

Conference review

ICAZ Bird Working Group—first meeting, Madrid, Spain, 7-10 October 1992

The first meeting of the ICAZ Bird Working Group was held at the Universidad Autonoma de Madrid. It was organised by the continually effervescent Arturo Morales and his colleagues at the University who managed to ensure that things ran exceedingly smoothly. They provided a non-stop and highly efficient taxi service from the hotel to the university and back in everything from a Porsche turbo to Arturo's battered VW Beetle. They also arranged an excursion to the archaeology museum in central Madrid, as well as a visit to their new departmental offices, laboratories and, most importantly, comparative collections.

The meeting attracted a number of aviophiles from a range of countries as far afield as Canada, Sweden and Israel, and a rather large contingent from Britain.

Accommodation and victualling for delegates revolved around a seven star establishment, according to the logo and sign over the foyer. It was in fact the hotel of a large training college for budding catering stars and we were their captive 'guinea-pigs'.

Not being used to this kind of decadence, I found the accommodation quite splendid, clean and modern, if a bit clinically sparse. An en-suite bathroom, complete with bidet or executive drinking fountain, was an added luxury. The food was, in my opinion, excellent—served with verve by shifts of keen students whose occasional understandable mistakes lent an air of 'Fawlty Towers' to the proceedings. This was a great relief from the usual horribly formal atmospheres of hotels and restaurants. The catering devotees had obviously been briefed about zooarchaeologists' penchant for alcohol and I was more than pleased to see my wine glass refilled at every opportunity. They had obviously been recently shown a brash method of pouring liquids which, unfortunately, a number had not quite mastered, resulting in some liberally splashed table cloths and laps.

The only major gripe was the bar—or the lack of one, to be more precise. It did exist but appeared to be permanently closed at night and rumoured to be open during the day—not much good for thirsty delegates five kilometres away. Sterling efforts in tracking down a nearby off-licence by Anton Ervynck, Dick Brinkhuizen and colleagues (collectively known as the 'Benelux Boys') ensured that the evenings were well lubricated.

The serious part of the conference was opened by Arturo Morales who announced to the world that he did not like birds, thought domestic mammals were tedious, and much preferred to work with fish, which were in his opinion less problematic to identify. Strenuous cries of protest followed but soon subsided during the remainder of his animated talk in which it became obvious that he was playing the role of devil's advocate. He skilfully addressed a number of important issues such as the limitations of small reference collections and small assemblages, and highlighted a number of problems involved when using modern analogues and models for archaeological interpretation. His story of a friend's mother's lettuce-eating pet kestrel was definitely the highlight for me. This introduction stimulated much debate and set the scene for the rest of the conference.

The first session was launched with a fascinating paper by Angela von den Driesch on her work on the vast quantities of mummified bird bones from the temple of Tuna-el-Gebel, in Egypt. Despite the ravages of time, pillagers, tourists and the Egyptian Department of Antiquities, a vast dataset is being recorded. She alluded to some fascinating and tantalising preliminary information about the range of species used in religious rites, probable management of local bird sanctuaries, and how and at what time of year these birds were collected.

A number of papers had a strong methodological theme. Norbert Benecke discussed a biometrical study of chickens using multivariate statistics, including principal components analysis, to try to separate hens, cocks and possible capons in material from archaeological assemblages and modern comparative specimens. Comparison of results and interpretations were problematic, not least because not all assemblages were directly comparable in terms of recovery techniques and hugely variable numbers of bones.

Don Brothwell carried the palaeopathological torch by highlighting the range of conditions which have been and are likely to be identified in archaeological bird bones and what they may imply about husbandry practices.

Darlene McCuaig-Balkwill's paper showed the fundamental problems of using a whole range of biometrical criteria to identify closely-related species of the subfamily Tetraoninae (grouse and relatives). Attempts by Eitan Tchernov during the discussion to isolate some functional differences, i.e. proportions of distal wing elements, were valid—although they didn't help much with disarticulated archaeological material.

