

ARCL3053

Livestock and Pastoralism in Archaeology



Llama singing with the emperor

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Lecture room B13: Tuesdays 11-1

ARCLC611: Livestock and Pastoralism in Archaeology

Year 2/3 Option, 0.5 unit

AIMS

Livestock are maintained by human societies throughout the world, yet the demands which livestock make on society, in terms of their upkeep, remain largely unexplored in archaeology. Furthermore, contrary to the perception we are provided by modern farming patterns, appropriate animal husbandry practice is culturally loaded and therefore varies within different societies. For example, some societies view animal dung and urine as an inconvenience, either viewed as waste or only suitable for fertilizer, whilst in other societies they are valued for their physical cleansing and protecting qualities and dung even has ritual properties. This course aims to provide students with a detailed treatment of livestock management issues and their relevance for interpreting the archaeological record. The course will also focus on the image of pastoralist societies and the many misconceptions which abound concerning pastoralism.

OBJECTIVES

On successful completion of this course a student should have acquired a comprehensive overview of human exploitation of livestock and the demands which livestock make on their human hosts. Students should be in a position to recognize the wide range of factors which livestock management demands of human populations. Equally, students should be aware of the range of culturally mediated practice which instills livestock management with so much of its diversity. In particular, students will be expected to develop a contemporary awareness and critique of the issues of pastoralism, learning where huge assumptions have been made in the past regarding societies which specialize in livestock management. It is intended that students would subsequently be able to critically review the archaeological record making use of the insights they have gained on animal husbandry and pastoralist societies.

COURSE INFORMATION

This handbook contains the basic information about the content and administration of the course. Additional subject-specific reading lists and individual session handouts will be given out at appropriate points in the course. If students have queries about the objectives, structure, content, assessment or organisation of the course, they should consult the Course Co-ordinator.

TEACHING METHODS

The course is taught through lectures. Discussion sessions will be encouraged within these lectures. Lectures will be held in Room B13 on Tuesdays between 11:00 and 1:00.

PREREQUISITES

There are no formal prerequisites for this course.

WORKLOAD

There will be 20 hours of lectures for this course. Students will be expected to undertake around 90 hours of reading for the course, plus 40 hours preparing for and producing the assessed work. This adds up to a total workload of some 150 hours for the course.

METHODS OF ASSESSMENT

This course is assessed by means of two pieces of course-work. The first piece of coursework will be a standard written essay, 1900-2100 words in length, taken from a range of options offered below. The second piece of work will be a 1425-1575 word review of an archaeological situation of their choice in which livestock were being maintained. Using the insights provided in this course the student will be expected to critique the manner in which archaeologists have previously interpreted the use and exploitation of livestock.

Each of the two pieces of work will contribute 50% to the final grade for the course. If students are unclear about the nature of an assignment, they should discuss this with the Course Co-ordinator. The Course Co-ordinator is willing to discuss an outline of the student's approach to the assignment, provided this is planned suitably in advance of the submission date.

WORD-LENGTH

Strict new regulations with regard to word-length were introduced UCL-wide with effect from 2013:

3.1.7 Penalties for Over-length Coursework

For submitted coursework, where a maximum length has been specified, the following procedure will apply:

- i) The length of coursework will normally be specified in terms of a word count
- ii) Assessed work should not exceed the prescribed length.
- iii) For work that exceeds the specified maximum length by less than 10% the mark will be reduced by ten percentage marks; but the penalised mark will not be reduced below the pass mark, assuming the work merited a pass.
- iv) For work that exceeds the specified maximum length by 10% or more, a mark of zero will be recorded.
- vii) In the case of coursework that is submitted late and is also overlength, the lateness penalty will have precedence.

WORD COUNTS

The following should not be included in the word-count: title page, contents pages, lists of figure and tables, abstract, preface, acknowledgements, bibliography, lists of references, captions and contents of tables and figures, appendices, and wording of citations in the text.

Penalties will only be imposed if you exceed the upper figure in the range. There is no penalty for using fewer words than the lower figure in the range: the lower figure is simply for your guidance to indicate the sort of length that is expected.

SUBMISSION OF COURSEWORK

Students are required to submit hard copy of all coursework to the course co-ordinators pigeon hole via the Red Essay Box at Reception by the appropriate deadline. The coursework must be stapled to a completed coversheet (available from the web, from outside Room 411A or from the library)

Students should put their Candidate Number on all coursework. This is a 5 digit alphanumeric code and can be found on Portico: it is different from the Student Number/ ID. Please also put the Candidate Number and course code on each page of the work.

