

ANNE-MARIE PÉTREQUIN / PIERRE PÉTREQUIN (eds), *Clairvaux et le "Néolithique Moyen Bourguignon"*. Volume 1 and 2. Les cahiers de la MSHE Ledoux volume 22, Série Dynamiques territoriales volume 7. Presses universitaires de Franche-Comté, Besançon 2015. € 60.00. ISBN 978-2-84867-535-0. 1416 pages, several illustrations.

This is a substantial work both in terms of its sheer size and the scope of its content. In fact, it is a collection of a number of detailed studies of the lakeside excavations undertaken at Clairvaux XIV, Clairvaux VII and Clairvaux La Motte-aux-Magnins in the French Jura. However, thanks to the new information yielded by the unprecedented volume of data, particularly regarding ceramics, it also constitutes a major revision of the Burgundian Middle Neolithic (*Néolithique Moyen Bourguignon*: NMB) and of the definition of the La Motte-aux-Magnins cultural group that characterises a Middle Neolithic for the lake region within the NMB. Edited by Pierre and Anne-Marie Pétrequin, this publication brings together contributions from thirty authors and is divided into two volumes totalling 1416 pages. The contributions are divided into four parts and each individual chapter includes a summary in both French and English, a descriptive and analytical inventory of the material being studied, illustrations and a specific bibliography.

The first part (Vol. 1, Chapters 1 to 4; pp. 23–110) is devoted to the central issues and to dating, the second (Chapters 5 to 11; pp. 111–744) to ceramic analyses, which make up the largest part of the publication. The third part (Vol. 2, Chapters 12 to 25; pp. 745–1126) brings together studies of other categories of material culture, while the fourth (Chapters 26–34; pp. 1127–1416) is dedicated to palaeoenvironmental analyses. This part also contains the concluding chapter, presented in French and in English, which takes the form of an overall summary and synthesis of the results.

The publication is very comprehensive and aims to present all of the data used in the elaboration of the results and hypotheses (inventories, tables, illustrations and photographs). This exhaustive approach is commendable given the quantity and quality of archaeological finds produced by the lacustrine sites, which are characterised by exceptional preservation of perishable materials and organic remains. The diversity of approaches adopted in the study of the archaeological remains, and the careful choice of methodologies used, clearly make this an indispensable and central work for discovering the La Motte-aux-Magnins Group and for keeping up-to-date with developments in the study of the Middle Neolithic of the lake region and the NMB. While it is essentially aimed at researchers, it is also an excellent reference for students confronted with the complex study of material culture and palaeoenvironmental data.

Following an overview of research on the Burgundian Middle Neolithic (4500–3500 BC), the focus shifts to the hypothesis of settlement cycles linked to the depletion of the forest environment. This question is a central theme throughout the work and is discussed, debated and examined in detail in the light of the various specialist analyses.

The first part is dedicated to the principal issues and to the question of dating. The first two chapters (pp. 23–84) provide a description of the current geographical, sedimentological and environmental contexts of the sites, and, on the basis of survey by coring, map out as comprehensively as possible the settlement of the low-lying marshes on the edge of the lake. They also provide a description of the stratigraphy, the excavation techniques used and the methodological choices made in the context of the difficult and constraining lacustrine environment. The almost complete absence of stratigraphic reference levels forced the excavators to use collapsed clay hearths as high-resolution chronological markers (at the scale of the occupation lifetime of a house) which, in turn, allow a chronological sequence to be established based on the destruction of houses. Chapters 3 and 4 (pp. 85–110) are concerned with the issue of dating. Various methods were used (^{14}C ,

dendrochronology, lake level fluctuations) and their limitations exposed. Although dendrochronology was of limited use due to the fact that most of the wood present on the sites came from young trees, it was possible to date the beginnings of the NMB in the environs of the lake to 3900–3850 BC, which overlaps with periods of lower lake level between 3880 and 3750 BC. The onset of deforestation appears to have occurred prior to the first settlements.