Moving away from bones, a study of eggshells, carried out by Jane Sidell, provided a fascinating insight into the potential of such material in archaeology. Basic identification appears relatively straightforward using scanning electron microscopy and Jane provided an example from Freswick, North Scotland, where the identification of quantities of fulmar (*Fulmarus glacialis*) eggshell indicated the presence of nearby breeding colonies otherwise unrecorded in living memory. Although major interpretative problems remain, and much more work is needed on modern comparative studies, it was suggested that it may be possible to establish whether an egg has hatched, something which would have considerable interpretative value. In any event, Jane is assured of receiving all our unwanted eggshell!

A number of papers reviewed some very broad ornithopaleoecological data from the northern hemisphere. Cecile Mourer-Chauvire detailed our present knowledge of the Pleistocene avifaunas of Europe (no mean feat in 45 minutes), whilst Leif Jonsson reviewed the somewhat sparse evidence of bird remains from prehistoric sites on the Swedish west coast and tried to highlight the possible reasons for the appearance and disappearance of certain species. He suggested that both climatic and, more importantly, associated eustatic and isostatic sea-level changes, dictated the biotopes available to birds, particularly the waders and gulls. Some interesting corroborative evidence was available from the presence of large numbers of fish remains, particularly of the bogie (*Boops boops*), a species only found today as a vagrant, but present at a Neolithic site in Jonsson's area.

Per Ericson provided an outline of the history of the Swedish bird fauna, similar in its coverage to that by Leif Jonsson. An important aspect of Ericson's talk concerned the compilation of a database of 75% of all archaeological bird analyses from Sweden to date. Such databases are something which we all should be working towards, and certainly not just for bird bones.

Papers dedicated to the study of archaeological bird bone assemblages were numerous and varied. Two contrasting papers from Kevin MacDonald dealt with the bird remains from Haua Fteah in Libya and the geese from medieval Dublin, Ireland. Haua Fteah, although producing quite a small assemblage, yielded some interesting palaeozoogeographic and environmental data, as evidenced by the changing frequencies and diversity of bird taxa, some now alien to the region. The study of material from medieval Dublin attempted to establish whether the majority of goose remains were of domestic or wild stock through biometrical means. This was less conclusive since medium-sized domestic breeds and wild grey lags are indistinguishable on size alone. Much larger sets of modern biometrical data than those presented are needed to make any real progress on this problem.

Dale Serjeantson presented a fascinating paper on a very strange assemblage from Iron Age Haddenham in Cambridgeshire, England, which was dominated by swans, ducks, coots and pelicans, and interpreted as a specialist wild-fowling centre. Anneke Clason detailed some of her work in the Netherlands, suggesting a possible example of prehistoric taxidermy, whilst Wietske Prummel tried to present a survey of bird bone assemblages from numerous Roman and later sites also in the Netherlands. Her interesting paper was prematurely cut short by the intervention of university electricians who decided to shut off the power to the whole building at 7 pm for maintenance.

A pleasant interlude from the round of papers was Wietske's video of modern wild-fowling techniques in the Netherlands, which involved the complicated use of sprung trap nets, and model and live decoys. Thankfully, these birds were only caught for ringing and then released. The video certainly reinforced just how much skill, thought, time and effort were involved in this somewhat unreliable procurement system.

Christine Lefevre presented some preliminary results of the bird bone assemblage from midden deposits on Buldir Island in the Aleutians. Her vivid descriptions of trips to Patagonia and the Aleutians over lunch that afternoon certainly stirred up my own hankering for travel.

A rather animated talk was given by Anton Ervynck on bird bone assemblages from medieval Flanders. I was gratified to realise this was a man after my own heart, since the crux of his paper was a healthy scepticism of interpretations based on comparisons of assemblages which had been recovered by a whole range of techniques. At last, someone who actually mentioned sieving!

