

## SUBSISTENCE AND SOCIETY IN PREHISTORY

Since the last few years of the 20th century, new scientific techniques have revolutionized our understanding of prehistoric economies. They enable a sound comprehension of human diet and subsistence in different environments, which is an essential framework for appreciating the rich tapestry of past human cultural variation. This volume first considers the origins of economic approaches in archaeology and the theoretical debates surrounding issues such as ‘environmental determinism’. Using globally diverse examples, Alan K. Outram and Amy Bogaard critically investigate the best way to integrate newer lines of evidence such as ancient genetics, stable isotope analysis, organic residue chemistry and starch and phytolith studies with long-established forms of archaeobotanical and zooarchaeological data. Two case study chapters, on early Neolithic farming in central Europe, and the origins of domestic horses and pastoralism in central Asia, illustrate the benefit of a multi-proxy approach and how economic considerations feed into broader social and cultural questions.

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Archaeology

Alan K. Outram , Amy Bogaard

Frontmatter

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# Subsistence and Society in Prehistory

New Directions in Economic Archaeology

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*In loving memory of Helen Outram*

*and*

*for Mike*

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## Preface

The ‘palaeoeconomy’ school of thought developed in Cambridge after the Second World War under the influence of Graham Clark and Eric Higgs. Whether meant as a term of endearment or disparagement, those who were taught by Higgs became known by some as ‘Higglets’. Both of us, therefore, can be regarded as second generation Higglets. We were educated in this field during the 1990s, when many of the newer techniques discussed in this book were still in their infancy, largely by tutors who came out of the Cambridge palaeoeconomy stable. Both of us are products of the same year group who studied for an MSc in environmental archaeology and palaeoeconomy at Sheffield and whilst Amy stayed in Sheffield to undertake a PhD under Glynis Jones specializing in archaeobotany, Alan returned to Durham to do a zooarchaeology PhD supervised by Peter Rowley-Conwy, another Higglet. Since then we have worked extensively with a range of scientists specialized in residue chemistry, stable isotope analysis, genetics, plant ecology and a range of new morphometric and microscopic techniques. The time seemed right for us to recombine our efforts to produce a second generation Higglets’ eye view of the field.

The 1990s was an interesting time to be studying environmental and economic approaches as such work was under attack from proponents of post-processual archaeology who rejected much of our type of work as ‘determinist’. However, simultaneously, very powerful new scientific techniques for investigating diet and economy were coming into play within archaeological research, but often based in hard science departments or undertaken by people trained in chemistry or genetics rather than archaeology. The palaeoeconomy school, and processual archaeology in general, had developed a considerable theoretical framework, including Binfordian middle range theory, but was under attack from post-processualists whilst much of the new science was being undertaken outside any such framework.

None of this prevented much excellent work being undertaken, but what this book attempts to do is to address the post-processual criticism, take the best theoretical aspects of palaeoeconomy forward and integrate some of the key techniques that have become available since the school of thought was originally developed. A key aim of the book is to assess critically the inferences that can be made from these newer lines of evidence and how they differ and complement older techniques. In general we find that no single approach really replaces another, and none are ‘silver bullets’. Multi-proxy approaches within a sound theoretical framework seem the best way forward. We have also attempted a little future-scoping for the key up-and-coming techniques and some of the challenges facing archaeology as it tries to keep pace with the financial and technical requirements of such science.

We would firstly like to thank all the people who taught us and inspired our approach to researching prehistoric subsistence and society in prehistory, including Paul Buckland, Mike Charles, Kevin Edwards, Paul Halstead, Glynis Jones, Peter Rowley-Conwy and Marek Zvelebil. We are also most grateful to our key research collaborators from whom we have learnt much about a wide range of techniques over the years. In this regard, special thanks go from both of us to Richard Evershed, but also to Robin Bendrey, Ian Bull, Lucy Cramp, Roz Gillis, Anthony Harding, John Hodgson, Martin Jones, Landon Karr, Christopher Knüsel, Sandra Olsen, Ludovic Orlando, Mélanie Roffet-Salque, Amy Styring, Adrian Timpson, Mark Thomas and Eske Willerslev. All of our colleagues and students, past and present, deserve our gratitude, but within this field of research particular thanks go to Robin Dennell, Laura Evis, José Iriarte, Emily Johnson, Greger Larson, Julia Lee-Thorp, Catriona McKenzie, Pip Parmenter, Alex Pryor, Rick Schulting and Naomi Sykes. We are indebted to both Paul Halstead and Richard Evershed for their valuable comments on an earlier version of this book.

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