The second part is more substantial as it brings together all of the analyses carried out on the ceramic finds. Chapter 5 (pp. 113–303) establishes a typological classification and chronology for the three sites. It details the typology of 26 categories of ceramics, discusses stylistic comparisons with assemblages from neighbouring areas, outlines the specificities of the Clairvaux Lake sites and highlights differences between them. This typo-chronology led to a diachronic sequence that placed CL VII before CL XIV and which was presented as a first hypothesis. This chronology was subsequently brought into question by the results of analysis of the bone and antler industry (Chapter 15, pp. 813–865). These indicate a simultaneous development of the three sites, supported by regional and supra-regional comparisons. The authors of the ceramic study agreed to revisit their work and to test the new hypothesis of a synchronous chronology. This hypothesis proved plausible and convincing, with three phases of evolution (referred to here as phases 1 to 3 and as “Early”, “Middle” and “Late” in following chapters) being identified between 3900 and 3600 BC. It is, therefore, this second chronological hypothesis that is adopted by the authors, with a succinct account of the results obtained for the bone industries presented in Chapter 5. This turnaround is one of the only sensitive points in the work since the chronology adopted is not always explicit in subsequent chapters, particularly when they deal with stylistic comparisons, transfers and importation (Chapters 7 and 11, pp. 317–332 and 517–737). However, the authors must be commended for presenting the two contradictory chronologies, for having questioned the results of the ceramic typology – which is traditionally seen as providing a solid chronological foundation, particularly in such contexts and when dealing with such large amounts of material – and for having looked at their results with a critical eye. In fact, integrated approaches, such as those used for the bone and antler material, must thus be regarded as exemplary. The following three chapters (8 to 10, pp. 333–515) deal with all possible aspects of the ceramic assemblages, from production techniques and associated tools to residue analysis (vegetable oils, animal fats, dairy products, beeswax) to throw light on vessel use. The authors advance the hypothesis that a single house per village was dedicated to the collective manufacture of ceramics and argue for the circulation of non-local potters. An overview of the various ceramic styles is also provided (sometimes with a degree of unnecessary overlapping between chapters). The last chapter (11, pp. 517–737), which widens perspectives by integrating finds from 20 sites, offers stylistic comparisons, highlights the cultural peculiarities of the La Motte-aux-Magnins Group and provides a detailed chronological table for the region.

The third part brings together studies of other aspects of the material culture. Wooden artefacts (Chapter 12, pp. 747–770) are found to have few similarities with Pfyn and to have more in common with Cortaillod. The two chapters on polished stone axes (Chapters 13 and 14, pp. 797–812), which could have been merged into one, examine their typology and the origins of their raw materials (based on spectrometric analysis). They point to a possible increase in the use of Italian stone at the end of the sequence and to possible difficulties in the procurement of new axe heads which may be reflected in the diversity of hafting techniques and axe sizes. Industries based on hard animal materials (bone, antler, teeth) are the subject of an integrated study using an approach that is technological, functional and typological, which proved very effective. Indeed, it was possible, on the basis of these different characteristics, to develop a synchronous chronology for the three Clairvaux sites, as has been mentioned above, which shows a drop in bone tools and a corre-

sponding increase in antler tools, including axe sockets; parallels for this sequence are also found on other sites such as Concise.

The following three chapters (16 to 18, pp. 867–979) deal with the lithic industry, although we might ask why Chapters 16 and 17 were not merged since the first, which deals with raw materials, is limited to 77 pieces from Clairvaux VII, and the second reproduces the data presented in the first but adds a description of the debitage techniques and tool types: on the Clairvaux sites, debitage was conducted using direct hard-hammer percussion to produce flakes; the typology of the tools from the Clairvaux sites matches results of the La Motte-aux-Magnins functional study (following chapter, pp. 981–999). The authors forward the hypothesis that access to the closest sources of good flint (5–10 km away) was controlled by neighbouring settlements, a situation that forced the inhabitants of Clairvaux to get supplies directly from more distant sources (28 km away) of lesser quality. The last chapter on the subject of lithics (Chapter 18, pp. 981–999) is concerned with functional analysis of flint tools from La Motte-aux-Magnins. It reveals a rudimentary production with little investment and involvement in daily activities (for the working of bone, wood, ceramics). The study of adhesives (Chapter 19, pp. 1001–1021) focuses on hafting, ceramic repairs and decoration executed solely using birch tar. The fact that the composition of the tar is identical regardless of the uses to which it was put, indicates that the *chaîne opératoire* was segmented in time and space, with a manufacturing stage that was independent from the moments of use. The chapter also reveals that only certain categories of ceramics were repaired and that these were not the most common categories. Chapter 20 (pp. 1023–1028) focuses on the remains of marcasite and hoof fungus discovered in various stages of preparation, which give rise to the idea that a specialised activity took place in one of the houses in the village. Chapter 21 (pp. 1029–1070) deals with the macro-tool kit (querns with overlapping grinders, polishers, anvils and hammer stones) while Chapter 22 (pp. 1071–1075) focuses on cleavers, which were specific to lake Clairvaux and which were used for extracting bone marrow. The few rare items of personal ornament, principally made from animal teeth (suidae, small carnivores and bear) and *dentalium*, are the subject of Chapter 23 (pp. 1077–1083). Chapter 24 (pp. 1085–1119) looks at the remains of string and plaited cord which were primarily made of lime tree fibre. Chapter 25 (pp. 1121–1125) deals with fishing weights that can take the form either of a roll or a parcel (pebbles or clay cylinders wrapped in birch bark). It is not clear if the two forms correspond to two different methods of fishing.

