NEWSLETTER

1980

International Council for Archaeozoology
1. Short report on the activities of ICAZ in 1979

1.1. Bibliography

In 1979 the annual bibliography compiled by Dr. H.-H. Müller appeared. The bibliography is sent on an exchange basis to all those who are interested. Everybody is requested to send, if possible, offprints and other publications to Dr. Müller. If this is not possible titles of publications should be forwarded.

1.2. Status of archaeozoology

The following resolution was drafted by R. Meadow at the request of the Working groups during the Szczecin conference on the storage of archaeozoological material: Given that faunal remains from archaeological sites of all periods are subject to analysis from many and varying points of view and using different methods, all faunal remains recovered from archaeological sites must be retained and stored in such fashion as to permit restudy of the material in the future, particularly by individuals other than the original investigator.

The necessity and the actuality of this statement is illustrated by the fact that Meadow learned a short time ago that a very important collection of faunal remains from Baluchistan excavated by W. Fairservis in the early 1950's has been largely discarded, and only "selected specimens of special interest" were retained, by the "American Museum of Natural History". The collection consisted of more than 15,000 specimens and would have made a perfect highland counterpart for the lowland Mehrgarh material (see list of projects). It is desirable that this will receive wide publicity in periodicals!

1.3. Conferences and meetings

1.3.1. ICAZ meeting in Copenhagen, 1979

In July 1979 members of the International Council came for a two day meeting to Copenhagen. The meeting, organised by Dr. N. Noe-Nygaard and Dr. T. Hatting, took place in the Institute of Historical Geology and Palaeontology of the University of Copenhagen.
The year and date of the next Archaeozoological Conference was discussed. Because it was not certain whether the U.I.S.P.P. could give a grant for organizing the meeting in 1982, it was decided that if a grant could only be expected in 1983, the meeting will be postponed until that year.
The proceedings of the conference of Szczecin will be entitled Archaeozoology I and will appear in 1980.
The organisation of a data-bank is progressing slowly. The computer program "Knocod" developed by Dr. Uerpmann is used by a number of people among whom there is an exchange of ideas. The organisation of a data-bank on an international scale needs money. An attempt to obtain financial support for this purpose from the Deutsche Forschungs Gemeinschaft (D.F.G.) and V.W. Stiftung (Volkswagen) had no result.
Dr. Ducos had drafted a "Document de Travail" for the discussion of "standardisation of measurements". It was decided that it would be useful if an appendix could appear to the Measuring Guide from Von den Driesch with measurements proposed by others. Dr. Ducos will realise this work and organise, if necessary, a meeting to discuss the problems.
To discuss general rules for the nomenclature of domestic animals and their wild parent species Dr. Clutton-Brock had drafted a discussion paper. Reactions from the members of the working group and those present were very varied and no decisions were reached. It was decided that the working group would be informed and if it was generally requested a meeting could be held within the next few years to discuss the problems further.

1.3.2. Archaeozoological Conference in London

The possibility was discussed of postponing the conference until 1983, this in view of the possibility of obtaining a grant from the U.I.S.P.P. Since this seems unlikely at the moment the organizers of the conference decided to keep to the original idea of organizing the conference in 1982.
1.3.3. U.I.S.P.P. conference in Mexico 19-24 October 1981

Mr. Eric Higgs had organized a symposium on the beginnings of agriculture for the U.I.S.P.P. conference held in Nice in 1976. However Mr. Higgs died before the conference and was succeeded by Prof. M. Röhrs and Dr. J. Clutton-Brock. Later two sub-commissions were formed, one for zoology and one for botany, to organize a similar symposium for the Mexico conference. For the zoology commission Prof. Röhrs was appointed president, Dr. Clutton-Brock vice-president and Dr. Ducos secretary. Dr. Clutton-Brock asks for suggestions for a theme for the next symposium.


1.3.4. Archäologie und Biologie 17-19 September 1981

In the autumn of 1981 Prof. Dr. G. Nobis will organize a symposium on this theme in the Alexander Koenig Museum in Köln. Thirty biologists and archaeologists who speak German will be invited to contribute, but all the corresponding members of I.C.A.Z. are welcome to attend the symposium.


1.3.5. International Council (I.C.) meeting of ICAZ

The International Council will meet during the U.I.S.P.P. Conference in Mexico in October 1981.

