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The Art of Teaching Anthropology: Examples from Biological Anthropology

Susan Kirkpatrick Smith, Laura D. Lund, and Marilyn R. London

Abstract

Teaching in a college or university setting has many challenges, including often-inadequate preparation in graduate school and the requirement to develop new courses, often in a short period of time. Anthropology faculty are at a particular disadvantage because anthropology lacks any discipline-specific journals for the publication of articles on the scholarship of teaching and learning. Many anthropology faculty desire to have more resources available for course and assignment development. In this chapter, we present several examples of course syllabi, class activities, and a sample student paper that faculty can use as they develop or revise anthropology courses.

Teaching is an art that should be nurtured and allowed time to grow and mature. The reality of teaching in American colleges and universities today, however, does not usually allow for this slow, careful development of teaching expertise. Graduate teaching experiences vary widely, ranging from the lucky students being given purposeful pedagogical training to others being thrown into a classroom and given no guidance at all. Many new faculty members are hired to teach three or four new courses, or more, in one semester, while

juggling their other new responsibilities in service and research. New faculty may have access to sample syllabi, or even to general classroom management techniques through university-sponsored workshops, but the “how to” of structuring a class that meets required learning outcomes, providing for the development of critical thinking skills, promoting writing across the curriculum, and creating a class that students want to take is often missing. Here is where young faculty, or indeed experienced faculty, who are developing new courses or wanting to improve their pedagogy need to learn from others in their own discipline. And it is here that anthropology faculty are at a disadvantage.

Many journals exist that are devoted to discipline-specific teaching. Many liberal arts disciplines, such as English, Geography, Biology, Foreign Languages, Chemistry, and Psychology, have such journals. (Pusateri 2013). Anthropology is in the unenviable position of having no outlet for discipline-specific Scholarship on Teaching and Learning (SoTL), and more important, no source for faculty looking for specific ways to improve their own teaching. This does a disservice to our profession, our students, and our faculty, who are forced to reinvent the wheel when faced with new course development.

I must point out that the Royal Anthropological Institute (RAI) of the United Kingdom began publishing an open-access, peer-reviewed journal entitled *Teaching Anthropology* in 2011. This journal, which has published four issues as of 2013, “promotes dialogue and reflection about anthropological pedagogies in schools, colleges and universities. . . . We also aim to stimulate scholarly discussions about the relationship between pedagogy and its social, institutional and political contexts.”¹ The focus of many of the initial articles is on teaching in the British tutorial setting, which is quite different from the most common American lecture-based classes. Anthropology

in the United Kingdom means social anthropology, or cultural anthropology as it is more commonly known in the United States. Therefore, this journal will not be a resource for US professors teaching in a four-field anthropology department or teaching biological anthropology, linguistic anthropology, or archaeology.

Some additional resources are available for teaching anthropology at the college level. The American Anthropological Association (AAA) has a site to which faculty members can upload examples of their teaching resources.² As of 2013, of the 125 submissions, only 8 were student assignments or activities. The remaining examples were syllabi. These resources are a good start, but they do not provide the level of detail and discussion found in SoTL journal articles. Rice, McCurdy, and Lukas (2011) have published *Strategies in Teaching Anthropology*, which covers all four subfields of anthropology and provides examples of class activities and assignments for encouraging students to engage with anthropological content. The book is now in its sixth edition, so presumably it has done well. But the publisher, Pearson, does not prominently promote it at professional conferences; nor have publisher representatives made it a priority to discuss it when making office visits.

On the other hand, publishers are quite good at promoting their own packages of web-based lesson content. Pearson has MyAnthroLab; Cengage has CourseMate. Other packages can be accessed, sometimes with a separate fee, by students to supplement their course texts. However, the activities on these websites are usually more geared toward knowledge and comprehension rather than higher-order learning, such as analysis and synthesis. What faculty need are examples of exercises that promote these higher levels of interaction within the field of anthropology.

New Approaches for Sharing Teaching Strategies

Workshops on teaching biological anthropology have been offered at the past two meetings of the American Association of Physical Anthropologists (AAPA) (London, Smith, and Madden 2012, 2013). These workshops were developed to address the needs discussed above for more exchange of teaching ideas and concepts among faculty members. At the AAPA meeting in 2013, thirty-five people attended and twenty-eight completed post-workshop evaluations. Of the respondents, twenty-one out of twenty-eight rated the workshop as very useful or useful, (answering “1” or “2” on a 5-point scale) while all twenty-eight responded that they would attend another teaching workshop at future AAPA meetings (Smith n.d.). These data suggest that faculty, from full professors to graduate student teaching assistants, are eager for anthropology teaching resources. The topic of the 2012 workshop was on course development in multiple settings (for example, online, classes for majors, general education). The workshop leaders presented detailed syllabi and course resources for innovative class topics or structures, then had workshop participants develop their own courses and share them with the rest of the participants. In the 2013 workshop, the focus was on in-class activities. Again, the workshop leaders presented examples of tested activities and then had the participants generate their own. Appendix 1 has examples of exercises from both the workshop leaders and participants.

An Extended Example: Lab in Forensic Anthropology

Given the problems discussed above and the lack of resources, we have included with this chapter an example of a detailed class assignment, including a sample student paper (appendix 2). What follows is a discussion of teaching activities developed for a senior-level lab in a

forensic anthropology class for anthropology majors. These activities have been refined over several years of teaching the course, and they are based on formal and informal feedback from students.

Forensic anthropology courses have become a staple in many anthropology programs and are often seen as a way to attract students to the discipline of anthropology in general. A sampling of anthropology programs in the 2011 issue of the AAA's *AnthroGuide* shows that 20 percent of departments with an anthropology major have a course, faculty member, and/or concentration in forensic anthropology. Forensic anthropology classes are also found in community colleges (Mott Community College 2013), as are certificate programs in Forensic Anthropology (University of Hawai'i, West O'ahu 2012). Students are drawn to the field of forensic anthropology due to the popularity of television shows such as *Bones* and versions of the *CSI* franchise. While the large number of television shows with a forensic focus has glamorized the field of forensic anthropology and has drawn students to this field, there is almost no work in forensic anthropology that is available to students with only a bachelor's degree (American Board of Forensic Anthropology 2008). Even though forensic anthropology courses can be a boon for departments needing to boost their numbers, having the resources available for teaching the course can be difficult in these times of budget cuts. The research project discussed below fosters the development of scientific writing, critical thinking, and public speaking. Anthropology programs can capitalize on public enthusiasm for courses related to forensic sciences and use this excitement as a springboard for teaching critical thinking and writing. The learning objectives that are addressed with this research project include the following:

At the end of the assignment, students will demonstrate the ability to:

1. Create a testable hypothesis or research question related to forensic anthropology
2. Conduct original research in order to test their hypothesis
3. Write an original research paper using appropriate disciplinary conventions
4. Present their research in a professional manner, either as a poster or as an oral presentation

The Assignment

Students in the Lab in Forensic Anthropology are required to conduct original research based on a testable hypothesis or research question developed by the student in consultation with the professor. Examples from previous projects include: Is it possible to differentiate between sharp-force traumas to bone after cremation? How does soil pH affect decomposition? How does ammunition size affect bone traumas? What are the patterns of blunt-force traumas on a dog that has been killed by a car (appendix 2)?

The Process and Outcomes

1. Students submit a hypothesis or research question they wish to investigate. They discuss this with the professor and refine it until it is an acceptable topic.
2. Students submit a research plan, including methodology, materials, and timeline.
3. Students submit a bibliography of sources for the literature review of the research paper.
4. Students submit a rough draft of the complete research paper.

