

Stace, C. (1991). *New flora of the British Isles*. Cambridge: University Press.

Summary: A sample from a Roman pit (dated AD 250-300) at Causeway Lane, Leicester produced over 6,000 charred seeds, including a high proportion of grasses with hay meadow plants, and was interpreted as mainly burnt fodder mixed with domestic and possibly garden rubbish.

CONFERENCE REPORT

Report on the 8th Meeting of the Fish Remains Working Group of ICAZ, held at Cantoblanco, Madrid, October 3rd-6th 1995

With 67 participants from 27 countries pre-registered, and more coming to some of the papers, this conference was the largest meeting of the fish bone working group to date, indicating the growing popularity of the subject in the sixteen years since the then small group was founded. The meeting was expertly organised by Professor Arturo Morales Muñoz and Dr Eufrosina Roselló Izquierdo, aided by a legion of students, and was held in the modern archaeozoological research area of the Biology Department of the Universidad Autónoma de Madrid, situated several miles out of the city. Over thirty papers and about a dozen posters were presented, dealing with a range of fishy topics some but not all directly relating to the conference theme of fishing and overfishing in the past. Despite the numbers of papers, a selection of social events was also scheduled including a sightseeing trip around Madrid (without too much fish), a chance to look around the Natural History and Archaeological Museums (some fish), and tour of the extensive departmental facilities and archaeozoological reference collections (lots of fish). For those staying on (sadly not this delegate), a coach trip around the Bay of Cadiz ensured a companionable—if very hot—end to the conference.

The conference sessions were themed as far as possible, with a day and a half devoted to papers of direct relevance to the conference theme of overfishing in the past. Sophia Perdikaris confronted the problem of recognizing 'commercial' fisheries from collections of fish bones, based on a Norwegian example but of considerable interest to archaeo-ichthyologists working in

other regions, including Northern Scotland. By combining written and archaeological evidence for freshwater fish consumption with that for environmental stress and river pollution Richard Hoffmann addressed the key question of human impact on freshwater ecosystems, concluding that by medieval times over much of Europe freshwater water bodies had become greatly depleted in fish stocks, and that pollution had particularly reduced the populations of species preferring clean, fast flowing water, including the anadromous Salmonidae, shads (*Alosa*), eel (*Anguilla*) and sturgeon (*Acipenser*). Lembi Lõugas discussed fishing in Estonia during the Stone Age, while Norbert Benecke described fish remains from some Neolithic sites in East Germany. Oliver le-Gall gave a comprehensive synthesis of the evidence for fishing from the Palaeolithic to the Neolithic in western Europe which left at least this delegate wishing she had spent longer studying French at school! Foss Leach and Atholl Andersen gave characteristically robust syntheses of Maori fishing technologies and catches. Arguing for the former, Atholl addressed the question of whether single-species fishing was a deliberate strategy, pursued by technological innovation or a product of fish behaviour. Foss proved that detecting overfishing in prehistory is no easy task and demonstrated the political implications of working as an archaeo-ichthyologist in New Zealand. Turning to South America, Amelia Sánchez-Mosquera described the culmination of several years work examining fish bones representative of coastal and later offshore fishing, from multi-period coastal sites in Manabi, Ecuador. The sightseeing trip and museums followed a hearty, fishy and lengthy Spanish lunch; miraculously no one fell asleep on the bus or failed to find their way back by public transport—a credit to Arturo's detailed instructions!

Illustrations of herring *Clupea harengus* preparation in Denmark greeted conference participants after breakfast on day 2: Inge Bødker Enghoff demonstrated the continuity of tradition from Medieval times to the present day. The impact of Romanisation on fishing in the Mediterranean was discussed by Miriam Sternberg, while light was shed by Omri Lemau on the range of fish sauces available to the Romans. Wim van Neer discussed the investigation of age and season of capture by otolith growth band analysis, using a collection of plaice believed to have originated from a single catch. This paper provoked considerable discussion and the value of the technique was

disputed by some members. A selection of papers crudely grouped under the heading 'taphonomy' came after coffee, in which we were shown illustrations of fish being prepared in Panama (Richard Cooke and Irit Zohar) followed by a discussion of fish decomposition based on experiments conducted in a range of different soils in Britain (Rebecca Nicholson). Suzanne Needs-Howarth discussed fish bone discard patterns at a Iroquoian site in Canada. Then a session on osteology and osteometry, subjects which have dominated meetings in previous years. Jean Desse lamented the under-use of fish-bone biometry, and presented a new model for estimating fish size and weight. Jean and Nathalie Desse-Berset also presented new techniques for identifying species within the 'groupers', and László Bartosiewicz presented an integrated approach to the study of pike (*Esox lucius*). Another lengthy lunch, followed by a session on physico-chemical and numerical methods which included papers on extracting and identifying DNA from ancient fish bones (Susan Crockford) and looking at Ba/Sr ratios in fish bone from South Africa as an indicator of changes in the exploited water habitats (Cedric Poggenpoel).