Eitan Tchernov's paper on the exploitation of birds in the Natufian and early Neolithic of the southern Levant was one I was particularly interested in hearing, having worked on material of similar date from several sites in Northern Iraq. It was a little disappointing, however, since it seemed to be a somewhat standard lecture on the shift to 'broad spectrum economies' during this period with little that was very new. It also had a slightly isolationist slant, subtly implying that these events began, and were confined to, the Levant, which patently was not the case. However, Eitan provided a detailed account of the possible effects of intensive exploitation of resources around a permanent settlement as well as offering evidence that these were the cradles of speciation of the house mouse (*Mus*) and house sparrow (*Passer domesticus* (L.)).

In a similar vein, Zlatozar Boev postulated the classification of different sites based on the proportions of synanthropic and 'syn-urbanistic' birds present in the assemblage. He went on to detail the results of such a study of 23 different sites in Bulgaria, dating from the Bronze Age to the late medieval period.

A broad cultural slant was given by two short papers by Roel Lauwerier and one by Ellen Vreenegoor. The discovery of a near-complete Roman 'cork-ware' pot from the Netherlands containing the remains of 30 briskets of song thrush (*Turdus philomelus* Brehm.) is a rare example of direct archaeological association. It appears that this pottery type, where rim fragments are often found together with evidence of pitch, were used for long-distance storage of perishable items, the fabric originating in Belgium or the Eiffel district of

Germany. Roel suggested that the Romans may well have begun the tradition of eating song birds, an interesting pedigree for this disgusting habit. His other paper dealt with a re-interpretation of the bird and other offerings often found in Roman graves. He suggested, quite rightly, that the preponderance of chicken and pig bones, and their association with the sex of the individuals buried, may mask the true picture. The numerous empty plates in the graves may equally have been laden with huge fillets of beef or other organic remains which leave no trace.

Ellen's stimulating paper on bird fibulae from the Roman and early medieval periods dealt with both their functional and possible symbolic aspects. She presented a whole range of bird 'shapes' and discussed how these may have had both religious and socio-economic significance through time.

It was decided at the round-table session at the end of the conference to instigate a newsletter for the bird working group. In this it is hoped to keep everyone informed of projects and research, publish lists of comparative collections and relevant publications, requests for help, information, data, etc. This will be a positive move and should stimulate much co-operation between individuals and institutions.

Everyone thought the gathering was a great success (even Arturo, who unfortunately likened the experience to 'being at your own wedding'). This was one of the most enjoyable and stimulating conferences I have been to in a long while, the kind from which one returns itching to do something—in this case to start measuring bird bones. It was just the right size to keep everything on an informal and very sociable basis and this meant that you could meet and talk with most people at leisure. It also encouraged frank and diverse questions and discussions during papers and later over lunch and dinner. I, for one, was very glad of the opportunity to meet colleagues from a range of other countries, since we are all too often ignorant of each other's work. I very much look forward to the future exchange of information the proposed newsletter will offer and congratulate the organisers for setting the wheels in motion and oiling them so well.

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Book notices and reviews

Bell, A. D. (1991). *Plant form. An illustrated guide to flowering plant morphology*. Oxford, New York, Tokyo: Oxford University Press. 341 pp. + 315 figs. ISBN (paperback) 0 19 854219 4; £25.00.

In introducing this enormously useful and beautifully produced book, I can't do better than reproduce two quotations. The first is from the first edition of 'Willis' (1897), quoted by Bell before his preface: *'The study of the external features of plants is in danger of being too much overshadowed by that of the internal features. The student, when placed before the bewildering variety of forms does not know where to begin or what to do to acquire information about the plants'*.

Nearly a century later, that danger is surely *more*, not less serious? The second quotation is offered by Bell in the preface itself and is from his namesake, Professor P. R. Bell (1985): *'In recent years the spectacular advances in molecular biology have generated such excitement that there has perhaps been a tendency for organisms to be overlooked. Biology must nevertheless remain "organismic", and the researcher who loses the concept of organisms seriously weakens his claims to be a biologist'*.

