

## Book reviews - Buchbesprechungen

Pincevent (1964-2019) – Cinquante-cinq années d'ethnologie préhistorique

Philippe Soulier, Mémoires de la Société Préhistorique Française 68. Paris, Société Préhistorique Française, 2021, 168 pages, ISBN 2-913745-85-7.

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It is no exaggeration to claim Pincevent as one of the most important Palaeolithic sites of Europe. This statement can be demonstrated easily by the most common search tool of our time: a search with Google for 'Pincevent archéologie' showed 181,000 results, more than double when searching for 'Geißenklösterle Archäologie'. Also, GoogleScholar indicated 3,870 references for Pincevent contra 1,970 for Geißenklösterle. Of course, information provided by algorithms may be not that reliable but, fortunately, the importance of Pincevent becomes obvious when reading the new book of Philippe Soulier which summarizes nearly 60 years of research at this locality. The author knows the subject well as he has written already a 650 page biography of André Leroi-Gourhan, the discoverer of Pincevent and one of the most prominent Palaeolithic researchers of his time (Soulier 2018). In Soulier's new book on Pincevent a story is told in chronological order of the discovery, the excavations and their publications. The invention and development of methods for excavation and analysis led to deep insights into the way of life of humans 16,000 to 15,000 years ago. Besides, the succession of scientists is shown, their personal and academic relations as well as the connection of the research to universities, scientific societies and state-funded institutions to protect the French archaeological heritage. The final three chapters summarize the state-of-theart results on lithics, animal bones as well as hearths and rocks. This will not be retold here. In contrast, the book will be used to show the most important results as well as insights in relevant details of one of the most important Palaeolithic sites in Europe.

The archaeological site of Pincevent was discovered by André Leroi-Gourhan in 1964 in a gravel pit beside the river Seine. Leroi-Gourhan was familiar with the Upper Palaeolithic as, already in 1936, he wrote about the people of 'I'age du renne'. Besides, he was an experienced excavator, after nearly two decades of fieldwork in the cave

site of Arcy-sur-Cure. At Pincevent he recognized the extraordinary preservation conditions of Pleistocene fluvial loams: here, open-air Upper Magdalenian living floors were preserved containing hearths with charcoal surrounded by dense scatters of rocks, lithic debitage and animal bones. Leroi-Gourhan became immediately aware that the detailed analysis of this material record should make vanished ways of life of Magdalenian humans detectable. Prerequisite of this 'palethnology' or 'prehistoric ethnology' was meticulous excavation uncovering a large area of the living floor with detailed documentation. The latter was done by drawing and photographing the surface per square-meter with each single object in a given standard. However, the excavators knew that the documented surface may not represent those seen by Magdalenian humans but those the archaeologists consider the most appropriate for interpretation. Thus, over decades of excavation several publications with meticulous documentation were published. The three most prominent publications are 'habitation no. 1' in 1966, 'section 36' in 1972 and 'layer IV-0' in 2006. The last major monography was published in 2014 on 'layer IV-20', which is the spatial extension of 'section 36'. Despite the slow and careful excavation it has to be mentioned that sieving of the excavated sediment was only done for layer IV-0.

The sedimentation of fluvial loams with Upper Magdalenian living floors took place during cold climate conditions over c. 100-150 years. Its exact chronostratigraphic position within the Würmian remains uncertain as radiocarbon data is still discussed whether showing Greenland-Stadial 2.1a or the so-called Bölling interstadial. According to archaeozoological research Magdalenian humans came to the river floor during different seasons, for example for several weeks in autumn to hunt reindeer (layer IV-20) but also in early winter to hunt horse and reindeer (layer IV-0). Butchering and consumption of prey, as well as lithic debitage was done at hearths which were used with huge amounts of local rocks. Few ornaments and few lignite artefacts are present also as well as few remains of human bones. After humans left the dry river floor their material record was preserved by a snow cover and inundated later, in spring by slowly rising and falling water levels due to a barrier of ice-floes which dammed up the river Seine. The material record of human presence was found in different heights of these fluvial loams but it was impossible to identify distinct layers to investigate the stratigraphical relation between excavated areas. This was only possible in 1973 by making latex casts of profiles which left detectable imprints of fine sedimentological differences in the casts. Now it became possible to define layers, to follow them over long distances, to qualify the microtopography as more or less flat and to make relative age estimates for living floors. This indicates that 'habitation no. 1' is older than layer IV-20 with layer IV-0 being the youngest.