Two papers examined quantification: firstly comparing sample size and relative abundance of fish taxa (Heidemarie Hüster-Plogmann) and secondly tackling the thorny problem of how to quantifying fish remains in order to establish a realistic estimate of relative frequency, based on the Global Rachidian Profil developed by Jean Desse (Carmen Rodríguez Santana). The final session of the day comprised papers based on historical studies, with contributions by Jenny Coy who compared evidence from Port Books with archaeological evidence from Southampton, and Dirk Heinrich who explored fish in myths and legends; Wim van Neer and Anton Ervynck presented the results of comprehensive archaeo-ichthyological research into fish consumption at a Benedictine abbey in Flanders, looking both at fish consumption through time and in different parts of the abbey. Juan Zozaya Stahbel-Hansen presented abundant illustrations of fish in ceramic art, while Angelika Lampen summarised documentary and archaeological evidence for medieval fish weirs.

Regional studies dominated the third day of papers. The richness and diversity of animal, including fish, remains from the Templo Mayor, Mexico (Ana Guzmán and Oscar Polaco), with their exceptional preservation,

caused envy among many of us working in temperate European areas and offered an opportunity to explore unequivocally 'ritual' deposition. Judith Powell presented the results from several seasons excavation of Mesolithic and Neolithic material from the cave of Cyclope, on the island of Yora in the north Aegean, while Daniel Makowiecki described fish remains from sites in Poland. The final paper session included a contribution by Manuel Pellicer CATALAN and Carmen Rodríguez Santana describing the analysis of fish remains from Cueva de Nerja (Malaga, Spain) which illustrated the transition from hunter-gatherer economy to a specialist fishing community based on evidence from the Palaeolithic through to the Neolithic. An Lentacker described faunal remains from two Roman sites in Egypt, while Mark Rose summarised his research into fishing at Minoan Pseira, Crete. It was perhaps just as well that Anna Cardell's paper on fishing in medieval Sweden reminded us that not everyone else works in warm, sunny climates.

A poster session ended the formal part of the conference, with posters on: fishing at Franchthi Cave, Greece (Mark Rose); fish sauces from Italy and fish remains from a Roman ship (Barbara Wilkens); fishing in Ecuador during the Guangala period (Amelia Sánchez-Mosquera); identifying a hake-based medieval fishing industry at Launceston Castle, Cornwall, England (Pippa Smith); lake sturgeon bones from prehistoric Iroquoian sites, Canada (Suzanne Needs-Howarth); and using the internet as a tool for archaeo-ichthyology (Mark Beech).

The final afternoon was devoted to touring the extensive research area of Arturo's department, and enviously admiring the comparative collections and animal preparation building and facilities ('anyone want a mummified bird?').

A splendid, well-organised meeting in very beautiful city, it well lived up to the now very high expectations of the regular participants. The only real criticism which could be made was that the time allowed for each paper was by necessity rather short; a consequence of the enthusiasm and expansion of the group. Nevertheless, everything was miraculously fitted in, even allowing for the traditional long lunch which took place a few miles away from the lecture theatre. Arturo, Eufrosia and their support team ferried everyone between conference, lunch, and hotel on a daily basis and sorted out the inevitable stream of

questions and problems. They deserve enormous thanks for all their hard work. The proceedings of this meeting will be published in the journal *Archaeofauna*.

Rebecca A. Nicholson, *Department of Archaeological Sciences, University of Bradford, Bradford BD7 1DP, U.K.*

BOOK REVIEWS

Cox, M., Straker, V. and Taylor, D. (eds.) (1996). *Wetlands : Archaeology and Nature Conservation*. London: Published by HMSO Books for English Heritage and English Nature. ISBN 0 11 300004 9. Paperback, 284 pages, with numerous tables, maps, colour and black and white photographs. £19.95

This book is the result of a successful conference held in Bristol in April, 1994, which involved 23 speakers and 160 delegates from around the world. Most of the papers that were given at the conference are found in this volume, with the addition of a few new papers. In general, it is a very nicely produced book, well presented and crisp, with clear illustrations and set out somewhat like an undergraduate textbook in the natural sciences.

The book is divided into six sections: perceptions and values, problems, wetland rehabilitation, management and monitoring, integration, and the way forward. Unfortunately, the stimulating keynote address by Francis Pryor was not included as the first paper in the first section of the volume. Instead, its place is taken by Leendert Louwe Kooijmans on the Dutch case for prehistory as a reference for modern nature development, followed by papers on the values of natural and historic wetland environments by Carman and the state of wetlands in northeast India by Mandal.

Louwe Kooijmans' paper suggests that the reconstruction of past palaeoenvironments should be used as a frame of reference for present day nature management and development, rather than the desired habitats of nature conservationists being viewed as 'closer to paradise than prehistory'. How true a comment can you get! John Carman presents an interesting case based on his legal and theoretical perspective. Effectively, the law is mainly concerned with preservation, or storage for the future, not rehabilitation; in this it mirrors

current archaeological and ecological perspectives and their differing objectives. It is essential that differing values of wetlands are mapped to identify areas of common interest as well as differences which need to be addressed. In my view, the tenor of these two papers more or less set the scene for the balance of the conference and this book—potential conflicts because of differing aims of archaeologists and conservationists, and the absence of any real management and legislative framework for dealing with wetland conservation and rehabilitation combined with the preservation of the archaeological record.