5. Students submit a final draft of the research paper.
6. Students present the paper in a conference-style paper or poster.

The majority of students have conducted their research projects using pork products purchased at a grocery store or butcher shop, because of the anatomical and size similarity between adult humans and pigs (Swindle and Smith 1998). However, other students have conducted their research on pets they have buried in their yard and that have sufficiently decayed. Either of these sources provides students with an inexpensive source of bone on which to cause trauma, burn, or decompose, and it has the added benefit of providing our lab with a teaching collection for future classes. It is difficult to purchase any human skeletal material for teaching collections and virtually impossible to acquire any with examples of specific trauma or post-mortem damage. While casts of these types of cases do exist (France Casting 2013), seeing a gunshot on bone is not the same as seeing it on a cast. The best case is when labs can have casts of human bone, with the animal bone from the research projects to supplement the collection. After assigning this research project only five times, with a class size ranging between ten to twenty students, the teaching collection now includes excellent examples of blunt force trauma, sharp force trauma, gunshot wounds from different weapons, and vehicular trauma, as well as examples of postmortem damage to bone resulting from dismemberment or cremation.

Conclusion

Anthropology needs to join the ranks of other social sciences and establish an easily accessible forum for sharing teaching strategies, innovative assignments, and examples of best practices. This

is particularly important as the classroom is changing because of technology. Conference presentations, such as the AAPA workshops discussed above (London, Smith, and Madden 2012, 2013) and an invited session at the AAA in 2012 on distance education (Dixon and Gonlin 2012; Aguilar 2012; Hunt 2012; Smith 2012; Tessandori and Dixon 2012), are beneficial for starting conversations about teaching but do not provide the handy references needed by faculty who are developing new courses or bringing new life to tired assignments. We can get some suggestions from teaching texts devoted to innovative assessment techniques (Angelo and Cross 1993) or from guides to incorporating more writing in the classroom (Bean 2001), but discipline-specific resources are even more needed.

Appendix I: Sample Syllabi and Class Exercises

I. Plagues, Pathogens, and Public Policy: The Anthropological Perspective

Marilyn R. London

Course Description

The impact of diseases on populations from prehistoric times through the present will be examined, along with public perceptions of disease, scientific breakthroughs on treatment and prevention, and the ways that politics and public health policies can enhance or impede the advancement of disease treatment. The natural history of disease, population structure, and immunity will be discussed. The class will address emerging and reemerging diseases and the ways that first responders, researchers, and policy makers may affect the outcome of an outbreak.

Each student is required to write a short paper (5 to 10 pages) on a disease discussed in class or another disease approved by the instructor and to give a 5-minute class presentation on the disease. To write the paper, students are required to read at least one book about the disease or at least two scientific papers and answer a series of questions about the disease. These questions are: Identify the symptoms, pathogen, transmission pathway, susceptible populations, historic and current prevention measures, historic and current treatments, and the natural conditions that encourage or discourage the spread of the disease. How has public policy affected the spread or containment of the disease? How has the disease modified the course of history (including medical history)? What conditions could make this disease a current problem or threat? Identify the cultural aspects of the disease transmission and/or treatment. For the final exam, community roles will be assigned at midsemester, and each student is

required to write a disaster plan for his or her community organization or agency. These plans will be presented at a “Town Meeting” the week before the final. The final is a “mass disaster” that includes an epidemiological component, and the students are required to follow their disaster plans (until they do not work anymore) to respond to the disaster and a series of reports and “phone calls” (I use 3 X 5 cards) about incidents related to the disaster. The written part of the exam is an “After Action Report,” a commonly used government form that asks for a summary of the situation, explanation of actions taken, and evaluation of what worked, what did not work, what will be done differently in the next event, etc.

Text

Sherman, Irwin W. 2007. *Twelve Diseases that Changed our World*. Washington, DC: ASM Press.

I’m also considering adding the following text:

Krasner, Robert I. 2010. *The Microbial Challenge: Science, Disease, and Public Health*. 2nd ed. Boston: Jones and Bartlett Publishers.

Course Schedule

Week 1: Basics of disease and epidemiology: terminology, pathogens, scope of course

Week 2: Influenza

Film: *American Experience: Influenza 1918*

Film: *Influenza: Aiming at a Moving Target* (from the European Scientific Working Group on Influenza, which also has other resources at <http://www.eswi.org/>)

Reading: Sherman, Chapter 10

Week 3: Hemophilia, Porphyria, and other genetic diseases

Film: *Bad Blood: A Cautionary Tale*

(<http://badblooddokumentary.com/>)

Reading: Sherman, Chapter 1

Week 4: Cholera

Reading: Sherman, Chapter 3

Week 5: Smallpox

Film: *History's Mysteries: Smallpox* (History Channel)

Reading: Sherman, Chapter 4

Week 6: Bubonic plague

Film: *The Black Death* (BBC Documentary) (<http://www.youtube.com/watch?v=BsCkgX2epFw>)

Reading: Sherman, Chapter 5

Week 7: Malaria

Film: *India's War against Malaria* (Createspace, 2007, 22 min.)

Reading: Sherman, Chapter 8

Week 8: Guest Speaker

Dengue Fever

Week 9: AIDS

Frontline: *The Age of AIDS* (<http://www.pbs.org/wgbh/pages/frontline/aids/>)

Reading: Sherman, Chapter 11

Week 10: Yellow fever; Potato blight

Film: *American Experience: The Great Fever* (<http://www.pbs.org/wgbh/amex/fever/>)

Reading: Sherman, Chapters 9, 2

Week 11: Diabetes and other chronic diseases

Week 12: Syphilis, Tuberculosis; Leprosy

Reading: Sherman, Chapters 6, 7

Week 13: Polio

Film: *American Experience: The Polio Crusade* (<http://www.pbs.org/wgbh/americanexperience/films/polio/>)

Week 14: Town Meeting: Planning for Disasters and Disease Outbreaks

Week 15: Final

Note on Videos

Many of the films are available online, or from PBS. I have even downloaded one from iTunes! There are also informational videos online such as http://www.youtube.com/watch?v=kVhtV6_Rdog&feature=related, which is a training film for nurses on how to care for polio patients who are being kept alive in an iron lung. Search for talks on the diseases on TED.com. The students seem to like the mix of lectures and audiovisual presentations.

Additional Readings

Fiction

Alvarez, Julia. 2007. *Saving the World*. Algonquin Books of Chapel Hill. (SMALLPOX)

Barrett, Andrea. 2008. *The Air We Breathe*. W. W. Norton. (TUBERCULOSIS)

Behrens, Peter. 2006. *The Law of Dreams*. Random House. (POTATO BLIGHT)

Faulks, Sebastian. 2005. *Human Traces*. Vintage Books. (MENTAL ILLNESS)

- Lamb, Wally. 1999. *I Know this Much is True*. Harper Perennial.
(SCHIZOPHRENIA)
- Lowenthal, Michael. 2007. *Charity Girl*. Mariner Books (Houghton Mifflin Company). (SYPHILIS)
- Mullen, Thomas. 2006. *The Last Town on Earth*. Random House.
(INFLUENZA)
- O'Farrell, Maggie. 2006. *The Vanishing Act of Esme Lennox*.
Harcourt. (MENTAL ILLNESS)
- Roiphe, Anne. 2006. *An Imperfect Lens*. Shaye Areheart Books.
(CHOLERA)
- Willis, Connie. 1993. *Doomsday Book*. Spectra. (BUBONIC
PLAGUE)

