

Anthropology 830.06 Paleodiet  
X Quarter 200x

Syllabus

Instructor: Kristen J. Gremillion ([gremillion.1@osu.edu](mailto:gremillion.1@osu.edu))  
Smith Lab 4078 (292-9769)  
Office hours: xxx (or by appointment)

Meeting time and place: (3 hours, one day per week)

Course description

This course is an advanced seminar in the description and analysis of past human diets on the basis of material remains. These remains, whatever their physical nature, are removed in time from the behavior that produced them and have been altered postdepositionally. This means that we must confront the task of reconstructing diet without verbal or (for prehistory) written information, relying upon fragmentary remnants of past activity. We also have to contend with the fact that the materials we study are incidental records that we examine not in use but after being discarded, lost, or buried. These challenges of interpretation form one central concern of the course.

A second but equally important concern is the ever-increasing pool of methods and techniques available to archaeologists, many of which require specialized equipment and interpretation. We will evaluate these methods by exploring their application in several issues in paleodiet that call for multidisciplinary investigation. Although no one researcher can be expected to have complete mastery over all the research tools relevant to her or his area of interest, every researcher can acquire and hone the skills needed to employ those tools effectively. Often this is a matter of being able to identify the appropriate techniques of observation and measurement, collaborate with specialist colleagues, and integrate multiple lines of evidence into the process of hypothesis testing.

Objectives

- Upon successful completion of this course, students will be able to:
- Identify and discuss the merits and drawbacks of a wide range of analytic techniques and methods currently used to study past human diet
  - Discuss the the issues in paelodietary research identified in this syllabus (their theoretical significance, the debates they have spawned, and the current status of relevant evidence)
  - Critically evaluate arguments about paleodiet on the basis of their logical structure and methodological rigor
  - Choose appropriate analytic techniques or methodologies for research questions in their areas of interest

Format

Each class meeting will be devoted to an issue in paleodietary research (see the schedule below). There will be two sets of readings. The first set, included in the syllabus, will be required reading for all class members. In addition, each student will read one or more additional articles per week (to be assigned). At the subsequent class meeting, students who have read different articles will form small groups and present

each other with summaries. Once this has been done, the entire class will reconvene for further discussion.

### Evaluation

Each student has an opportunity to choose a combination of assignments to be evaluated. The project must count at least 50% but may be as much as 80% toward the final grade. The remaining 20-50% is the class participation component. Each student must contribute at least one issue summary and one group report. Additional class participation contributions are encouraged but optional.

1. Class participation component (20-50% of final grade)

Issue summary (identify key questions and discuss their anthropological significance): 10% each

Group report: be responsible for reporting discussion group consensus on evaluation of articles as well as dissenting opinions: 10% each

2. Project component (50-80%)

**Research paper option:** A research paper on some aspect of paleodiet, based on either original research or published work. Please consult with me by mid-term regarding your topic.

**Literature review option:** write a comprehensive review of the literature pertaining to a method or technique used to study paleodiet. Depending on the topic, it may be necessary to limit coverage to recent publications.

Whichever option you choose, the resulting work must *at the very least* be free of grammatical and spelling errors and meet the standards expected of a manuscript intended for publication. If you are not sure whether your writing standards are the same as mine, do not hesitate to ask me to read a draft and offer comments (preferably at least several weeks prior to the due date).

### Schedule

The articles listed under each class date are to be read by everyone. Unless otherwise noted, articles are available through [OSU Libraries E-Journals collection](#). Those not available in E-journals will be placed on [electronic reserve](#) at OSU Libraries. The final class meeting is devoted to brief presentations by each student reporting the results of their research for the class project.

**Week 1.** INTRODUCTION. The study of paleodiet. Nutritional requirements. Methods and techniques.

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**Week 2.** MEAT AND HUMAN EVOLUTION

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Domínguez Rodrigo, Manuel and Travis Rayne Pickering  
2003 Early hominid hunting and scavenging: a zooarcheological review.  
*Evolutionary anthropology* 12:275.

Mann, N.  
2000 Dietary lean red meat and human evolution. *European Journal Of Nutrition* 39:71-79.

Stiner, M. C.  
2002 Carnivory, coevolution, and the geographic spread of the genus *Homo*.  
*Journal Of Archaeological Research* 10:1-63.

Ungar, P.

2004 The evolution of human diet: the known, the unknown, and the unknowable. *Evolutionary Anthropology* 13:45-46.

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**Week 3.** FOOD PROCESSING AND HUMAN DIET

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Wrangham, Richard W., James Holland Jones, Greg Laden, David Pilbeam and NancyLou Conklin-Brittain

1999 The raw and the stolen: cooking and the ecology of human origins. *Current Anthropology* 40:567-594.

Ragir, Sonia

2000 Diet and food preparation: rethinking early hominid behavior. *Evolutionary Anthropology* 9:153.

Stahl, Ann B.

