

1. Integrating social and environmental archaeologies

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Introduction

This volume developed from a session on the role that environmental archaeology can play in integrated investigations of 'ritual' deposits, at the Association of Environmental Archaeologists (AEA) conference in Exeter, 2006. The session drew together a wide range of speakers, all of whom had a particular take or example of the use of environmental evidence in the study of 'ritual'; with examples ranging from deposits in Iron Age Ireland to the activities that occurred on Bronze Age middens. Of the thirteen papers presented eight have been adapted and revised for publication in this volume.

Erecting barriers

Environmental archaeology has the potential to inform on a broad range of issues such as cuisine; diet; trade; ritual acts; the use of space; production and supply; status; acculturation; the development of technology and the structuring of societies, to name but a few. However, too often fellow archaeologists' views of the extent of environmental studies can be summarised in two questions; 'what was the diet?' and 'what was the local environment like?' Although practitioners of environmental archaeology may bemoan such narrow viewpoints, we are hardly blameless in allowing such opinions to continue, for we have in the past not been particularly active in advertising the range of information we can produce.

In the investigation of aspects such as 'ritual' behaviour such attitudes appear to be prevalent. Although much of the evidence discussed may be environmental in nature, it is telling that the specialist is rarely asked to comment on such deposits, beyond the identification of the material. A classic example is the recent Danebury environs project (Cunliffe 2000), within which many 'special animal deposits' were recovered. As these deposits were thought to be of a ritual significance in the reports they were discussed separately from the rest of the faunal material and it is perhaps telling that they were reported on by different authors. Of course there is no right or wrong way for such material to be reported upon, but it is interesting that environmental archaeologists are often not involved in the formation of broader interpretations of their data.

One of the reasons for this may well be the association of environmental archaeology with particular archaeological paradigms. The development of environmental archaeology into the widely practised discipline as it is today can be linked back to the scientific revolution in archaeology and the rise in processualism during the

1960's and 70's. The attitude to environmental remains can be seen in the first version of *Science in Archaeology* (Brothwell and Higgs 1963). In Reed's (1963) discussion of Osteo-Archaeology, the section on interpretation is separated into statistics; environment; census problems; domestication and hunting, butchery and food. Likewise Western's (1963) discussion of wood and charcoal concerns the evidence of past environments and the making of structures, tools and domestic equipment. The interpretation of environmental remains in both papers concerns functional economic aspects of human behaviour, whereas social issues are not addressed.

Environmental archaeology was greatly influenced by the emergence of the 'Palaeoeconomy' School at Cambridge under the leadership of Grahame Clark and Eric Higgs in the 1960's (Milner and Fuller 1999). The research conducted highlighted the contribution environmental studies could make to the procurement and consumption of food, as well as the growing field of taphonomic studies. With this, the wider archaeological community began to realise the value of environmental remains in the study of subsistence economies. However, regarding 'ritual' the 'palaeoeconomic' school took a hard line in stating that 'the soul leaves no skeleton' (Higgs and Jarman 1975). This corresponds to the general trend that archaeologists of the 1960's and 1970's were reluctant to investigate the role of ritual and religion (Renfrew 1994).

As archaeology began a period of philosophical change with the development of post-processual approaches in the 1980's, it could be argued that environmental archaeology lagged behind (see for example O'Conner 1991; Thomas 1990). The interpretation of Iron Age associated bone groups (see Morris, Chapter 3) highlights the divide that was occurring. In the 1980's new interpretations were being offered for these animal bone deposits, suggesting they were of a special ritual nature, possible representing sacrifices or acts of offering (Grant 1984; 1989; Méniel 1992; Wait 1985). Cunliffe (1992) developed these ideas to suggest that other environmental materials may also have been used in this manner. However, not all environmental specialists agreed. The animal remains section in the 1991 Danebury publication is very revealing, Grant (1991, 482) comments;

'There is also, it must be added, an undercurrent of scepticism about these animal deposits, and some have argued, privately and publicly, though not necessarily in the press, that they represent nothing more than natural deaths of animals that died in circumstances that render them unfit for human consumption.'

Later Hill (1995; 1996) suggested that there is a divide that appears to eliminate the ability of any archaeological

evidence to illuminate the real world as soon as it is labelled ritual.

'It is perhaps because they feel any bone labelled 'ritual' cannot be used to reconstruct diet, herd management and other practical matters of the economy' (Hill 1996, 23).