Nonfiction

- Barry, John M. 2005. *The Great Influenza: The Story of the Deadliest
Pandemic in History*. Penguin Books. (INFLUENZA)
- Black, Kathryn. 1997. *In the Shadow of Polio: A Personal and Social
History*. Da Capo Press. (POLIO)
- Crosby, Molly Caldwell. 2006. *The American Plague: The Untold
Story of Yellow Fever*. Berkley Books. (YELLOW FEVER)
- Greenberg, Michael. 2008. *Hurry Down Sunshine: A Father's Story of
Love and Madness*. Vintage Press. (MENTAL ILLNESS)
- Johnson, Steven. 2007. *The Ghost Map: The Story of London's Most
Terrifying Epidemic—and How It Changed Science, Cities,
and the Modern World*. Riverhead Trade. (CHOLERA)
- Mankell, Henning. 2004. *I Die, But the Memory Lives on . . . A
Personal Reflection on AIDS*. Harvill. (HIV/AIDS)
- Parascandola, John. 2008. *Sex, Sin, and Science: A History of Syphilis
in America*. Praeger. (SYPHILIS)
- Ramirez, Jose P. 2009. *Squint: My Journey with Leprosy*. University
Press of Mississippi. (LEPROSY)

- Rosen, William. 2007. *Justinian's Flea*. Penguin. (BUBONIC PLAGUE)
- Rosenberg, Charles E. 1987. *The Cholera Years: The United States in 1832, 1849, and 1866*. University of Chicago Press. (CHOLERA)
- Sacks, Oliver. 1990. *Awakenings*. Harper Perennial. (SLEEPING SICKNESS)
- Shilts, Randy. 2007. *And the Band Played On: Politics, People, and the AIDS Epidemic*. 20th anniversary ed. St. Martin's Griffin. (HIV/AIDS)
- Shreve, Susan Richards. 2008. *Warm Springs: Traces of a Childhood at FDR's Polio Haven*. Mariner Books. (POLIO)
- Slater, Leo B. 2009. *War and Disease: Biomedical Research on Malaria in the Twentieth Century*. Rutgers University Press. (MALARIA)
- Styron, William. 1992. *Darkness Visible: A Memoir of Madness*. Vintage. (DEPRESSION)
- White, Neil. 2009. *In the Sanctuary of Outcasts: A Memoir*. William Morrow. (LEPROSY)

II. Anthropological Study of Mummies—ANT 380

Gwyn Madden

Course Description

This course will cover the history of mummy studies, environmental impact, and current research methodology. Natural and artificial mummies will be surveyed globally, including the potential cultural components involved. Ethical use of mummified remains and representation of mummies in the media, literature, and museum settings will complete the course.

Required Course Texts

Arriaza, B.T. 1995. *Beyond Death: The Chinchorro Mummies Of Ancient Chile*. Washington, DC: Smithsonian Institution Press.

Carter, H., and A.C. Mace. 1977. *The Discovery of the Tomb of Tutankhamen*. Mineola, NY: Dover Publications.

Glob, P.V. 2004. *The Bog People: Iron Age Man Preserved*. New York: New York Review Books Classics.

Journal articles; located on Blackboard (see list under “Readings” tab)

Grading

Syllabus quiz	1 x 25 points =	25 points
Discussion notes	20 x 10 points =	200 points
Topic paper	1 x 100 points =	100 points
Presentation	1 x 50 points =	50 points
Group assessment project/paper	1 x 100 points =	100 points
Midterm	1 x 100 points =	100 points
Final	1 x 100 points =	100 points
Total points		675 points

Grading Scale

90% = A

80% = B

70% = C

60% = D

Below 60% = F

Objectives

Student will be able to . . .

1. Discuss in depth the historic, religious, and cultural reasons that cultures choose to mummify
2. Identify the geographic locations in which mummies are found worldwide
3. Identify environments that improve preservation or enhance decomposition
4. Identify modern forms of technology appropriate for mummy studies
5. Discuss the issues associated with the ethical handling of human remains
6. Discuss accurately the historic discovery and treatment of mummified remains

Discussion Notes

Students are required to write discussion notes for each reading assigned. The notes are due in class on the same day the assigned reading is to be completed, as indicated in the course schedule (see Readings page on Blackboard). Discussion notes consist of four sections:

Books and Historic Readings

1. Respond to the reading: what initial thoughts or feelings did the reading provoke?
2. Summarize the main point(s) of the reading in two or three sentences.
3. Draw connections between the assigned reading and other readings, films, discussions, and lectures covered in class.
4. Pose two questions to generate classroom discussion about points the readings make.

Methodological Readings

1. Define the methodology used in the reading.
2. Identify the sample size and describe the sample population.
3. Discuss any problems you see in the methodology.
4. Pose two questions to generate classroom discussion about points the readings make.

Complete all four parts for each discussion note assignment. Use an outline format rather than paragraphs; fully formed thoughts and coherent writing are expected. The notes must be NO longer than one page; typed, double-spaced, 12-point font, with the name, date, and reading assignment title in the upper right corner. Each reading should have a separate discussion notes page turned in.

Discussion notes are designed to:

1. Prepare you to discuss the readings in class
2. Improve your critical reading skills and help you build your own interpretations of the course materials
3. Increase your control over your grade

Notes will be graded on a 10-point scale. To receive 10 points, the notes must be complete (i.e., include the four required components), and they must reflect time spent reading and thinking about the assignment. Partial credit will be given for notes failing to meet these requirements and for notes that are too general or vague. Emailed or late notes will be NOT accepted.

Exams

There will be a midterm and a final exam. The final will be comprehensive. You will be evaluated on your understanding of the lecture material, text readings, labs, and videos. The exams may consist of fill in the blank, true/false, listing, multiple choice, matching, and short answer.

Topic Papers

Each student will select a topic to research (methodological, historic, or cultural), write an 8-10 page paper on the topic, and present his or her findings to the class. An A paper will require no less than 10 primary sources, a B paper no less than 8, a C paper no less than 6, a D paper no less than 4; less than 4 sources will result in an F on the paper. NO Internet sources are allowed. You may not use Wikipedia, the dictionary, or encyclopedia as a primary source. The papers should be typed, double-spaced, and a 12-point font should be used. A title page should be used, including your name, the topic of the paper, the course information, and date the paper is due. Papers are due during class time on the due date; NO late papers or emailed papers will be accepted. Citations must follow the style guide on Blackboard under the "Course Documents" tab.

Topic Presentations

ALL presentations should be PowerPoint and must be emailed to the professor by 8 am the day the presentation is to be given. Citations should be used within the text of the presentation, and all photographs/images are required to be cited in the text. A reference page should be the final slide on the PowerPoint. The presentation should be 12-15 minutes long; shorter or longer papers will be docked points. You will be graded on clarity of the material presented, applicability of the images, grammar, organization of the material and slides, and depth of knowledge on the topic.

