

BOOK REVIEWS

D. Fielding and R. A. Pearson (eds.) (1991). *Donkeys, mules and horses in tropical agricultural development*. Edinburgh: Centre for Tropical Medicine. ISBN 0907146066.

This is the proceedings of a symposium held in Edinburgh in 1990 on tropical veterinary medicine. Although equines are outnumbered by cattle in the tropics, there are some 50 million equines in this zone and they perform nearly all the pack work and passenger transportation.

Most contributions to the symposium were from veterinarians and government agriculturists from South America, Morocco, Asia and Malawi. The few contributions from India came from animal welfare organisations (which seem to fund most of the research carried out on donkeys), and private individuals (some of whom proved to be experts contributing invited papers).

The first part of the symposium proceedings described equine populations and their functions. In general, donkeys outnumber horses and are the least expensive to acquire. They are subjected to uniform ill treatment and malnutrition and, as a result, the average lifespan of an Ethiopian donkey (based on a very large population) is five years, in contrast to the British figure of over 30 years. Breeding is, in consequence, difficult, with foaling at a rate of only 30% females mated productively. Campaigns to improve the design of harness, often inefficient and injurious (although a tolerable donkey collar may be constructed from a bicycle tyre), may depend on the recruitment of women's organisations, as increased use of donkeys is encouraged by several African states in order to reduce women's overwork in agriculture. In Malawi, for example, the donkey was not used prior to government importation of a breeding herd of 500 animals in 1957.

The second part of this symposium publication discusses the nutrition and environmental physiology of donkeys compared with ponies. The traditional hardiness and economy of feeding is not known to depend on any superior digestive powers in the donkey. However, it can manage to work at higher temperatures than the horse, and if the donkey is dehydrated it can recover much more swiftly than does the horse. The donkey is capable of carrying two-thirds of its body weight, and of pulling 200%

(which is much more than a horse). It is estimated that in Ethiopia the donkey supports 2000 drivers who operate for hire, and their families. In Khartoum, Sudan, at one time, such drivers were licensed and their beasts inspected weekly for good nutrition and the absence of harness sores, etc.

The third part of the publication covers campaigns undertaken to improve donkey husbandry and the public image of donkeys. It is likely that the livestock of early Europe were treated just as badly as those of the present day animals in the developing world. Villeins driving monastic pack trains as part of their labour services were not likely to have been particularly considerate. Donkeys today would fare better in Africa if they were treated as food suitable for anything other than lions.

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James Flewitt Mullock (1993). *Art and society in Newport*. Available at Newport Museum Shop, and at W.H. Smith's, Newport, Gwent, U.K. in paperback (limited number) £9.60 (telephone orders accepted) and in limited numbers in paperback at £14.95 plus postage and packing.

The city of Newport, Gwent, S. Wales, underwent extensive development during the second half of the 19th century. Many of these changes have been illustrated by the artist James Flewitt Mullock, amongst them the Chartist insurrection in 1839 and the opening of the Docks in 1840 (it was hoped that Newport would become the port for the West Midlands of England). Celebrations of recent Newport centenaries include the openings in 1892 of the Museum and Art Gallery and, at about the same time, that of the Mechanics Institute. A prime mover in the establishment of the latter was Mullock. As a suitable commemoration, the Museum has mounted an exhibition of his works and this publication is a catalogue for the exhibition, together with a substantial essay on the life of the artist and his family and their close connection with the cultural life of Newport.

Mullock was the son of a farmer and a friend of Sir Charles Morgan of Tredegar House, who organised a prestigious livestock show annually. Besides a generous cash prize and

sometimes a silver cup, the winning animal was painted by Mullock and it is these portraits, all of which are reproduced in this book, which are of interest to the Rare Breeds Survival Trust, who are included in the acknowledgements to the catalogue.

Mullock clearly enjoyed painting animals and many of his pictures include horse and hound, or the family dog. The most interesting picture from an historical point of view is that of a ploughing match in 1845. A newspaper account of this event is included which describes the worthiness of the ploughmen and their advocacy of a local make of plough. The propulsive parts of the teams are merely described as 'nags', which are far from the magnificent feathered giants of the classical ploughing scene. The animals were, in fact, ponies of about 14 hands, looking more like hackney ponies than any other modern breed—emphasising the late arrival of the heavy horse, even in this prosperous area of South Wales.

