

# **ANT 395: Experimental Archaeology and Ethnoarchaeology**

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*Office Hours*—Email ([kamp@grinnell.edu](mailto:kamp@grinnell.edu)) for an appointment; I'm around a lot.

**The Problem:** Archaeological evidence consists of items of material culture and the patterns in which they are found. Nevertheless, archaeologists, as anthropologists strive to make statements about human culture.

**The Goal of Ethnoarchaeology and Experimental Archaeology:** To study the relationship between material culture and human behaviors in order to facilitate the interpretation of archaeological remains.

## **Organization of the Class**

This class will be run like a true seminar, thus it is vitally important that you come prepared to evaluate the articles you are reading. In addition to the traditional discussions, the class will include some group projects/ laboratory exercises.

A primary focus of the class will be the planning and execution of a professional-quality experimental project. This can be done either individually or collaboratively in pairs. I will work intensively with you and will provide guidance on project topics, research, and write-up.

During the first half of the semester, we will do communal background readings and a class lab project. In addition, you will select a topic for independent research, do the literature review, and create an experimental design.

During the second half of the semester, you will be working on your independent projects. You will be responsible for one class period for which you will assign the rest of the class reading. During the class, you will lead a discussion of the assigned articles and, if desired, a lab session during which students in the class will help you collect data for your project.

***NOTE:*** *The reading assignments will be heavier at first” to allow you more time later for work on your individual projects. Some days we will not meet as a class in favor of individual lab sessions and/or conferences.*

## Requirements

1. **Regular class attendance and participation**—20%. This is a seminar, so you should expect to come prepared and to participate actively every time.
2. **Analysis of one individually-selected article**—10%
3. **Annotated Bibliography**—10%
4. **Experimental Design Proposal, including placing the project within the context of the literature**—20%
5. **Work and discussion session(s) for project**—10%
6. **Major experimental project**—Final written report and final presentation—30

<b>Date</b>	<b>Assignment</b>
1/22	Introduction— <b>No Assignment</b>
1/24	<p><b>The Archaeological Need for Middle Range Theory</b></p> <p><b>READ and ANALYZE:</b> Crown, Patricia L. and W.H. Wills. 1995. Economic Intensification and the Origins of Ceramic Containers in the American Southwest. In <i>The Emergence of Pottery: Technology and Innovation in Ancient Societies</i>, edited by W.K. Barnett and J.W. Hoopes, pp. 241-254. Washington, D.C.: Smithsonian Institution Press. <b>Note the way each statement/ argument is being supported. Pay attention to citations and check in the bibliography for the references to which they refer. Come to class with a list of contentions made by Crown and Wills about the way archaeological remains relate to actual behaviors/social patterns and for each either 1) the evidence they use to make the contention OR 2) a note that the contention is unsupported.</b></p> <p>Binford, L. 1981 Middle-Range Research and the Role of Actualistic Studies. In <i>Bones: Ancient Men and Modern Myths</i>, pp 21-30. Academic Press, New York.</p>