Course Schedule—Subject to Change

Dates

Week 1	Definition of mummy—natural vs. artificial processes Syllabus Quiz
Week 2-4	History of mummy studies
Week 5-7	Mummy studies today—methodology
Week 8	Midterm
Week 9-13	Mummies by culture
Week 14-15	Ethics in the study of human remains Representation of mummies in the media/ literature/museum
Week 16	Final

References

- Allison, M. J., and E. Gerszten. 1982. *Paleopathology in South American Mummies: Application of Modern Techniques*. Richmond: Virginia Commonwealth University.
- Arriaza, B. T. 1995. *Beyond Death: The Chinchorro Mummies of Ancient Chile*. Washington, DC: Smithsonian Institution Press.
- Aufderheide, A. C. 2003. *The Scientific Study of Mummies*. Cambridge: Cambridge University Press.
- Barber, E. W. 1999. *The Mummies of Urumchi*. New York: WW Norton.
- Cockburn, A., E. Cockburn, and T. A. Reyman, eds. 1998. *Mummies, Disease and Ancient Cultures*. 2nd ed. Cambridge: Cambridge University Press.
- David, A. R., and R. Archbold. 2000. *Conversations with Mummies: New Light on the Lives of Ancient Egyptians*. New York: Madison Press.
- Hart Hansen, J. P., and H. C. Gullov, eds. 1989. *The Mummies From Qilakitsoq: Eskimos in the 15th Century*. Man & Society 12. Copenhagen: Meddelelser Om Gronland.
- Spindler K., H. Wilfing, E. Rastbichler-Zissernig, D. zur Nedden, and H. Nothdurfter, eds. 1996. *Human Mummies: A Global Survey of Their Status and the Techniques of Conservation*. New York: Springer Wien.
- Turner, R. C., and R. G. Scaife, eds. 1995. *Bog Bodies: New Discoveries and New Perspectives*. London: British Museum Press.

III. “Introduction to Anthropology—Four Fields: Online Assignments”

Susan Kirkpatrick Smith

I have created an online introduction to anthropology that requires the students to conduct research in each of the four subfields of the discipline. Below are examples of the exercises I have created. While these were specifically created for an online class, they can be used in a regular course as well.

Cultural Anthropology—Introduction to Culture

- Watch one of the four movies listed below.
- Watch the movie as an observer of cultural practices, not just as a movie lover. Report on the cultures you observed as if you were an anthropologist engaged in participant-observation. Describe the non-American culture(s) to a reader who is unfamiliar with them.
- If you were going to do a longer-term study of one of the cultures presented in the text, what kind of questions would you like to answer about the culture?
- How do people from the different cultures in the movie react to each other? Are there examples of ethnocentrism? Are there examples of cultural relativism? Discuss these concepts in your paper, then address how they are or are not exemplified in the movie.
- You must make specific references to the appropriate chapters in your textbook in your essay. The point of this assignment is to show me how you are applying what you have learned in the course to your analysis of the movie.

Movie Options

1. *Bend it Like Beckham* (Gurinder Chadha, dir., 2002, Fox Searchlight)
2. *Fiddler on the Roof* (Norman Jewison, dir., 1971, United Artists)
3. *Mosquito Coast* (Peter Weir, dir., 1986, Warner Bros.)
4. *The Gods Must Be Crazy* (Jamie Uys, dir., 1980, 20th Century Fox)

Biological Anthropology—The Concept of Race

For this project, you will survey people's attitudes about race. I want you to ask 20 people the following questions and record their responses in a table.

- How many races are there?
- What are they?
- What is your race? (Do not give them choices to pick from.)
- What is your sex?
- What is your age?

After you have collected your data, analyze the results. Do you find that there are any cultural factors that influence people's attitudes about race? Do people of different age/sex/self-described race have different attitudes about race? Do the words people use fit any of the discussions from the text? Do any of your informants bring up any of the issues addressed in the textbook or in the other class readings? If so, what are they? If not, why do you think they do not? How could this research be used to discuss why race is not a valid biological concept?

Archaeology—Garbology

For this project, you will explore the relationship between people's behavior and the material remains they leave behind. Find a friend who is willing to let you look through his/her trash. Taking proper health precautions, record everything you find in the trash. Then try to make inferences about the behavior that resulted in the particular accumulation of garbage before you. For example, the presence of 78 beer cans might indicate a party.

Next, interview your friend about what actually went on in the house, apartment, or room during the period of garbage accumulation. Does the account of the garbage owners match with what the garbage indicated to you? Think about what you have read about archaeological research and address some of the issues involved when archaeologists attempt to infer behavior from material remains, especially from other cultures.

Requirements for the garbage selection process

- The garbage cannot be from your own home or a home where you spend most of your time.
- Tell your garbage donor that you need to have at least a full “kitchen” sized garbage can to work with.
- Do not ask how long the garbage has been accumulating.
- Do not ask any other questions about the garbage before you begin to analyze it.

Requirements for the paper

- Description of the “site.” Where in the house was the garbage located? What kind of container was it in? How long did the garbage seem to have been accumulating? Any other important information about the situation of the garbage itself?

- Provide a *detailed* list of what you found in your excavation.
- Analyze the garbage.
 - Who do you think made the garbage? Can you tell any thing about the age and sex of the person who threw it away?
 - What does the garbage tell you about the behavior of the person who threw it away?
 - What can you infer about the events that occurred during the period of garbage accumulation at this location?
 - Base this discussion strictly on what you have found, not on what you know about the owners of the garbage. This should be written before talking with the garbage owner(s).
- Present your analysis to the garbage owner(s) and ask them to confirm or refute your findings.
- Report on your conversation with the garbage owner(s). How well did your interpretations match up with their reporting of what happened during the time period that the garbage accumulated?
 - What happened that you were able to document from the garbage?
 - What happened during the time of the garbage deposition that did not leave any evidence in the garbage?
 - What kinds of misinterpretations did you make?
- How does this experience relate to what research archaeologists do? What kind of mistaken assumptions did you make that you think an archaeologist might make?

Linguistic Anthropology—Gender and Conversation

You will be observing a conversation between a female and male for this assignment to see whether they use different communication styles. Before you begin the assignment, you will need to read the class readings on linguistic anthropology from the textbook and the article by Deborah Tannen.

- Observe a conversation between a male and a female. You must be an observer and not a participant in the research.

Requirements for the Paper

- Describe who the participants of the conversation were. Give the age of each person, location of the conversation, relationship of participants to each other, etc. If you do not know the participants, then make your best guess about the characteristics of the conversation participants.
- Describe what the conversation was about and give specific details about how the conversation relates to the text and article readings. These details may either support or disagree with the discussion of language differences between males and females you read about for linguistic anthropology.
- Does your research agree with the concepts presented by Tannen? Be specific.
- Next, discuss the kinesic, phonological, grammatical, lexical—or other—language differences you see between males and females (see textbook).

Reading

Tannen, Deborah. 2001. “The Power of Talk: Who Gets Heard and Why.” In *Anthropology: Contemporary Perspectives*, 8th ed., edited by Phillip Whitten, 169-77. Needham Heights, MA: Allyn & Bacon.

IV. Modern Human Variation

Course organization created by *Teaching Biological Anthropology in the 21st Century Workshop Participants, 2012*

The course will be divided into three main sections:

1. Climatological Adaptations

a. Skin color and race

- i. Explore this important topic by comparing multiple phenotypic traits in the class.
- ii. Have the class get in groups based on these traits:
 1. Skin color
 2. Hair color
 3. Blood type
 4. Ability to curl tongue
- iii. As the groups change members, use this as a way to discuss concordant and discordant trait characteristics.

b. Body proportions

- i. Have students research how athletes for certain sports exhibit certain body proportions and what the trends are for world-class athletes from certain countries.
- ii. In class, discuss variation in body proportion related to Bergman's and Allen's Rules, as well as how cultural factors, such as training for a particular sport, affect body build.

2. Nutritional Adaptations

a. Evaluation of fad diets

- i. What do you eat on each fad diet?
- ii. Does that meet the nutritional requirements discussed in class?

b. Food-Stamp challenge

- i. Send students to grocery store with the amount of money from food stamps.
- ii. What could you buy?
- iii. Address the balance between meeting caloric versus nutritional needs.
- iv. Discuss the biocultural causes of obesity in the United States.