It is also essential that students put their Candidate Number at the start of the title line on Turnitin, followed by the short title of the coursework.. – eg YBPR6 Funerary practices

Please note the stringent UCL-wide penalties for late submission given below. Late submission will be penalized in accordance with these regulations unless permission has been granted and an Extension Request Form (ERF) completed.

Date-stamping will be via 'Turnitin' (see below), so in addition to submitting hard copy, students must also submit their work to Turnitin by the midnight on the day of the deadline.

Students who encounter technical problems submitting their work to Turnitin should email the nature of the problem to ioa-turnitin@ucl.ac.uk in advance of the deadline in order that

the Turnitin Advisers can notify the Course Co-ordinator that it may be appropriate to waive the late submission penalty.

If there is any other unexpected crisis on the submission day, students should telephone or (preferably) e-mail the Course Co-ordinator, and follow this up with a completed ERF

Please see the Coursework Guidelines on the IoA website (or your Degree Handbook) for further details of penalties.

<http://www.ucl.ac.uk/archaeology/administration/students/handbook/submission>

Hard copy will no longer be date-stamped.

The Turnitin 'Class ID' is **594878** and the 'Class Enrolment Password' is **IoA1314** Further information is given on the IoA website.

<http://www.ucl.ac.uk/archaeology/administration/students/handbook/turnitin>

Turnitin advisers will be available to help you via email: ioa-turnitin@ucl.ac.uk if needed.

UCL-WIDE PENALTIES FOR LATE SUBMISSION OF COURSEWORK

UCL regulation 3.1.6 Late Submission of Coursework

Where coursework is not submitted by a published deadline, the following penalties will apply:

- i) A penalty of 5 percentage marks should be applied to coursework submitted the calendar day after the deadline (calendar day 1).
- ii) A penalty of 15 percentage marks should be applied to coursework submitted on calendar day 2 after the deadline through to calendar day 7.
- iii) A mark of zero should be recorded for coursework submitted on calendar day 8 after the deadline through to the end of the second week of third term. Nevertheless, the assessment will be considered to be complete provided the coursework contains material that can be assessed.
- iv) Coursework submitted after the end of the second week of third term will not be marked and the assessment will be incomplete.
- vii) Where there are extenuating circumstances that have been recognised by the Board of Examiners or its representative, these penalties will not apply until the agreed extension period has been exceeded.
- viii) In the case of coursework that is submitted late and is also over length, only the lateness penalty will apply.

Timescale for return of marked coursework to students.

You can expect to receive your marked work within four calendar weeks of the official submission deadline. If you do not receive your work within this period, or a written explanation from the marker, you should notify the IoA's Academic Administrator, Judy Medrington.

Keeping copies

Please note that it is an Institute requirement that you retain a copy (this can be electronic) of all coursework submitted. When your marked essay is returned to you, you should return it to the marker within two weeks.

Citing of sources

Coursework should be expressed in a student's own words giving the exact source of any ideas, information, diagrams etc. that are taken from the work of others. Any direct quotations from the work of others must be indicated as such by being placed between inverted commas.

Plagiarism is regarded as a very serious irregularity which can carry very heavy

penalties. It is your responsibility to read and abide by the requirements for presentation, referencing and avoidance of plagiarism to be found in the IoA 'Coursework Guidelines' on the IoA website

<http://www.ucl.ac.uk/archaeology/administration/students/handbook>

AVOIDING PLAGIARISM

The term "plagiarism" means presenting material (words, figures etc.) in a way that allows the reader to believe that it is the work of the author he or she is reading, when it is in fact the creation of another person.

In academic and other circles, plagiarism is regarded as theft of intellectual property. UCL regulations, all detected plagiarism is to be penalized and noted on the student's record, irrespective of whether the plagiarism is committed knowingly or unintentionally. The whole process of an allegation of plagiarism and its investigation is likely to cause considerable personal embarrassment and to leave a very unpleasant memory in addition to the practical consequences of the penalty. The penalties can be surprisingly severe and may include failing a course or a whole degree. It is thus important to take deliberate steps to avoid any inadvertent plagiarism.

Avoiding plagiarism should start at the stage of taking notes. In your notes, it should be wholly clear what is taken directly from a source, what is a paraphrase of the content of a source and what is your own synthesis or original thought. Make sure you include sources and relevant page numbers in your notes.