The second section of this book addresses some of the problems of dealing with wetland landscapes. As ever, an eloquent Martin Bell sets out the enormous wetland archaeological potential of the Severn Estuary and highlights the conflicting aims of archaeological and natural historical agencies. These need to be reconciled by developing new research strategies. Rippon echoes these themes for the coastal Gwent area, where he feels that legislation is needed to protect landscapes, not just sites. Eversham *et al.* highlight these problems further for the lowland raised-peat mires in the Humberhead Levels, as do Parker Pearson and Sydes for the Sutton Common sites. Nonetheless, many of us as archaeologists have been trying to expand the concept of site to include landscape preservation for some years now through the scheduling programme, but this has singularly failed to win over the powers that be. Moreover there is no planning control that applies to wetland rehabilitation; these schemes fall outside the remit of PPG16 (Department of Environment 1990).

In addition, too little is known in terms of hard data, as well as predictive models, for how wetland landscapes respond to changes brought on by development, rehabilitation and altered hydrological status. Too much is based on anecdotal accounts. Hopefully the new hydrological monitoring projects, for example those currently being funded by English Heritage in the Cambridgeshire and Lincolnshire fens, York and London, will begin to provide the requisite base-line reference data. It should then be possible to build models and give reliable predictions (along the lines of Brown and Bradley's paper in Section IV of this book) as to the effects of drainage, development or conservation schemes in different types of wetland environment.

The wetland rehabilitation section contained a series of three papers on various aspects of the

preservation of peat by Brown, Johnson and Cox. There is little doubt that many excellent schemes for peatland rehabilitation have been undertaken by nature conservationists in recent years. The main problem from an archaeological point of view is that there is no evident view taken as to the possible effects on the archaeological record of re-wetting sites that have already begun to dry out and/or are severely oxidized already. PPG16 is not applied to conservation schemes, so archaeological evaluations of these diminishing peatland areas are not necessarily carried out prior to raising water levels, nor is there provision made for monitoring the effects on the archaeological record. Surely, this is something that could be easily addressed by collaboration between the conservationist bodies and county archaeo-logical development control officers.

Aptly following on from this is the next section on management and monitoring with seven papers ranging from Australia to Sutherland. Central to this section was Bryony Coles' paper setting out the current position on the threats to wetland archaeology and how archaeologists may learn from the conservationists. This paper is effectively a brief summary of her recent book (Coles 1995). She points out that archaeological surveys of wetlands can enable a better understanding of relationships between people and wetlands, and how evidence survives. Coles notes that the most successful attempts at preservation occurred as joint ventures with nature conservation bodies in wetlands occurs where there was very little disturbance and conditions remained optimal for the survival of buried evidence, such as at the Corlea I trackway in Ireland. It is essential that conservationists take more archaeological advice, and that monitoring schemes are instigated as an integral part of any wetland rehabilitation schemes. Again more hydro-logical work such as that undertaken by Brown and Bradley in the Nene valley in North-amptonshire is what is required and crucial to the design of the rehabilitation scheme.

The last two sections on working towards integration and the way forward follow logically and are essentially related to each other and the previous section in scope. What has to be worked towards is the integration of the best practices by both archaeologists and nature conservation specialists, and this will be a long term process. I found Tidy's paper on the voluntary creation of Environmentally Sensitive Areas by MAFF to be an interesting concept which could well be applied to any archaeological landscape and adopted by the planning authorities. Its guiding principles are the maintenance of permanent

grassland, the enhancement of the ecological interests of grassland, and further enhancement of grassland by the creation of wet winter and spring grassland by raising water levels, all in areas where farming practices pose a threat to the existing environment. Although this scheme is voluntary, and only runs for five year periods, all three criteria would equally apply to many archaeological sites and landscapes. Entering into agreements with farmers to change land-use to grass and raise water levels over several years would help to protect both the archaeological record, enhance the ecological status of the land, and allow sufficient time for preservation and monitoring strategies to be worked out, implemented and acted upon.

Patrick Denny gives a lively and informative finish to the conference, just as his paper serves to end this volume. He recognizes that we need to know a lot more about microbiological activity in different wetland environments, the parameters of preservation in different wetland contexts, and the effects of water quality on preservation, whilst at the same time maintaining biological diversity and managing continuing exploitation. Denny advocates the need to set out a national wetland strategy, with a clear lead from a national government agency, with archaeologists, palaeobotanists and nature conservationists all as key players. I can see the groan going up from my colleagues—not another committee producing a quasi-management/planning document, but this may be the only way to mesh together the differing needs for wetland preservation and conservation, and with backing in planning law to make the policy effective and enforceable.

What has struck me throughout both the conference and this book is that the archaeological fraternity needs to dispel some myths as regards its professional approach to dealing with wetlands and the various conservation bodies. First of all, the conservation bodies have the distinct impression that archaeologists do not know what is actually present in wetlands. This is simply not the case: a vast amount is known and published. Even though there are still many unknowns in the archaeological record of wetlands, we as a profession have more than enough knowledge to make a case for what can be expected within various wetland areas. Obviously the archaeological profession is not making its experience and expertise readily available to those bodies which need our guidance in formulating wetland management schemes. Second, it would appear that the archaeologists giving advice to the various conservation bodies

do not all have sufficient and relevant experience to be able to contribute the most useful and valuable information. Moreover, the conservation bodies seemed largely unaware of the large numbers of projects being commissioned by English Heritage and others to evaluate and monitor the archaeological record in wetland contexts. We, as archaeologists, must make a much better attempt to make our natural allies in the various conservation bodies much more aware of our work and its implications in the world of wetland conservation.

