeological finds was produced and/or introduced into the cave by humans;
- human occupation of the cave was occasional, intermittent, and short;
- the existence of hearths and flintknapping zones suggested by earlier excavators finds no support in the available materials (both old and new), and Fontéchevade “should be removed from the list of sites that provide evidence for hominin use of fire” (p. 246);
- the Tayacian assemblage of Fontéchevade was mainly produced by natural processes, and the same seems to be the case with most, if not all, other assemblages of this kind;
- the skull fragments known as Fontéchevade I and II belong most probably to different species and/or lineages, the former representing anatomically modern humans, and the latter being a Neanderthal;
- Fontéchevade I appears to date to OIS 3 and is thus too late to serve as an argument in favor of the European presapiens theory.

Not all of these ideas are new (and the authors widely cite their forerunners), but, in the present case, all of them receive careful consideration in the light of new data and are thoroughly substantiated. The argumentation is quite convincing and in some cases even compelling, so that I would dare to foretell that those who will read the book will have few chances to disagree with the authors’ on their principal conclusions.

The ESR and ¹⁴C dates obtained on associated animal bones suggest a mid-Upper Pleistocene (OIS 3) age for both Fontéchevade 1 and 2 (see also Chase et al. 2007), and not the Middle Pleistocene date as was thought previously. Some of the faunal evidence, too, gives grounds to think that at least the upper part of Bed E, where both fragments were found, could date to OIS 3 rather than OIS 5 or earlier time (though in J.-F. Tournepiche’s view the fauna from

Bed E tells a somewhat different story, and according to his conclusion in Chapter 9, based on the study of large mammal remains, the whole assemblage may belong to OIS 5e). This means that while the Fontéchevade 1 frontal fragment may indeed represent one of the earliest paleoanthropological vestiges of modern human presence in Europe, there is neither need nor basis to regard it as a member of some ancient European phylum, which co-existed with the Neanderthal lineage and gave rise to *Homo sapiens*. Even if the specimen was redeposited, and the dates reported by Chase et al. have nothing to do with its real age, there still are few grounds to consider it a Middle Pleistocene presapiens.

Equally, there are few reasons to continue to use the notion of Tayacian in its former sense, as the designation of a distinct industry or cultural tradition. The materials of Fontéchevade, which became the reference site for this "industry," are of particular relevance to this issue. Taphonomically, as demonstrated by Chase, the faunal assemblage of the cave is rather heterogeneous, and humans appear to have played a relatively minor part in its formation. The same, and maybe even with greater confidence, can be said about the lithic assemblages of the "Tayacian industry." Both size distributions and orientations of stones show that these assemblages are primarily the result of natural formation processes (see also Dibble et al. 2006). The most important were the movement of materials (including some artifacts) from the overlaying plateau through the openings in the rear part of the cave, and the dissolution of the cave walls and ceiling. These processes produced numerous pseudo-artifacts, and it is the latter that constitute the bulk of the Fontéchevade Tayacian. Therefore, the authors' conclusion that "the name Tayacian should no longer be used as an industrial variant" (p.243) seems quite reasonable. Rather, as they write, the Tayacian is a chimera, a set of assemblages produced or altered and damaged by natural processes.

However, as one of the main arguments in favor of the natural origin of most of the "Tayacian" tools is the degree of [natural] damage on their edges, it would be interesting to know which criteria and methods were used to tell the real (artificial, intentional) retouch from the natural one. In practice, it is often very difficult to discriminate (with confidence) between the former and the latter, and it is a pity that the authors pay little attention to this subject. For instance, it is hard to understand why the object on Figure 12.3-C was selected to illustrate the high degree of damage characteristic of Fontéchevade. Judging by the drawing, it is a good double sidescraper with regular continuous retouch of both edges. I by no means doubt that the authors had grounds to consider this retouch natural, but I wish they explained these grounds in more detail.

Speaking about the details, there are a number of textual and editorial omissions and errors, some of which are listed below:

- The dimensions of Test Pits 1 and 2 given on page 8 contradict what one can see on the plan on page 9 (Fig. 1.4). Judging by the scale, the area of the first object is 9m² and not 3m², while the width of the second one is much smaller than 3.5m;
- Reference to Fig. 6.5 on page 16 relates in fact to Fig. 6.4, and reference to Fig. 6.3 given on the same page seems rather to relate to Fig. 6.2;
- The list of regions where the Tayacian was recognized (West and Central Europe, the Near East, North Africa, see pp. 18–19) does not include the Caucasus, despite the fact that a number of Caucasian assemblages were once ascribed to this entity (e.g., Korobkov and Mansurov 1972);
- Henriette Alimen, who published several articles on the geology and fauna of Fontéchevade (in addition, she wrote many other works, including a once famous summary of African prehistory, which appeared in 1955) is mistakenly referred to as a man ("He based this argument...", p. 118);
- Figure 12.4 on page 235, intended to illustrate the authors' conclusions about the nature of the site formation processes and the primarily natural origin of the Tayacian, is confusing: according to it, Fontéchevade lithic assemblages show much less damage than those of Pech IV (Levels 2A, 5A, 6A–B, and 8), while in fact (and according to the text on the same page), the situation is quite opposite.

However, despite these and some other minor shortcomings, the general impression of the book is entirely positive. It is both a valuable source of basic information about one of the most famous Paleolithic sites of Europe, and an important and original study of several important and long debated problems of human prehistory. What is more, these problems are not just discussed, they are solved, and, in my view, the solutions are so well-grounded to seem almost incontrovertible.

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