Anthropology 475 (Spring 2011)

Faunal Analysis in Archaeology
(Tuesdays 12:00-2:30)

Instructor: Prof. Barry Rolett
Office: Saunders 304
Phone: 956-7546
Office Hours: T/Th 9:00-10 or by appointment

Course open to both undergraduate and graduate students.

This zooarchaeology course teaches students to identify, analyze, and interpret bone and shell remains discovered in archaeological excavations. We will concentrate on developing basic skills and knowledge to identify animal bones recovered from archaeological sites. This involves identification of the species and the part of the skeleton represented. We will also learn to estimate “age at death” by looking at teeth, dental wear patterns, and fusion of the epiphyses. In addition, we will cover methods for identifying evidence of butchering - including cutmarks and fractures.

Course format. The format includes lab work, lectures, discussion, and seminars. Lab work and lectures during the classes will introduce the various topics. Students will need to spend additional time, outside class, with the lab and project materials. The lab room (Dean 203) should be open every weekday from 7:30 am to 1 pm. Our lab manager, Jo Lynn Gunness can help with access to the room if it is locked. Her office is across the hall from the water fountain.

Assignments.
Quizzes. Five quizzes on bone identification. The quizzes will be at the beginning of class. No make-up allowed except under special circumstances.
Lab exercises. Three exercises where you will complete a worksheet on your own, outside of our class meeting time. Turn in at beginning of class on due date – no extensions.
Article summaries. Two article summaries for assigned readings. Each summary should be 2 double-spaced pages long (no longer, no shorter). Be prepared to discuss the article on the day the summary is due. Turn in at beginning of class on due date – no extensions.
Hanamiai chapter summaries and discussion. Three summary / discussion papers for different chapters of the Hanamiai monograph. Each summary should be 2 double-spaced pages long (no longer, no shorter). Be prepared to discuss this material on the day the assignment is due. These assignments are coordinated with lab study of faunal remains from the Hanamiai site. Your write-up should include comments and observations relating the reading to your study of the faunal collection. Turn in at beginning of class on due date – no extensions.
Other readings. If the assignment is to READ, without a required summary, this is a reading we may not discuss at length in class but which you will use to complete a worksheet or study for a quiz.
Additional assignment for graduate students.
Each graduate student will lead at least one of the class discussions.
Lab rules:
No food.

Put cell phones on silent mode during class. If your phone rings during class this will count against your “participation” grade.

Bones and shells must not leave the lab without specific permission from B. Rolett. I use the lab on a regular basis. If I see that bones or shells have left the lab without permission, everyone in the class will receive an F for that week’s assignment (unless it is clear who is responsible, in which case that person alone will receive an F).

Bones must be treated carefully and not damaged. If I find a bone that is badly broken or crushed, or lying on the floor, everyone in the class will receive an F for that week’s assignment (unless it is clear who is responsible, in which case that person alone will receive an F).

Grading
Your grade will be based on the total number of points you earn in the various class activities and assignments. There will be no midterm or final exam. There are 100 possible points and their distribution is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 quizzes (6 points each)</td>
<td>30</td>
</tr>
<tr>
<td>3 lab exercises (7 points each)</td>
<td>21</td>
</tr>
<tr>
<td>2 article summaries (6 points each)</td>
<td>12</td>
</tr>
<tr>
<td>3 Hanamiai chapter summary/observation papers (7 points each)</td>
<td>21</td>
</tr>
<tr>
<td>Presentation</td>
<td>10</td>
</tr>
<tr>
<td>Class participation</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
</tr>
</tbody>
</table>

A+ = 98-100   A = 94-97   A- = 90-93
B+ = 87-89    B = 84-86    B- = 80-83
C+ = 77-79    C = 74-76    C- = 70-73
D+ = 67-69    D = 64-66    D- = 60-63
F = 59 or less
January
11 T  *Introduction to the mammal skeleton (pig)*

18 T  *Identification of animal bones (dog, rat, cow, deer)*
QUIZ 1: pig
WRITE A 2 PP SUMMARY OF THIS ARTICLE.

25 T  *Identification of animal bones (birds, turtle)*
QUIZ 2: pig, dog, rat, cow, deer
READ AND PREPARE TO DISCUSS Minagawa et al. 2005. Patterns of prehistoric boar Sus scrofa domestication, and inter-island pig trading across the East China Sea, as determined by carbon and nitrogen isotope analysis.
WRITE A 2 PP SUMMARY OF THIS ARTICLE.

February
1 T  *Taphonomy*
QUIZ 3 (7 points): pig, dog, rat, cow, deer, birds, turtle
TAPHONOMY LAB EXERCISE (due Sept. 23)

8 T  *Identification of fish bones (jaw parts)*
READ Colley 1990. The analysis and interpretation of archaeological fish remains.

15 T  *Identification of fish bones (“special bones”)*
QUIZ 4: fish jaws

22 T  *Seminar: Extinctions on islands*
QUIZ 5: fish special bones
READ AND PREPARE TO DISCUSS THESE THREE ARTICLES. WRITE A 2 PP SUMMARY OF ONE OF THE ARTICLES.

March
1 T  *Identification of shells*
SHELL LAB EXERCISE (due Oct. 21)
8  T  Rough sorting faunal remains
READ AND PREPARE TO DISCUSS Rolett 1998 Hanamiai chapter 2:
The Marquesan environment.
WRITE A 2 PP SUMMARY/DISCUSSION OF THIS CHAPTER, WITH
COMMENTS BASED ON YOUR WORK ON THE HANAMIAI FAUNAL REMAINS.
(due Oct. 28)

15 T  Case study: Identification and analysis of faunal remains
from the Hanamiai site (Marquesas)
READ AND PREPARE TO DISCUSS Rolett 1998 Hanamiai chapter 5:
Changes in subsistence and ecology.
WRITE A 2 PP SUMMARY/DISCUSSION OF THIS CHAPTER, WITH
COMMENTS BASED ON YOUR WORK ON THE HANAMIAI FAUNAL REMAINS.
(due Nov. 4)

29 T  Case study: Identification and analysis of faunal remains
from the Hanamiai site (Marquesas)
READ AND PREPARE TO DISCUSS Rolett 1998 Hanamiai chapter 6:
Fishing strategies.
WRITE A 2 PP SUMMARY/DISCUSSION OF THIS CHAPTER, WITH
COMMENTS BASED ON YOUR WORK ON THE HANAMIAI FAUNAL REMAINS.
(due Nov. 18)

April
5  T  TBA

12 T  Age estimation of mammals
AGE ESTIMATION LAB EXERCISE (due Nov. 25)

19 T  Age estimation of mammals
READ Rolett and Chiu 1994. Age estimation of prehistoric pigs by
molar eruption and attrition.

26 T  Presentations

May
3’ T  Presentations