On the other hand, the nature conservation interests should educate the archaeological profession in the applicable conservation legislation as well as conservation field techniques. It is apparent that some of the most successful conservation schemes are those where the least is currently known about the archaeology. This glaringly suggests that there must be much more co-ordination between national and regional agencies for nature conservation and archaeology for mutual benefit. Collectively this would give us all much more influence and on a greater scale.

As ever, it would appear that the key strengths of both the conference and the book were that the relevant minds of the various bodies concerned need to be forcibly brought together on a regular basis in order to thrash out common approaches to a vast problem: how to preserve and conserve wetland habitats and resources for the future given all the possible working constraints imaginable. I am sure that the publication of this book will stimulate mutual co-ordination, collaboration and communication, so that further destruction of wetland landscapes can be prevented, and perhaps even reversed in some areas.

References

Coles, B. (1995). *Wetland Management: A Survey for English Heritage*. WARP Occasional Paper 9.

Department of the Environment (1990). *Planning Policy Guidance note 16*. London: DoE.

C. A. I. French, *Department of Archaeology, University of Cambridge, Downing Street, Cambridge CB2 3DZ, U.K.*

Cohen, A. and Serjeantson, D. (1996). *A manual for the identification of bird bones from archaeological sites*. Revised edition. Archetype Publications Ltd. London. ISBN 1873132 905. 115 pp., figures. £19.00 (paperback).

The need to identify animal bones in the absence of reference collections is all the more pressing when one is confronted to taxonomically diversified groups whose osteological features are not thoroughly known. In response to it, a rather extensive literature of a mainly palaeontological and archaeo-zoological nature has grown throughout the years. The aim of most such works, as Alan Cohen and Dale Serjeantson very aptly stress in their introduction, is to allow the faunal analyst arrive at *preliminary* identifications of remains, something which not everybody seems to keep in mind.

If only for that previously stated need, Cohen and Serjeantson's revised version of their 1986 handbook should be, once again, greeted as a brave attempt to ease the task of bird bone identification for fieldworkers in general. Despite its scope being restricted to British birds from post-glacial times, it seems evident that the book aims at filling a deeply felt gap in a larger, pan-European, context.

My traditional scepticism on these works (e.g. Morales 1993) forces me to take a somewhat critical stance when addressing the contents of the manual. By doing this, I would not like to convey as much the impression of a negative attitude towards this book as towards 'bone atlases' in general and also want to make explicit some of the reasons for my concern (warnings which people have probably heard already a thousand times if not actually more!).

My first comment on Cohen and Serjeantson's book concerns the target taxa selected. It seems to me that, since the potential number of bird species in an archaeological site is far larger than that of mammals and that, osteologically speaking, closely related species are very similar to each other, that the family (i.e. a representative species which could be taken to exemplify the main diagnostic features of a whole family) would have been a much better choice than the species in this case. By targeting families, several important feats could have been simultaneously accomplished:

- (a) Greater operativity. A restriction of osteomorphological diversity to a more manageable number of cases would have probably benefited the users (confronted by some 33 species). Targeting families would

have allowed the authors to add a series of morphologically diagnostic and archaeozoologically relevant groups (i.e. divers, grebes, woodpeckers, barn owl, etc.) while keeping the number of cases around 20 (still quite a lot!).

(b) Better highlighting of diagnostic features. Since families of birds represent, to a far larger extent than is the case for other classes of vertebrates, ecomorphological groupings, their correspondence with specific osteological features should be rather high and would allow the user to much better detect particular morphotypes within each bone category (Feduccia 1980).

(c) Larger scope of application. Since the chorologies of most bird families greatly surpass those of their constituent species, by targeting families one would have accomplished a far larger chrono-geographical range than that of either the British Isles or post-glacial times (as I assume has been one of the authors' goals from the start).

(d) Minimisation of 'duplicate' information. Although certain ecomorphological groups of birds occur below family level (i.e. surface vs diving ducks), even if these had been incorporated into the manual, far less redundancy would have resulted than by using several species of the same family (and, consequently, almost identical morphologies). Redundancy is misleading and page-consuming!

Two other issues merit further consideration. Thus, for one thing, the inclusion of families would have really kept identifications at that 'preliminary level' which Cohen and Serjeantson sought. When species are included, however (and this is something to be blamed on the users) people might feel tempted, after detecting a 'close enough match' between their unknown specimen and a particular illustration, to jump to a definitive identification without further considering whether alternative species not shown in the plates would have actually been a better choice. Such a problem is particularly pressing in species which, like the herring gull, have basically identical osteology to that of many others.

Secondly, had the authors chosen families and later incorporated a selected series of tables with comparative measurements of closely related species, using the guide would have duplicated,

to a certain extent, the steps which the faunal analyst follows in the lab (i.e. first identify morphotype, then look for specific features within it). Drawing similar morphologies with different sizes, as Cohen and Serjeantson have done, is not only more cumbersome but might also be misleading if one is confronted with intermediate situations and/or is not able to evaluate to what extent particular size differences can be attributed to intraspecific (i.e. subspecies, chronoclines, dimorphism) or interspecific variation.