That said, Adrian Bell gives us a book which he hopes is *'attractive, the better to woo the budding botanist and the curious amateur plantsman'*. This botanist, though no longer budding (indeed, increasingly deciduous!) was certainly wooed—and won.

The guide is, in essence, an illustrated dictionary and like all good dictionaries it is the sort of book to pick up to answer a particular question and to put down only when a more urgent matter calls.

The first section deals with the morphology of leaves, roots, stems and reproductive organs, the second with developmental aspects of plant growth (in which, as Bell puts it, *'the organs of a plant are progressively accumulated'*). This is, above all, as visual exposition on one corner of botany and the book is superbly illustrated both with colour photographs (taken, with one exception, by the author), and with line drawings by Alan Bryan, which are of excellent clarity, even where a great amount of detail is shown. Comprehensive cross-referencing using page numbers as figure numbers allows the user to steer around the

book more easily and to track down quickly more detailed information or explanation of a term or concept, and it also provides the basis for an extended 'dip' into the book.

The coverage is worldwide, so many plant forms will be unfamiliar to botanists primarily concerned with N. Hemisphere temperate floras, for example (keen gardeners—and the author's *curious plantsmen*, and especially those who grow houseplants—will, however, be familiar with many of the more 'unusual' forms). As the book's subtitle indicates, only flowering plants are considered, though a reader opening the book at pp. 210-1 could be forgiven for thinking that algae and lichens had found their way in, for on these pages are some delightful plants described by Bell as 'misfits'—*'a few plants' which 'are evolving forms that cannot sensibly be accommodated in traditional descriptions'* such as Sach's classical quadripartite division of plant organs into stems, leaves (including leaves modified to form flower parts), roots and hairs.

We appear to have strayed a long way, here, from archaeology or, indeed, archaeobotany; but all of us who investigate 'bits of dead plants' must at one time or another have wondered whether we were identifying the *part* of the plant correctly (indeed, one of our commonest *faux pas* is to term as seeds those propagules more correctly called fruits). When we use a key to identify a living plant whose 'seeds' we collect for reference purposes, how sure are we that we understand terms like trichome or cicatrice? Can we tell a rhizome from a root? Do we know why one fruit is a lomentum, another a samara, and a third a drupe (though ironically, *cypsela*, a term introduced to me by Gay Wilson when I was making my first faltering identifications of 'seeds' over a decade and a half ago, is frustratingly missing from Bell's section on fruits and seeds).

I might add that I wasn't taught much about plant morphology either at school or university, 20 and more years ago, and I can't believe that anyone has taught it in any great detail in more recent times. I make no apology for recommending archaeobotanical colleagues to have access to a copy, and to all other colleagues to enjoy it as a work of art, if nothing more. My only cavil is at the shape of the book: with a 'landscape' format it sits a trifle uncomfortably on the shelf. With so many plants having their long axis in the

vertical, it seems a mite capricious to illustrate a book with pages wider than high!

References

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Postscript, June 1993: When I bought this book in 1992, there were hardback and paperback editions. The latter, a copy of which I bought, was £19.50, the hardback £20-something. On checking the price of the hardback edition for this review, I find that it appears no longer to be available; the paperback edition is now £25.00!

Hillson, Simon (1992). *Mammal bones and teeth. An introductory guide to methods of identification.* London: Institute of Archaeology. 64 pp. + 59 figs. ISBN 0 905853 30 X. £22.50

In this manual, Simon Hillson provides aids to the identification of the teeth and bones of the large mammals most commonly found on archaeological sites in Europe. These are horse, cattle, bison, sheep, goat, dog, cat, human and European deer (although the elk and the reindeer are rather oddly called by their American names of moose and caribou). The work is intended for beginners in comparative osteology and, as Hillson stresses, it should not be used on its own but always with named reference material. I believe that the manual will fulfil this function admirably. The writing is lucid and Hillson has made a brave attempt to unravel the complexities of planes and names for parts of the bones. I wonder, however, about his preference for some little-used terms, for example 'palmar' and 'plantar', and why he does not refer to the anterior and posterior sides of a bone? The line drawings are very clear and the inclusion of the patterns of root sockets for the teeth

will be particularly useful as these are not often given in identification keys.