The excavated areas at Pincevent are large: in contrast to 'habitation no. 1' with familiar 80 m<sup>2</sup>, layer IV-0 was exposed on 1,400 m<sup>2</sup> and layer IV-20 on unbelievable 4,500 m<sup>2</sup>. A detailed description of differences between hearths was made, for example, whether flat or pit-like, with how many rocks, lithics and/or animal bones. The description led to interpretation of different functions of fire places, for example presence of central hearths with connected 'satellite' fire places. However, a thèse de doctorat delivered in 1995 found no connection between morphology and function of hearths. Now, the differences in morphology are seen as representing different use stages or are a result of taphonomy. From the start of the excavation in 1964 refitting of lithics was an important method of analysis. This led to a detailed knowledge of the lithic operation chain, indicating detailed results on raw material choice, understanding of preparation methods, qualification and quantification of production, recognition of targets as well as differences in application of lithic debitage knowledge, handling with failures and abandonment of cores. Thus, actions of different individuals became visible, which was also interpreted to show the relationship between technical competence, age and sex. The spatial extension of 'section 36' to excavate layer IV-20 made it more apparent that refitting was central to interpret human ways of life. Refitting of lithics, animal bones and burnt rocks showed not only the technological dynamics of the operation chains, permitted better MNI counts and the perception of simultaneous use of hearths. The detailed recording of spatial data of excavated objects made is possible through refitting to see the movement of lithics, rocks and animal parts over few meters up to distances of over 100 m. This made it possible to interpret not a static material record left by Magdalenian humans but to see the spatial connections of human actions during their whole stay. For example, meat rich bones were transported between hearths, in contrast to bones rich in marrow which were consumed on the spot. The results of refitting were that important that this method is seen as the "ultime trace materielle de la vie économique et sociale des Magdaléniens" (Soulier 2021: 88). This approach is one highlight of research at Pincevent as it delivers not only hard evidence for technology but also connects technology and spatial data. In praise of refitting, one can summarize research at Pincevent! However, refitting is not limited on technology and spatial analysis as at Pincevent but is, at many other sites, an indispensable tool to evaluate the stratigraphy defined during

the excavation or, at other sites, to distinguish natural flint flakes from human artefacts. Refitting takes time but is hard science: flakes refit or not and this can easily be documented in a photo or a drawing. In contrast, in recent German Palaeolithic archaeology refitting is marginalized in contrast to methods like the Arbeitsschrittanalyse or the Werkstückanalyse (Tafelmaier et al. 2020). Both methods are seen as "extemely subjective" (Monnier & Missal 2014: 61) and difficult to document and evaluate (Beck 2019: 139). When refitting lithic artefacts like in the Paris basin or in Central Germany, it can be demonstrated that the Werkstückanalyse, sorting artefacts to groups by petrographic differences, is pretty much useless as a single cretaceous flint nodule may consist of several different petrographic parts.

In the 1970s Leroi-Gourhan thought that the hearths represent tents which implicated that a 'village' might be present and that some kind of early urbanism might characterize the Upper Magdalenian. In the first publication, that of 'habitation no. 1' in 1966, a fur-covered tent was present with a hearth in the center of the entrance. In contrast, at 'section 36' no roof construction of a tent was shown but only a semi-circle indicating a tent floor. The hearth remained at the entrance of the tent which was connected to a waste disposal area in the open in front. Few years later this interpretation was disproved by experiments which showed that it was impossible to move in and out of a tipi-like tent when a hearth is present in the entrance. Thus, in the 1980s, the tent was placed in the area devoid of finds behind the hearth and the adjacent dense accumulations of lithics, bones and rocks. This tent was now only a semicircle with 3 m diameter and a nearly 3 m wide opening, which could have hardly been a stable construction for longer stays. In contrast, at layer IV-0 with its horse and reindeer remains hunted in winter, a 5x5 m large tent is reconstructed above a central hearth and two major accumulation of finds outside. It has to be emphasized that the views of Leroi-Gourhan influence the interpretation of Pincevent as refitting of burnt rocks is only used to show contemporaneity of hearths. As indicated by Soulier, in the future researchers at Pincevent want to apply the results of investigations on Upper Magdalenian sites Monruz and Pincevent in Switzerland where refitting of rocks was used for the establishment of a relative chronology of hearth use. This may allow discussing the interpretation of Denise Leesch (2014; Leesch et al. 2019) who sees the material record of the Upper Magdalenian as resulting out of short stays of small, mobile groups after a successful hunt to consume the small amount of prey at rock-covered hearths to do diverse, but more or less everytime and everywhere uniform domestic activities. According to her not early urbanism but single, sometimes successive, but short activities are responsible for the spectacular material record of the Upper Magdalenian.

Not to apply directly but to show which of their interpretations of the archaeological record may be impossible, the researchers of Pincevent did ethnoarchaeological fieldwork among reindeer herders and hunters in Siberia in 1995-2001. One has to emphasize also that numerous other Magdalenian sites in fluvial settings of the Paris basin were excavated after the discovery of Pincevent, like Etiolles, Verberie and Marsangy. But also Magdalenian sites on valley slopes and plateaus above the river floors were investigated, like Les Tarterets and Ville Saint-Jacques. Research on these sites lead to a comprehensive picture of the way of life of Magdalenian humans in the Paris basin. For example, these sites are designated as hunting sites which is in contrast to research on the Magdalenian in Germany which emphasize functional differences between sites as large base camp-like sites should have existed beside small sites where other activities were performed (Richter 2018: 203). However, the future will tell more about the way of life in the Upper Magdalenian as the potential of Pincevent seems to be unlimited: on the 20 hectares large area 25 layers are present. Each layer can be excavated on 8,500 m<sup>2</sup>. Thus, 212,500 m<sup>2</sup> are preserved for future excavation which, according to an estimate made by Leroi-Gourhan, will take 350 years of research. The government of France should know of this exceptional cultural heritage whose research has already made and will make a deep impact on Palaeolithic research in Europe.

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