

BOOK REVIEWS

Iwona Sobkowiak-Tabaka, *Rozwój społeczności Federmesser na Nizinie Środkowoeuropejskiej* [The Development of Federmesser Communities on the Central European Plain], Warszawa 2017, Instytut Archeologii i Etnologii Polskiej Akademii Nauk, pp. 400+CD, 151 illustrations in the text.

Reviewed by Andrzej Wiśniewski

This monograph by Iwona Sobkowiak-Tabaka is a study of the development of the Federmesser culture in the northern part of the European Plain, taking into account the chronological, climatic and natural background. The phenomenon of Federmesser culture arose as the result of the transformation of the previous cultural models of Magdalenian and Epigravettian hunters and gatherers into a different “canon” with significant regional differences. The subject of the work is a large series of archaeological and natural data originating from the area located between the Hercynian mountains and the coast of the Baltic and North Seas. The material analysed in the work dates from the second half of Bølling to the beginning of the younger Dryas (12240 and 10630 BC).

The work is one of a series of monographs that have been published in the last decade that discuss the colonisation process of Central Europe after the disappearance of the MIS 2 continental ice sheet, which was accompanied by profound transformations in the natural environment. Despite this, the monograph of Iwona Sobkowiak-Tabaka fills a peculiar gap, as most of these studies deal with slightly older sections of the late Palaeolithic, often limiting themselves to much smaller territorial units.

The work consists essentially of seven extensive chapters as well as the Introduction and Conclusion, as well as a comprehensive appendix that includes a catalogue of archaeological sites. In the introduction, the Author outlines the purpose and subject of the study, emphasizing the usefulness of the growing series of dates made by the AMS technique and the increasing amounts of data that we now have related to climate and reconstruction of the natural conditions.

The First Chapter of the work is devoted to the history of academic interest in Federmesser material. In the course of this, there is a presentation of the development

of the contemporary definition of this taxon and the issue of the underlying regional diversity that this raises. This is a problem that affects research on almost every Palaeolithic period due to the complicated history of archaeological research and the use of different paradigms.

The second chapter presents comments on the subject of climate and chronostratigraphy. This presentation results from the assumption adopted by the Author that population dynamics are a function of the characteristics of the climate and natural environment. A very interesting element of this chapter is an attempt to analyse the relevant environmental and climate changes based on a synthesis of information from ice cores, lake sediments, volcanic sediments, dendrochronology and palynological data, which allowed the recreation of plant succession in several regions. Chronological data were analysed taking into account their modelling in the OxCal program (function Boundary). The use of information from the territory of Federmesser culture itself is particularly important, because (despite some gaps), it reflects in a more realistic way the evolution of the terrestrial environment than data from ice or sea cores.

The next chapter discusses the lithic material, which is the most common type of material reflecting human activity in this period. The chapter is preceded by an extensive introduction on the history of the classification of artefacts, from Mortillet's pioneering attempts to modern systems. This is followed by a detailed presentation of the results of the analysis of collected data from nearly 500 archaeological sites. Among them, 60 sites from Belgium, the Netherlands, Denmark, Germany and Poland have been characterized in more detail. Their spatial division was discussed paying attention to the structural features of inventories. The chapter is equipped with numerous illustrations presenting mainly tool forms. A separate part is subsection III.2 dedicated to backed blades, or more specifically their typological diversity. The Author highlights the various reasons for the variability of these tools, considering that one of the main causes of their variability was the nature of their raw material. Methods of cultural information transmission were treated separately in this chapter making use of various techniques for measuring variability and adopting a neo-Darwinian perspective. This is an introduction to an attempt to analyse Federmesser inventories in qualitative and quantitative terms. Here, the Author cites various previous attempts to classify site assemblages, from very archaic ones, having no application to most late Palaeolithic sites, to newer numerical approaches, which in turn are not realistic. The Author rightly distances herself from such divisions, showing the complexity of categorical solutions. She proposes her own classification, which is based on numerical criteria.

The fourth chapter is devoted to the characteristics of the development of the Federmesser culture in time. The Author cites the most important findings regarding site stratigraphy, especially concerning soil markers. Then, she attempts to analyse radiocarbon dating preceded by critical remarks regarding factors that have a key impact on the final results. This is followed by a presentation of a series of calibrations of

dating of major sites, discussing the chronological ranges of traces of occupation. These chronological ranges were used to present a chronological model for the Federmesser unit as a whole. A group of 127 radiocarbon determinations were selected for more detailed analysis, rejecting others because of, e.g., too large standard deviation of results. The Author presents the results of her thoughts on the reliability of these determinations and their calibration, setting general ranges for Central and Western Europe (ranges 1–5). The Author tries to find in the differences in dating evidence of the development of territorial exploitation by the Federmesser community, which was detectable in spatial terms, through an extension of the area and increasing the number of sites at different times. The relative chronology of 61 major sites was discussed separately. The categories of selected tools and their subcategories were used for the analysis, paying attention to the upward and downward trends in the participation of particular types of tools over time. Simple numerical comparisons illustrated with bar charts were used. Analysis of the data led the Author to the conclusion that the origins of the Federmesser culture coincides with the Greenland ice core phase GI-1e, while its decline falls in GS-1 (Bølling-younger Dryas). The chronological ranges have been correlated with palynological chronosons.