When writing an essay any words and special meanings, any special phrases, any clauses or sentences taken directly from a source must be enclosed in inverted commas and followed by a reference to the source in brackets. It is not generally necessary to use direct quotations except when comparing particular terms or phrases used by different authors. Similarly, all figures and tables taken from sources must have their origin acknowledged in the caption. Captions do not contribute to any maximum word lengths.

Paraphrased information taken from a source must be followed by a reference to the source. If a paragraph contains information from several sources, it must be made clear what information comes from where: a list of sources at the end of the paragraph is not sufficient. Please cite sources of information fully, including page numbers where appropriate, in order to avoid any risk of plagiarism: citations in the text do not contribute to any maximum word count.

To guard further against inadvertent plagiarism, you may find it helpful to write a plan of your coursework answer or essay and to write the coursework primarily on the basis of your plan, only referring to sources or notes when you need to check something specific such as a page number for a citation.

COLLUSION, except where required, is also an examination offence. While discussing topics and questions with fellow students is one of the benefits of learning in a university environment, you should always plan and write your coursework answers entirely independently.

Libraries and other resources

In addition to the Library of the Institute of Archaeology, other libraries in UCL with holdings of particular relevance to this degree are the Geography and Anthropology sections of the Science Library. In addition students may wish to use the SOAS library to access their excellent African and Asian collections

Attendance

A register will be taken at each class. If you are unable to attend a class, please notify the lecturer by email. Departments are required to report each student's attendance to UCL Registry at frequent intervals throughout each term. Students are expected to attend at least 70% of classes.

Information for intercollegiate and interdepartmental students

Students enrolled in Departments outside the Institute should collect hard copy of the Institute's coursework guidelines from Judy Medrington's office (411A).

Dyslexia

If you have dyslexia or any other disability, please make your lecturers aware of this. Please discuss with your lecturers whether there is any way in which they can help you. Students with dyslexia are reminded to indicate this on each piece of coursework.

Feedback

In trying to make this course as effective as possible, we welcome feedback from students during the course of the year. All students are asked to give their views on the course in an anonymous questionnaire which will be circulated at one of the last sessions of the course. These questionnaires are taken seriously and help the Course Co-ordinator to develop the course. The summarised responses are considered by the Institute's Staff-Student Consultative Committee, Teaching Committee, and by the Faculty Teaching Committee.

If students are concerned about any aspect of this course we hope they will feel able to talk to the Course Co-ordinator, but if they feel this is not appropriate, they should consult their Personal Tutor, the Academic Administrator (Judy Medrington), or the Chair of Teaching Committee (Dr. Karen Wright).

14th January 2014

1. Introduction: course organisation and objectives

- Anderson D. 1993. Cow power: livestock and the pastoralist in Africa. *African Affairs* 92: 121-33.
- Anderson D. 1999. Rehabilitation, resettlement and restocking: ideology and practice in pastoralist development. In D. Anderson and V. Broch-Due (eds) *The Poor are Not Us: Poverty and Pastoralism in Eastern Africa*: 240-256. Oxford: James Currey.
- Argent G. 2010. Do the clothes make the horse? Relationaility, roles and statuses in Iron Age inner Asia. *World Archaeology* 42:157-174.
- *Armstrong Oma K. 2010 Between trust and domination: social contracts between humans and animals. *World Archaeology* 42:175-187.
- Clutton-Brock J. 1989. *The Walking Larder*. London: Unwin Hyman.
- Dahl G. and A. Hjort 1976. *Having Herds: Pastoral Herd Growth and Household Economy*. Stockholm Studies in Social Anthropology, 2.
- Davis S.J.M. 1987. *The Archaeology of Animals*. London: Batsford. (Chapters 7 and 8).
- Heland J. 1980. Some issues in the study of pastoralists and the development of pastoralism. In J. Helland *Five Essays on the Study of Pastoralists and the Development of Pastoralism*: 1-46. Bergen: University of Bergen Occasional Papers in Social Anthropology 20.
- Khazanov, A.M. 1994. *Nomads and the Outside World* (2nd Ed). Introduction to the second edition: xxix-lx. Cambridge: Cambridge University Press.
- Sewell A. 1885. *Black Beauty: the autobiography of a horse*.
- Trigger B. 1991. Distinguished lecture in Archaeology: Constraint and Freedom – a new synthesis for archaeological explanation. *American Anthropologist* 93: 551-569.

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2. What is Pastoralism?