The choice of species itself seems open to debate. Thus, the incorporation of species recently introduced into Britain (as is the case of the red-legged partridge whose first recorded attempt at introduction was in 1673 according to Sharrock (1976)) does not follow from the stated need '*... to illustrate at least ... species more commonly found in the archaeological sites*' (p. 5). Actually, it is not very clear to me the criteria used to decide what is 'common'. Thus, although the inclusion of a series of extinct or very rare British birds, like the great auk, crane and white-tailed eagle, seems fully justified on archaeozoological grounds, by the same token, one should have left out species like the kittiwake which the authors explicitly declare to be infrequent in British archaeological sites (p. 5). A second criterion for selecting species (i.e. none smaller than 26 cm) has an operative argument going for it (i.e. '*that all bones could be drawn at 1:1 scale*') but has left out of the atlas some birds of potentially palaeocultural interest such as the house sparrow (Morales *et al.* 1995).

By far my deepest reason for concern has to do with the validity of some of the diagnostic features. One striking thing related to this issue is the dangerously low number of specimens (i.e. normally one per species) which Cohen and Serjeantson seem to have taken into account (see their Table 1). Again, had families been the target taxa, such a typological setup might have worked, for the morphological gaps among groups should always be of a certain 'magnitude'. When working with species, often with a quite similar morphology, on the other hand, intraspecific and interspecific variation will always overlap to some extent, blurring the diagnostic value of certain features. Just to exemplify this with species I am more familiar with, some of the osteological differences between *Perdix perdix* and *Alectoris rufa* (e.g. those given for the femur, p. 63) do not seem to agree with our own, unpublished, data which had been previously recorded by Kraft (1972, 1977, one of the few Munich monographs which,

along with that of Fick, is not included in the bibliography). Now, the question: could those apparent discordances possibly reflect an incipient sub-speciation process on the red-legged partridge in the British Isles? I can perhaps suggest an alternative explanation. Thus, for one thing, the somewhat bent shape of *A. rufa*'s femoral dyaphysis drawn on p. 63 we have occasionally recorded in partridges from Spanish game farms and have tentatively attributed it to a mild pathology resulting from poor keeping conditions (Hernández unpublished data). Since British red-legged partridges continue to be released from gamefarms (Sharrock 1976), the possibility exists that the animal illustrated in Cohen and Serjeantson's book could exhibit some peculiar traits as a result of life in a confined space. This is not to say that all recorded features should be taken with caution. Much to the contrary. The case, nevertheless, exemplifies a danger implicit to all 'bone atlases' and one which might trick unacquainted readers into incorrect identifications, however preliminary. To a certain extent, some of these drawbacks could have been neutralized by adding more text along with some of the arrows or, alternatively, by setting the plates with numbered arrows in one page and a comprehensive text on the opposite page, much in the manner of Peterson's field guides (although, with such an arrangement, close to 100 'extra' pages would have resulted!).

I believe that the sections on measurements and zone recording methods greatly enhance the usefulness of the manual (an appendix with tables of measurements for similar-looking, different-sized, species would only make sense if the target taxon was the family!). Perhaps the zone recording section would have benefited, with little extra effort, had the more frequently retrieved bone portions been shaded, thus offering some taphonomic cues on top of the strictly quantitative data.

Producing an atlas of bird bones is indeed a dreadful task and one prone to suffer a lot of criticism. But, as the Italians say, *la critica è facile ma l'arte è difficile*. I believe that Alan Cohen and Dale Serjeantson have done a truly meritorious job and that they have certainly filled the gap they planned on filling. Their manual is bound to become a 'must' on the personal libraries of practising archaeozoologists, archaeologists, palaeontologists and others interested in such a fascinating subject. I will conclude by only adding that, when the time for a third edition comes, I would be very grateful if Alan and Dale could possibly introduce some changes

along the lines which I have exposed previously.

References

Feduccia, A. (1980). *The age of birds*. Cambridge, Mass.: Harvard University Press.

Fick, O. K. W. (1974). *Vergleichend morphologische Untersuchungen an Einzelknochen europäischer Taubenarten*. München: Institut für Paläoanatomie, Domestikationsforschung und Geschichte der Tiermedizin.

Kraft, E. (1972). *Vergleichend morphologische Untersuchungen an Einzelknochen Nord- und Mitteleuropäischer Kleinerer Hühnervogel*. München: Institut für Paläoanatomie, Domestikationsforschung und Geschichte der Tiermedizin.

Morales, A. (1993). Ornithoarchaeology: the various aspects of the classification of bird remains from archaeological sites. *Archaeofauna* 2, 1-13.

Morales, A., Cerejjo, M. A., Hernández, F. and Liesau, C. (1995). Of mice and sparrows: commensal faunas from the Iberian Iron Age in the Duero Valley (Central Spain). *International Journal of Osteoarchaeology* 5(2), 127-38.

Sharrock, J. T. R. (1976). *The atlas of breeding birds in Britain and Ireland*. Berkhamsted: T. & A. D. Poyser.