Having written these words of praise, I should now like to digress a little on some general aspects of the identification of animal remains from archaeological sites: pattern recognition is the basis of all systematic classifications, whether of sherds, fossils, or living plants and animals. The ability to compare like with like, to assess variations, and to evaluate important differences, is Øs Øntegral to all research in archaeology and the life sciences. It is therefore not surprising that so much effort is put into the production of identification keys. But identification of a specimen is not in itself enough—it must be named and it must be given a context. The use of names that are consistent and easily understood is of the utmost importance and, regrettably, Hillson's manual, lapses in this respect (p. 1), for he has misunderstood Corbet and Hill (1986) who he claimed use the same Linnaean name for the wild species, say of the wolf (*Canis lupus*) as for its descendant the dog (called by Linnaeus *Canis familiaris*). Corbet and Hill do not use the same name, but even if they did it would be a great mistake: take for example, a Japanese archaeozoologist trying to understand the report in English on finds of dog and wolf together at Star Carr. How could these canids be distinguished if both were called *Canis lupus*? What Corbet and Hill (1986, 6) actually wrote was this:

...since clearly distinguishable domesticated forms do not in fact interbreed with the wild species to the extent of losing their separate identity (even though they are potentially capable of doing so), they should not be considered a part of the ancestral wild species and consequently the names applied to domesticated wild forms should not be used as the names of the wild species. Only the wild species are listed here, but any domesticated derivatives are noted after the range.

Hence *Bos primigenius*
(*taurus*)

Further discussion on the use of Linnaean names for domestic animals is given by Clutton-Brock (1987, 194-7) and Corbet and Clutton-Brock (1984, 434-8).

Leaving nomenclature and looking back on more than thirty years as an archaeozoologist, I am reminded that Ian Cornwall's *Bones for the archaeologist* was first published in 1956, the year before I began work for a Ph.D. under F.

E. Zeuner, at the newly-built Institute of Archaeology in Gordon Square. Since that time the study of animal remains from archaeological sites has become a science in its own right, practised by more than 600 people all over the world. Cornwall's book is not cited in Hillson's new manual and it is unlikely that many students refer to it today. At the time of its publication, I did not have a very high regard for the book; the illustrations were small and over-shaded and the 255 pages of writing seemed to be too descriptive and rather elementary.

Strangely, today, Cornwall's book appears to me to be far-sighted and densely packed with information that would be useful to students in many fields of work. Perhaps the title was too specific and gave the wrong impression, as the book had a much wider range than mere bones for archaeologists. Cornwall had the great merit of seeing the skeleton inside the body rather than as a collection of dissociated elements (Fig. 70) but, although his final chapter was on study and interpretation, he failed to mention the need for quantification, without which a faunal assemblage is valueless. For the science of archaeozoology (or zooarchaeology) is based not only on pattern recognition but also on change. Whatever is under study, whether it is the process of domestication, or the development of a breed, or nutritional status, or sexual dimorphism, all are dependent on the recognition of changes in size and shape of the bones and teeth. And these changes can only be assessed and recorded by means of standardised measurements. I therefore consider that Hillson should have referred in his book to the measurement manual of Von den Driesch (1976) and emphasised that any study of zooarchaeology has to be based on accurate identifications, correct nomenclature, and standardised measurements.

References

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- Corbet, G. B. and Clutton-Brock, J. (1984). Appendix: taxonomy and nomenclature, pp. 434-8 in Mason, I. (ed.) *Evolution of domesticated animals*. London: Longman.

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Fig. 70 (overleaf). The skeleton hunt. Reproduced, with the publisher's permission, from Cornwall (1956, fig. 1).