In the next chapter, the Author discusses the evidence for the lifestyle of communities represented archaeologically by the Federmesser culture, citing information on paleodemography and *in vivo* strategies. In the demographic subsection, we get a very good overview of the concept of the size and dynamics of population development, although this reviewer feels that a few more references to the literature on the ethnological findings of the size of social groups would have been helpful here. The next parts of this chapter focus on strategies for obtaining food through hunting (large, medium and small mammals), fishing and other ways of obtaining food. This is a very interesting part of the book and is based among other things on paleozoological and isotope data. The raw material used for making stone tools and the issue of mobility were also discussed. In Chapter Six, the Author touches on the issue of art, and its role in the communities, seen as a kind of communication system.

In the final chapter, the Author synthetically presents the most important conclusions resulting from the research on the subject of Federmesser culture.

It must be said that the book, with a clear and informative introduction and concluding section, and a well-structured and organized sequence of chapters and subchapters, is structured in a clear and exemplary manner, thanks to which the work reads very well. Nevertheless, this reviewer feels that the work could have been made even more clear by careful editing. For example, the chapter devoted to the lifestyle of hunters would have been better had the discussion of “optimal foraging theory” been included in the section on survival strategies, e.g., hunting, etc. In Chapter Two, dealing with climate issues, transparency would have been improved by a more synthetic presentation of the comments on the construction of isotope curves and the description of ice drilling

projects. Similarly, the chapter on flint assemblages would have benefited from a more synthetic approach, limiting the comments on the development of the classification of the lithic items within various paradigms. In general, the work has been prepared carefully in terms of graphics. Nevertheless, the quality of some maps (see e.g., Fig. 20) could have been given more attention, they should, perhaps, have been broken down into smaller sections for better legibility of the positions of some of the sites.

In some chapters, which show the Author's extraordinary erudition, the reader meets text that touches on very complex issues, e.g., in the field of evolutionary psychology or neo-Darwinism, such as in copying products. These are interwoven with comments, e.g., on techniques for testing differences and similarities, using morphometry (see subsection III.2). In the latter context, it should be noted that the first attempts of using a morphometric approach were made by a Polish-German team with the participation of J. M. Burdukiewicz at the beginning of the 1980s. However, both these and subsequent efforts to use metric features did not apply to blades. In relation to the geometric-morphological (not morphometric) method, it should be added that it analyses the shape, intentionally ignoring dimensions. This applies to both the Procrust approach and the Fourier transformation.

In Chapter Four, the Author presents a chronological perspective of the sites discussed that exhibits her extensive knowledge about the construction and interpretation of radiocarbon date lists. It seems, however, that some comments, e.g., on the history of the development of the radiocarbon method, could have been slightly shortened without harming the presentation of the Author's main arguments. In addition, it would have been good to have seen an attempt to build a uniform Bayesian model for most of the numerical data collected to see if the ranges extracted were still so well readable in this perspective.

Another minor criticism concerns some of the information in the section on stone raw materials (V.4), which refers to Lower Silesian quartzites (probably Boleslawiec deposits), this reviewer considers that they should not have been included due to the lack of features allowing their controlled fracture. It should also be added that in the analysis of the chocolate flint outcrops, the discovery of similar raw materials in the vicinity of Wolbrom (northern part of the Polish Jura) should also have been taken into account. The Author's interesting idea regarding the numerical composition of tool assemblages in a chronological perspective are certainly noteworthy. The book's Author has noticed some trends. In this reviewer's opinion, the numerical representation of some tools considered as ad hoc forms could be evidence of a greater stability of groups, but it is not clear if this is a good measure of the group's chronology, even in relative terms. However, this is a matter for further research.

In summary, this monograph is one of the first attempts to recreate the dynamics of the Federmesser culture community in such a broad perspective. The work presents a number of new ideas that testify to the solid and thorough research conducted by

its Author of numerous data sets from many regions of Europe. The work is provided with rich, thoroughly prepared illustrative material and extensive supporting literature and a catalogue of material. Due to these features, this monograph has already become one of the more frequently cited works of archaeologists dealing with the older Stone Age.

Translated by Paul Barford

