Course Objectives

This course reviews in detail human skeletal anatomy for the proper identification of the bones in the body. Focus is then directed to studying methods and techniques for the estimation of age at death, determination of sex, the study of morpho-metric and epigenetic variation in the skeleton, assessment of bone disorders and possible etiologies of disease, cultural modifications of bone, and the impact of site formation processes on bony tissue. After considering some ethical issues in the study of human remains, cases of natural and cultural taphonomy are exemplified by specific archaeological studies from the American Continent, ranging from interpretation of ancient mortuary practices, ritual treatment of human remains, and medical practices in antiquity. Hands-on laboratory sessions will involve team analysis of cremations from the Tyra archaeological site, Michigan, dating probably to the Late Woodland period (800-1600 A.C.E.)

Course Outline

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Topics</th>
<th>Readings</th>
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<tbody>
<tr>
<td>Jan T 16</td>
<td>Introduction to the course and to WebCT</td>
<td>None</td>
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<tr>
<td>Jan F 19</td>
<td>Anatomical terminology</td>
<td>Schwartz pp. 1-12</td>
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<td></td>
<td>The Skull</td>
<td>and Chapters 2-3</td>
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<tr>
<td>Jan T 23</td>
<td>Dentition</td>
<td>Schwartz Chapter 7</td>
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<tr>
<td>Date</td>
<td>Event</td>
<td>Reading Material</td>
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<tr>
<td>Jan F 26</td>
<td>Postcranium: Axial skeleton</td>
<td>Schwartz Chapter 4</td>
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<tr>
<td>Jan T 30</td>
<td>Postcranium: Upper extremities</td>
<td>Schwartz Chapter 5</td>
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<tr>
<td>Feb F 2</td>
<td>No lecture; study session in the Lab</td>
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<tr>
<td>Feb T 6</td>
<td><strong>First exam</strong></td>
<td>None</td>
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<tr>
<td>Feb F 9</td>
<td>Postcranium: Lower extremities</td>
<td>Schwartz Chapter 6</td>
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<tr>
<td>Feb T 13</td>
<td>Lab project begins</td>
<td>Bass pp. 291-309, Ubelaker chap. 2</td>
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<tr>
<td>Feb F 16</td>
<td>Assessment of age at death</td>
<td>Ubelaker pp. 63-95</td>
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<tr>
<td>Feb T 27</td>
<td>Assessment of sex</td>
<td>Ubelaker pp. 52-60</td>
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<tr>
<td>Mar F 2</td>
<td>Metric variation</td>
<td>Ubelaker pp. 60-63, chap. 5</td>
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<tr>
<td>Mar T 6</td>
<td>Non-metric variation</td>
<td>Turner 1989</td>
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<tr>
<td>Mar F 9</td>
<td><strong>Second exam</strong></td>
<td>None</td>
</tr>
<tr>
<td>Mar T 13</td>
<td>Film: The true story of John Merrick</td>
<td>Montagu, pp. 79-93 &amp; figs. in Appendix 6</td>
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<tr>
<td>Mar T 20</td>
<td>Ante, Peri, and Post-mortem skeletal modification</td>
<td>Ubelaker pp. 96-107</td>
</tr>
<tr>
<td>Mar F 23</td>
<td>Isotopic analysis of human bone</td>
<td>Klepinger 1984; Sillen et al 1989; Shurr 1998</td>
</tr>
<tr>
<td>Mar F 30</td>
<td><strong>Third exam</strong></td>
<td>None</td>
</tr>
<tr>
<td>Apr F 13</td>
<td>Laboratory session</td>
<td>None</td>
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<tr>
<td>Apr T 17</td>
<td>Zapotec and Wari mortuary practices (300-800 ACE)</td>
<td>Binford 1972c; Wilkinson &amp; Norelli 1981</td>
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<tr>
<td>Apr F 20</td>
<td>Bone ritualism in Kodiak Island. (ca. 1000 BCE)</td>
<td>Hrdlička 1941a and 1941b</td>
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<tr>
<td>Apr T 24</td>
<td>The Forensics of Human Sacrifice. The Aztec case</td>
<td>Cook 1946; Anawalt 1982; Harner 1977; Ortiz 1978</td>
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</tbody>
</table>
Students with extra challenges

If you are a student with a documented disability at Brandeis University and if you wish to request a reasonable accommodation for this class please see me immediately. Keep in mind that reasonable accommodations are not provided retroactively.

Reading assignments
Reading assignments from the textbooks and additional sources on WebCT should be completed by the dates indicated above. The readings usually consist of one or several pieces, either chapters of a book or journal articles. Reading of these materials is essential for your participation in class. Participation in class counts for extra credit to the final grade. Participation is not measured in terms of quantity but quality, and entails regular, on-time attendance to class.

Exams
There will be three exams (each 15%). Each examination will include brief definitions, identification of complete and partial human bones, and in some cases an essay. The essay is intended to foster critical thinking by comparing and contrasting assumptions, statements, or theoretical issues from different authors. The exams are accumulative in order to reinforce your knowledge of anatomy.

Term Paper
The analysis of cremated bones from the Tyra site will be presented as group reports. On Friday April 20th each group will submit a draft of the final paper for revision. The draft will be returned on Tuesday April 24th. The final version of the paper is due on Friday May 11. Papers should be 8-10 pages of text, not including the bibliography. Illustrations, diagrams, and maps are encouraged. An electronic version of the text and images, as well as the raw data in an Excel table should also be submitted. The term paper contributes 40% of the final grade, with 5% of the grade subtracted each subsequent day if the paper is turned in after the submission deadline. No papers will be accepted after Monday May 14 at 9 am.