Arturo Morales Muñiz, Laboratorio de Arqueozoología, Universidad Autónoma de Madrid, 28049 Madrid, Spain.

Eddison, J. (ed.) (1995). *Romney Marsh. The debatable ground*. Oxford: Oxford University Committee for Archaeology Monograph 41. ISBN 0 947816 41 0. £25. Paperback.

There is an olden saying which describes the world as being divided into Europe, Asia, Africa, America, and Romney Marsh.

Jerrold (1914, 187)

This collection of papers is the second volume to be published under the auspices of the Romney Marsh Research Trust, the first (Eddison and Green 1988) having preceded the second by some seven years. The volume is intended as a statement of work in progress, and comprises

thirteen papers which range widely over the geomorphology, below- and above-ground archaeology, and documented history of this corner of England. It is this diversity which gives the volume both its strengths and weaknesses, leading on the one hand to a refreshing breadth of view, and on the other to a rather disjointed and uneven approach and style.

The region, and some of the major questions of environmental development and settlement, are well introduced by Tooley, whose paper is in itself a concise distillation of the methodological diversity which follows. Tooley also introduces the remainder of the volume, and explains its origins in a conference at the University of Kent in 1992. Perhaps the introduction could have done a little more to set the Marsh in its regional context, and to help readers unfamiliar with the area to orient themselves. A reviewer passingly familiar with the Marsh from a mis-spent youth felt the need for more scene-setting, so others will surely do so, and the passage of years between this volume and the first means that one will hardly be read as an introduction to the other. This is an easy failing with regional studies. A volume editor familiar with the study region may not realise what information the majority of readers will find essential. Similarly, some editorial smoothing and cross-referencing between papers would have been productive, and this point is returned to below.

Gripes about overall structure aside, there is much in the individual papers which commands attention. Andrew Plater's work on the evolution of Denge Marsh and the adjoining shingle banks has already been more concisely reported elsewhere (Plater 1992), though by exhaustively detailing here the results of palaeoenvironmental and mineral magnetic investigations, Plater and Long have produced a paper which both describes the morphology and evolution of their study area and provides an absorbing case study in the integration of a suite of field and laboratory techniques. Elsewhere in the volume there lurk pollen diagrams, but the beasts are in the safe hands of Antony Long and Jim Innes, in their examination of the so-called Midley Sand. By showing that the Midley Church bank of this deposit is of more complex origin than had formerly been supposed, Long and Innes call into question literally the foundations of the Marsh, as the 'Midley Sand' has long been believed to be a single unit underlying much of the Marsh. Martin Wass, on the other hand, settles a long-running difference of opinion by showing that a buried channel

close to the north-western (inland) margin of the Marsh is a meandering tidal creek and not a former northern course of the River Rother, despite the aspirations of documentary historians that this might be the Saxon *Limen*. Wass nicely combines lithostratigraphic and micro-palaeontological evidence, and his discussion of the taphonomy of ostracod instars almost settles the debate on its own. It comes as a pleasant surprise to find that this paper is based on an MSc dissertation.

The most traditional archaeology in the volume is Anne Reeves' account of two years' field-walking. Although the maps of pottery scatters and other find spots give a rather broad-brush view of what below-ground archaeology may exist, it is none the less interesting to see field-walking reported as an investigative methodology in its own right, holding its place beside the magnetic gadgetry and the Calendar of Patent Rolls. It provides, too, one of the few links between papers, as Reeves shows finds of pottery later than the early 15th century to be relatively scarce, and Pearson shows this to be consistent with her model of late medieval depopulation on the Marsh, shown in particular by the lack of surviving open-hall houses in the region. A further connection might have been made with Hope All Saints church, a 12th century foundation in decay by the late 16th century, but Maureen Benell's otherwise useful survey of the surviving ruins and earthworks is more concerned with the construction of the church than with reasons for its desuetude and disintegration. One also wondered whether Wass' conclusions had some implications for the interpretation of field-walking data from the northern part of Romney Marsh proper: knowing that what had been thought to be river was actually saline creek might alter one's view of medieval land-use.

The remaining papers are essentially historical accounts, and may be of less general interest to readers of this journal, though a couple of the papers have curious contemporary resonance. Gross and Butcher examine the response of landlords to the challenge of making a profit off the Marsh during the stormy years of the late 1200s. Particularly telling is their Fig 8.2, which shows the Priory manor at Ebony to have spent virtually nothing on walling (i.e. sea-defence building) until 1287-8, when severe storms drove tidal waters far inland, and Ebony lost nearly half of the manor's sheep. The next year saw a huge amount of money spent on walling: a familiar case of being wise after the event, perhaps. Similarly, Hipkin's entertaining account

of the knock-on effects which the inking and draining of the Marsh had on Rye harbour in the decades around 1600 brings to mind the present-day debate about piecemeal defence works and their detrimental effects on neighbouring stretches of coast, as does the bickering and buck-passing which went on amongst those most directly responsible and involved.

Elsewhere, Dorothy Beck is obliged to provide a glossary of obsolete and dialect terms (would that more historians would be so courteous), and in so doing she may have provided environmental archaeology with a useful term. How often do we need a handy term for a fine-grained sediment deposited by water, regardless (or uncertain) of whether it was deposited by sea, estuary, or river? The people of the Marsh have lived on just such mud for generations: it is called *sleech*.