It appears that at the time environmental studies had become separated from the wider field of archaeology, which is neither necessary nor helpful (O'Connor 1998). Milner and Fuller (1999), in discussing zooarchaeology, suggest that such specialists are often perceived to focus on methodological issues such as taphonomy, bone densities, fracture patterns, whereas the tendency of non-specialists was to see these matters as trivial. Also environmental archaeology is invariably linked to environmental determinism, which became an unpopular theory as it implies that cultural development is not determined by social, but in some part by environmental factors (O'Connor and Evans 2005, 7).

Knocking down the wall

In some part environmental archaeology may still be viewed as a separate 'processual' field by members of the archaeological community. They are perceived to be solely interested in issues such as climate; habitat; land use; agriculture; diet; food production and processing; living conditions; buildings; disease; economy; and especially taphonomy. Indeed some environmental specialists may secretly, or not so secretly in some cases, enjoy being given such a tag and flying in the face of alternative archaeological paradigms. All too often specialists in environmental and in some cases other forms of material culture, are viewed as fetishists, interested only in the material they study. Environmental archaeologists are not often perceived to be greatly interested in issues such as the social use of space; cognition; ritual; cuisine; and theoretical archaeology in general. However, it must be remembered that as archaeologists we all have the same goal, of exploring humanity's past. Perhaps the structure of modern archaeology does not help in this manner. Individuals are too often placed into specialist categories such as archaeobotanist, zooarchaeologist or geoarchaeologist, either due to the structure of commercial/government-funded archaeology, or for the purposes of academic teaching and research. It is through such separation of specialists and lack of communication on all sides that misconceptions are created and maintained.

What is therefore needed is better communication and understanding between the separate fields of archaeology. Environmental archaeologists will always have a concern with methodological issues as it is through our data that we study the past. But we must also ensure that we show the rest of the archaeological community just what we can do with such data.

Many recent studies are now starting to bridge the perceived gap between environmental and post-processual archaeologies. A great example was John Evans (2003) last book 'Environmental Archaeology and Social Order'. This argues that the environment is a means by which social relations can be explored, and combines environmental archaeology with concepts such as agency and phenomenology. Marciniak (2005) in his study of the faunal remains from Neolithic Central European communities focuses on the social context of animal use by recognising that animals were maintained and consumed in ways associated with their social relationships. Other environmental archaeologists are also starting to move away from purely economic interpretations and refocusing to look at the social meanings (Albarella 2001a; Fuller 2005; Morris 2005; O Day *et al.* 2004; Sykes 2007; Thomas 2007; van der Veen and Jones 2006).

By emphasizing the social we are not arguing that the economic should be ignored rather that the social should also be included in our considerations. However, this should not be undertaken simply as a means of reconnecting with some other members of the archaeological community because it is in vogue. Rather, social aspects should be considered because it enables us all to further explore past human actions.

Integrating social and environmental archaeologies

It is hoped that the papers presented in this volume add to those already published in showing the virtues of considering the social in environmental archaeologies.

The papers are arranged in a broadly thematic order. The first three (Crabtree *et al.*, Morris, Maltby) deal with the examination of faunal remains from differing archaeological sites. The second chapter (Crabtree *et al.*) considers the interpretation of zooarchaeological data from the royal site in Co. Kildare, Ireland. It shows how the combination of faunal and archaeological data can help interpret the possible social actions which took place on the site. The third chapter (Morris) discusses the nature of a particular faunal deposit, associated bone groups, from two regions of England. It shows that such deposits were found throughout a number of archaeological periods and questions how we go about interpreting such faunal material. The fourth chapter (Maltby) also deals with associated bone groups, but this time from particular archaeological features, wells and shafts. It demonstrates how a greater involvement of environmental archaeologists can aid in the interpretation of such features and deposits.

Currently, one of the common calls for action, within environmental archaeology is for more integration, both between different specialists and the archaeological community as a whole (for example (Albarella 2001b;

Maltby 2006; Stallibrass and Thomas 2008). The next three papers are good examples of integrating information from both human and animal remains. The fifth chapter (Bendrey *et al*) discusses both the human and animal remains from a single deposit at Blewburton Hill, Oxfordshire, England. It shows not only the advantage of an integrated approach between different specialists, but also that such work can enhance our interpretations of deposits. Finally the paper also draws our attention to the potential of re-examining material from older excavations. The sixth and seventh chapters (Russell and Madgwick) both compare the evidence available from both human and animal remains for Iron Age deposits from southern England. As well as showing the advantages of integrated approaches to human and animal remains, both papers show how detailed statistical analysis can be utilised to consider broader social questions. Both papers can also be considered examples of the advantages offered when individuals have been trained in the study of both human and animal remains.