Finally, the fourth part of the publication is concerned with palaeoenvironmental analyses. In Chapter 26 (pp. 1129–1149), the various forms and patterns of settlement associated with slash-and-burn cereal cultivation are investigated with reference to ethnographic and experimental observations and the hypothesis of a forest-fallow system is developed. This shifting cultivation, with deforestation of secondary forest, took place on a regional scale and was not confined to the Clairvaux lake communities: it followed irregular rhythms that did not systematically involve the same village community. In other words, villages and territories shifted every ten years or so. Pollen analyses confirm that the environment was dominated by dense mixed woodland of oak and hazel, with clearances and pollen evidence for human impacts. Chapter 27 (pp. 1151–1155) provides data from pollen analysis. The archaeozoological study presented in Chapter 28 (pp. 1157–1173) indicates the predominance of hunting (particularly of young deer) and the raising of pigs for meat: cattle and small ruminants occurred in small numbers and were principally raised for their secondary products, particularly milk. Chapter 29 (pp. 1175–1192) concerns a palaeo-parasitological study carried out on seven dwellings at Chalain and Clairvaux covering the entire 4th millennium. The study basically indicates infestations due to the consumption of fish or contaminated vegetation and poor general hygiene. The archaeobotanical analysis presented in Chapters 30 (pp. 1193–1277) and 31 (pp. 1279–1353) (which again could have been merged) reveals the growing of poppy, along with emmer, wheat and barley: the La Motte-aux-Magnins Group is

therefore set apart from Pfynd and Cortaillod by the almost total absence of einkorn. Chapter 32 (pp. 1355–1364) presents an anthracological study, with comparisons with the palynological data provided in Chapter 27. It reveals the gathering of small branches, the felling of young trees and the exploitation of the ash woodlands at La Motte-aux-Magnins and the oak-beech woodland at Clairvaux XIV, where exploitation was confined to the upper and lower terraces. In Chapter 33 (pp. 1365–1374), worked wood, firewood, bedding and wooden objects are studied from the point of view of isolating the tree species exploited. It reveals that all of the vegetation formations in the area are represented and that those species that were most abundant were the most exploited. At the time when the La Motte-aux-Magnins Group emerged, the forest environment was already degraded, indicating that the forest was being exploited from at least the end of the 5th millennium.

Finally, the last chapter (34, pp. 1375–1398) provides a substantial summary, in English and French, of both volumes as well as a synthesis of the results. The concept of culture is discussed and the La Motte-aux-Magnins Group is defined. Avenues for future research are also outlined.

This publication describes the life of communities on the shores of lake Clairvaux between 3900 and 3600 BC: it starts with the construction of the first house and its granary, then the building of a second granary during the second year of occupation; this is followed by the construction of new houses and granaries, laid out in aligned rows, during the 3rd, 4th and 5th years of occupation; it reveals how the settlement was occupied for a further five years, without any rebuilding of houses, before finally being abandoned. During these ten years of occupation, cereals were sown in winter on small plots of cleared land located less than 1.5 km from the settlement and annually totalling less than five hectares in extent, and all available natural resources were exploited through hunting, gathering and fishing. Potters gathered in a single house to make vessels and were sometimes joined by potters from other communities. Flint, which had to be obtained from further afield, was used to produce flakes that were subsequently used for processing animal skins, harvesting cereals and making arrowheads.

This publication paints a picture for us of small communities who had a deep knowledge of their environment, who were autonomous yet in contact with other communities in the region and who moved their settlements as soils became exhausted. This work is also an invaluable resource for understanding the regional and supra-regional evolution of cultures in the first half of the 4th millennium.

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RODERICK B. SALISBURY, *Soilscales in Archaeology. Settlement and Social Organization in the Neolithic of the Great Hungarian Plain*. Prehistoric Research in the Körös Region volume 3. Archaeolingua volume 37. Archaeolingua Alapítvány, Budapest 2016. € 50.00. ISBN 978-963-9911-79-6. 329 pages.

In everyday field practice, most archaeologists would say that soil and sediments (the “dirt” in layman’s terms) through which they dig are an obstacle that needs to be removed in order to uncover the artefacts and architectural features of past societies. Salisbury’s book brings the “dirt” into focus