3. Pathological/Biological Adaptations

a. Infectious disease

- i. Activity: Choose random biological and cultural traits in your class and then “kill” people because of them.
Examples:
 1. If you are over 6 feet tall, you die.
 2. If you have long hair, you die.
 3. If you are wearing a red shirt, you do not die.
- ii. Then see who survives and determine the difference between cultural and biological factors that affect survival.
- iii. How might biological and cultural factors change due to this disease?

V. Stone Tool Making and Tool Use

Marilyn London

Courses: Introduction to Biological Anthropology, Human Origins

At the end of the assignment, the student will demonstrate the ability to:

1. Use flint-knapping techniques to manufacture a stone tool
2. Identify the best use of the tool
3. Demonstrate the use of the tool to other students
4. Describe the manufacture and use of the tool in a short essay

Making tools from raw materials can provide the student a better understanding of how to choose resources (the type of stone chosen), the difficulty of manufacturing a usable tool from raw materials, and how to manufacture tools that will meet the needs of the situation. You (the teacher) may have a selection of rocks and minerals available to you, and you may have some skills in flint knapping; if this is the case, you are in the minority. You can use heavy glass as a substitute for obsidian. You can obtain videos on flint knapping, even online (these vary in length and quality), or you can find a local flint-knapper to help you. Many local archaeology clubs have a toolmaker who is willing to come and demonstrate to your class. *The Oxford Companion to Archaeology* (Silberman 2012) and other publications have detailed descriptions of the basic methods used. Or you can borrow stone tools for use in your class. Be sure that anyone who is handling the raw materials or making the tools has protection (leather gloves, goggles).

Students are given several raw foods to prepare. Working together as a class, they assess the tools available and choose the best tools for the tasks. The object is to cut the food into small enough pieces that it can be eaten (or cooked quickly). Provide cutting boards or a protected surface for the students to use. The foods should include tomatoes, onions, garlic bulbs, jalapeño peppers, limes, cumin seeds, and cilantro. If all goes well, the results of the activity can be mixed together to make salsa. Provide corn chips so that the students can sample their creation.

Questions to ask the students

1. What kinds of tools were used for the food preparation (scrapers, awls, blades, etc.)? How well did the tools work?
2. Which foods were easiest to prepare? Which were hardest?
3. Does this exercise change your perception of early hominid tool use? Why or why not?
4. Do you think chimpanzees or other great apes might be capable of creating stone tools like you made? Why or why not?

Reference

Silberman, Neil Asher, ed. 2012. *The Oxford Companion to Archaeology*. 2nd ed. New York: Oxford University Press.

VI. What Does It Mean To Be Human?

Susan Kirkpatrick Smith

Course: Human Origins

1. Have students write four times during the semester what they think it means to be human. I ask students to write a half page in class. Following each writing assignment, we discuss their comments. These discussions can take place in small groups or as a large-group discussion. I take up their writing and give them a participation grade. I do not grade the content.

a. Day 1:

- i. I do not provide the students with guidance other than to write what they think it means to be human and to take a half page to provide their answer.
 - ii. I ask the students to share some of their answers and I put them on the board. We then talk about which of these traits of humanness would leave evidence in the archaeological record.
 - iii. We then discuss which type of anthropologist studies each of these types of data and what the data then suggest about when the students believe that “humans” first appear in the archaeological record.
1. Note: Because many students enroll after the first day of class, I ask all late enrollees to participate in an online discussion of the topic. They must write the same original posting and then discuss their postings online with others who enrolled late.

- b. After modern primates:
 - i. For this discussion, I ask the students to make sure that they refer to information they have learned in class about primates.
 - ii. We have small-group discussions (3-5 students per group) about how the students' views of what it means to be human have changed since the beginning of the semester.
 - iii. The small groups share what they discussed, and we talk about why studying nonhuman primates is important in a human origins class.
- c. After early hominins (usually after we discuss *H. habilis* or *H. erectus*):
 - i. Again, students are asked to talk about what it means to be human, and they are asked to refer to material they have learned about early hominins.
 - ii. Large- or small-group discussions focusing on what features of humans they are seeing so far follow.
- d. After arrival of anatomically modern humans:
 - i. Final in-class discussion of what it means to be human.
 - ii. I ask the students to center their discussion on the various archaic forms (Neanderthals, *H. heidelbergensis*, etc.) and whether they believe that they are "human."

2. Essay on final exam: "How have your views of what it means to be human changed over the course of the semester? What have you learned in the class that caused you to change your views? If you have not changed your views, what have you learned in the class that has reinforced your views? Make sure you have specific references to course material in your answer."

- a. I hand back their original writings before the final exam so that they can refer to them while studying.
 - b. I let them know that this question will be on the exam.
3. What does this address?
- a. Writing Across the Curriculum initiatives:
 - i. Students “write to learn” rather than write to show what they have learned.
 - ii. Students are graded on participation (which often includes discussion of what they have written afterward) but not on content.
 - iii. The final exam essay is where they are graded on this concept.
 - b. “Enduring Questions” initiatives:
 - i. Helps with “why do we need to know this” types of questions.
 - ii. Moves beyond memorizing taxa.
4. Learning objectives:
- a. Student will develop and articulate a statement on “what it means to be human” supported by concepts learned in class.
 - b. Student will demonstrate how disparate areas of physical anthropology contribute to the field of human origins.

VII. Play the Feud

Contributed by *Teaching Biological Anthropology in the 21st Century Workshop Participants*, 2013

Courses: Introduction to Anthropology, Introduction to Biological Anthropology, Human Origins

This assignment is a good way to review material that is new and often confusing to students. Start by explaining the rules of *Family Feud*. If you or the students are not familiar with this popular TV show, you can find the rules online.

Create several different polls.

1. 100 female Neanderthals were asked: “What do you find attractive about male Neanderthal faces?”

a. Possible answers:

i. Occipital buns

ii. Wide noses

iii. Large supraorbital tori

2. 100 *Homo erectus* were asked: “What is your greatest cultural achievement?”

a. Possible answers:

i. Fire

ii. The Acheulean hand ax

iii. Being able to survive outside of Africa

3. 100 New World Monkeys were asked: “What is your favorite food?”

a. Possible answers:

- i. Fruit
- ii. Insects
- iii. Leaves

This exercise is a good way to review factual material in a fun environment.

APPENDIX 2: Sample Student Paper for Forensic Anthropology

“That Poor Dog”: Vehicular Trauma Analysis of a Dog by Applying Forensic Anthropology

Laura D. Lund

Abstract

This research is a case study analyzing trauma, sex, age at death, and time since death, of a domestic dog (*Canis familiaris*) suspected of being hit by a vehicle. A man who gave it a proper burial in his parents' backyard found the deceased dog on the side of the road. I excavated the burial using archaeological field techniques and recovered most of the skeletal remains, lots of hair, some skin, and six claw sheaths. Severe blunt force trauma consistent with vehicular trauma was documented. The damage was primarily isolated to the skull and the right side of the dog's hind limbs. I used the same trauma methods Forensic Anthropologists use with human victims when determining individual identification and details surrounding a victim's death. These analyses are crucial in the investigation of the death of human victims, and this research was done to apply these methods to the death of a domestic dog. Forensic anthropology students are unable to use human remains in this type of study. As a student, I must turn to nonhuman subjects when studying forensic methodology. Analyzing the remains of this domestic dog that died in a manner consistent with vehicular trauma provided such an opportunity as a useful substitution for human remains.