- Chang C. and H.A. Koster 1986. Beyond bones: toward an archaeology of pastoralism. In M.B. Shiffer (ed.) *Advances in Archaeological Method and Theory*, 9: 97-148. New York: Academic Press.
- Ferro-Luzzi G. 1991. On lactose intolerance and the selective paradigm. *Current Anthropology* 32 (4): 447-448.
- Galaty J.G. 1989. Cattle and cognition: aspects of Maasai practical reasoning. In J. Clutton-Brock (ed.) *The Walking Larder*: 215-230. London: Unwin Hyman.
- Galaty J.G. and D.L. Johnson 1990. Introduction: pastoral systems in global perspective. In J.G. Galaty and D.L. Johnson (eds) *The World of Pastoralism*: 1-32. London: Guilford.
- Halstead P. 1996. Pastoralism or household herding? Problems of scale and specialisation in early Greek animal husbandry. *World Archaeology* 28 (1):20-42.
- Jacobs, A.H. 1975. African Pastoralists: some general remarks. *Anthropological Quarterly* 38, 144-54.
- Khazanov, A.M. 1984. *Nomads and the Outside World*. Cambridge: Cambridge University Press.
- Rabey M.A. 1989. Are llama-herders in the south central Andes true pastoralists? In J. Clutton-Brock (ed) *The Walking Larder: patterns of domestication, pastoralism and predation*: 269-276. London: Unwin Hyman (One World Archaeology 2).
- Smith A.B. 1992. *Pastoralism in Africa: origins and development ecology*. London: Hurst and Company. Particularly Chapter 4.

21st January 2014

3. Fulfilling the basic needs: water, fodder, mobility, health

- Albarella U. 1995. Depressions on sheep horncores. *Journal of Archaeological Science* 22:699-704.
- Ambrose S. H. and Deniro M.J. 1986. Reconstruction of African diet using bone collagen carbon and nitrogen isotope ratios. *Nature* 319: 321-324.

- Amorosi T., P.C. Buckland, K.J. Edwards, I. Mainland, T.H. McGovern, J.P. Sadler and Peter Skidmore 1998. They did not live by grass alone: the politics and palaeoecology of animal fodder in the North Atlantic region. *Environmental Archaeology* 1: 41-54.
- Balasse M. and S.H. Ambrose. 2005. Distinguishing sheep and goats using dental morphology and stable carbon isotopes in C₄ grassland environments. *Journal of Archaeological Science* 32: 691-702.
- Balasse M., H. Bocherens, A. Mariotti and S.H. Ambrose 2001. Detection of Dietary changes by Intra-tooth Carbon and Nitrogen Isotopic Analysis: and Experimental Study of Dentine collagen of cattle (*Bos taurus*). *Journal of Archaeological Science* 28: 235-245.
- Dudd S.N. and R.P. Evershed 1999. Direct demonstration of milk as an element of archaeological economies. *Science* 282: 1478-1481.
- Gifford-Gonzalez D. 2000. Animal disease challenges to the emergence of pastoralism in sub-Saharan Africa. *African Archaeological Review* 17: 95-139.
- Karg S. 1998. Winter- and spring-foddering of Sheep/goat in the Bronze Age site of Fiavè-Carera, Northern Italy. *Environmental Archaeology* 1: 87-94.
- Kierdorf H., J. Zeiler and U. Kierdorf 2006. Problems and pitfalls in the diagnosis of linear enamel hypoplasia in cheek teeth of cattle. *Journal of Archaeological Science* 33: 1690-1695.
- Kinahan J. 2000. Fifteenth century agropastoral responses to a disequilibrium ecosystem in southeastern Botswana. In G. Barker and D. Gilbertson (eds) *The Archaeology of Drylands*: 233-250. London: Routledge. (One World Archaeology 39).
- Legge K. 1989. Changing responses to drought among the Wodaabe of Niger. In P. Halstead and J. O'Shea (eds) *Bad Year Economics*: 81-86. Cambridge University Press.
- Mainland I.L. 1998. Dental microwear and diet in domestic sheep (*Ovis aries*) and goats (*Capra hircus*): distinguishing grazing and fodder-fed ovicaprids using a quantitative analytical approach. *Journal of Archaeological Science* 25:1259-1271.
- Mainland I.L. 2006. Pastures lost? A dental microwear study of ovicaprine diet and management in Norse Greenland. *Journal of Archaeological Science* 33: 238-252.
- Makorcwicz C. and N. Tuross 2006. Foddering by Mongolian pastoralists is recorded in the stable carbon ($\delta^{13}\text{C}$) and nitrogen ($\delta^{15}\text{N}$) isotopes of caprine dentinal collagen. *Journal of Archaeological Science* 33: 862-870.
- Noe-Nygaard N., T.D. Price and S.U. Hede 2005. Diet of aurochs and early cattle in southern Scandinavia: evidence from ^{15}N and ^{13}C stable isotopes. *Journal of Archaeological Science* 32: 855-871.
- Smith, A.B. 1984. Environmental Limitations on Prehistoric Pastoralism in Africa. *African Archaeological Review* 2: 99-112.
- Zazzo A., M. Balasse and W.M. Patterson 2006. The reconstruction of mammal individual history: refining high resolution isotope record in bovine tooth dentine. *Journal of Archaeological Science* 33: 1177-1187.