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Van de Noort, R. and Davies, P. (ed. Ellis, S.) (1993). *Wetland Heritage. An archaeological assessment of the Humber Wetlands*. Kingston upon Hull: Humber Wetlands Project, University of Hull. ISBN 0-85-958-190-X. 181pp. £8.00

Those who doubt the reality of progress in human affairs would do well to consider wetland archaeological projects in Britain. We have come a long way from the 'one man and his dog' approach of the early 1980s. It would be invidious to suggest that the role of dog was filled by the environmental archaeologist, for the importance of palaeoecological studies has long been appreciated; but the most recent wetland projects have, from the outset, attempted real integration of palaeoecological and archaeological data, besides exploiting newly-available techniques such as computerised Geographical Information Systems.

Perhaps even more important is the fact that research objectives and designs are now clearly defined from the inception of the project, and sufficient long-term funding is assured to achieve them. An essential

preliminary stage is the compilation and presentation of an information base, from which priorities for research and management may be established. This is the purpose of this thorough publication, commissioned and sponsored by English Heritage.

The assessment was primarily a desk-based study of data from the Humber Wetlands, supplemented by a small-scale pilot field study. Following a short introduction to the project (Chapter 1), the authors present a workmanlike review of landscape development from the late Devensian, drawing on published lithostatigraphic and biostratigraphic (mainly pollen) data (Chapter 2).

The outsider is struck by the diversity of wetland types represented—bogs, valley mires, palaeochannels, lakes and coastal wetlands are all considered. These diverse palaeoenvironments are, however, united by a common problem: inadequate dating. Many of the available radiocarbon dates are from possibly erosive contacts or from deposits where stratigraphic control was poor; many of the published pollen diagrams rely on Godwin's pollen zones, and are unsupported by radiocarbon determinations. This problem, which will be remedied during the project, no doubt accounts for the paucity of summary diagrams to help the reader through the text.

In Chapter 3 the known distribution of archaeological sites below the 10 m contour is presented and discussed. For most periods the detailed account of known wetland sites is prefaced by an essay placing them in a wider context. It is hard to fault this competent chapter, though in view of the results from Boxgrove and High Lodge, Mildenhall we may disagree with the statements (p. 47) that Acheulian industries are dated to warmer phases within the Anglian and Hoxnian stages and that Acheulian industries post-date Clactonian ones.

The palaeoecological and archaeological information is drawn together in Chapter 4. The critical problem of site visibility, where early prehistoric sites are overlain by later sediments, is addressed. Several case studies relating archaeological sites to environmental change are outlined and a wider preliminary over-view is presented.

'Preservation Potential and Threats' are considered in Chapter 5. The initial section (5.2.1) on factors influencing preservation is

the weakest in this publication. Protection of surface-intact sites and landscapes by later sedimentary cover and preservation of organic materials in 'anaerobic' waterlogged sediments are really two separate issues and would have been better considered separately and at greater length.

The brief summary (pp. 101-4) of variables in the sedimentary environment influencing organic preservation serves mainly to underline the paucity of real experimental data available to archaeologists attempting evaluation of wet sites. Many of the published 'data' are plain wrong (e.g. pollen is preserved in deposits whose pH is greater than 6.3: see fig. 5.2). We actually know far less about the effects of the depositional environment and microbial activity on preservation than is widely believed, and detailed research is urgently required so that informed decisions on management can be made (Wiltshire and Murphy, in preparation).

The rest of this chapter deals thoroughly with the threats to wet sites in the region from dewatering (clearly illustrated by hydrographs from critical sites), nutrient enrichment of groundwater and physical destruction by peat and mineral extraction, coastal erosion and development.

In a final section, results of the pilot field study are presented. A total of 25 areas were examined: up to eight on a single day according to the dates for site visits given. The aim was to apply a rapid method of evaluating preservation potential and threat at each of the sites by a simple scoring system. This is an interesting and novel approach which, if thoughtfully applied, should help in prioritising areas for fieldwork: in effect it systematises the process of selection that wetland archaeologists have always followed.