Introduction

About 5,000 pedestrians are killed every year in the United States. According to the Georgia Highway Safety Statistics Information (GHSSI), approximately 150 pedestrians are killed each year in Georgia within the last 20 years. The physical evidence is crucial when it involves hit-and-run cases (Beddoe 1958).

The National Highway Transportation Safety Administration reported on the statistics of child pedestrian fatalities between 1992-2001 and found that 6,679 pedestrian fatalities were between the ages of 0-15, which is 12.6 percent of all pedestrian fatalities. Adult pedestrian fatalities represented a much larger number.³ A study in Oxford, Britain, reported on pedestrian vehicular trauma from different road accidents. There were 27 pedestrian fatalities out of 500 victims involved in some form of vehicular trauma. Only four of those victims were under the age of 20 (Atkins et al. 1988). A population level Rhode Island study of vehicular trauma was done assessing age patterns (Rockett et al. 1990). Between 1984 and 1985, 5,769 vehicular trauma cases were detailed and categorized by road-use type. The highest percentage was motor vehicle occupant and the lowest percentage was pedestrians and pedal cyclists. Among the pedestrians and pedal cyclists, the highest number of fatalities was between the ages of 5-14 (Rockett et al. 1990).

The Not-in Traffic Surveillance System (NiTS) has collected fatality information from traffic accidents since 1975 in the Fatality Analysis Reporting System (FARS). However, hit-and-run accident information is not collected. Therefore, I am unable to report population-level information on total number of vehicular homicide victims or age patterns involving hit-and-run accidents in the United States or Georgia. I have attained, however, two court cases involving hit-and-run situations that occurred in Georgia. In both cases, the physical evidence was heavily utilized and resulted in convictions for

both cases. The first case, Klaub versus The State of Georgia, occurred in 2002. Klaub had taken his wife's car late one night and returned to tell his wife that he had hit a dog. The next morning Joeann Edwards Swift was found dead. The physical evidence was analyzed and ultimately was responsible for the conviction of two counts of vehicular homicide, hit and run, and driving with a suspended license. They were able to compare the automobile pieces and paint chips in the victim's clothing to the 1986 Mercury Topaz belonging to Klaub's wife (Klaub vs. The State of GA, 564 SE2d 471 [2002]).

The second case was Henry versus The State of Georgia. This case occurred in 2007, in which Henry was convicted of vehicular homicide for hitting two fourteen-year-old boys. He had a passenger with him after leaving a bar. The passenger pleaded for the driver to return to the scene when Henry hit the two boys, and he refused. One boy was killed on impact and the other was found hours later with severe injuries resulting in several surgeries. Henry was convicted with felony hit and run, a lesser charge than vehicular homicide, based on the lack of presentation of the physical evidence (Henry vs. The State of GA, 645 SE2d 32 [2007]). This is an example of the importance of retrieving the physical evidence completely and accurately to help ensure enough information is present to seek justice for these victims. Forensic anthropologists, medical examiners, and crime scene investigators have a responsibility to collect detailed information regarding cases of vehicular accidents, especially those of vehicular homicide. In these cases, the physical evidence is vital in the progression of identifying the victim and narrowing a possible driver. This paper discusses the forensic methodology used for human victims of pedestrian, and hit-and-run accidents.

As a forensic anthropology student, I am unable to use human remains in this type of study. I must turn to nonhuman subjects to apply forensic methodology. I was able to locate and analyze the

remains of a domestic dog (*Canis familiaris*) that died in a manner consistent with vehicular trauma, which provided a similar substitution for human remains, especially those of children because of size and height.

I was able to do a full excavation of a domestic dog that had been buried after being found on the side of an urban road (photograph 13.1). My purpose for excavating the dog was to forensically assess the trauma it had sustained and analyze the skeleton for other factors such as age at death, time since death, and sex. The analysis of the skeletal remains of victims that have sustained vehicular trauma is methodical and time consuming. A useful report of a hit-and-run case was written to detail the analysis of the remains of a vehicular trauma victim to examine the body and other physical evidence (Beddoe 1958).



Photograph 13.1. Dog buried under the concrete slabs. (Photograph by Laura Lund)

Excavation

A full excavation of the domestic dog burial was completed using standard archaeological techniques in March 2010. During the excavation process, there were two important details to consider for the analytical portion of this research. Shortly after digging, the feature of the burial was exposed (photograph 13.2). The soil was inconsistent with the rest of the Unit. When pressure was applied, the root clusters and soil would give with a spongy feeling. As the hole was opened to the size of a cantaloupe, there were visible clumps of hair. The soil was blackened from the decomposition of soft tissue. The remains of the dog, labeled TPD-2, were retrieved carefully and methodically. Unfortunately, because of the tremendous thickness of the roots, the full skeleton could not be exposed without disarticulating it as it was uncovered. I had to photograph and extract the remains as they were uncovered. The bioturbation from the roots had disturbed the skeleton from the original placement at the time of the burial. However, the skeleton remained articulated for the most part even with the presence of bioturbation.



Photograph 13.2. Excavation Unit 1 - Feature 1. (Photograph by Laura Lund)

Methodology

After all the remains of the dog were uncovered, through both excavation and screening, they were cleaned with Oxy Clean and warm water. They were not soaked in the water-Oxy Clean mixture, but were dipped in the mixture and gently scrubbed with a toothbrush. The postcranial remains were then rearticulated in order to assess the skeleton for sex, age at death, time since death, and trauma. The skull was so fractured that articulation proved to be more difficult than the postcranial skeleton. I used a line drawing of a coyote skull to shade in the fragments of the skull that had been recovered (figure 13.1).

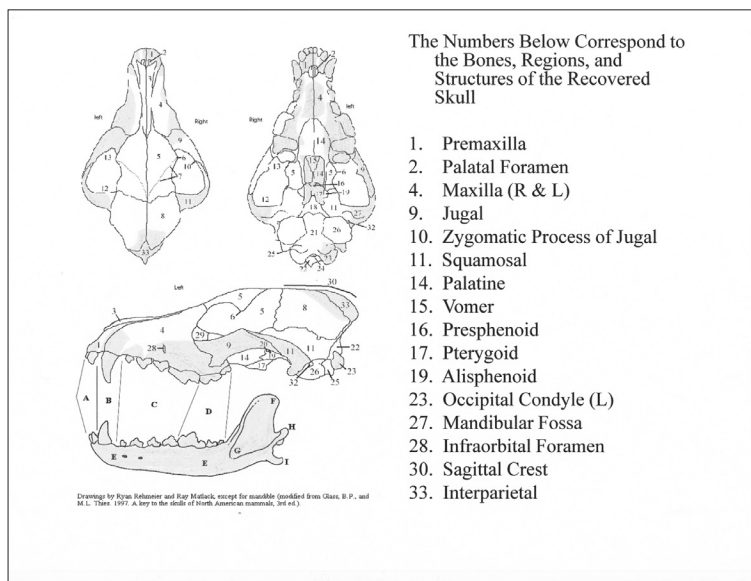
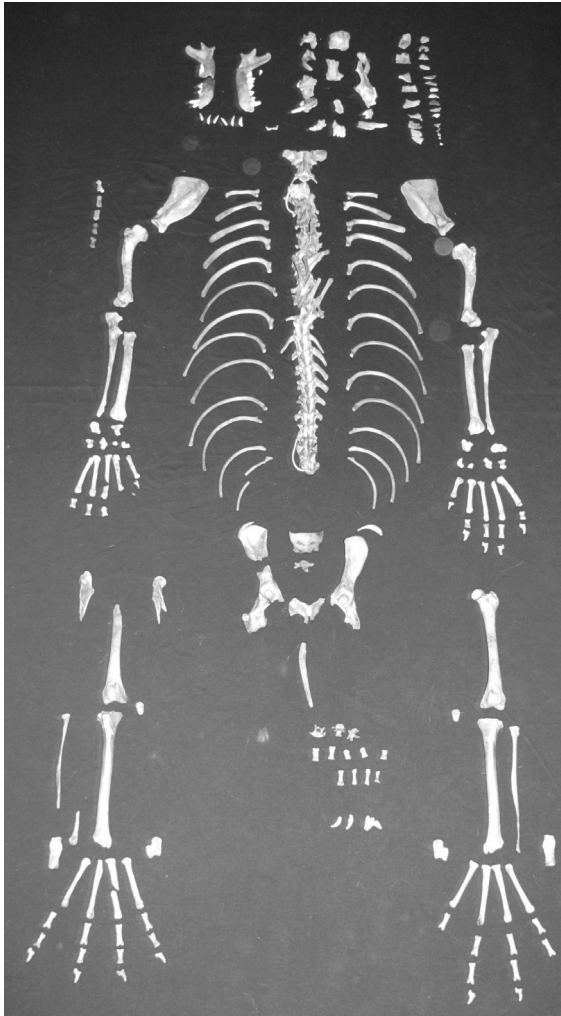


