

## Professional Zooarchaeology Group (PZG) Minutes

### Animal Bones Guidelines and Sheep/Goat Distinction Workshop English Heritage, Fort Cumberland, Portsmouth, 15th July 2012

The 14<sup>th</sup> meeting was attended by 12 members and comprised three parts. We started the day at Fort Cumberland, taking advantage of the reference collection to try our hands at distinguishing sheep and goat bones, following published criteria. A suite of criteria were compiled, focussing on the skull and mandible, humerus, radius, metacarpal, tibia, calcaneum and astragalus. We ran blind tests using two species and two breeds of sheep (mouflon, Cotswold and Soay), four goat breeds (Toggenburg, Damascus, Bagot and a feral goat) and series of criteria selected from 12 published sources (below). The results of the blind test are being compiled, but a show-of-hands survey and discussion indicated the usability of criteria to be varied, with some interpreted differently by different observers handling the same bone. Members commented on several other published and unpublished criteria that they find helpful. The overriding conclusion of the session was that criteria should be used with consideration of their varying reliability, rather than blind faith, and, most importantly, should only be used in conjunction with a skeletal reference collection.



*Manx Loaghtan sheep at Butser Ancient Farm, 15<sup>th</sup> July 2012 (photo: J Browning)*

After a snack break, the group discussed Parts III and IV of the draft English Heritage guidelines 'Animal Bones in Archaeology', which had been circulated to attendees in advance. The guidelines aim to facilitate best practice in recovery, laboratory analysis and reporting of zooarchaeological assemblages from excavations in England. They are being written by a committee of animal bone specialists from English Heritage and the commercial and university sectors in England and will be circulated for formal stakeholder consultation in 2013. The PZG discussion of the draft texts concentrated on whether the group felt that the sections contained appropriate content and detail and were apposite for their intended audience. The group welcomed the draft text, highlighting occasions where content could be abbreviated or developed.



*Butser Ancient Farm, 15<sup>th</sup> July 2012(photo: F Worley)*

After lunch, several members had to depart, but those that remained went on a field trip to Butser Ancient Farm (<http://www.butserancientfarm.co.uk/>), where we were guided around their array of recreated experimental prehistoric and Roman structures. Members were particularly interested in the mutton and pork joints hung to smoke in roundhouse rafters (delicious apparently!), worked bone spoon, flock of Manx Loaghtan sheep (the males of which often sport four horns) and small herd of traditional breed pigs.



*Inquisitive pigs (traditional breeds) at Butser Ancient Farm, 15<sup>th</sup> July 2012 (photo: F Worley)*

The sheep/goat criteria were selected from:

- 📖 Boessneck J 1969 'Osteological differences between sheep (*Ovis aries* Linné) and goat (*Capra hircus* Linné)', in Brothwell D R & Higgs E S (eds) *Science in archaeology: A comprehensive survey of progress and research*. London: Thames & Hudson, 331-58
- 📖 Boessneck J, Müller H-H & Teichert M 1964 'Osteologische Unterscheidungsmerkmale zwischen Schaf (*Ovis aries* Linné) und Ziege (*Capra hircus* Linné)'. *Kühn-Archiv* **78**, 5-129
- 📖 Hillson S 1995 *Mammal bones and teeth: An introductory guide to methods of identification*. London: Institute of Archaeology, University of London
- 📖 Kratochvíl Z 1969 'Species criteria on the distal section of the tibia in *Ovis Ammon* F. *Aries* L. and *Capra Aegagrus* F. *Hircus* L.'. *Acta Veterinaria* **38**, 483-490
- 📖 Payne S 1969 'A metrical distinction between sheep and goat metacarpals', in Ucko P & Dimbleby G (eds) *The domestication and exploitation of plants and animals*. London: Duckworth, 295-305
- 📖 Prummel W & Frisch H-J 1986 'A guide for the distinction of species, sex and body side in bones of sheep and goat'. *Journal of Archaeological Science* **13**, 567-77
- 📖 Schmid E S 1972 *Atlas of animal bones for prehistorians, archaeologists and Quaternary geologists*. Amsterdam: Elsevier
- 📖 Zeder, M A and Lapham, H A 2010 'Assessing the reliability of criteria used to identify post-cranial bones in sheep *Ovis*, and goats, *Capra*'. *Journal of Archaeological Science* **37**, 2887-2905
- 📖 Halstead P, Collins P & Isaakidou V 2002 'Sorting sheep from goats: Morphological distinctions between the mandibles and mandibular teeth of adult *Ovis* and *Capra*'. *Journal of Archaeological Science* **29**, 545-53
- 📖 Gillis, R, Chaix, L and Vigne, J-D 2011 'An assessment of morphological criteria for discriminating sheep and goat mandibles on a large prehistoric archaeological assemblage (Kerma, Sudan)'. *Journal of Archaeological Science* **38**, 2324-2339
- 📖 Payne S 1985 'Morphological distinctions between the mandibular teeth of young sheep, *Ovis*, and goats, *Capra*'. *Journal of Archaeological Science* **12**, 139-47
- 📖 Zeder, M A and Pilae, S E 2010 'Assessing the reliability of criteria used to identify mandibles and mandibular teeth in sheep, *Ovis*, and goats, *Capra*'. *Journal of Archaeological Science* **37**, 225-242

Minutes contributed by Fay Worley, 16<sup>th</sup> July 2012

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