In the final chapter the relationship between nature conservation and archaeological organisations are considered, site management discussed and recommendations for future work presented. Clear sets of objectives and a methodology, defined in general terms, are proposed.

As with any hors d'oeuvre, the appetite is stimulated but not satisfied. I, for one, cannot wait to hear more about the Neolithic lakeside settlements of Holderness. We must await the results of the project and wish the authors every success. Meanwhile, this publication can

certainly be recommended as an eye-opening introduction to the Humber Wetlands.

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B. Coles (ed.) (1992) *The Wetland Revolution in Prehistory*. Exeter: WARP & the Prehistoric Society. 153 pp., 96 pls & figs. £15.00 p. & p. inclusive from WARP, Dept. of History & Archaeology, University of Exeter, Exeter, EX4 4QH (£20.00 equivalent in other currencies).

Perhaps deliberately, the title of this collection of papers, consequent upon a conference organised by WARP, the Wetland Archaeology Research Project, and the Prehistoric Society in Exeter in 1991, is ambiguous. Is the revolution in the now rather outmoded Childean sense of an awakening of prehistoric peoples to the potential of wetland resources, or that of archaeologists to the fact that wetlands present an abundance, if not embarrassment of preserved artifactual and palaeoenvironmental evidence? The majority of the sixteen contributions to the volume—and in the introductory chapter and conclusion, the Coles refer to other sites which would have made the volume the more encompassing—concern only part of the latter. This is not a collection of papers concerning pollen diagrams and plant and animal macrofossils, but is orientated more towards the traditional archaeologist, whose world is dominated by artifacts rather than environments. Yet this is not to disparage the book, which includes syntheses of sites and areas not readily available elsewhere, indeed where else would a review of the evidence for prehistoric settlement in North-western Russia be juxtaposed with work on pre- and post-contact period wetland sites in British Columbia? One paper, that of Bayliss-Smith and Golson on wetland agriculture in New Guinea, interprets the title of the volume quite literally and considers their evidence in a well thought out theoretical framework for agricultural origins. Evans's attempt to do the same for floodplain archaeology in England is poor by comparison, but the paper does serve to stress the importance of seeing a continuum from wetland to dryland habitats. Several of the papers provide new data on familiar sites, whilst others present impressive evidence from new localities, and the coverage is virtually world-wide. In probably the best integrated study, Niewarowski and his

colleagues set the well known late bronze age/iron age (Lusatian) fortified site of Biskupin in Poland, with its corduroy roads, houses and defences, into its regional context. Doran considers the problems of wetland archaeology in the U.S. in relation to the justly famed site at Wendover in Florida. His contrast with the European situation, however, are less than justified for sites, equally important, which fail to reach the public eye. There is still a marked reluctance to invest in the full biological study of materials from wetland sites in Europe as well as America. A token pollen diagram and perhaps a few plant macrofossil identifications are still the norm for most wetland sites. At the core remains the problem of funding, in part whether the environment should not be the responsibility of natural scientists funded outside the archaeology budget. In a situation where the level of funding lay outside the dreams of most archaeologists, in Japan, where in 1989 £289,000,000 was invested in rescue archaeology, one is still uncertain, from Matsui's review, whether the balance of funding between excavation, conservation and post-excavation research on both artifacts and palaeoecology was got right and one would have liked to have seen more of a breakdown; the impression left is that the level of study did not exceed those of less well resourced regions. The contrast between a country whose government regards archaeology as a part of the corporate past of the community and one where it is seen as a hindrance to monetarist expansion deserves to be drawn. It is unfortunate that the selfish Thatcherite dream is tending to seep out of Britain into the rest of Europe and the expensive aspects of wetland archaeology will inevitably suffer.

The discovery and careful excavation of wetland mesolithic sites in both the Lower Seine, at Noyon, and around Friesack in north Germany expands considerably knowledge of the early use of organic materials. From Noyon comes a pine dugout canoe, as well as fish traps and a basket, and Friesack has yielded nets made of bast fibre and a birch bark container. It is Gramsch's paper on the latter sites which, more than any of the other contributions, brings home the urgency of wetland archaeology, for lowering of water tables, peat and aggregate exploitation makes this a vanishing resource. Those of us concerned as much with the survival of the present as the recovery of the past would have painted a far more depressing picture than this often eulogistic volume.

