Proceedings of the Seminar for Arabian Studies, PSAS, Vol. 31 (2000) contains the following papers relating to the UAE.

Elders, J. The lost churches of the Arabian Gulf: recent discoveries on the islands of Sir Bani Yas and Marawah, Abu Dhabi Emirate, United Arab Emirates. pp. 47-58.

Magee, P., with Thompson, E. Excavations

Muweilah 1997-2000. pp. 115-130.

Mery, S., Rouquet, J., McSweeney, K., Basset, G., Saliege, J.-F. & Al Tikriti, W.Y. Re-excavation of the early Bronze Age collective Hili N pit-grave (Emirate of Abu Dhabi, UAE): results of the first two campaigns of the Emirati-French Project. pp. 161-178.

Uerpmann, M. Remarks on the animal economy of Tell Abraq (Emirates of Sharjah and Umm al-Qaywayn, UAE). pp. 227-234.

The Proceedings also contain, as usual, a number of papers on Oman, Yemen and Bahrain. Of particular interest for the UAE are

Charpentier, V. Les industries lithiques de Ra's al-Hadd. pp. 31-46

Olijdam, E. Exploitation of sea turtles in the early

Dilmin period (c. 2100-1900 BC). pp. 195-202.

There is also a note In Memoriam of the archaeologist Geoffrey Bibby, who died in early 2000. Well known for his work elsewhere in the Gulf, in Bahrain in particular, Bibby was also a co-director, with P.V. Glob, on the Danish team which carried out the first archaeological excavations in the UAE, at Umm al-Nar, in 1959, later moving on excavate the Hili Tomb.

Other publications on Gulf archaeology

Bahrain

Crawford, Harriet [2001]. Early Dilmun Seals from Saar: Art & Commerce in Bronze Age Bahrain. Hdbk, 112 pp., 222 colour photographs, 176 black-and-white drawings. ISBN 0-9539561-0-5. Price £45 or \$63. (p. & p. extra). Archaeology International Ltd. Upper House, Stoke Saint Milborough, Ludlow, Shropshire SY8 2EJ UK. email: rk@archaeology-international.co.uk

The excavations at the archaeological site of Saar produced the largest single corpus of Bronze Age seals and sealings found so far in Bahrain, the centre of the Dilmun civilisation. The material forms a unique record of the art of the period and provides valuable information on the commercial activities of the inhabitants of Saar. An introductory text describes the study of seals and sealings and is followed by a comprehensive analysis of the stylistic and functional attributes of the Saar material. The accompanying catalogue contains full details of over

illustrated with colour photographs. This volume is the second in the series of reports on the excavations at Saar, carried out by the London-Bahrain Archaeological Expedition between 1990 and 1999.

two hundred seals and sealings, and is lavishly

Although only a few Dilmun seals have yet been recorded in the Emirates, not all of which have yet been published, this book will also serve as a useful

introduction to UAE-based readers.

Oman

Two new publications from the Oriental Department of the German Institute of Archaeology dealing with aspects of Omani archaeology have been announced. Summary details adapted from information supplied by the publishers follow. Further information can be

obtained from the author / co-author, Dr. Paul Yule, at paul.yule@t-online.de

Yule, Paul [2001] Die Gräberfelder in Samad al Shan (Sultanat Oman) Materialien zu Kulturgeschichte. Orient-Archäologie 4. 514 pp., 47 text figures, 64 tables, 611 plates, in German with English and Arabic summaries. 295.00 DM. ISBN 3-89646-634-8; ISSN 1434-162x Verlag Marie Leidorf, Rahden. Website: www.vml.de

Following years of preparation, the publication on the research undertaken by the German Mission centering in Oman's Sharqiyah area has finally appeared. This work focusses on the Samad Period, from post 300 B.C. to 1000 A.D. In order to define this period/culture, those chronologically adjacent to it must also be defined in terms of finds and contexts.

This project began in 1980 and was in full swing from 1987 to 1992. Some 300 sites were studied, mostly of the Bronze and Iron Ages. 361 graves and their finds provide the main body of this work, although other material handed in to the Department of Antiquities is also reviewed. Over 20 different kinds of grave structures are recorded, while 500 different clases of finds are noted, including different types of weapons, pottery vessels, stone vessels, animal bones, jewellery, seals, and 157 classes of beads.

The publication is based on the author's Habilitation from the Faculty for Ancient Oriental Languages and Ancient

Studies of the University of Heidelberg.

Paul Yule & Gerd Weisgerber (with a contribution by Michael Prange and Andreas Hauptmann). The Metal Hoard from 'Ibri/Selme, Sultanate of Oman. Published in the series Prähistorische Bronzefunde, volume 20:7. Franz Steiner Verlag Stuttgart 2001. Hdbk, ix & 106 pp. 52 plates, 25 figs. & 9 tables. 140.00 DM. ISBN 3-515-07153-9

After eighteen years of preparation and several postponements this monograph on the largest Early Iron Age hoard ever found in the Middle East has finally appeared.

The large hoard of vessels, bangles and other metal implements, totalling 504 artefacts, was accidentally discovered in 1979. A working group of archaeologists, archaeometallurgists, and restorers was put together to tackle the publication and preservation of the find.

The majority of the hoard finds are metal implements of the Early Iron Age. They were hidden in a tomb of the second half of the 3rd millennium BC, presumably having been collected together by grave robbers who may have used the tomb as a depot. This interpretation does not, however, explain the presence of all of the artefacts, some of which seem to have belonged to the tomb.