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4. Nomadism versus sedentism

- Allard F. and D. Erdenebataar 2005. Khirigsauers, ritual and mobility in the Bronze Age of Mongolia. *Antiquity* 79: 547-563.
- Balasse M., S.H. Ambrose, A.B. Smith and T.D. Price. 2002. The seasonal mobility model for prehistoric herders in the south-western Cape of South Africa assessed by isotopic analysis of sheep tooth enamel. *Journal of Archaeological Science* 29: 917-932.
- Balikçi A. 1990. Tenure and transhumance: stratification and pastoralism among the Lankenkhel. In J.G. Galaty and D.L. Johnson (eds) *The World of Pastoralism*: 301-322. London: Guilford.
- Berelov I. 2006. Signs of sedentism and mobility in an agro-pastoral community during the Levantine Middle Bronze Age: interpreting site function and occupation strategy at Zahrat adh-Dhra'1 in Jordan. *Journal of Anthropological Archaeology* 25: 117-143.
- Bradley, R.J. 1992. *Nomads in the Archaeological Record*. Meroitica no.13. Berlin: Akademie Verlag.
- Chang, C. and Tourtellotte, P.A. 1993. Ethnoarchaeological Survey of Pastoral Transhumance Sites in the Grevena Region, Greece. *Journal of Field Archaeology* 20: 249-264.

- Cribb R. 1991. *Nomads in Archaeology*. Cambridge: Cambridge University Press. Particularly chapters 2, 3 and 11.
- Fratkin E., M.A. Nathan and E.A. Roth 1999. Health consequences of pastoral sedenterization among Rendille of Northern Kenya. In D. Anderson and V. Broch-Due (eds) *The Poor are Not Us: Poverty and Pastoralism in Eastern Africa*: 149-162. Oxford: James Currey.
- Halstead, P. 1987. Traditional and Ancient Rural Economy in Mediterranean Europe: Plus Ca Change? *Journal of Hellenistic Studies* 107: 77-87.
- Khazanov, A.M. 1994. *Nomads and the Outside World* (2nd Ed). Chapter 1: Nomadism as a distinct form of food-producing: 15-25. Cambridge: Cambridge University Press.
- Kinahan J. 1991. *Pastoral Nomads of the Central Namib Desert*. Windhoek: New Namibia Books. Particularly chapter 5.
- Lees, S.H. and Bates, D.G. 1974. The Origins of Specialized Nomadic Pastoralism: a Systemic Model. *American Antiquity* 39 (2):187-193.
- Marx E. 1992. Are there Pastoral Nomads in the Middle East. In O. Bar-Yosef and A. Khazanov (eds) *Pastoralism in the Levant*: 255-260. Madison: Prehistory Press.
- Meadow R.H. 1992. Inconclusive remarks on pastoralism, nomadism, and other animal-related matters. In O. Bar-Yosef and A. Khazanov (eds) *Pastoralism in the Levant*: 261-269. Madison: Prehistory Press.
- Mughal, M.R. 1994. The Harappan Nomads of Cholistan. In B. Allchin (ed) *Living Traditions. Studies in the Ethnoarchaeology of South Asia*: 53-68. Oxford : Oxbow Books.
- Pryor F. 1996. Sheep, stocklands and farm systems: Bronze Age livestock populations in the Fenlands of eastern England. *Antiquity* 70: 313-324.
- Reinder Reinders H. and W. Prummel 1998. Transhumance in Hellenistic Thessaly. *Environmental Archaeology* 3:81-96.
- Sadr, K. 1991. *The Development of Nomadism in Ancient Northeast Africa*. Philadelphia: Univ. Pennsylvania Press.
- Shanklin E. 1994. "Life underneath the market": herders and gombeenmen in nineteenth century Donegal. In C. Chang and H.A. Koster (eds) *Pastoralists at the Periphery*: 103-121. Tucson: University of Arizona Press.
- Silitshena R.M.K. 1982. Migration and permanent settlement at the lands areas. In R.R. Hitchcock and M.R. Smith (eds.) *Settlement in Botswana: the Historical Development of a Human Landscape*:220-231. Gaborone: Heinemann.
- Tafuri M.A., R.A. Bentley, G. Manzi and S. di Lernia 2006. Mobility and kinship in the prehistoric Sahara: Strontium isotope analysis of Holocene human skeletons from the Acacus Mts (southwestern Libya). *Journal of Anthropological Archaeology* 25: 390-402.
- White C.D. 1993. Isotopic determination of seasonality in diet and death from Nubian mummy hair. *Journal of Archaeological Science* 20: 657-666.