The Coles's conclusion at the end of the volume, which almost makes the job of reviewer superfluous, draws attention to the fact that dryland sites need the wetlands to expand interpretation, yet do not consider the rates of loss of wetlands, important not only for their archaeology but also for their conservation value; there is still too little dialogue between the past and the present, for both have relevance to the future and the palaeoecological record contains many potential conservation scenarios. Increased investment in wetland archaeology is long overdue, and this volume goes some way towards presenting its world-wide potential to an archaeological audience; unfortunately this is rarely the cabal which controls the purse strings. It is here that the crucial importance of getting the results over to those who ultimately pay, either by use of privatised resources or by taxation, needs further stress. The public front, on a small scale evidenced in the Flag Fen project in England, is well discussed by Ruoff in his paper on the *Pfahlbauland* exhibition in Zurich, where a reconstruction of a segment of a so-called lake village was presented to the public in a thoroughly interactive manner. This might offend the purists, but the balance between Disneyland and cold cabinets appears to have been effectively achieved. The basic funding was provided by the local authority, an ethic which would be frowned upon in the British Isles, where local museums continue to suffer from centralised financial control by philistine monetarists. Without investment, wetland archaeology is rapidly converted to dryland sites, pale fragments of their former selves, leaving the much more easily curated assemblages of stone tools as their only residue; for most of the World, the wetland revolution in prehistory comes fifty years too late.

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CONFERENCE REVIEWS

ICAZ Fish Remains Working Group: 7th Meeting, Leuven, Belgium, 6-10 September 1993

The seventh meeting of the ICAZ Fish Remains Working Group was held in Leuven under the efficient organisation of Wim Van

Neer and colleagues. The formal programme of papers and posters took place in the conference room of the Bank Brussel Lambert; informal meetings were held in cafés, bars and restaurants of Leuven, where the variety of beers on offer rivalled the variety of research!

Participants from at least fourteen countries were present. Twenty-seven papers were delivered and six posters displayed. Visits were organised to the vertebrate collections at the Royal Museum of Central Africa at Tervuren and to the coast at Oostduinkerke.

The meeting followed a number of themes such as case studies and recent research results, methodology and sampling, ethnoarchaeological studies and histological research. Several 'leitmotifs' ran through the papers and posters; these included taphonomic variability, the analysis of hand-collected versus sieved samples and osteometric analysis.

Instead of offering 'potted' abstracts of speakers' papers, this review will concentrate on some of the more general themes addressed by many contributors. One of the most immediate and of relevance to all researchers in the field was introduced by James Barrett, who confronted the problems inherent in research into bone weight and the intra-class comparison of fish taxa in terms of relative potential meat yield. Taphonomic variability clearly has to be evaluated in such research, but it is not clear by what methods all taphonomic factors can be evaluated on a consistent basis. Omri Lernau proposed a range of numerical taphonomic values which, he states, would be determined through charting recovered elements from excavations in decreasing order of their expected numbers according to MNI, on the basis that the data quantified the overall taphonomic conditions to which the fish bones had been exposed. One looks now to his published paper to provide more details of how this proposal may be applied. Fernanda Falabella Gellona's suggestions for evaluating differential preservation (and recovery) of fish remains from Central Chile focused on number, density, shape and size of diagnostic elements per taxon. Other speakers made reference to taphonomic variability and preservation of fish remains, but one clear trend emerged: no simple method or route for evaluating taphonomic factors could be proposed for the range of sites encountered.

Returning to the objectives of Barrett's research, it is quite apparent that most

researchers use a spectrum of osteometric and statistical techniques. These are needed, not only for evaluating and quantifying the character of their fish assemblage, but also for assessing the contribution the assemblage represents in terms of the site's economic basis or subsistence level, particularly in comparison with the dietary contributions (made by meat protein and vegetable/grain produce from other sources). Many researchers present at the meeting are engaged in biometrical analyses of great value to colleagues and, in this regard, it is appropriate to mention the biometrical research exemplified by Nathalie Desse-Berset, Jean Desse and Myriam Sternberg. However, on the subject of statistical techniques, there was little open forum discussion of the relative merits of the range of statistical applications currently on offer to researchers, particularly those techniques relevant to the interpretation and publication stages of research. Judging from the informal discussions held with a number of the participants, this is a topic of great interest and concern to many; it is to be hoped that statistical themes may emerge more strongly in future meetings of the group.