1.3.6. Executive Committee (E.C.) of ICAZ

The members of the E.C. will meet in Groningen, 5-7 September 1980. Biologisch-Archaeologisch Instituut, State University Groningen, Netherlands.

1.4. Working Groups

New members of Working Groups:

A) S. Stallibrass (Gr.Br.), Fossby (Can.)
B) K. Biddick (Can.)
C) I. Köhler (B.R.D.)
E) R.M. Luff (Gr.Br.)
H) K. Biddick (Can.), S. Stallibrass (Gr.Br.)
For the last three years, the main research project of this Department has been the reconstruction of the diet and economy of a series of Iron Age occupation sites in the Limpopo Valley of southern Africa. The work has been based on the faunal samples retrieved from excavations on seven sites; the two oldest date from the fourth century AD and are among the oldest sites attributed to the Bantu-speaking peoples in southern Africa; the other sites cover a timespan of 800-1300 AD. This project is nearing completion; the last of the analyses will be completed in the first few months of 1980. A preliminary report will appear in the South African Archaeological Bulletin in June 1980; the final report is due to be handed in to the funding body by August 1980. It will appear in print as a monograph published by the Transvaal Museum; to give some idea of the quantity of material handled, a single excavation on one site yielded over 85,000 bones.

The Department has adopted a policy of publishing all the basic data on faunal assemblages as soon as possible after the completion of an analysis; the detailed data tables will be available to researchers on request. In line with this policy, the Department is also building up a reference library of unpublished theses which contain faunal information from archaeological sites in southern Africa on a microfiche basis, and a specialised library on faunal methodology.

In 1980 research will be continued into Iron Age sites dating from 800 AD and earlier in Botswana, Malawi, Zambia and the Republic of South Africa. In addition, we will be involved in the analysis of fauna from a series of Upper Pleistocene occupation levels in Botswana.

It is hoped that by mid-1980 the staffing structure of the Department will have been stabilised (at present it consists of one full-time and two part-time workers), and we hope to be in larger laboratories by the end of 1980."

M.S. A. Voigt,
Head Department of Archaeozoology.
2. Minimum requirements for animal bone reports in archaeology
(suggestions by Dr. Caroline Grigson)

The aim of an animal bone report should be to describe the total animal bone assemblage from an archaeological site in an accurate, concise and informative manner, in order to make the data available for subsequent testing, analysis and interpretation (and even re-interpretation), which can of course be included in the same report, but this is not essential. The methods used to obtain and organize the data must be stated in order to allow inter-site comparisons to be made on the basis of a known degree of comparability. Recommendations are made here for the minimum amount of information that should be included, but as archaeozoology progresses new ideas and discoveries will certainly suggest refinements and alterations. Bone reports should include (1) a general introductory section of background information, and (2) the presentation of the basic data.
(1) Basic background information
If the animal bone report is published or circulated separately from the main report the introductory information set out below should be included, but occasionally it may be adequately covered in the archaeological report.
The Site. A brief description of the site should be given, including its locality, a very brief outline of the artifactual evidence for its cultural affinities, its date (relative or absolute) and how it was obtained, and its environmental, chronological and cultural significance. The vertical and horizontal stratigraphy of the bones should be described and a decision taken on whether to treat bones from different levels and areas of the site together or separately. The possibility of contamination from levels of different dates should be discussed. There should be a brief note on the sort of information that it is hoped will be extracted from the bones (clearly multidisciplinary cooperation is necessary here), and it is helpful if the archaeozoologist is a member of the excavating team or has at least visited the site and discussed it fully with the archaeologist and with other specialists.
The Excavation. Describe the nature of the deposit in which the bones were found and give its pH if possible. State whether or not all the bone was collected, and, if not, state what sampling strategy was employed; here it is necessary to say whether some or all of the deposit was sieved, and if so the mesh size used should be noted. Note the state of preservation of the bones when found and record the methods of field conservation, if any. Any special method of extracting or lifting the bones should be described.
Recording. Relate the method used to number and record the bone finds to
the stratigraphy of the site. If a schedule of bone finds was made either
at the time of excavation or during the course of the study of the bones
state where it is archived.

Conservation. Describe any further conservation that the bones may have re-
ceived, including removal of matrix, treatment for salts, repairs and con-
solidation.