Recent Research and Theses

Dr. Mark Beech, Environmental Archaeology and IT Director for the Abu Dhabi Islands Archaeological Survey (ADIAS), received his PhD from the University of York in July. The title of his doctoral thesis was: "In the Land of the Ichthyophagi: Modelling fish exploitation in the Arabian Gulf and Gulf of Oman from the 5th millennium BC to the Late Islamic Period."

His thesis abstract was as follows:

This study addresses a number of key issues relating to the coastal archaeology of southeast Arabia. Namely, what role did chronological developments play in the characterisation of fisheries exploitation patterns? What was the influence of the environment in this region? Are there any modern fisheries or archaeological data to support the notion that the inhabitants of this region practised a transhumant and seasonally based existence, occupying the coast or interior during particular seasons? Is it possible to identify traces of fish processing, dried fish or possible evidence for fish storage and trade in the archaeological record of the area?

The primary data forming the basis for this study are 23 archaeological fish bone assemblages from sites located in the Arabian Gulf and Gulf of Oman, with a particular focus on the southern Gulf region and the present day coastline of the United Arab Emirates. The chronological focus of this study is from the 5th millennium BC to the Late Islamic period.

Various techniques were used to model regional variability in archaeological fish bone assemblages. zooarchaeological included standard quantification techniques as well as percentage sample measures of ecological (Shannon-Wiener and Simpson diversity indices), cluster analysis and Renkonens percentage similarity. The study highlighted three main types of assemblages, sites with shallow water and reef species, sites with numerous Chondrichthyes, and sites with higher numbers of pelagic fish, particularly tuna and mackerel. Sites clustered according to similar regions or environments rather than according to any chronological principle.

A pilot study on Lethrinid otoliths questioned some of the currently adopted models relating to transhumance and seasonality. It is suggested that further studies should be carried out in conjunction with other researchers working in the region to critically evaluate the validity of these models.

The following report titles have been supplied by the Breeding Centre for Endangered Arabian Wildlife, Sharjah, UAE, from whom further information can be obtained.

Conservation assessment and management plan (CAMP) for Arabian carnivores and Population Habitat and Viability assessment (PHVA) for the Arabian Leopard and Tahr. Briefing book (2000). Breeding Centre for Endangered Arabian Wildlife in collaboration with IUCN/SSC Conservation Breeding Specialist Group. Sharjah.

Conservation assessment and management plan (CAMP) for Arabian carnivores and Population Habitat and Viability assessment (PHVA) for the Arabian Leopard and Tahr. Final report (2000). Breeding Centre for Endangered Arabian Wildlife, in collaboration with IUCN/SSC CBSG, Apple Valley. Min. USA.

Conservation assessment and management plan (CAMP) for the Arabian leopard and Arabian ungulates. Briefing book (2001) Breeding Centre for Endangered Arabian Wildlife, in collaboration with IUCN/SSC Conservation Breeding Specialist Group. Sharjah.

Conservation assessment and management plan (CAMP) for the Arabian Leopard and Arabian Ungulates with Population and Habitat Viability Assessments (PHVA) for the Arabian Leopard, Arabian Oryx and Tahr. Final report (2001). Breeding Centre for Endangered Arabian Wildlife, in collaboration with IUCN/SSC CBSG, Apple Valley. Min. USA.

Regional Studbook for the Arabian leopard *Panthera* pardus nimr (2001). Data current through 30 April 2001. Breeding Centre for Endangered Arabian Wildlife, Sharjah.

Crackdown on illegal trade in wildlife promised

A continued flow of illegally-traded species of wildlife into the Emirates has prompted the Secretariat of the Convention on International Trade in Endangered Species of Flora and Fauna, CITES to recommend to its members a suspension of all wildlife trade to and from the UAE.

The move followed rising concern among other CITES members, and in the UAE itself, about the inability of the national authority responsible, the Ministry of Agriculture and Fisheries, to clamp down on the trade. The Ministry has cited its inability to obtain proper co-operation from airports, ports and custom authorities as being to blame. The UAE joined CITES in 1974, but withdrew in the early 1980s, as part of Government financial cutbacks at a period of low oil prices. It rejoined at the end of the 1980s, but the Ministry of Agriculture and Fisheries has never been given adequate staffing to permit it to implement the CITES rules effectively. Local authorities have also been reluctant in some cases to clamp down on the illegal trade.

Warning of a possible suspension was first issued in June 2001, following which a CITES delegation visited the UAE in October to review the local situation on the ground. Prior to its arrival, a ministerial decree from the Minister of Agriculture and Fisheries was issued on 24th October, forbidding the importation of endangered species or products made from them unless a special CITES import permit has been issued by the Ministry. The decree specifically singled out all species of bustards, including houbara. It also banned the import of all live falcons of species on the CITES list during the period from 1st September to 31st March.

Although this and other steps indicated that steps were under way to tighten up controls, the CITES mission decided that insufficient action had been taken.

Further study is now under way by the relevant authorities to ensure that the UAE is able to comply fully with the Convention, so that the suspension may be lifted. One move likely to be taken appears to be a transferral of responsibility for CITES matters from the Ministry of Agriculture to the Federal Environmental Agency, FEA, with authority then being devolved, where appropriate, to local Departments and Agencies.

One important step that can be taken is the implementation of seizures of imported wildlife brought to the country in contravention of international regulations.

Under the terms of the decree establishing Abu Dhabi's Environmental Research and Wildlife Development Agency, ERWDA, the Agency has the powers, in association with the police, to seize wildlife on sale in the local 'pet shops,' if the presence of individual species of animals is deemed to be in contravention of international agreements. Action by ERWDA to utilise these powers is likely to be one of the first indications of a tougher new Government line.

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