

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

as a proper research subject by setting out to demonstrate that the methods of geoarchaeological science can throw light on behaviourally and socially relevant aspects of the past and that the study of soils and sediments has an equal epistemic value as traditional archaeological research usually based on a study of artefacts and architectural features. Concretely, Salisbury is interested in the Late Neolithic and Early Copper Age settlements of the Körös region in the Great Hungarian Plain, and provides the tools of soil and sediment analysis to reconstruct and investigate the patterns of settlement organisation and their sociocultural basis.

The book is organised into ten chapters. In the introductory chapter a general context of the research is presented and the four research goals are defined: 1) to compare the Late Neolithic to the Early Copper Age single layer settlements in terms of reconstructed spatial and functional structure; 2) to develop a conceptual framework for understanding how physical remains of everyday practice reflect cultural traditions regarding the use of space; 3) to link soilsapes (the term used by the author to denote soil landscapes) and traditions at multiple scales to themes of community as place, community as identity, and community as network; 4) to demonstrate the applicability of a soil / sediments as material culture approach.

Chapters 2 and 3 provide the context of the study. Chapter 2 is a review of geographical and environmental characteristics of the studied region with detailed information on topography, hydrography, climate, biogeography, soils, and sediments in the present and the past. Chapter 3 presents the regional archaeology of the Körös region and surrounding areas between 6500 and 4000 BC in terms of traditional culture history and socio-economic structure and process. The focus is on the two periods within this long time span – the Late Neolithic period between c. 5000 and 4500 BC and the Early Copper Age period between 4500 and 4000 BC. Tells surrounded by flat settlements give way to a greater number of small Early Copper Age settlements. A class of small (c. 1 ha) settlements existed in both periods and the primary research aim was to reconstruct the use of space within this class of settlements in order to explore whether the hypothesised social and economic changes associated with the Late Neolithic / Early Copper Age transition are observable in this domain.

Chapters 4, 5, and 6 are the key chapters regarding the rationale and the theoretical basis of this research. The author makes a good case for why soil / sediment analysis can make a relevant contribution to archaeology. For practical reasons, Salisbury decides to use the term soil for both sediments and soils *sensu stricto* (his study material coming from the augered cores indeed consists of both). Salisbury argues that soils should be treated as a class of material culture and goes to great lengths to show how soil can have symbolical meaning and can be a culturally constructed category with illustrations from the ethnographic and historical record (e. g. the building of the artificial mound with soil brought from different parts of the country as an important element of the coronation of the Hungarian king). However, modifications of the soil are usually motivated by other aims and people are in most cases unaware of these changes; therefore, the case for the cultural construction of soil in a symbolic sense seems a bit overstated in this context. The basic point that the author tries to make is certainly true in the sense that soil is a part of the archaeological record carrying information about past human activities, and as such it deserves the same kind of attention as any other part of the archaeological record. The issue of taking a wider or narrower view of what should be classified as material culture, artefact or ecofact is actually irrelevant – all that matters is whether a certain aspect of the archaeological record carries information relevant for the reconstruction and understanding of human actions in the past. Salisbury uses practice theory as a theoretical frame to make a connection between people's behaviour and the properties of the soil. The theoretical discussions of community and relational practice are very interesting and useful in general and in the context of the Neolithic and Copper Age archaeology in Europe.

In Chapter 7, technical details of the data collection and analysis are presented. The soil material was collected by taking multiple cores (arranged in a grid) from the selected Late Neolithic and Early Copper Age sites by augering. The first step of the analysis was the stratigraphic characterisation of the cores – recording the attributes of the layers and horizons with the aim to reconstruct the deposition history, the extent and spatial structure of settlements. The second step was chemical analysis of acidity and phosphate content. The third step was a compositional analysis of the soil with the aim of determining concentrations of elements in each core. For some samples, magnetic susceptibility analysis was also undertaken in order to detect burning. Data from the stratigraphic, acidity, phosphate, and magnetic susceptibility analyses were plotted on the site plan so that spatial variations can be explored. The compositional data were statistically analysed by performing multivariate techniques such as cluster analysis and principal component analysis (PCA). The single linkage cluster analysis was performed on an element correlation matrix in order to determine which elements covary in the samples. PCA was performed in order to calculate component scores (for the statistically relevant components) which are then projected on the site plan in order to explore the spatial patterns. The overall analytical strategy is well designed, but there are some minor issues. For example, the cluster analysis seems to be redundant (the choice of the single linkage method is also unfortunate as it tends to produce nested clusters) given that the loading matrix of the PCA can be used to tell which elements load on the same component which means that their concentrations vary in a similar way across samples. Additionally, it might have made the interpretation easier if rotation was applied and if elements for which it was determined that their variance was not generated by anthropogenic factors were excluded from the PCA as they introduce spurious variation and covariation. There are also some terminological problems: the loading matrix is erroneously referred to as the scores matrix throughout the book. It would also have been useful if an electronic supplementary file (on CD or stored on a website) with raw data was included with the book so that other researchers could do their own analysis of this rich data set.