Figure 13.1 Line drawing of skull fragments. (Permission by Diane Warren)

Results of Skeletal Analysis

The dog's skeleton was intact, except for the skull (photograph 13.3), and there were no signs of scavenging. I was able to conclusively determine the dog's sex as a male by the presence of the *os penis*

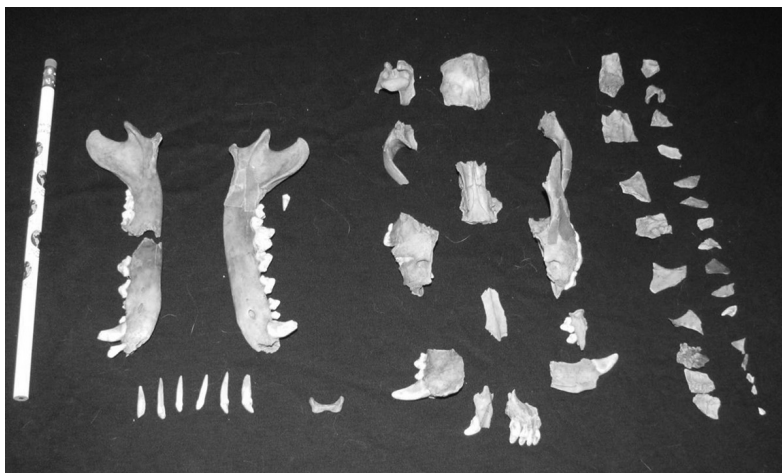
(penile bone) that was recovered. The age at death was determined from the epiphyseal growth plates of the iliac crest. Neither epiphyseal growth plate was fused completely, but there were signs of partial fusion. This indicated that the dog was approximately 6 months to 2 years old. The time since death was determined by the seven stages of preservation characteristics (table 13.1).



Photograph 13.3. Skeleton of TPD—2. (Photograph by Laura Lund)

Table 13.1 - State of Preservation Characteristics of Skelton TPD-2		
	Contemporary	Non-Contemporary
Color	Light	Dark-X
Texture	Smooth - X	Grainy
Hydration	Wet & Greasy - X	Dry
Weight	Heavy - X	Light
Condition	Whole - X	Fragmented
Fragility	Tough - X	Fragile
Soft Tissue	Present - X	Absent

Table 13.1. State of Preservation Characteristics.



Photograph 13.4. Recovered skull fragments. (Photograph by Laura Lund)

Trauma

The cranium was very fragmented. There are 23 unidentified possible skull fragments that were recovered. However, there are a few skull fragments that I was able to identify (figure 13.1 and photograph 13.4). A fragment of the sagittal crest and the interparietal were recovered with fragments of the right and left parietal bones. The left maxilla, jugal, and squamosal bones were recovered. The left jugal bone has a comminuted compression fracture at the suture, and the left squamosal bone also has a comminuted compression fracture. The right squamosal bone has a fracture.

There was extensive blunt force trauma to the mandible and maxilla of the dog. The right mandible has a perimortem compression fracture anterior to the ramus and posterior to the alveolar process at M3 (M – molar). The right I3 (I – incisor), I2, and I1 were also not recovered. The left mandible also had a perimortem compression fracture at M1, in which the tooth had also fractured off. P2 (P – premolar) was also broken, but appears to be antemortem. There is a dark cusp and a white cusp that is still present. The left I3 was still present, but I2 and I1 were not. The maxilla had more signs of trauma on both sides. I2 was found as a loose tooth. There were four separate comminuted compression fractures on the left side of the maxilla. The right side had three separate comminuted compression fractures, and all teeth were in the maxilla except P3, P4, and M2, which were not recovered (figure 13.2).

The right *os coxae* (hipbones) has a perimortem comminuted compression fracture of the shaft of the ilium, and there is also a caudal acetabular fracture. The left *os coxae* has a comminuted compression fracture at the ischium and an epiphyseal fracture of the iliac crest. The sacrum's coccyx has a comminuted fracture and

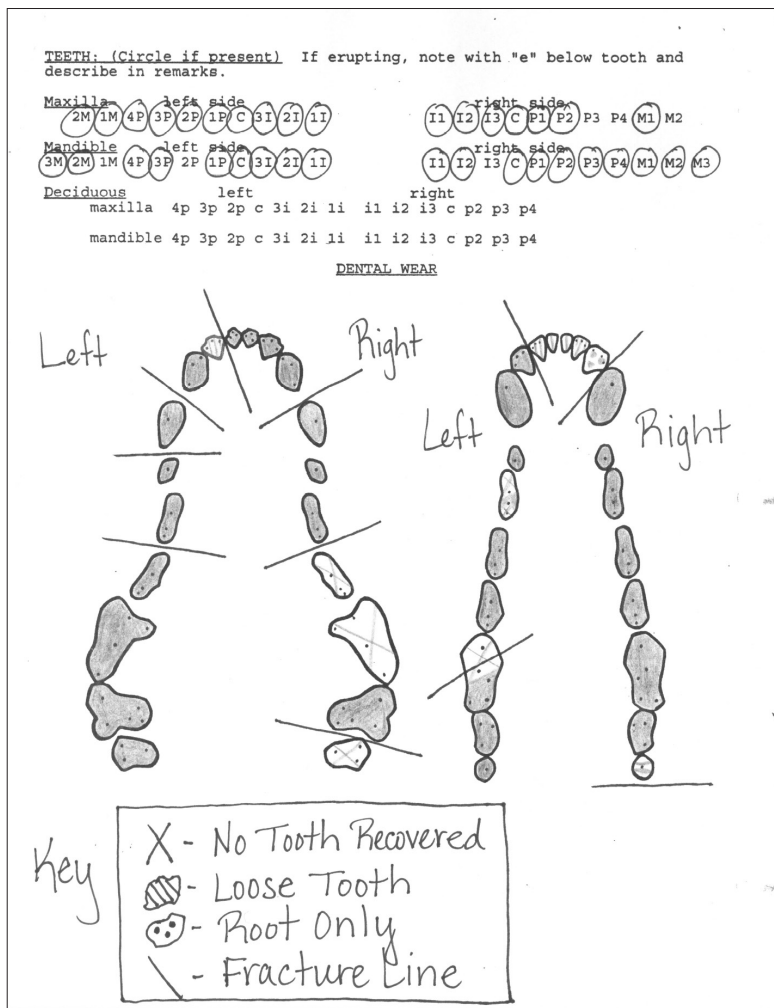
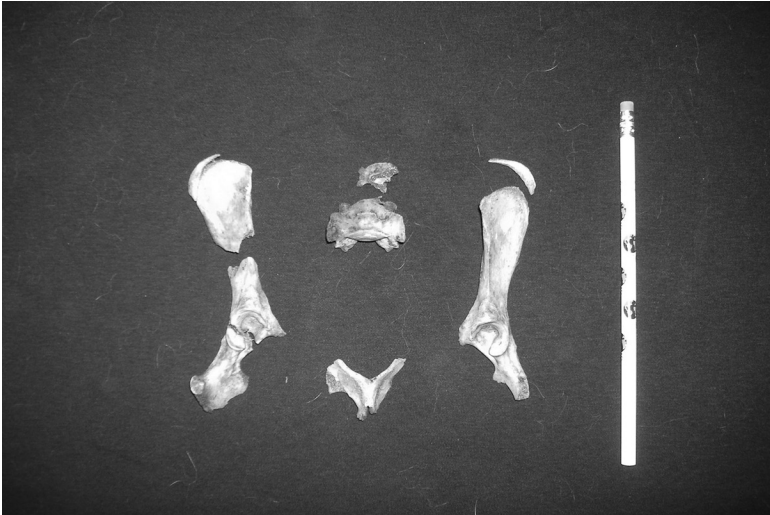