A theme that *was* strongly presented at the meeting concerned the histological structure of the fish skeleton, in particular the phenomenon of bone tumour development. Angela von den Driesch and François Meunier presented two fascinating papers dealing with hyperostosis. The first proposed that, although the location of hyperostosis may vary from species to species, within a single species the hyperostoses appear to have the same morphology and may therefore be taxonomically useful. This hypothesis will clearly have relevance to all those engaged in identification of fish skeletal elements. The second paper developed this principle through the presentation of the case study of the histological structure of the cranial hyperostosis of *Pomadasys hasta*. The assertion of taxonomic value is highly significant here, as it appears that this taxon is being identified purely on the basis of cranial fragments displaying hyperostosis. Are any specialists currently identifying *P. hasta* from post-cranial fragments alone?

The subject of the exploitation of marine resources, fishing practices, and the ethnoarchaeological perspective dominated the meeting, and the publication of the individual papers in the proceedings of the meeting will give ample opportunity for the detailed attention this current research merits. In some

instances, ethnographic examples provided possible models for the interpretation of a site's fish assemblage—for example, Irit Zohar's paper, which described the apparent specialised exploitation of grey trigger-fish (*Balistes carolinensis*) off the Israeli coast, and Kevin MacDonald and Wim Van Neer's paper, which outlined the subsistence specialisation of the inhabitants of the Méma region of Mali. William Belcher's ethnoarchaeological perspective on fish studies in the South Asian region, focusing as it did on selection, butchery, preparation and consumption according to socio-economic factors, has much relevance to projects in adjacent regions such as Ra's al-Hadd, Oman (which was the subject of a paper on seasonality given by the reviewer). Belcher's research also has general relevance to assemblages for which socio-economic factors play a major role. Analogous aspects such as seasonality and indications of climatic change were exemplified in certain papers delivered at the meeting.

Some speakers presented particular problems from their current research programmes in order to share areas of mutual concern with colleagues and to receive the advice, suggestions and comment generated by the working group. Some of these areas of concern included uncertainties inherent in balancing interpretation from hand-collected assemblages with that for assemblages recovered through methods of sieving or screening. Some speakers mentioned difficulties encountered in the analysis of fish assemblages not excavated according to modern scientific principles. Arturo Morales reminded us of the difficulties of collating information from long ichthyofaunal sequences analysed by a number of different specialists. Interesting discussion on the relative merits of radiography and scanning electron microscopy for the determination of diagnostic features, annuli, etc., was provoked by Jacqueline Studer's as yet unidentified fish from *garum*, preserved in a Roman pilgrim flask excavated from the Es Zantur terrace at Petra, Jordan.

The meeting also provided an opportunity to highlight the essential contribution to ichthyoarchaeological research by those producing reference collections of fish taxa for their areas of fieldwork. During the course of the meeting there were opportunities to view one such reference collection under the auspices of Wim Van Neer at the Royal Museum of Central Africa at Tervuren.

Apart from the informal evening gatherings, round-table sessions of the working group tackled the subject of publications, future meetings, and newsletters. Papers from this meeting were to be submitted to the editor by December 1993 and strenuous efforts made to have the publication, a volume of the *Annales du Musée Royal de l'Afrique Centrale*, ready before September 1994, when the general ICAZ meeting was held in Konstanz, Germany.

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16th Annual Meeting of the Society of Ethnobiology, Department of Archaeology, Boston University, Boston, MA, U.S.A., 11-13 March 1993

The *Society of Ethnobiology* was founded seventeen years ago with the aim of supporting and co-ordinating interdisciplinary study of the interrelations of plants and animals with humans, world-wide. It has around 470 members (ethnobotanists, ethnozoologists, archaeobotanists and zooarchaeologists, development anthropologists, etc). Roughly 50% of them are in the USA and most of the rest in Canada and several countries in Latin America. There are also some members in others countries, but generally the Old World seems to be rather under-represented. Its main activities are the organisation of an annual conference and the publication of the *Journal of Ethnobiology*, currently in volume 13.