Taken all in all, this is a very useful and interesting volume, albeit one which is very much a collection of papers rather than a regional synthesis. Romney Marsh is a surprisingly little-known area, archaeological work in the region having lacked the startling finds of the Somerset Levels, or the energetic self-promotion of the Fens. None the less, it is, as Tooley points out, 'a debatable ground between land and sea', where one or other has prevailed, and where base level changes and their topographical, lithostratigraphical, and human ecology correlates can be explored. That aim necessitates a multidisciplinary approach, and the Romney Marsh Research Trust have clearly met that particular challenge. But please, could we have a synthetic regional volume to draw all of this research together one day?

References

- Eddison, J. and Green, C. (eds.) (1988). Romney Marsh: evolution, occupation, reclamation. *Oxford University Committee for Archaeology Monograph 24*.
- Jerrold, W. 1914. *Highways and byways in Kent*. London: Macmillan.
- Plater, A. (1992). The late Holocene evolution of Denge Marsh, southeast England: a stratigraphic, sedimentological and micro-palaeontological approach. *The Holocene 2*, 63-70.
- T. P. O'Connor, Department of Archaeological Sciences, University of Bradford, Bradford BD7 1DP, U.K.
- Filer, Joyce (1995). *Disease*. London: British Museum Press. ISBN 0-7141-0980-0 (paperback), 112 pp., figures. £9.99
- Taylor, John H. (1995). *Unwrapping a mummy. The life, death and Embalming of Horemkenesi*. London: British Museum Press. ISBN 0-7141-0978-9 (paperback), 111 pp., figures. £9.99.

Why should a journal devoted to environmental archaeology give space to reviewing short studies on the evidence for Ancient Egyptian diseases and the unwrapping of a mummy of these early African peoples? Well, for one thing, these topics have a general appeal, and for another thing one could argue that ancient disease is an aspect of palaeoecology and studying a decomposing mummy is a quirky aspect of taphonomy. So it is by this argument that these two excellent little publications by a dynamic 'new' publisher are included here.

Joyce Filer, who is a UCL graduate in Archaeology (including Egyptology and palaeopathology) has a long interest in the health—or lack of it—of the early Egyptians. If the ancient human dead seem far away from palaeoecology, one can only point out that they are dead and the reason for this is always a combination of the environment acting on ever-ageing tissues. For 'environment', one might mean inherited factors, or the intra-uterine environment, or diet during growth, or vitamin/protein/trace element deficiency, or too much sunshine, or smoked food, or of course, parasites of many shapes and sizes.

The arid environments of Egypt and Nubia have been kind to the 'natural' and intentionally 'mummified' bodies of people, cats, cows, alligators and others. Recent human society has not been so kind to such remains, so that many mummies were ransacked for saleable items or powdered for medicines. In the case of the thousands of cats, birds and other mummies found last century, they were at times dug out and exported for fertilizer. No wonder what is left is now valued as a scarce resource, deserving of restudy or further study, with the application of new techniques and lines of investigation never dreamt of last century.

Joyce Filer in her nicely illustrated brief review of Ancient Egyptian diseases provides evidence of the considerable range of diseases. It should be said that diagnosis can be a minefield, with identification as difficult as differentiating beetle species or the backsides

of pupae. This is not because there are thousands of diseases, but because differential diagnosis can be so problematic. But this small book nevertheless demonstrates that one can hope to distinguish an inherited condition such as brittle bone disease (osteogenesis imperfecta) from bone deforming rickets or Paget's disease. And infections such as tuberculosis, leprosy and syphilis may all produce inflammatory changes, but the *pattern* of the changes over the skeleton is quite different.

Mummification is really culturally determined taphonomy with knobs on. For the part of the corpse which remained, once the guts, liver, lungs, heart and brain were dragged out, the soft tissue was stable for millennia. Admittedly, the mummifying procedure got careless in the later dynasties, and only the upper strata of society were so treated. But some of the pharaohs are in excellent condition, although I would still argue that the best preservation is in naturally dried bodies. Moreover, the degree of drying which tissues received in Egypt is by no means ideal, and there is a need for taphonomic studies to investigate the histological quality and variability of mammal remains from warm, wet and cold environments. We certainly need to have more information of this kind if DNA studies are to progress.

John Taylor provides a very good example of the kind of forensic work which can be carried out, in this case on Horemkenesi, an Egyptian priest from eleventh century BC Thebes. Because the body had become unstable in its Bristol resting place, it was carefully unwrapped and investigated in 1981. A battery of techniques were brought in to consider a variety of questions. These included well established lines of enquiry, such as radiography, but there were one or two interesting surprises from my point of view. I was intrigued to note that spores of the genus *Clostridium* had been found on the tongue, although it may not be a pathogenic form. More exciting was the work of Robert Miller and colleagues, who were able to demonstrate a clear antigenic response to *Schistosoma* infection (using skin tissue). The ultimate thrill was that Miller and colleagues were also able to demonstrate by immunological testing that Horemkenesi was suffering from malaria at the time of his death.

It would be excellent if this 'Egyptian Bookshelf' series, so well started by the British Museum, could progress to a consideration of

animals in early Egypt, as well as crop plants and various other aspects of archaeological science.