Summary of grading
First exam 20%
Second exam 20%
Third exam 20%
Project paper 40%
Participation in class extra credit

Midterm grade is based on these two exams

Important Notice
Academic integrity is central to the mission of educational excellence at Brandeis University. Each student is expected to turn in work completed independently, except when assignments
specifically authorize collaborative effort. It is not acceptable to use the words and ideas of another person without proper acknowledgement of that source. This means that you should cite and use quotation marks to indicate the source of any phrase, sentence, paragraphs or ideas found in published volumes, on the internet, or created by another student. Violation of University policies on academic integrity, described on Section 3 of Rights and Responsibilities, may result in failure in the course or on the assignment, and could end in suspension from the University. If you are in doubt about the instructions for any assignment in the course, you must ask for clarification.

Required texts (available at the University’s bookstore)

Schwartz, Jeffrey, H.

Ubelaker, Douglas, H.

Additional readings (on WebCT, Regular Reserve* and in the Syllabus)

Anawalt, R. Patricia
1982 Understanding Aztec Human Sacrifice. Archaeology vol. XX no. XX, pp.38-45. (WebCT, under Readings)

Bass, William M.

Binford, L.R.

Cook, S.F.
1946 Human Sacrifice and Warfare as Factors in the Demography of Pre-Colonial Mexico. Human Biology, vol. 18, pp. 81-102. (WebCT, under Readings)

Harner, Michael
1977 The Enigma of Aztec Sacrifice. Natural History vol. 86, no. 4, pp. 47-51. (WebCT, under Readings)

Hrdlička, Aleš

Kлепингер, Линда Л.
1984 Нутрициональное изучение от скелета. Обзора антропологии, том 13, с. 75-96. http://links.jstor.org/sici?sici=0084-6570%281984%292%3A13%3C75%3ANAFCB%3E2.0.CO%3B2-G

Меиган, Клемент В./ Гулифорд, Эндрю

Меиган, Клемент В./ Зиммерман, Ларри
1994 Погребение американской археологии/ поделиться управлением прошлого. Археология, ноябрь/декабрь, с. 64-68.

Монту, Эшли
1979 Слоновий человек: исследование человеческой достоинства. Е.П. Дуттон, Нью-Йорк. (Regular Reserve in Goldfarb Library)

Орти де МонтеллANO

Ортин, Дональд, Дж.
1992 Скелетная палеопатология: вероятности, возможности, и невозможности. Вирус и демография в Америках, с. 5-14. Верано, Джон, и Дуглас Убелькер, редакторы. Smithsonian Institution Press, Washington DC. (WebCT, under Readings)

Ортин, Дональд, Дж. и Уолтер Г.Дж. Пуцшар

Ромеро, Й.

Schurr, Mark R.
[http://links.jstor.org/sici?sici=0043-8243%28199810%2930%3A2%3C327%3AUSNTSW%3E2.0.CO%3B2-J](http://links.jstor.org/sici?sici=0043-8243%28199810%2930%3A2%3C327%3AUSNTSW%3E2.0.CO%3B2-J)

Sillen, Andrew, Judith C. Sealy, and Nikolaas J. van der Merwe  
[http://links.jstor.org/sici?sici=0002-7316%28198907%2954%3A3%3C504%3ACAPRNM%3E2.0.CO%3B2-8](http://links.jstor.org/sici?sici=0002-7316%28198907%2954%3A3%3C504%3ACAPRNM%3E2.0.CO%3B2-8)

Stewart, Thomas, Dale  
(WebCT, under Readings)

Turner, Christy G. II  
(WebCT, under Readings)

Verano, John, and Douglas Ubelaker  
(WebCT, under Readings)

Wells, C.  
(WebCT, under Readings)

Wilkinson, R.  


Wilkinson, R. and Richard J. Norelli  

Zimmerman, Larry J.  
(WebCT, under Readings)

(WebCT, under Readings)
Suggested bibliography for term paper

Binford, L.R.


Fitting, James, E

Gejvall, Nils-Gustaf

Halsey, John, R. (editor)

Shipman, P., G. Foster, and M.J. Schoeninger

Additional Bibliography

Baker, Brenda and Lisa Kealhofer

Binford, L.R.

1987 Death, decay and reconstruction: approaches to archaeology and forensic science. Manchester University Press, Manchester
Brothwell, Donald

Brothwell, Donald and A.T. Sandison
1967 Diseases in antiquity; a survey of the diseases, injuries, and surgery of early populations. Charles C. Thomas, Springfield II.

Grant, J.C.B.

Hauser, G. and DeStefano, G.F.

Iscan, M.Y.
1989 Age Markers in the Human Skeleton. Charles C. Thomas, Springfield II.

Krogman, Wilton

Larsen, Clark S.

Mann, Robert W. and Sean P. Murphy

Owsley, Douglas and Richard Jantz

Powell, Mary Lucas, P.S. Bridges, and A.M.W. Mires

Reichs, K.J. (editor)

Rhine, Stanley
Roberts, Charlotte, and Keith Manchester

Saunders, Shelley R., and Anne Katzenberg

Saunders, Shelley R. and Ann Herring (editors)
1995 Grave reflections: portraying the past through cemetery studies
Canadian Scholars' Press, Toronto.

Steinbock, R. Ted

Steele, D. Gentry

Stewart, T.D.
This is a classic text in this field which maintains a healthy (i.e., questioning) attitude towards data and methods.

Tainter, Joseph, A.

Ubelaker, Douglas H.

White, Tim D.

Sinclair, David

Verano, John, and Douglas Ubelaker (editors)
1992 Disease and Demography in the Americas. Smithsonian Institution Press, Washington DC.