The intellectual development represented by the establishment of this society can be considered as a consequence of the emergence of a distinctive anthropological trend in the United States during the late nineteen sixties and early seventies, which is usually called, 'ethnoscience'. It had its origins in the Boasian anthropological tradition and its main emphasis was in the recording of folk taxonomic classifications (Ellen 1979, 4; for a recent, comprehensive introduction to ethnobiology, see Berlin 1992). In that respect, it resembles the European and especially the French anthropological tradition in directing scientific interest towards the recording of native perceptions of plants and animals, although the difference between the two is evident: ethnoscience, unlike the European anthropological tradition, was a rigorous

attempt to describe folk plant and animal classifications and had little interest in theoretical discussion on the social context, the underlying principles and the meaning of classifications.

Today, the Society of Ethnobiology reflects the more recent trends in the diverse sub-fields of anthropology and archaeology, although the ethnoscience tradition of previous decades is still prominent in the work of several of its members.

The 16th Annual Conference was attended by around sixty researchers, mainly from the USA but also from Mexico, Canada, England and Israel. Thirty-four papers were presented in oral form and two more as posters. There was one specific thematic session: *The effect of foreign contact in native populations*. The thematic range of the rest of the papers was very wide: from theoretical issues of ethnobiological and archaeological research to presentations of ethnobotanical, archaeobotanical and zooarchaeological research, study of folk medical uses of plants, and folk strategies related to the conservation of natural resources

The specific thematic session, although initially planned to have a wide chronological and geographical perspective, was finally focused around the consequences of the European conquest to native American populations, being then so much part of the 1492 anniversary and surrounding debate. Five papers were presented: they emphasised the marginalisation of indigenous ethnobiological knowledge of native Americans as a result of foreign contact, and asked for more active involvement of natives in the process of presenting indigenous knowledge (E. Salmon). They investigated the changes in food habits of both, native Americans and Spanish colonists following the conquest, through the analysis of plant and animal remains (M. Scarry and E. Reitz). They recorded linguistic alteration in the biological nomenclature in southern Mexico, after the Western contact (A. de Avila). But they emphasised also aspects of resistance and continuity, such as the maintenance of the social importance of whale hunting for the *Inupiat* people of Alaska (A. Henshaw), or the documentary evidence for Mexican, pre-Hispanic herbal remedies, which were not altered by European concepts (R. Bye and E. Linares).

The six zooarchaeological papers provided varied and important insights: M. Zeder presenting faunal evidence from a Middle

Mississippi site (AD 1300) in S.E. Missouri, discussed an interesting attempt to match left/right side deer anatomic elements. She suggested that the occurrence of elements from the same pair in different households may reflect relations of social proximity and social distance. D. Bar-Yosef discussed marine and fresh-water molluscan material from Neolithic and Bronze Age sites in southern Levant, where she claims to have found the first freshwater shell midden in the Middle East which she interprets as evidence for subsistence pressure. K. Moore showed how the animal management during and after domestication of native camelids in Peru resulted in slower rates of cheek tooth wear, since herders took care to move herds to less overgrazed pastures (the quantity and the abrasiveness of soil taken, especially in overgrazed areas, being factors which influence the wear rate). E. Wing traced the remains of guinea pig at several locations in Latin America and suggested that it was present in the Caribbean before the Spanish invasion. D. Landon used faunal evidence to discuss the urban food supply in colonial eastern Massachusetts and concluded that urban food distribution systems followed traditional rural patterns. Finally, archaeological, ethnographic, linguistic and historical evidence was integrated to show how *Chumash* Indians in central California developed not only a productive fishery for swordfish, but also a mythical and ceremonial cult around this species (D. Davenport *et al.*).

