

to Cs. Chapter 9, by Gassin and Gibaja, provides the results of a functional analysis of the stone tool assemblages, largely complementing Chapter 2. There have been surprisingly few functional studies of lithic assemblages from the Epipalaeolithic of the Maghreb, and this preliminary functional analysis forms a good basis for future work. An addendum contains previously unpublished illustrations of the lithic artefacts from AM.

Given the early termination of the fieldwork, the authors have done a good job at providing detailed analysis of the most important aspects of the assemblages from KZD. The contributions focusing on the bone tools (Chapters 4 and 5) and the functional analysis of the stone tools (Chapter 9) are particularly welcome. Nonetheless, there is some additional work that could have been undertaken to expand upon the results of the project. In particular, additional AMS radiocarbon dating of paired samples of wood charcoals and faunal remains, alongside subsequent Bayesian modelling of the results, could have been undertaken to help provide a more robust understanding of the depositional history of KZD and the exact timing and length of erosion and/or abandonment events.

The report also ends relatively abruptly, lacking a wider discussion that draws together the information on the different behavioural proxies. Many researchers will be interested to know how the evidence fits into broader cultural and behavioural trends associated with the development of the Epipalaeolithic in the Maghreb, such as the emergence of new subsistence strategies and increasing sedentism. There was more to be said about the data presented in the volume and the potential for comparisons with other sites, including those of the preceding industries and succeeding Neolithic. The current volume, however, serves as an important body of data for those working in this area, and complements more discursive work already published by the contributing authors.

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- PIERRE PETRÉQUIN & ANNE-MARIE PETRÉQUIN (ed.). *Clairvaux et le 'Néolithique Moyen Bourguignon'*. 2016. 1430 pages (2 volumes), numerous colour and b&w illustrations. Besançon Cedex: Presses universitaires de Franche-Comté; 978-2-84867-535-0 hardback €60.



The lake village sites of the Circum-Alpine region, with their extremely well-preserved organic remains, water-logged pile-dwellings and detailed dendrochronologies, provide rich histories of Neolithic and Bronze Age life. Relationships between different communities and trajectories of regional social change, however, continue to be interpreted from pottery and its stylistic variations. As in neighbouring European regions, archaeological cultures are named after pottery types, with chronology built from stylistic changes. This is a legacy of a 'culture history' approach, but one that by no means disqualifies this method as a means of establishing important accounts of sequence and change; nor does it prevent the posing of important and interesting questions about the archaeologies of these regions—such sequences may, in fact, be essential (Ebersbach *et al.* 2017). As a result, a key challenge for, and the great potential of, the archaeology of the lake villages is to achieve the full integration of the sequences and social groups identified on the basis of the pottery, with the wealth of other evidence: material culture, architectural and environmental.

This is exactly what Pierre and Anne-Marie Petréquin and their collaborators set out to achieve in this publication. Across the two-volume set, the material culture and environmental analyses from the recent excavations at Lake Clairvaux, French Jura, are fully reported and integrated with a new analysis of pottery, from some 25 neighbouring sites, belonging to the *Neolithique Moyen Bourguignon* culture (NMB; c. 4000–3500 cal BC). The NMB was first proposed as a coherent pottery style by the authors in 1984. Since then, knowledge about the pottery and its characterisation has evolved. The NMB, mainly found to the west of the French Jura, in Bourguignon and Franche-Comté, was thought to have formed under the influence of both the Michelsberg I and II (Paris Basin) and the epi-Rössen groups in the Upper Rhine Valley; although contemporaneous to groups such as Michelsberg III–IV, Munzingen A, Pfyn and classic and middle Cortaillod, the NMB was believed to have developed independently. Subsequently, contacts and influence between NMB and Cortaillod (found predominantly around Lakes Geneva and Neuchâtel) were demonstrated at the site of Concise (Vaud, Switzerland), but other gaps in knowledge persisted. The chronology built from the pottery suggested the presence of a single group, moving and constructing new sites over time, with each new site representing a new ceramic phase. This, however, contradicted the evidence from the development of other material culture items that suggested some contemporaneity between the villages. The recent completion of the excavation of the NMB sites of Clairvaux XIV and VII (2003–2008) has provided the opportunity to carry out a detailed study of the sites in their wider NMB context.

The volume is divided into four sections totalling 34 chapters. The first two sections make up the first volume and focus on the chronology, ceramic decoration and technology of the Clairvaux pottery, and then the broader NMB cultural group. The second volume is dedicated to the analysis of the remaining material culture and the wider environment. After introducing the history of NMB study, Section 1 focuses on describing the discovery of the Clairvaux sites, the excavation, house architecture and dating. The reasoning behind the stratigraphic interpretation of 15 phases of occupation, with the reconstruction of buildings in each phase, is particularly well explained. Dendrochronology proved impossible because the

wood used for construction was too young; the absolute dating therefore relies on 17 AMS dates.