Storage. State where the bone is to be stored. It cannot be too strongly
stressed that all scientific work should be repeatable; the destructive na-
ture of excavation can partly preclude this, but there is no excuse for not
keeping all the archaeological and scientific evidence that can be preser-
ved. In case of bones this means proper conservation and storage.

(2) Presentation of data

This is the most important part of an archaeological report. Unless the da-
ta is published, and published in full, much of the value of the excavation
will be lost.

Systematics and Anatomy. The chief aim of the osteological report should be
the identification of as many of the bones as possible (whether complete or
fragmentary) into anatomical elements and zoological species. Some zoolo-
gists discount certain elements as too difficult to identify to species
(particularly ribs, vertebrae and long bone shafts) if this is done the
procedure adopted must be stated. The identification should be done by
using comparative material, backed up with osteological atlases and other
works of comparative anatomy. Difficult, doubtful, or unlikely identifica-
tions should be backed up with criteria taken from the literature, and
wherever possible, contentious bones should be illustrated. The identifica-
tions should be published species by species according to an accepted zoo-
ological classification. The description of each species should include a
list of the bones identified, with their frequency and age, sexual and
size data as outlined below.

This evidence is best summarized in a Bone Type Chart, listing the numbers
of each bone element found (including proximal ends, shafts and distal ends
of broken bones) in a separate column for each species. Paired elements
should be assigned to left or right side. The predominance or scarcity of
particular elements should be enumerated and pointed out in the text, bea-
ing in mind the virtual certainty of differential incorporation, preserva-
tion and retrieval.
Ageing Data. Any evidence for the age of bones, teeth or antlers at death (or of shedding in the case of antlers) should be recorded. The sources of evidence include suture fusion, epiphyseal union, tooth eruption, tooth wear, the anatomical height of hypsodont teeth, the numbers of tooth cementum layers, antler and horncore growth, bone surface texture, development of muscle scars, changes in cranial shape, size, and so on. Full references must be given to any authority whose criteria are used for ageing bones.

Sexual Data. In some cases there may be distinct morphological sexual differences between particular bones, but often their size and proportions may be the only criteria by which the sexes may be distinguished; these can sometimes be described by the use of scatter diagrams, but statistical methods should be employed to validate any conclusions based on metrical differences.

Size Data. Standard measurements of all measurable bones should be taken (and recorded in metric units). The actual number of measurements per bone will depend on the sort of detail required and this should be discussed. Ideally all the measurements taken should be published (in appendices if necessary), but if this is quite impossible within the format of the publication, the measurements should at least be summarized in tables giving their simple statistical parameters, and the actual measurements should be archived. Again any conclusions based on metrical data should be statistically tested.

Where the measurements can be related to the size of the animal (usually the height at the withers), the method used should be stated. The means used to take the measurements (calipers, slide gauges, measuring boxes etc.) should be noted.

Numbers of bones and Individuals. The total number of bone identified to species represented can be calculated, bearing in mind age, sex and size data. The method used should be described in detail and the results given in conjunction with the total number of bones identified for that species.

The relative importance of the different species can also be assessed from the total number of bones of each species, or from their total weight.

Fragmentation. If the bone from the site has been adequately sampled the absolute sizes of all the individual bones (both identified and unidentified) may be significant, or some other method of assessment of the degree of fragmentation may be used. These can be recorded for (a) each species, (b) all the identified bone, (c) all the unidentified bone, and (d) all the bone together. Again the likelihood of differential destruction and preservation must be remembered.

As well as the size of the bone fragments the method of fragmentation should be looked at - how and why are the bones broken, the advice of the archaeologist will be necessary here.
Abnormalities. All evidence of disease, injury and malformation should be
fully described and where possible the cause established.

Data Treatment. The methods used to collect, record, organize and analyse
the data should be described. If a computer was used its type and details
of the programs and methods involved should be outlined. If the data are
to be stored or archived in any way state how they can be retrieved.

3. Identifying bones

There are a number of helpful books for the identification of mammal and
bird bones.

Mammals

General

Hughes, H.V. & J.W. Dransfield, 1953. McFadyean’s osteology and anthropolo-

gy of the domesticated animals. Aberdeen.