In the archaeobotanical session, three papers from the Old World and two from the new World were presented. They included the proposal that horticulture in Egypt was introduced as a buffer against the varied and unreliable nature of Nile floods (W. Wetterstrom), as well as presentations of archaeobotanical results from Khabur basin, Syria (J. McCarriston), and the Bronze Age site of Midea, in Argos plain, Greece (T. Shay *et al.*). The two New World papers presented botanical evidence from Canadian *Inuit* and European sites (D. Laeyendecker), and seasonal dietary evidence from a 12th century AD site in Ohio (O. Shane and G. Wagner). Within this context, two more papers should be added. The first (E. Lawer), based on experiments, discussed the bias in the recovery of archaeobotanical material, consequent on the removal of seeds by rodents (which leave a distinctive breakage pattern) and ants—especially for raw material, but also for carbonised remains. And the second (Y. Hamilakis) emphasised the need

for consumption-oriented approaches in ecological archaeology and illustrated the argument with a case study from Bronze Age Greece.

The rest of the papers focused on several theoretical and empirical aspects of ethnobiological research. There were several contributions which reported fieldwork research from various contexts (from China to Canada) and others which emphasised the loss of ethnobiological knowledge in younger generations, reported several native strategies of resource conservation, emphasised the importance of the concept of place in native cosmologies, and suggested that ethnobiology should provide evidence against anti-environmentalists who express doubts about the native conservation spirit. The exceptional role of women in preserving and transmitting ethnobiological knowledge was extensively discussed. In one case from Bangladesh it was shown how the dichotomy between garden cultivation and field cultivation has gender connotations, with the women identifying themselves with the 'private' and invisible but highly significant (in both, economic and social terms) gardens, leaving the 'public' fields for men.

There was also a half-day session (five papers) on the medical uses of plants. The papers mainly reported fieldwork results from New World contexts, with one exception where research on traditional medicine in Borneo was presented.

During the conference, the urgent need for recording and so rescuing the traditional-native, ecological knowledge was repeatedly emphasised. This necessity—which is underlined by several recent publications, such as that by the World Conservation Union (Johannes 1989)—involves many important issues, however and these, to a large extent, received very little attention at the conference. An exception was the paper by Salmon, a native American himself who considered the direct involvement of the indigenous agents of this knowledge in this process, its contextual and holistic presentation and interpretation (comparisons between folk and 'scientific' knowledge, or simple recording of species' uses are not enough), and the need to avoid the academicisation of such a dynamic system.

But this enterprise has not only a rescue dimension. It reminds us the simple, but so often forgotten, truth that socially-specific perceptions seriously affect people's

behaviour. In other words, people respond, modify and manage their perceived environment and not the one described in ecology textbooks. From the archaeological point of view, therefore, traditional ecological perception and knowledge can provide alternative, emic discourses (i.e. denoting the *native* perception or point of view rather than that of the anthropologist) for the human-nature relations, offering invaluable insights for environmentally-oriented archaeological research, at both theoretical and methodological interpretative levels. Recent very fruitful attempts in this direction show how rewarding this exercise can be, but also point out the precautions which should accompany such an attempt, especially the need for the historical contextualisation of this knowledge and the subsequent practice.

On the whole, this well-organised and smoothly-run conference, with its very wide thematic and methodological range and the very high quality of talks, was a highly stimulating experience. One, rather serious, weakness was the lack of discussion time after each session. Speakers had to allow some time for questions within the twenty minutes allocated time. So the opportunity for discussing the implications of the research presented and for integrating the different approaches and results was rather lost.

The next annual meeting of the society was held at Victoria, British Columbia, Canada, on March 16-18, 1994 where the theme was 'Sustainable management and harvesting methods of indigenous peoples'.

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Conference Fund for making my participation in the conference possible. A slightly modified version of this report has appeared in *PAST* vol. 15. (1993)

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BOOK NOTICES

Archeologie in Vlaanderen 2 (1993). Asse-Zellik: Instituut voor het Archeologisch Patrimonium (*Archaeology in Flanders 2*. Asse-Zellik: Institute for the Archaeological Heritage of the Flemish Community).

This beautifully-produced and profusely-illustrated 480-page volume contains 25 papers reporting on recent archaeological work in Flanders, the northern region of Belgium, by the state archaeological service.

Several contributions deal with aspects of environmental archaeology:

Van Neer and Lodewijckx discuss faunal remains (molluscs and vertebrates) from deposits of late Iron Age, Roman and late medieval date from excavations at Wange in Brabant. Vanderhoeven, Vynckier, Ervynck, and Cooremans report on rescue excavations in Roman Tongres (including work on bones and plant macrofossils. Schelvis and Ervynck review the use of mites (Acarina) as ecological indicators in archaeology by means of a case-study in Roman Oudenburg, whilst Ervynck and Pieters present a contribution to the history of the distribution of the domesticated cat.