Section 2 presents the corpus of NMB pottery, the new typology and possible ceramic imports. There is also a detailed consideration of the pottery-manufacturing techniques and tools, residue analysis and pottery exchange. In turn, this leads to an insightful account of the social context of pottery production. The authors conclude that pottery was made collectively, involving both experienced potters and apprentices. They also identify some very well-made pots that appear to have been reserved for exchange. Therefore, while pottery tended to be locally produced, it could also travel and be used to signal social contacts. Organic residue analysis of the pottery, combined with zooarchaeological evidence, leads to the suggestion that domestic animals were mainly used for their secondary products (such as milk), while meat and fats were mostly sourced from wild animals. This section ends with a consideration of the Clairvaux pottery in the context of other nearby NMB sites, with the presentation of new phasing and typological schemes.

Section 3 is dedicated to the analysis of the other finds. Listing these studies demonstrates the sheer wealth of material present at these sites. The chapters report on the analyses of: wooden artefacts; polished stone axes and their raw material; worked bone, antler and teeth; chipped stone; birch tar and beeswax used as adhesives; fire-lighting materials such as pyrite; grinding stones, hammers and polishing tools; personal ornaments made from boar's tusk, and teeth from other fauna, as well as shell, marble and antler; clay beads, ropes and weaving equipment; and, finally, fishing weights. All of these chapters have a welcome focus not only on the description of the items, but also on production techniques and use contexts.

Finally, Section 4 is dedicated to the presentation of the environmental evidence, focusing on the relationship between the settlements and their hinterlands. Famously, lake village settlements were short-lived—abandoned after approximately 8–12 years—although field organisation was characterised by greater continuity (Styring *et al.* 2016). In contrast, the authors present a model of 'shifting agriculture' based on the pollen evidence and archaeobotanical analysis. They suggest episodes of forest clearance and regrowth matching the fluctuating occupation of the settlements. The first chapter in this section considers the relationship

between the villages and cereal cultivation, drawing on ethnographic work carried out by the authors in Indonesia. The animal bones show a shifting balance between the exploitation of wild and domestic fauna; when combined with the evidence for changing forest cover and the exploitation of wild plants, a compelling argument is made. When the lake was first occupied, there was dense forest close to the settlement, and as a consequence, wild resources were intensely exploited. During the middle phases of the occupation, as the forest was cleared by shifting fields, domestic pigs were raised, as well as increasing numbers of cattle and sheep/goat. Towards the end of occupation, the forest appears to have regenerated and wild animals returned, which is reflected by an upturn in the wild resources used at the settlements. A picture emerges of a stable population of two groups at Clairvaux, moving their primary settlement approximately every 12 years in order to exploit the changing landscape.

Chapter 34 offers a synthesis, drawing on and developing the conclusions presented in the individual sections. Economic and social life at the Clairvaux settlements is captured in detail, stressing the rhythmic movement of settlements, fields and landscape use. The authors suggest that this 'rhythm' was not imposed by rising and falling lake levels (as they stress, there is little evidence for this), but rather was engrained in the social worlds of the fourth millennium cal BC. Contradictions in the evidence, however, remain and these are highlighted for further study. For example, the settlements were bounded by the lake and marshy foreshores that were only crossable by trackways; this suggests closed communities, perhaps in need of protection against their neighbours. Yet this situation contrasts with the evidence of the material culture, which indicates a connected world, busy with the exchange of ideas and skills. At the end of this chapter, discussion returns to the classification and definition of the NMB in light of the wider analysis of material culture and environment, in order to highlight the remaining gaps in knowledge. A particular issue here is the question of how to integrate the model of social life developed for the lake villages with the evidence from other NMB sites, such as the hill-top enclosures.

With this publication, the authors have achieved their aim of exploring the NMB through the contextualisation of pottery typology and sequence with a rich and detailed analysis of the artefacts and ecofacts from the Clairvaux settlements. These

volumes represent a milestone in the analysis of the lake villages of the French Jura, and in our understanding of the early fourth millennium BC in Central Europe more generally. They should also do much to promote and situate these sites alongside their better-known Swiss counterparts.

## References

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JOAKIM GOLDBAHN. *Sagaholm: north European Bronze Age rock art and burial ritual*. 2016. viii+140 pages, numerous b&w illustrations. Oxford & Havertown (PA): Oxbow; 978-1-78570-264-8 paperback £36.



The overwhelming majority of Scandinavian rock art is found on open-air panels. These sites were often used for centuries, or even millennia, making it difficult to relate them to specific archaeological contexts. This is why those rare finds of rock art that

are found in burials are so important; in such contexts, we glimpse rituals and practices that are otherwise impossible to detect. One well-known example is the Kivik cairn in southern Sweden that displays a number of expressive images on seven decorated slabs. Another example, equalling Kivik in its complexity, is the Sagaholm mound outside