Problematical cases

Bison, aurochs - domestic cattle

Degerbøl, M., 1970. The Urus (Bos primigenius Bojanus) and Neolithic domes-
ticated cattle (Bos taurus domesticus Linné) in Denmark (= Det Kongelige
Danske Videnskabernes Selskab Biologiske Skrifter 17,1).
Olsen, S.J., 1960. Postcranial skeletal characters of Bison and Bos (= Pa-
pers of the Peabody Museum of Archaeology and Ethnology 25,4).
Stampfli, H.R., 1963. Wisent (Bison bonasus Linné, 1758), Ur (Bos primige-
nius Bojanus, 1827) und Hausrind (Bos taurus Linné, 1758). In: J.
Boessneck, J.P. Jequier & H.R. Stampfli, Die Tierreste (= Seeburg

Sheep - goat

Boessneck, J., H.H. Müller & M. Teichert, 1964. Osteologische Unterschei-
dungsmerkmale zwischen Schaf (Ovis aries Linné) und Ziege (Capra hircus
Linné). Kühn-Archiv 78, pp. 5-129.
Birds


4. Alphabetical list of terms frequently used in German publications dealing with animal bone remains from archaeological sites

Because many basic studies on complexes of subfossil animal bones have been and are published in German, a list of the most common words used in tables with measurements, and in the text of such works has been compiled by A.T. Clason and C. Grigson.

This list is also included in Approaches to faunal analysis in the Middle East, ed. R.H. Meadow and M.A. Zeder, Peabody Museum Bulletin 2, 1978.
Alphabetical list of terms frequently used in German publications dealing with animal bone remains from archaeological sites, compiled by A.T. Clason and Caroline Grigson.

der Abfall abgekaut — refuse, waste
die Anzahl — number, quantity
die Art — species
die Asthöhe — height of ascending ramus of mandible
dauf Augenwachs auswachsen — brow (antlers) mature, fully grown outer

der Auswuchs — process of a bone

der Backenzahn — cheektooth
die Backenzahnreihe — cheektooth row

die Basis — base
das Becken — pelvis
bestimmbar — identifiable

die Bratspur — mark of burning


die Breite — breadth, width

der Bruch — fracture, break

das Bruchstück — fragment

das Brustbein — sternum

der Brustwirbel — thoracic vertebra

das Darmbein — ilium
die Darmbeinsäule — column of ilium
die Darmbeinschaufel — blade of ilium

der Dornfortsatz — spinous process (of a vertebra)


das Durchbruch — erupting (teeth)
der Durchmesser — diameter

der Eckzahn — canine tooth

die Elle — ulna

die Epiphysenfuge geschlossen — ossified (fused)
das in Verwachsung — being ossified (fusing)
offen — not ossified (unfused)


die nicht zu beurteilen — not determinable

das Fersenbein — calcaneum
das Fesselbein — phalanx 2
der Fingerknochen — phalanx

die Fiedermaus — (f.) bats

das Fleischfresser — carnivore
das Fleischgewicht — meat weight
das Flügelbein — scapula

die Flügelbreite — breadth across the transverse process of a vertebra


das Flügelfragment — fragment of a transverse process of a vertebra

das Fragment — fragment

die Fundzahl — number of finds

die Fusswurzelknochen (m.) — tarsal bones

der Gabelknochen — furcula, clavicle

das Gauptbein — palatine bone

die Gaumenlänge — length of palate
das Gelenk — joint, articulation
die Gelenkfläche — articular surface
die Gelenkflächenbruchstück (or) — fragment of an articular end
der Gelenkfortsatz — articular process
die Gelenkrolle — trochlea
gesamt — together
die Gesichtsbreite — breadth of the face
der Gesichtsschädel — facial part of skull
die Gesichtsschädellänge (or) — length of the face

die Geschlechtsbestimmung — determination of sex
die Geschlechtsverteilung — distribution of sexes
das Geweih — antler

das Geweihstück — antler fragment

das Gewicht — weight

die (K)HRammassenzähne (m.) — long bones
das Griifelbein — MC/MT II/IV (horse)

der Hals — neck
der Halswirbel — cervical vertebra
die Handwurzelknochen (m.) — carpal bones
das Haupthälse — domestic fowl
die Haustiere (m.) — domestic animals
das Hinterhauptbein — back of skull
das Hinterhauptbein — occipital bone
der Hinterrand — posterior edge
die HirnkapSEL — braincase
der Hirnschädel — cranium

die Hirnschädelbreite — breadth of cranium
die Hirnschädelkapazität — cranial capacity
die Hirnschädellänge — length of cranium
die hochgewachsen — fully erupted (teeth)
die Höhe — height