The final two papers (Randall and Waddington) draw together a wide range of not only environmental but all possible archaeological data to develop a picture of social actions. Chapter eight (Randall) examines the remains from the middle to late Iron Age site of Sigwells, Somerset, England. Although based mainly on the animal remains the paper draws in strands of evidence from other material types including the pottery, metalwork and human remains. This combined evidence is used to discuss the possible individuality of pit deposits and the need to develop more robust contextual analysis. The ninth chapter (Waddington) draws on a combination of environmental and other data to discuss the possible social actions taking place in the formation of extensive middens at the late Bronze Age sites of East Chisenbury and All Cannings Cross, Wiltshire, England. The paper demonstrates how environmental data and social theory can be combined to investigate human experience and actions.

The study of faunal remains does feature strongly in this volume, although a number of other material types are integrated into the analysis of many of the papers. The bias towards zooarchaeology is possibly due to the types of deposits currently being studied and utilised to explore social aspects of environmental remains. In particular a number of the papers concentrate on 'animal burials' referred to as associated bone groups. However social theory is not just being utilised to examine the 'unusual' faunal deposits as a number of the papers show (Crabtree *et al*, Russell, Madgwick, Waddington). It is hoped that the papers presented here show that the barriers discussed above do not need to be present, and we can move towards a truly social environmental archaeology.

Acknowledgments

In the preparation of this volume there are a number of individuals whom we would like to thank. Firstly we are grateful to Alan Outram for organising the AEA conference at Exeter, at which papers for this volume originated, and to all the participants and audience of the session for the stimulating debate. We would like to thank the contributors for their patience in the preparation of this volume and the reviewers for their comments. Finally, special thanks are due to Justine Biddle for all her hard work in helping to prepare this volume for publication.

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Prospects and pitfalls in integrating volcanology and archaeology: A review. *Journal of Volcanology and Geothermal Research*, Vol. 401, Issue. , p. 106977. CrossRef. Google Scholar. Environmental thresholds on the one hand and the externality of the drivers of transformation in human groups and societies on the other; (3) adapting the concepts of the social production of vulnerability and the social basis of hazards from anthropology may help to clarify the available research design choices at hand. The social causes of a "subculture of coping" in the late medieval covers and belt, *Journal for the history of environment and society*, 1, 1-35. Dilthey, W., 2008/1883: *Introduction to the human sciences. An attempt to lay a foundation for the study of society and history*, Detroit.

Environmental archaeology is a sub-field of archaeology which emerged in 1970s and is the science of reconstructing the relationships between past societies and the environments they lived in. The field represents an archaeological-palaeoecological approach to studying the palaeoenvironment through the methods of human palaeoecology. Reconstructing past environments and past peoples' relationships and interactions with the landscapes they inhabited provides archaeologists with insights into the origin

An Introduction to Social and Cultural Anthropology. Second edition. T. 1. Introduction: Comparison and Context 2. A Brief History of Anthropology 3. Fieldwork and its Interpretation 4. The Social Person 5. Local Organisation 6. Person and Society 7. Kinship as Descent 8. Marriage and Alliance 9. Gender and Age 10. Social Hierarchies 11. Politics and Power 12. Culture thus appeared as integrated, shared in the group and sharply bounded. Soviet Archaeology looked at the social aspects of the past, typically from a communistic model. This challenged the individualistic and class-based nature of the earlier model. It was (understandably) popular in the Soviet nations of the early 20th century and it made its own contribution to later theories. Environmental Archaeology. This is a broad subdiscipline that examines human interaction with the natural world (24). It's divided into three broad areas. But it also looks at social attitudes towards class, race and sexuality. It is at the forefront of critiquing older models of looking at ancient cultures through a modern lens as a comparison to current models. This is the kind of bias against which post-processual archaeology stands. The Environmental and Social Framework comprises: 1. Introduction and Vision. These provide an overview of the Bank, the Environmental and Social Framework's structure and objectives and the aspirations of the Bank concerning: (a) environmental and social sustainability; and (b) its role in meeting the challenge of sustainable development in Asia. 2. Environmental and Social Policy (ESP). For the principles of environmental and social sustainability to be effectively integrated into policies and Projects, the Bank believes that they should become part of routine decision-making processes and that environmental and social risks and impacts should receive full consideration in the identification, preparation, implementation and evaluation of all Projects.