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5. The exploitation of livestock: meat, milk, hides/wool

- Albarella U. and D. Serjeantson 2002. A passion for pork: meat consumption at the British Late Neolithic site of Durrington Walls. In P. Miracle and N. Milner (eds) *Consuming Passions and Patterns of Consumption*: 33-49. Cambridge: MacDonal Institute Monographs.
- Bocherens H., M. Mashkour, D.G. Drucker, I. Moussa and D. Billion 2006. Stable isotope evidence for palaeodiets in southern Turkmenistan during Historical period and Iron Age. *Journal of Archaeological Science* 33: 253-264.
- Bogucki P. 1986. The antiquity of dairying in temperate Europe. *Expedition* 28 (2) 51-58.
- Copley M.S., R. Berstan, S.N. Dudd, S. Aillaud, A.J. Mukherjee, V. Straker, S. Payne and R.P. Evershed 2005. Processing of milk products in pottery vessels through British Prehistory. *Antiquity* 79: 895-908.
- Craig O.E., G. Taylor, J. Mulville, M.J. Collins and M. Parker Pearson 2005. The identification of prehistoric dairying activities in the Western Isles of Scotland: an integrated biomolecular approach. *Journal of Archaeological Science* 32: 91-103.

- Craig O.E., J. Chapman, C. Heron, L.H. Willis, L. Bartosiewicz, G. Taylor, A. Whittle and M. Collins 2005. Did the first farmers of central and eastern Europe produce dairy foods? *Antiquity* 79: 882-894.
- Dudd S.N. and R.P. Evershed 1998. Direct demonstration of milk as an element of archaeological economies. *Science* 282: 1478-1481.
- Dürrwächter C., O.E. Craig, M.J. Collins, J. Burger and K.W. Alt 2006. Beyond the grave: variability in Neolithic diets in Southern Germany? *Journal of Archaeological Science* 33: 39-48.
- Earwood C. 1997. Bog-butter: a two thousand year history. *Journal of Irish Archaeology* 8: 25-42.
- Entwistle R. and A. Grant 1989. The evidence for cereal cultivation and animal husbandry in the southern British Neolithic and Bronze Age. In A. Milles, D. Williams and N. Gardner (eds.) *The Beginnings of Agriculture*: 203-215. BAR International Series 496.
- Garlake P.S. 1978. Pastoralism and zimbabwe. *Journal of African History* 19:479-493.
- Halstead P. 1998. Mortality models and milking: problems of uniformitarianism, optimality and equifinality reconsidered. *Anthropozoologica* 27: 3-20.
- Ikram S. 2000. Meat processing. In P.T. Nicholson and I. Shaw (eds) *Ancient Egyptian Materials and Technology*: 656-671. Cambridge: CUP.
- Legge A. 1989. Milking the evidence: a reply to Entwistle and Grant. In A. Milles, D. Williams and N. Gardner (eds.) *The Beginnings of Agriculture*: 217-242. BAR International Series 496.
- McCormick F. 1992. Early faunal evidence for dairying. *Oxford Journal of Archaeology* 11(2): 201-209.
- McCormick F. 2002. The distribution of meat in a hierarchical society: the Irish evidence. In P. Miracle and N. Milner (eds) *Consuming Passions and Patterns of Consumption*. Cambridge: MacDonald Institute Monographs.
- Rixson D. 2000. *The History of Meat Trading*. Nottingham: Nottingham University Press.
- Sherratt A. 1981. Plough and pastoralism: aspects of the secondary products revolution. In I. Hodder, G. Isaac and N. Hammond (eds) *Patterns of the Past*: 261-305. Cambridge University Press.
- Sherratt A. 1983. The secondary exploitation of animals in the Old World. *World Archaeology* 15 (1): 90-104.
- Simoons F.J. 1979. Dairying, milk use and lactose malabsorption in Eurasia: a problem in culture history. *Anthropos* 74: 61-80.
- Spangenberg J.E., S. Jacomet and J. Schibler 2006. Chemical analyses of organic residues in archaeological pottery from Arbon Bleiche 3, Switzerland – evidence for dairying in the late Neolithic. *Antiquity* 33: 1-13.