The main empirical results are presented in Chapters 8 and 9 for each of the Late Neolithic and Early Copper Age sites, respectively. The patterns revealed by the statistical analysis are quite complex but the author skilfully manages to construct meaningful and convincing interpretations of stratigraphic and geochemical patterns in terms of space use in the Late Neolithic and Early Copper Age settlements. Salisbury identifies zones associated with food preparation and consumption, deposition of organic material, and potential locations of pens and garden plots. The spatial organisation of activities seems to be similar on both Late Neolithic and Copper Age sites as Salisbury formulates a single model of activity zones for both periods based on the results of his research. The model suggests an existence of three concentric functional zones: 1) innermost core area containing the house and the communal front zone area corresponding to the household and communal front zone with least chemical enrichment; 2) semi-circular household back zone area with pits and food preparation area; and 3) the outermost circle of the communal back zone used for gardens, middens, and livestock forage. However, there is a partial difference in site taxonomy between the Late Neolithic and Copper Age, with flat supersites with multiple hamlets or house clusters, single hamlets of multiple household clusters and linear arrangements of longhouses or household clusters in the former, and sites with multiple houses and single farmsteads in the latter period. Description of the results is followed by a thorough discussion and conclusion in Chapter 10.

The research presented in this book has four specific goals (see above) and it is best to evaluate it in relation to the degree of their achievement. The first, second and fourth research goal have certainly been accomplished with success, but I have some reservations about the accomplishment of the third goal. Even though the theoretical discussion of the concepts of community, identity and interaction is useful and informative on the general level, this particular research does not seem to greatly expand the knowledge about these aspects of the Late Neolithic and Early Copper Age

communities of the Körös region. For example, to claim that soilscales played a role in the creation of memory and identity of Late Neolithic and Early Copper Age communities does seem reasonable on a general level, but at the same time it is quite vague in its empirical content. It would be unfair to say that the discussion of these issues does not add to the book, it is just that what is written about these issues is only distantly related to the empirical results. However, this objection does not change the overall impression of a successful and complete research project. The novelty and significance of both the empirical results and the methodological framework for soil analysis make this book important and relevant to researchers interested in the Neolithic and Copper Age archaeology of Southeastern Europe. In addition to the original contribution to the knowledge of the past, the research presented in the book is suitable to be used as illustrative material (case study) for university courses in geoarchaeology and environmental archaeology.

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MÁRIA BONDÁR, The Late Copper Age Cemetery at Pilismarót-Basaharc. István Torma's Excavations (1967, 1969–1972). Institute of Archaeology, Research Centre for the Humanities. Hungarian Academy of Sciences, Budapest 2015. Ft. 9800. ISBN 978-963-9911-75-8. 379 Seiten, Farb- und s/w-Abbildungen.

Der Badener Kulturkomplex nimmt innerhalb des Spät-Äneolithikums im südlichen Mitteleuropa eine besondere Stellung ein. Wie dies kaum bei einer anderen archäologischen Kultureinheit der Fall ist, lassen sich dort die neuen Elemente im Bereich der Besiedlung, der Wirtschaft oder des Grabritus mit neuen gesellschaftlichen Strukturen in Verbindung bringen. Das Badener Kulturmodell muss aus vielerlei Gründen attraktiv gewesen sein. So dürften nämlich die verhältnismäßig starke kulturgeschichtliche Vereinheitlichung im nahezu gesamten Karpatenbecken sowie in manchen Anrainergebieten in der Zeitspanne zwischen 3700 / 3600 und 2900 / 2800 v. Chr. ebenso wie die Anzeichen einer enthusiastischen Aufnahme der Badener Muster in den Gebieten weiter nördlich des Badener-Kulturkomplexes, u. a. von den Trägern der Trichterbecherkultur, zu erklären sein.

Mit Blick auf die obigen Ausführungen ist jede Bearbeitung, die uns die faszinierende Badener Welt nicht nur durch archäologische Befunde, sondern auch aus der Sicht der gesellschaftlichen Organisation oder des mit Vorstellungswelt, Weltanschauung, Mentalität und Ideologie zusammenhängenden menschlichen Verhaltens näherbringt, begrüßenswert und willkommen.

Durch eben solche Attribute zeichnet sich die monographische Bearbeitung des Gräberfeldes von Pilismarót-Basaharc durch Mária Bondár aus. Diese Autorin ist eine außerordentliche Expertin auf dem Gebiet der Archäologie des Badener-Kulturkomplexes. Sie veröffentlichte bereits eine Reihe grundlegender Bearbeitungen über die Badener Fundplätze Ungarns, doch vor allem mehrere synthetische Bearbeitungen über die unterschiedlichen Aspekte der Badener Welt. Unsere heutigen Kenntnisse darüber sind zum großen Teil ihr Verdienst.

Der Fundplatz von Pilismarót-Basaharc liegt ca. 35 km nordwestlich von Budapest, ca. 300 m südlich der Donau, direkt gegenüber der Mündung der Eipel, am Rande einer abgeflachten, schwach ansteigenden Überschwemmungsterrasse der Donau in einer Höhe von 107–110 m