der Hornzapf — horncore
die Hornzapfenbasis — base of horncore
das Hufbein — phalanx 3

das Hundebein — gnawing marks of dog

die Individuennummer — number of individuals


das Insektensauger — insectivore
die Jagdtiere (m.) — hunted animals
das Jochbein — jugal
die Jochbogengelenk — jugal breadth


das Kalzium — calcined
das Knochenbein — carcass weight
der Kastrat — castrate
das Kleinbein — patella
das Knochenge wicht — bone weight
das Knochenelement — bone implement
das Kronbein — phalanx 1
das Kronbein — frontal bone
das Kreuzbein — sacrum
die Länge  length
der Lendenwirbel  lumbar vertebra
die Lückenzähne (m.) premolars
männlich  male
die Milchzähne (m.) milk teeth
die Mindestindividuenzahl  minimum number
   of individuals
   der Mittelfuss  metatarsus (Mt)
die Mittelhand  metacarpus (Mc)
der Muskelaansatz  place for insertion
   of muscles
dir Muskelfortsatz  process for attachment
   of muscles
der Nager  rodent
das Nasenbein  nasal bone
das Oberarmbein  humerus
der Oberkiefer  maxilla
der Oberkieferzahn  maxillary tooth
der Oberschädel  upper part of cranium
das Oberschenkelbein  femur
   (der) knochen  femur
der Penisknochen  penis bone
das Pfannenbein  ischium
der Salzspeicher  caudal vertebra
das Sesambein  sesamoid
das Siebbein  ethmoid bone
das Sitzbein  ischium
das Speichenoberkante  radius
das Spitzensegment  antler tine fragment
der Sporn  metatarsal spur
der Spross  tine (antler)
die Stirnbein  frontal bone
die Stirnlänge  frontal length
die Stücksnummer  number of fragments
die Summe  sum, total
die Tiefe  depth
die Tierknochen -fund (m.) finds
das Tränkenbein  lacrimal bone
die Trennsprünge  seaming mark
der Umgang  circumference
der Unterkiefer  mandible
der Unterkieferkasten  ascending ramus
der Unterkieferzahn  mandibular tooth
die Usurfläche  biting surface (tooth)
die Verkohlung  carbonization
das Wachstum  fused, grown together
der Vogel  bird
der Vorderrand  complete
der Widerlager  anterior edge
das Wachsen  fusion
das Wechsel  shedding (of teeth)
der Weiblich  female
die Widerristhöhe  height at the withers
der Widerkörner  ruminants
der Wildgewebe  wild fowl
der Wildtier  wild animal
der Winkel  angle
der Wirbel  vertebra
der Wirbelbogen  dorsal arch (vertebra)
der Wirbelkanal  vertebral canal
der Wirbelkopf  cranial end (vertebra)
der Wirbelkörper  centrum of vertebra
der Wirbelloch  vertebral foramen
der Wirbelpranne  caudal end (vertebra)
der Wirbelsäule  vertebral column
der Wuchsform  proportions
das Zahnalter  age as revealed by
   die Zehe  the teeth
der Zehe  toe
das Zehenknöchel  phalanx
das Zungengehirn  hyoid bone
das Zwischen-  interparietal bone
das Zwischen-
scheitelbein  intervertebral disc
5. Other organisations

5.1. Paleopathology Association

The Association consists of an informal group of scientists in many disciplines, whose common link is that they are interested in disease in ancient times. At the moment there are about 300 members in 22 countries. It has neither funds, rules, nor any officials, but exists solely to provide channels of communication among workers in the field. It functions effectively through personal contacts, an annual meeting, and a quarterly Newsletter. Subscription to the Newsletter ($10.00 per calendar year) includes an annual monograph. Back issues for 1973-78 are available at $5.00 a year. If you are interested in subscribing, please make your cheque payable to Eve Cockburn and mail to: Mrs. T.A. Cockburn, 18655 Parkside, Detroit, Michigan 48221.

5.2. PACT

The studygroup PACT is an organisation within the Council of Europe to promote collaboration between scientists and archaeologists. The group has been set up under the auspices of the Committee on Science and Technology. At first the group dealt only with physical, chemical and mathematical techniques in archaeology. In 1979 also a group for biological sciences was established. This group will meet for the first time in March 1980.