1984 Hominid Dietary Selection Before Fire. *Current Anthropology* 25:151-168.

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**Week 4.** HUMAN HUNTING AND PLEISTOCENE EXTINCTIONS

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Grayson, Donald K. and David J. Meltzer

2003 A requiem for North American overkill. *Journal of Archaeological Science* 30:585-.

Surovell, T., N. Waguespack and P. J. Brantingham

2005 Global archaeological evidence for proboscidean overkill. *Proceedings Of The National Academy Of Sciences Of The United States Of America* 102:6231-6236.

Barnosky, Anthony D., Paul L. Koch, Roberts S. Feranec, Scott L. Wing and Alan B.

Shabel

2004 Assessing the causes of late Pleistocene extinctions on the continents. *Science* 306:70-.

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**Week 5.** THE TRANSITION TO MAIZE AGRICULTURE IN EASTERN NORTH AMERICA

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Larsen, Clark Spencer

1995 Biological changes in human populations with agriculture. *Annual Review of Anthropology* 24:185-213.

Hart, John P.

1999 Maize Agriculture Evolution in the Eastern Woodlands of North America: A Darwinian Perspective. *Journal of Archaeological Method and Theory* 6:137-179.

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**Week 6.** DIET AND SOCIAL ORGANIZATION

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Danforth, Marie Elaine

1999 Nutrition and Politics in Prehistory. *Annual Review of Anthropology* 28:1-25.

Schurr, Mark R. and Margaret J. Schoeninger

1995 Associations between agricultural intensification and social complexity: an example from the prehistoric Ohio Valley. *Journal of Anthropological Archaeology* 14:315.

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**Week 7. CANNIBALISM**

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- Hurlbut, Sharon A.  
2000 The taphonomy of cannibalism: a review of anthropogenic bone modification in the American Southwest. *International Journal of Osteoarchaeology* 10:4.
- Stoneking, M.  
2003 Widespread prehistoric human cannibalism: easier to swallow? *Trends In Ecology & Evolution* 18:489-490.
- Brookfield, J. F. Y.  
2003 Human evolution: A legacy of cannibalism in our genes? *Current Biology* 13:R592-R593.
- Conklin, B. A.  
1995 Thus Are Our Bodies, Thus Was Our Custom - Mortuary Cannibalism In An Amazonian Society. *American Ethnologist* 22:75-101.

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**Week 8. ARTIFACT RESIDUES AND USE WEAR**

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- Kealhofer, Lisa, Robin Torrence and Richard Fullagar  
1999 Integrating phytoliths within use-wear/residue studies of stone tools. *Journal of Archaeological Science* 26:527-546.
- Fullagar, R., J. Furby and B. Hardy  
1996 Residues on Stone Artifacts: State of a Scientific Art. *Antiquity* 70:740-745. (Electronic reserve)
- Loy, Thomas H.  
1993 The Artifact as Site: An Example of the Biomolecular Analysis of Organic Residues on Prehistoric Tools. *World Archaeology* 25:44-63.
- Piperno, D. and I. Holst  
1998 The Presence of Starch Grains on Prehistoric Stone Tools From the Lowland Neotropics: Indications of Early Tuber Use and Agriculture in Panama. *Journal of Archaeological Science* 25:765-776

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**Week 9. STOMACH AND INTESTINAL CONTENTS**

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- Dickson, J. H., K. Oeggl, T. G. Holden, L. L. Handley, T. C. O'Connell and T. Preston  
2000 The omnivorous Tyrolean Iceman: colon contents (meat, cereals, pollen, moss and whipworm) and stable isotope analyses. *Philosophical Transactions Of The Royal Society Of London Series B-Biological Sciences* 355:1843-1849.
- Reinhard, Karl J. and Vaughn M. Bryant  
1992 Coprolite Analysis: A Biological Perspective on Archaeology. *Archaeological Method and Theory* 4:245-286. (Electronic reserve)

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**Week 10. RESEARCH PRESENTATIONS**

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All students should become familiar with the rules governing alleged academic misconduct. All students should be familiar with what constitutes academic misconduct, especially as it pertains to plagiarism and test taking. Ignorance of the rules governing academic misconduct or ignorance of what constitutes academic misconduct is not an acceptable defense. Alleged cases of academic misconduct are referred to the proper university committees.

If you need an accommodation based on the impact of a disability, you should contact me to arrange an appointment as soon as possible. At the appointment we can discuss the course format, anticipate your needs and explore potential accommodations. I rely on the Office For Disability Services for assistance in verifying the need for accommodations and developing accommodation strategies. If you have not previously contacted the Office for Disability Services, I encourage you to do so.