The paper by Pieters on the medieval settlement at Raversijde, just south of Ostend, includes discussion of peat-digging pits. Human remains are dealt with in Anton Ervynck's short report on a burial from the crypt of a church at Sint-Truiden in Limburg. An unusual account of animals painted on tin-glazed tiles on the floor of a medieval abbey at Koksijde, West Flanders, is presented by Dewilde and Ervynck. With Van Neer, Ervynck also contributes an appendix on bone from a rescue excavation at a former abbey at Petegem, East Flanders, whilst these same authors report on food remains—again, bone—as well as some dog coprolites, from another religious house, this time the abbey of St Salvator at Ename, in the same province. The

last paper (by Hoffsummer) deals with typology and dendrochronology of roof timbers in a church at Ename.

Although most of the papers are in Flemish, French and English are also used, and the captions to figures are always given in two languages (one of them almost always English) and summaries are generally in English (sometimes in French).

Dewilde, M., Ervynck, A., Van Neer, W., De Meulemeester, J. and Van der Plaetsen, P. 1994). *De 'Burcht' te Londerzeel*. *Archeologie in Vlaanderen*, Monograph 1. Zellik: Instituut voor het Archeologisch Patrimonium.

This second elegant and well-illustrated tome from the IAP in Belgium, produced under the editorship of Anton Ervynck, offers a report on a medieval castle mound and the remains of a small brick-built tower on its top, in the village of Londerzeel, between Brussels and Antwerp, in the Flemish province of Brabant.

Together with a detailed history from maps and other documents, the archaeological excavations revealed much stratigraphic detail, as well as artefacts and biological remains—the latter in the form of large numbers of hand-collected and sieved bones and some mollusc remains. Each of the sections dealing separately with the archaeology, artefacts and biological remains is supplied with a summary in English.

The substantial chapter on animal remains by Ervynck, Van Neer and Van der Plaetsen is exceptionally clearly presented with some superb drawings of freshwater and terrestrial molluscs and delightful sketches of the many species of small mammal whose bones were recovered from the site—particularly from the fill of a chute. Taphonomic aspects of the infilling of this feature (especially the several hundreds of vertebrates) are also considered.

This account certainly deserves attention; had it been published wholly in English one suspects that it would be lauded as an example of presentation to be followed widely.

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1991 Overcoming ignorance about donkeys in Zimbabwe: a case study, pp.311-318, in Fielding, D. and Pearson, R.A. (eds), Donkeys, mules and horses in tropical agricultural development (Proceedings of Colloquium 3-6 September 1990, CTVM, University of Edinburgh, Scotland). Edinburgh: University. Article (PDF Available) · January 1991 with 18 Reads. Cite this publication. · Publications on donkey use and management. 1991 Overcoming ignorance about donkeys in Zimbabwe: a case study, pp.311-318, in Fielding, D. and Pearson, R.A. (eds), Donkeys, mules and horses in tropical agricultural development (Proceedings of. Colloquium 3-6 September 1990, CTVM, University of Edinburgh, Scotland). Edinburgh: University. Donkey`s, mules and horses in tropical agricultural development. Proceedings of the Colloquium Organized by the Edinburgh School of Agriculture and the Center for Tropical Veterinary Medicine of the University of Edinburgh, Sep. 3-6, University of Edinburgh, Scotland, pp: 98-102. Enio, M., M.S.M. Regina, R.F. Renaide, V.O. Jose, G. Francisco and R.F. Wilson, 2004. Reference values on hematologic parameters of the Brazilian donkey (*Equus asinus*) breed. *J. Equine Vet. Sci.*, 24: 271-276. *Agricultural Engineering International: the CIGR Journal of Scientific Research and Development*. Invited Overview Paper. Vol. · And the traditional tool that they use is the steel-tipped wooden ard-type plow. Donkeys and horses were used almost exclusively for pack transport. The participatory research workshops and subsequent discussions highlighted the problems of feeding the work oxen throughout the dry season, and the fact that the equines were not used for draft work because no suitable harnesses or equipment were available.