6. Meetings

6.1. The INQUA regional subcommission for the Study of the Holocene of the Circum-Mediterranean Area is organising a symposium on "The environmental evidence for climatic change in the Eastern Mediterranean and the Near East, during the last 20,000 years". Biologisch-Archaeologisch Instituut, State University Groningen, Netherlands, 8-11 September 1980.

6.2. Third European meeting of the Paleopathology Association Caen (France), 2-27 September 1980.

7. New publications


A. Morales and K. Rosenlund, 1979. Fish bone measurements. An attempt to standardize the measuring of fish bones from archaeological sites. Stemstrupia, Copenhagen.

8. Short communications

Prof. Nobis asks for offprints to be sent to Dr. Chow Ben-Shun in China, and Dr. S. Bannerjee in India (see address list).
List of addresses 1980

New addresses and changes of address

Canada: Archaeozoologists: P.T. Bobrowsky B.Sc (n.a.), 4604-119 Avenue, Edmonton, Alberta T5W 1H4; Prof. Dr. J.M. Fossey (n.a.), Dept. of Classics, McGill University, 855 Sherbrooke St. W., Montreal, Quebec, H3A 2T7.

China (People's Republic): Archaeozoologist: Dr. Chow Ben-Shun (n.a.), Archaeological Institute, Academia Sinica, P.O. Box 643, Beijing (Peking).


Germany (B.R.D.): Archaeologist: Dr. W. von Koenigswald (ch.a.), Hessisches Landesmuseum, Friedensplatz 1, 61 Darmstadt; Ms. I. Kohler (n.a.), Pragelatostr. 20, 6105 Ober-Ramstadt.

Germany (D.P.R.): Archaeologist: Prof. Dr. O. Gehl (ch.a.), Friedenskamp 8, 2300 Kronshagen.

Great Britain: Archaeozoologists: A.G. Legge (n.a.), Dept. of Extra-Mural Studies, 26 Russell Square, London WC1 5DG; Ms. S. Stallibrass N.A. (n.a.), Dept. of Prehistory and Archaeology, The University, Sheffield.

Hungary: Archaeozoologist: Dr. L. Bartosiewicz (n.a.), Futár u. 17, Budapest, 1131.

India: Archaeozoologist: S. Banerjee M.Sc. (n.a.), Zoological Survey of India, 8, Lindsay Street, Calcutta-7000/6.

Israel: Archaeozoologist: Prof. Dr. G. Haas (n.a.), Dept. of Zoology, The Hebrew University, Jerusalem.

Italy: Archaeozoologist: Prof. Dr. A. Simonetta (n.a.), Dept. of Zoology and Comparative Anatomy, Univ. of Camerino, Camerino (MC).

The Netherlands: Archaeozoologists: Drs. R.C.G.M. Lauwerier (n.a.), Meyhorst 27-67, 6537 KG Nijmegen; Drs. R.J. van der Feen (ch.a.), Dombergseweg 6, 4357 BB Domburg.

New Zealand: Archaeozoologist: Dr. A.J. Anderson (n.a.), University of Otago, Box 56, Dunedin.


Interested: Dr. M. Klichowska (n.a.), Pracownia Paleobotaniczna, Institut Kultury Materialnej PAN, Stany Rjnek 95/96 m. 7, 61-773 Poznan.

Spain: Archaeozoologist: A. Morales (ch.a.), Departamento de Zoología y Fisiología Animal, Facultad de Ciencias, Universidad Autónoma de Madrid, Cantoblanco, Madrid 34.

Sweden: Archaeozoologist: L. Gren (n.a.), Dr. Liborius Gata 86. S-41323 Göteborg.


Syria: Archaeozoologist: A. Tigliani Elmaki (n.a.), Dept. of Archaeology, University of Khartoum, Khartoum (see also Norway).

Turkey: Archaeozoologist: Prof. Dr. E. Deniz (ch.a.), Dept. of Medical Biology, Faculty of Medicine, Univ. of Ankara, Sikhiye, Ankara.
U.S.A.: Archaeozoologists: Mr. F.E. Bayham (n.a.), 331 East Highland Avenue, Phoenix, Arizona, 85012; Dr. B.L. Hesse (ch.a.), Department of Anthropology, University of Alabama in Birmingham, Birmingham, Alabama 35294; Dr. R. Meadow (ch.a.), Peabody Museum of Archaeology and Ethnology, Harvard University, 11 Divinity Avenue, Cambridge, Massachusetts 02138; D.O. Simons (n.a.), Dept. of Anthropology, University of California, Davis California 95616; Ms. P. Wapnish (n.a.), Dept. of Anthr. NHB 320, Smithsonian Institution, Washington D.C. 20560; Ms. B.C. Yates (n.a.), 1514 Semiole, Denton, Tx 76201.