Don Brothwell, Department of Archaeology, University of York, King's Manor, York YO1 2EP, U.K.

Hayward, P. J. and Ryland, J. S. (eds.) 1995. *Handbook of the marine fauna of North-West Europe* Oxford: University Press. ISBN 0-19-854055-8 (paperback). xi + 800 pp. £29.50.

While the development of comparative collections of land molluscs can be assisted by such reference works as John Evan's (1972) *Land snails in archaeology* and Kerney and Cameron's (1994) reprint of *Land snails of Britain and North-West Europe*, similar works on marine fauna have been more of a problem. Now, praise be to the god of ecology, a new and reconstructed edition of *The marine fauna of North-West Europe* has appeared in paperback. This is a nearly two inches (4.5 cm) thick volume, with 2000 excellent line drawings of molluscs, crabs and many other species of less archaeological relevance, and at an affordable paperback price. The only possible grumble to be levelled at this volume is that heavy use of the 800 pages is likely to result in a disintegration of the book's spine.

There are fourteen chapters with numerous subdivisions, written by twenty marine specialists. Introductory chapters include a brief guide to the animal groups, which could be useful for student beginners. The rest of the chapters provide concise and precise descriptions of some 1500 species. Many with soft bodies are not likely to occur in archaeological deposits other than rarely. In the case of sponges, spicule types are drawn in detail and thus could be of reference value. The crustaceans, including ostracods and barnacles, are well presented and illustrated. The molluscs, which form the substantial Chapter 10, clearly have most reference value to us, and it was a pleasure to see how well illustrated this section is. Fish form the final and perhaps least useful chapter as regards this handbook. References and further reading follow, as well as taxonomic and subject indexes.

References

Evans, J. (1972). *Land snails in archaeology*. London/New York: Seminar Press.

Kerney, M. P. and Cameron, R. A. D. (1994). *Collins field guide to the land snails of Britain and North-West Europe*. London: Harper Collins.

Don Brothwell, *Department of Archaeology, University of York, King's Manor, York YO1 2EP, U.K.*

Valedictory

As this is the last issue of *Circaea* I shall be editing for the AEA, I am indulging myself with a short, written leave-taking.

I've co-edited every issue of this organ now, and I think it's fair to say I've actually word-processed every single word! *Circaea*, of course, grew out of the original *Newsletter* of the AEA, which Harry and I launched in 1979 and passed to other, very capable hands in 1982, so I feel I've more than adequately 'done my stint'.

A lot of it has been fun, especially working with Harry (on every issue) and Terry O'Connor (on a lot of them); a lot of it hasn't. Above all, it's been a very educative experience, and I don't think there's much I can learn now about the trials and tribulations of editing a scientific journal, at least as an amateur. My main regret is that I still only type with a couple of fingers, despite many hundreds of hours at the keyboard knocking *Circaea* into shape.

Looking back over the run of 12 volumes (in order to compile the list of contents appearing in this issue), perhaps the most striking thing is just how much the production style has changed. In the earliest days we produced copy for the printer using *Runoff*, very primitive page-making software package on the University of York's then mainframe. Subsequently, we generated copy on a *Brother* printer linked to a PC in the University's Computing Service, which meant we had to trek across the campus to print our text, fitting in between students printing out their interminable theses, often finding the hardware 'down' when we got there. The biggest revolution came when we were able to produce text with a word-processor on a PC in the lab. (this was a student's own machine—the EAU still hadn't the funds to buy one for its senior staff!) and we sent the files 'down the line' to the central computing facility and produced 'smart' laser-printed copy. This meant we still faced a walk across campus to pick up output every time we printed anything, however.

Another walk, typically to another corner of the campus, was required to do photocopying, as the Unit didn't possess a photocopier, either!

Finally, in the past couple of years, the luxury of being able to process everything on one PC at one desk, with a link to a laser printer, and a photocopier nearby. One is almost sorry to be relinquishing the task, now it has got so (logistically) easy ...

The other thing that's changed is the fun-quotient. The early issues were always tinged by a sense of fun, not least through the *Inside Back Page* contributions from Terry's witty pen. All that's gone, with the inevitable need for *Circaea* to evolve into a serious refereed journal.

Looking through the back issues brought back many memories of amusing and frustrating evenings—like the times we spent squeezing someone's text into a tight space (word processing software didn't run to 'kerning' in the early days, or if it did we hadn't discovered it), or when a file from a 'foreign' PC insisted on jamming the works and had to be copied bit by bit and rebuilt. One particular contribution still brings a smile to my face: Barbara Noddle's account of the AEA's Annual Autumn Conference in Denmark in 1988. I leave those of you who have the issue concerned —6(1)—to work out the line which reduced me to helpless mirth one evening whilst working alone, transcribing Barbara's inimitable and idiosyncratic typescript onto the computer.

What next? Well for *Circaea*, it's metamorphosis into *Environmental Archaeology and Human Palaeoecology* and for me it's a chance to write something of my own rather than converting other people's prose into hard copy (observant readers will have noted that I've never written more than a few small pieces for *Circaea*—certainly never a full paper).

Allan Hall, *Environmental Archaeology Unit, University of York, Heslington, York YO1 5DD, U.K.*