Faunal Analysis

Anthropology G14.1212
Spring 2009
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COURSE OUTLINE

Introduction

Faunal analysis or zooarchaeology is one of the fastest growing subdisciplines within anthropological archaeology. This course will survey the major methods and techniques used in archaeological faunal analysis. In addition, the course will examine the ways in which faunal data have been used to reconstruct early hominin subsistence strategies (hunting vs. scavenging), to trace the process of animal domestication, and to study trade, social status, and ethnicity in complex societies. Topics that will be covered include: the identification of mammal, bird, reptile, and fish bones from archaeological sites, the determination of age at death in mammals, bone measurements, taphonomy, animal domestication, and the use of faunal remains in the study of complex, urban societies.

Recommended Textbook:


You should also purchase a notebook that can be used for lab exercises and drawing. You may want a notebook with graph paper.

The standard reference for animal bone measurement is Angela von den Driesch’s The Measurement of Animal Bones from Archaeological Sites (1976). It is available in my lab. Anyone considering a career in osteology should have this text on his/her shelf. A range of other guides to mammal, bird, reptile, and fish bones are available in the lab. In addition, our lab has over 200 animal skeletons that are labeled and catalogued.

Course Requirements:

1. Preparation of a small vertebrate specimen to add to the comparative collections. Please consult with the instructor before preparing your specimen. Your clean, labeled specimen is due on 4/30 (the last day of class). OR You may complete a take-home final examination. The exam will include two essay questions, and each essay should be about
3 pp. in length. The take-home is due on 5/4 (25% of grade). You may submit the exam by e-mail.

2. Completion of all laboratory assignments and homework (15% of grade).

3. A short (ca. 5-7 pp.) research paper on a topic of your choice. The topic should be chosen in consultation with the course instructor. Your paper should include a detailed, annotated bibliography. Be prepared to present a short summary of your research on 4/30 (25% of grade). Your paper is due on 5/8.

4. Two reading reaction papers (1-2 pp. in length) due on 4/16 and 4/23 (15% of grade).

5. A short bone identification mid-term exam on 3/12 (groups 1 and 2 will have different exams (20% of grade).

Organization:

Faunal analysis is a graduate course that is open to undergraduates with permission. Many of our MA and PhD students (and some undergraduates) have a strong background in human osteology, while other students may have little or no experience with bones. In order to make the course accessible to students from varied backgrounds, the class will be split in 2 for weeks 2-7. Group 1 will meet from 5:00-6:15, and Group 2 will meet from 6:20 to 7:35 for lecture. The remainder of the time will be spent in the lab. Group 1 should include all students with a background in human osteology (all MAs in skeletal biology plus any other students who have taken a lab class in human osteology); Group 2 should include all other students.

Syllabus

1/22 Introduction to the course and the lab; goals of modern faunal analysis, excavating animal bones, Recommended reading: Reitz and Wing Ch. 1-2.

1/29 Reading: Reitz and Wing, chapter 3.
Group 1: Osteology of the Forelimb
Group 2: General Osteology 1

2/5 Reading: Reitz and Wing, chapter 4.
Group 1: Osteology of the Hindlimb
Group 2: General Osteology 2

2/12 Group 1: Dentition
Group 2: Osteology of the Forelimb

2/19 Group 1: Axial skeleton
Group 2: Osteology of the Hindlimb
2/26 Group 1: Sheep vs. goat. Reading: P. Halstead et al., 2002: Sorting the sheep from the goats: distinctions between the adult teeth of *Ovis* and *Capra*. *Journal of Archaeological Science* 29: 545-553.
Group 2: Dentition

3/5 Group 1: Osteology of the birds
Group 2: Sheep vs. goat Reading: P. Halstead et al., 2002: Sorting the sheep from the goats: distinctions between the adult teeth of *Ovis* and *Capra*. *Journal of Archaeological Science* 29: 545-553.

3/12 Bone quiz: Group 1: 5-6:15; Group 2: 6:20-7:35

3/19 SPRING BREAK!

3/26 Group 1: Bone working (lab) then small mammals (lecture)
Group 2: Small mammals (lecture) then bone working (lab)

4/2 All: Bone measurement and lab. Reitz and Wing Ch. 5-6.

4/9 All: Ageing and sexing mammal bones. Reitz and Wing, Ch. 7

Reading:

4/16 All: Quantification, taphonomy, and early hominin subsistence.

Reading: Reitz and Wing Ch. 8, plus


Reaction paper 1 is due.
4/24 All Reading: Reitz and Wing Ch. 9. Everyone should attend the full class.

Reaction paper 2 is due. Choose one of the following:

**Group A:** Animal Domestication.

**Group B:** Urban provisioning and animal use in complex societies.

4/30 Presentation of student research; research papers are due on 5/8.

Please note: We may need to cancel class on 4/24 because of the SAA meetings. If that happens, we will move the class that is scheduled for 4/23 to 4/30.