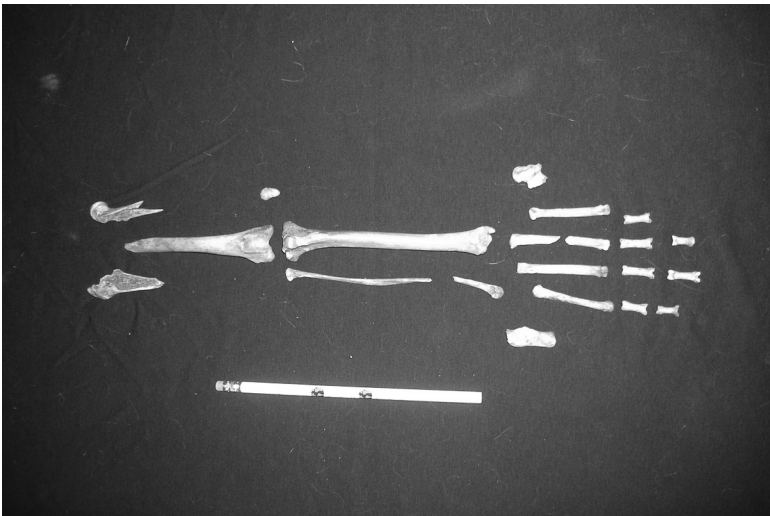
Figure 13.2. Line drawing of teeth recovered. (Data sheet created by and used with the permission by Diane Warren)

the pubic symphysis has fractured away from both the left and right *os coxa* (photograph 13.5). Consistent with the fracture to the right acetabulum, the right femur is in three pieces. The trauma is present with two proximal comminuted fractures that split both the femoral

head and greater trochanter apart from the shaft. The right fibula has a distal fracture approximately 2 centimeters proximal to the lateral malleolus. The medial malleolus of the tibia is also fractured. The left femur, tibia, and fibula had no signs of fractures (photograph 13.6).



Photograph 13.5. Pelvic trauma. (Photograph by Laura Lund)



Photograph 13.6. Right hand limb trauma. (Photograph by Laura Lund)

Secondary trauma was also observed on the postcranial skeleton. The right floating rib has one perimortem comminuted compression fracture and a possible antemortem shearing fracture posterior to the tubercle on the same rib. T1 (T – thoracic vertebrae), T2, T9, and T10 all had perimortem comminuted compression fractures at the spinous processes. The right transverse processes of the thoracic vertebrae numbers T10 and T12 were fractured as well. More transverse processes were fractured on the left side of the thoracic vertebrae; numbers, T10, T12, and T13. The transverse processes of the lumbar vertebrae (L) were also fractured on L1 and L2.

There is no trauma evident to the long bones of the forelimbs; however, both the right and left spines of the scapulae are fractured. The left scapula has more trauma than the right. The spine was almost comminuted, only attached at the superior end of the spine. There are two radiating fractures from the spine to the infraspinous fossa, another to the supraspinous fossa and finally another to the subscapular fossa.

Discussion

Based on the skeletal analysis of TPD-2, it is consistent with vehicular trauma. The majority of primary trauma was to the skull and most likely would have been the direct cause of death. It appears to be the primary area of the blunt force trauma and would have caused severe damage to the brain. The fractures to the right *os coxa* and the right side of the long bones also indicate primary blunt force trauma. There was more damage to the right side of the skull than to the left, which is also the case with the right side of the long bones of the hind limbs and the *os coxae*, which can aid in concluding the direction of force. It appears that the dog was facing slightly laterally on the right side with the force of the vehicle to the dog's head. All of the

dorsal fractures to the vertebrae and scapulae appear to be secondary fractures from the dog flipping over on its back repeatedly from the initial force of the vehicle's first blow to the head and right side of the body.

Using a nonhuman subject was beneficial for practicing forensic methodology. Animals, particularly dogs, are good substitutions for humans because both humans and dogs are regularly affected by blunt force vehicular trauma (Simpson et al. 2009). However, there is not a National Trauma Data Bank for dogs in veterinary medicine like there is for humans. A study evaluating 239 dogs sustaining vehicular trauma in 2001 was done in an attempt to answer age pattern questions and severity of trauma and outcome (Streeter et al. 2009). This was the first study to analyze the associations with survival from dogs suffering vehicular trauma. The majority of the 239 dogs sustaining vehicular trauma were young ($n=149$), and 33 dogs died as a result of their injuries, but there was no significant difference between the nonsurvivors and the three age groups (Streeter et al. 2009). A similar study was done using 235 dogs arriving at a vet hospital in California between 1997-2003 with varying types of blunt force trauma, including vehicular trauma. They were assessed to determine what caused the trauma in the animals. Ninety-one percent of the dogs that came into the hospital sustained blunt force trauma from motor vehicle accidents. The average age was two and a half years old, and out of the 235 who entered the hospital with blunt force trauma, only 29 died, while 14 of the 29 suffered severe head trauma (Simpson et al. 2009). These studies reflected the non-survivor characteristics of similar vehicular trauma that TPD-2 had sustained and represented the largest age group in both studies that were nonsurvivors. This indicates that younger dogs are more likely to stray into the streets and therefore more likely to be exposed to vehicular accidents.

Using the same trauma assessment used in human hit-and-run cases (Beddoe 1958), I was able to answer questions regarding age at death, time since death, and the physical evidence of a hit-and-run case. In the case of TPD-2, the only physical evidence left is the skeletal remains. If this were a human hit-and-run case, it would be difficult to create a case based on the remaining physical evidence. However, establishing the age at death, between 6 months and 2 years old, the time since death, approximately, 2-3 years, the sex as male, and the physical evidence of vehicular trauma, I could narrow the missing persons down to a smaller data set. This would be imperative to identifying a possible victim and possible driver.

Acknowledgments

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Notes

1. RAI's *Teaching Anthropology* (<http://www.teachinganthropology.org/>)
2. AAA's "Teaching Materials Exchange" (http://www.aaanet.org/customcf/syllabi/search_form.cfm)
3. See www.nhtsa.dot.gov, accessed April 17, 2010.

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