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6. Herd Management Strategies

- Amanor K.S. 1995. Dynamics of herd structures and herding strategies in West Africa: a study of market integration and ecological adaptation. *Africa* 65: 351-394.
- Barker G. 1978. Economic models for the Manakweni zimbabwe, Mozambique. *Azania* 13:71-100.
- Cribb, R. 1987. The logic of the herd: a computer simulation of archaeological herd structure. *Journal of Anthropological Archaeology* 6: 376-415.
- De Wet-Bronner, E. 1994. Late Iron Age cattle herd management strategies of the Soutpansberg Region. *South African Archaeological Bulletin*, 49:90-5.
- Ervynck A. and K. Dobney 1999. Lining up on the M1: a tooth defect as a bio-indicator for environment and husbandry in Ancient pigs. *Environmental Archaeology* 4: 1-8.
- Grant A 1984. Animal husbandry in Wessex and the Thames Valley. In B.W. Cunliffe and D. Miles (eds) *Aspects of the Iron Age in Central Southern Britain*:102-119. Oxford: OUCA Monograph 2.
- Hambleton E. 1999. *Animal Husbandry Regimes in Iron Age Britain*. Oxford: Archaeopress (BAR British Series 282).
- Hesse B. 1995. Husbandry, dietary taboos and the bones of the ancient Near East: zooarchaeology in the post-processual world. In D. Small (ed) *Methods in the Mediterranean – historical and archaeological views on texts and archaeology*: 197-232. Leiden: E.J. Brill.
- Keswani P. 1994. The social context of animal husbandry in early agricultural societies: ethnographic insights and an archaeological example from Cyprus. *Journal of Anthropological Archaeology* 13: 255-277.

- Maltby M. 1996. The exploitation of animals in the Iron Age: the archaeo-zoological evidence. In T.C. Champion and J.R. Collis (eds) *The Iron Age in Britain and Ireland: recent trends*: 17-27. Sheffield: JR Collis publications.
- McCormick F. 1998. Calf slaughter as a response to marginality. In C.M. Mills and G. Coles (eds) *Life on the Edge: human settlement and marginality*, (Symposia of the Association for Environmental Archaeology 13, Oxbow Monograph 100): 49-53. Oxford: Oxbow.
- O'Connor T.P. 1998. On the difficulty of detecting seasonal slaughtering of sheep. *Environmental Archaeology* 3:5-12.
- Symons R. 2005. New density data for unfused and fused sheep bones, and a preliminary discussion on the modelling of taphonomic bias in archaeofaunal age profiles. *Journal of Archaeological Science* 32: 1691-1698.
- Watson M. 1998. The role of the pig in food conservation and storage in Traditional Irish farming. *Environmental Archaeology* 3:63-68.

4th February 2014

7. The architecture of livestock

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4th February 2014

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11th February 2014

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25th February 2014

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4th March 2014

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4th March 2014

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11th March 2014

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11th March 2014

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18th March 2014

17. Class presentations

18th March 2014

18. Class presentations

25th March 2014

19. The development of pastoral histories

- Aikio P. 1989. The changing role of reindeer in the life of the Sami. In J. Clutton-Brock (ed) *The Walking Larder: patterns of domestication, pastoralism and predation*: 169-184. London: Unwin Hyman (One World Archaeology 2).
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- Thomas, K. 1999. Getting a life: stability and change in social and subsistence systems on the North-West Frontier, Pakistan, in later prehistory. In C. Gosden and J. Hather (eds) *The Prehistory of Food: Appetites for Change*: 306-321. London: Routledge.

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25th March 2014

20. The present place of pastoralism: “the tragedy of the commons”?

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- Broch-Due V. and D. Anderson 1999. Poverty and the pastoralist: deconstructing myths, reconstructing realities. In D. Anderson and V. Broch-Due (eds) *The Poor are Not Us: Poverty and Pastoralism in Eastern Africa*: 3-19. Oxford: James Currey.
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ASSESSMENTS

Essay

For the first assignment, write 1900-2100 words on one of the following essay topics. Deadline **Monday 10th March**.