List of Current Research Projects 1980

New projects

1. Main specialisation is on: a) mammals, b) birds, c) reptiles, d) amphibians, e) fishes, f) molluscs, g) insects, h) other groups.

2. Working on material from a) North America, b) South America, c) Australia, New Zealand, Pacific region, d) South Eastern Asia, e) Central and Northern Asia, f) Western Asia, g) Africa south of the Sahara, h) Europe and Northern Africa.

3. The work is concentrated on material from a special period: no/or ...........

Canada
K. Biddick (see U.S.A.): 1a, b; 2h; 3 no. Animal management and land use on the fen-edge, Peterborough, B.B.; quantitative aspects of skeletal frequency distributions and the reconstruction of natural and cultural processes contributing to these frequencies; medieval live-stock accounts as supplementary sources for the understanding of medieval animal management.

P.T. Bobrowsky: 1a, e, f; 2a; 3 no. Bivariate and multivariate analysis of musk-oxen metrical data from Banks Island; archaeozoology of copper Eskimo sites for prey-predator models in the late historic period; analysis of fish remains from Port George 1978 season; molluscan remains from the old brow region of the Yukon, Canada.

J.M. Fossey: 3 Greek Bronze Age and early historic period; excavations in Central Greece.

Denmark
T. Trolle-Lassen: 1a; 2h; 3 Iron Age. Study of the human cremations of the Iron Age graveyard of Slusegård on Bornholm.

Germany (B.R.D.)
J. Köhler: 1a; 2f; 3 no. Thesis on ancient animal husbandry in Jordan and Syria; faunal remains from Poella in Jordan; camel domestication.

Great Britain
A.J. Legge: 1a; 2f, h; 3 Prehistory. Prehistoric animal husbandry with reference to sites in Britain and the Eastern Mediterranean area.

S. Stallibrass: 1a; 2h; 3 no. Taphonomy; intra-intersite variation in fragment patterns of Romano-British material in West Yorkshire.
France
F. Audoin: Butchering techniques.
S. Beckouche: 1a; 2h; 3 Late Pleistocene. Late Pleistocene fauna remains from Morocco.
J. Pichon: 1b; 2f; 3 Early Neolithic.
J.-D. Vigne: 1a; 2h; 3 Neolithic. The origin of the animals of Corsica, in the light of the arrival of Man.

Hungary
L. Bartosiewicz: 1a; 2h; 3 no. Cattle ontology and chronology; faunal research, comparative osteometry of fowl.

New Zealand
A.J. Anderson: 1a, b, e, f; 2c; 3 no. Birds, fish and mollusc remains from sites in New Zealand and Oceania; Southern Ocean seals.

Switzerland
B. Lüps-Grundbacher: 1a, b; 2h; 3 no. Analysis of the faunal remains of a Bronze Age settlement in the Swiss Alps; analysis of the remains of carnivores of Neolithic settlements in Switzerland.

U.S.A.
F.E. Bayham: 1a, b; 2a; 3 Pleistocene-Holocene. Study of the faunal remains of a cave site.
B. Hesse: 1a; 2b, f; 3 no. Late Pleistocene-Early Holocene archaeozoology in the Zagros; prehistoric animal use in the Chilean Andes.
R. Meadow: 1a, b; 2d, f; 3 no. The study of faunal remains from Tepe Yahya; a 5th-1st mil. B.C. site located south of Kerman in S.E. Iran; faunal remains from Balakot, near Sonmiani (late 4th-early 2nd mil. B.C.) and Mehrgarh, near Dardhar (6th-3rd mil. B.C.), both located in Baluchistan, Pakistan.
P. Wapnish: 1a; 2f; 3 no. The study of faunal materials from Tell Gemmek in Israel; archaeozoology in the context of historical documents; folk taxonomy in the Ancient Near East.
B.C. Yates: 1a; 3 no. The role of rodents in faunal remains; computer methods in archaeozoology.