

HUMAN OSTEOLOGY



Summer 2009

M, T and Th
11:15 -1:45 pm
Brown 213

Professor Javier Urcid

Office: Brown 203

Office hours:
W 1-2 pm (and by appointment)

Extension: 62223
email: urcid@brandeis.edu

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. Ethical issues in the study of human remains will also be considered. Hands-on laboratory sessions will involve analysis of cremations from the Tyra archaeological site, Michigan, dating probably to the Late Woodland period (800-1600 A.C.E.)

Course Outline

Sessions	Topics	Readings
Jun M 1	Introduction to the course and to LATTE Anatomical terminology The Skull	None Schwartz pp. 1-12 and Chapters 2-3
Jun T 2	The Skull and Dentition	Schwartz Chapter 7
Jun Th 4	Postcranium: Axial skeleton	Schwartz Chapter 4
Jun M 8	Postcranium: Upper extremities	Schwartz Chapter 5
Jun T 9	Postcranium: Lower extremities	Schwartz Chapter 6

Jun Th 11	Lab project begins	Bass pp. 329-338, Ubelaker chap. 2
Jun M 15	First exam and Laboratory session	None
Jun T 16	Assessment of age at death Assessment of sex	Ubelaker pp. 63-95 Ubelaker pp. 52-60
Jun Th 18	Metric variation Non-metric variation	Ubelaker pp. 60-63, chap. 5 Turner 1989
Jun M 22	<i>Film: The true story of John Merrick</i> Bone Physiology and Paleopathology	Montagu 1979 Ortner & Putshar pp. 8-28; Ubelaker pp. 107-118; Ortner 1992. Verano and Ubelaker 1991. Wells 1967
Jun T 23	Ante, Peri, and Post-mortem skeletal modification	Ubelaker pp. 96-107
Jun Th 25	Second exam and Laboratory session	None
June M 29	<i>Film: Kennewick Man</i> Debate on Ethics in Human Osteology	Zimmerman 1989, 1992; Meighan/Gulliford 1992; Meighan/Zimmerman 1994
June T 30	Laboratory session	None
July Th 2	No final exam - Lab clean-up and final papers due	

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 should be completed by the dates indicated above. The assigned chapters from the textbook by Schwartz should be done while studying with the skeletal comparative collection in the Lab. Other readings not included in the textbooks are posted on posted on Latte. Reading of all assigned materials is essential for your engagement in class. Attendance to class is obligatory and counts 10% of the total grade. Absence from classes will only be accepted in cases of medical or extreme emergencies, and should be timely notified via email and supported by signed and dated medical or other evidentiary documentation.

Exams

There will be two exams (each 25%). Each examination involves identifying complete and partial human bones and applying forensic techniques to specific bone stations. The exams are accumulative in order to reinforce your knowledge of anatomy.

Term Paper

If enough students register in the course, the analysis of cremated bones from the Tyra site will be presented as group reports; otherwise it becomes an individual project. The final version of the paper is due on Thursday July 2. No papers will be accepted after Friday July 3 at 5pm. Papers should be 7-9 pages of text, not including the bibliography. Illustrations, diagrams, and maps are encouraged. Both a printed and an electronic version of the text and images, as well as the raw data in an Excel table, should be submitted. The term paper contributes 40% of the final grade.

Summary of grading

First exam	25%
Second exam	25%
Project paper	40%
Attendance to class	10%

Use of laptops

Students are welcome to use a laptop computer in class provided it is used for note taking or for web searches specifically related to the topic being discussed. If a student is found using the laptop for other purposes, his/her right to use it will be immediately suspended.

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 text (available at the University's bookstore)

Schwartz, Jeffrey, H.

2007 Skeleton Keys: An Introduction to Human Skeletal Morphology, Development, and Analysis. Oxford University Press, New York (Second edition).

Additional readings on LATTE

- Meighan, Clement W./ Gulliford, Andrew
1992 Another View on Repatriation: Lost to the Public, Lost to History/ Reply to "Another View on Repatriation". *The Public Historian*, vol. 14 (3): 39-50.
- Meighan, Clement W./ Zimmerman, Larry
1994 Burying American Archaeology/ Sharing Control of the Past. *Archaeology*, November/December, pp.64-68.
- Montagu, Ashley
1979 *The Elephant man: A Study in Human Dignity*. E.P. Dutton, New York.
- Ortner, Donald, J.
1992 Skeletal Paleopathology: Probabilities, Possibilities, and Impossibilities. In *Disease and Demography in the Americas*, pp. 5-14. Verano, John, and Douglas Ubelaker, editors. Smithsonian Institution Press, Washington DC.
- Ortner, Donald, J. and Walter G.J. Putshar
1981 *Identification of Pathological Conditions in Human Skeletal Remains*. Smithsonian Institution Press, Washington.
- Turner, Christy G. II
1989 Teeth and Prehistory in Asia. *Scientific American* 260: 88-96.
- Ubelaker, Douglas, H.
1989 *Human Skeletal Remains: Excavation, Analysis, Interpretation*. *Manuals on Archaeology* 2. Taraxacum, Washington.
- Verano, John, and Douglas Ubelaker
1991 Health and Disease in the Pre-Columbian World. In *Seeds of Change*, pp. 209-224. Herman Viola and Carolyn Margolis, editors. Smithsonian Institution Press, Washington DC.
- Wells, C.
1967 Pseudopathology. In *Diseases in antiquity*, edited by Brothwell and Sandison, pp. 5-19. Charles C. Thomas, Springfield Il.
- Zimmerman, Larry J.
1989 Human Bones as symbols of Power: aboriginal American belief systems toward bones and 'grave-robbing' archaeologists. In *Conflict in the Archaeology of Living Traditions*, pp. 211-216. Layton, R., editor.
1992 Archaeology, Reburial, and the Tactics of a Discipline's Self-Delusion. *American Indian Culture and Research Journal* 16 (2): 37-56.

Suggested bibliography for term paper

Binford, L.R.

1972a An Analysis of Cremations from three Michigan Sites. In *An Archaeological Perspective*, pp. 373-382. Seminar Press, New York.

1972b Analysis of a Cremated Burial from the Riverside Cemetery, Menominee County, Michigan. In *An Archaeological Perspective*, pp. 383-389. Seminar Press, New York.

Fitting, James, E

1975 The Archaeology of Michigan: A Guide to the Prehistory of the Great Lakes Region. Cranbrook Institute of Science, Bulletin 56, Bloomfield Hills, Michigan. (**Regular Library Reserve**)

Gejvall, Nils-Gustaf

1963 Cremations. In *Science in Archaeology*, edited by Don Brothwell and E. Higgs, pp. 379-390. Thames and Hudson, London.

Halsey, John, R. (editor)

1999 Retrieving Michigan's Buried Past: The Archaeology of the great Lakes State. Cranbrook Institute of Science, Bulletin 64, Bloomfield Hills, Michigan. (**Regular Library Reserve**)

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

1984 Burnt Bone and Teeth: An Experimental Study Color, Morphology, Crystal Structure and Shrinkage. *Journal of Archaeological Science* 11: 307-325.