1. Have archaeologists underestimated the significance of livestock in examining past societies?
2. Is livestock maintenance cultural practice?
3. Using a range of examples, consider the validity of Armstrong Oma's concept of a social contract between herders and livestock.
4. Should archaeologists be concerned to examine the architecture associated with livestock?
5. How have archaeologists attempted to identify riding, traction and portage in the archaeological record and how successful have such studies been?
6. Is mobility the most important requirement for animal husbandry in pre-industrial societies.
7. In what ways is it possible to examine the ritual significance of livestock?
8. Is it worthwhile studying dung from archaeological sites?
9. Using three examples from around the world, compare and contrast the role of livestock and herding in the emergence of states?
10. How have recent results altered our understanding of ancient dairying and what do these results tell us about early animal husbandry?
11. How can archaeologists reconstruct feeding of livestock and what can such insights reveal about broader social factors?

Livestock Review

The second assessment involves producing a review of the manner in which livestock have been examined in the archaeological record. Frequently the issue of livestock management has been entirely overlooked or the manner of their management has been assumed. As this course should have demonstrated, we cannot make these simplistic assumptions and livestock management is a matter of culture rather than simply nature. The intention is to get students to apply the perspectives they have developed during this course to diverse archaeological contexts in which livestock were maintained. Students may consult with the course coordinator concerning appropriate areas of focus and readings. An unassessed presentation will be made by the student on Monday 18th March prior to the submission of the written assignment on **Monday 31st March**.

This exercise is intended to encourage you to apply the knowledge you have developed during the course to particular archaeological contexts. As the course is designed to help you develop these new perspectives in your examination of your own areas of interest, you are free to explore any archaeological context in which livestock were being maintained. The intention is that you will review the current understanding of a particular archaeological situation with regard to the maintenance of livestock, and then using the core themes developed in the first half of the course (ie water, fodder, mobility, health; meat, milk, hides/wool; herd management strategies; architecture; dung and manure; traction, portage

and riding; breeding, butchery or burial; transhumance) consider how future research could be designed to explore the human-animal dynamics of the particular situation and the potential significance of the results.

The total word limit is a modest 1425-1575 words. You will need to begin your review with around 500 words introducing the particular situation you wish to review. This clearly does not offer a great deal of scope for description and so you should choose your situation carefully. I would suggest that you do not want to choose too large a topic. Hence, the general issue of livestock in Roman society would be too large a topic, but you could certainly choose either a geographical region or a specific aspect of livestock, such as horses, or even cavalry. Alternatively, your approach could be to examine a single site and explore in detail the approaches that have been taken. You will need to choose such a site carefully and one that has been thoroughly investigated and/or has a large ground plan available.

What the examiners are looking for is your successful consideration of a “livestock perspective” in an archaeological scenario. Hence, where you will score most marks, besides the competence of your description of the situation, is in the proposed application of livestock-related research and a critical perspective of its likely results. By referencing appropriate work you can show why you think your proposed research initiatives would be innovative.

It is also worth recognising that figures and plans will be useful in projecting the nature of your situation and conveying the substance of the work you would propose. You should therefore pay close attention, where appropriate to providing a well-illustrated review.

This is certainly a different form of assessment from the conventional essay. You are being encouraged to think beyond defined parameters and develop your own original thought. It does need some adjustment in how you will approach the review. Ultimately if you are not sure whether you are on the right track you can always contact the course co-ordinator and discuss your ideas.

COURSE SYLLABUS

- | | |
|--------------------------------|---|
| 14 th January 2014 | 1. Introduction: course organisation and objectives. |
| | 2. What is Pastoralism? |
| 21 st January 2014 | 3. Fulfilling the basic needs: water, fodder, mobility, health |
| | 4. Nomadism versus sedentism. |
| 28 th January 2014 | 5. The exploitation of livestock: meat, milk, hides/wool |
| | 6. Herd Management Strategies |
| 4 th February 2014 | 7. The architecture of livestock |
| | 8. Dung and Manure |
| 11 th February 2014 | 9. Traction, porterage and riding |
| | 10. Breeds and breeding: function and aesthetics |
| Reading week: | |
| 25 th February 2014 | 11. Butchery or burial – how animal bones enter archaeology |
| | 12. Organising society through livestock and livestock in states |
| 4 th March 2014 | 13. Case study: In search of Roman Cavalry |
| | 14. Case study: Black Beauty and 19 th Century working animals |
| 11 th March 2014 | 15. Rabbits and other lesser livestock species |
| | 16. Depicting domesticated animals in art |
| 18 th March 2014 | 17. Class presentations |
| | 18. Class presentations |
| 25 th March 2014 | 19. The development of pastoral histories |
| | 20. The present place of pastoralism: “the tragedy of the commons”? |