1/29	<p><b>Historical and Theoretical Background</b></p> <p><b>READ:</b>  Kuznar, Lawrence A. 1995. <i>Awatimarka: The Ethnoarchaeology of an Andean Herding Community</i>. Fort Worth, Texas: Harcourt Brace &amp; Company. Chapter 1.</p> <p>Coles, John. 1973. Introduction (minus the very last paragraph). <i>Archaeology by Experiment</i>, pp. 14-18. New York: Charles Scribner’s Sons.</p> <p>Reynolds, Peter J. 1999. In <i>The Nature of Experiment in Archaeology. In Experiment and Design: Archaeological Studies in Honor of John Coles</i>, edited by A.F. Harding, pp. 156-162. Oxbow Books: Oxford, U.K.</p> <p><b>Preliminary Design of Experiment</b></p>
1/31	<p><b>Background on Ceramic Experimentation</b></p> <p><b>READ:</b>  Skibo, James M., Michael B. Schiffer, Kenneth C. Reid. 1989. Organic-Tempered Pottery: An Experimental Study. <i>American Antiquity</i> 54 (1): 122-146.</p> <p>Bronitsky, Gordon and Robert Hamer 1986 Experiments in Ceramic Technology: The Effects of Various Tempering Materials on Impact and Thermal-Shock Resistance. <i>American Antiquity</i> 51(1): 89-101.</p> <p><b>Finalize first stage of Experimental Design.</b></p>
2/5	<p><b>Making and Using Artifacts—I</b></p> <p><b>READ:</b> Keeley, L. 1977. The Functions of Paleolithic Flint Tools. <i>Scientific American</i> 237:108-126.</p> <p>Lawson, Graeme. 1999. Getting to Grips with Music’s Prehistory: Experimental Approaches to Function, Design, and Operational Wear in Excavated Musical Instruments. In <i>The Nature of Experiment in Archaeology. In Experiment and Design: Archaeological Studies in Honor of John Coles</i>, edited by A.F.Harding, pp. 156-162. Oxbow Books: Oxford, U.K.</p>
2/7	<p><b>Making and Using Artifacts—II</b></p> <p><b>READ:</b>  Hutchings, W. Karl and Lorenz W. Bruchert. 1997. Spearthrower Performance: Ethnographic and Experimental Research. <i>Antiquity</i> 71 (7): 890-897.</p> <p><b>Article Analysis Paper due. Be ready to comment on your analysis in class.</b></p>

2/12	<p><b>Testing Artifact Properties—Finalizing the Materials Testing Part of the Experiment</b></p> <p>The class will divide into 2 groups and each will be responsible for one of the 2 topics.</p> <p><u>Strength Testing</u></p> <p>Neupert, Mark 1994. Strength Testing of Archaeological Ceramics: A New Perspective. <i>American Antiquity</i> 59 (4): 709-723.</p> <p>Mabry, Jonathan, James M. Skibo, Michael B Schiffer, and Kenneth Kvamme 1988. Use of a Falling-Weight Tester for Assessing Ceramic Impact Strength. <i>American Antiquity</i> 53(4): 829-839.</p> <p>Feathers, James K. 1989. Effects of Temper on Strength of Ceramics: Response to Bronitsky and Hamer. <i>American Antiquity</i> 54(3): pp.579-588.</p> <p><u>Thermal Properties</u></p> <p>Schiffer, Michael Brian, James M. Skibo, Tamara C. Boelke, Mark A. Neupert, and Meredith Aronson. 1994. New Perspectives on Experimental Archaeology: Surface Treatments and Thermal Response of the Clay Cooking Pot. <i>American Antiquity</i> 59 (2): 197-212.</p> <p>Tappin, G. and R.W. Davidge 1966. Thermal Shock and Fracture in Ceramics. <i>Transactions of the British Ceramic Society</i> 66: 405-422.</p> <p>Young, Lisa and Tammy Stone 1990 The Thermal Properties of Textured Ceramics: An Experimental Study. <i>Journal of Field Archaeology</i> 17(2):195-203.</p> <p>Negrin, Barry and Adam Landry 1989. Heat Conduction in Pots and Pans <i>Journal of Materials Education</i> 11: 397-406.</p>
2/14	<p><b>Ethnoarchaeological case study</b></p> <p>Kuznar, Lawrence A. 1995. <i>Awatimarka: The Ethnoarchaeology of an Andean Herding Community</i>. Fort Worth, Texas: Harcourt Brace &amp; Company.</p>

2/19	<p><b>Social Organization I--Project topics with preliminary bibliography (at least 6 sources) due.</b></p> <p><b>READ:</b> Kramer, Carol. 1979. An Archaeological View of a Contemporary Kurdish Village: Domestic Architecture, Household Size, and Wealth. In <i>Ethnoarchaeology: Implications of Ethnography for Archeology</i>, edited by Carol Kramer, pp. 139-163. New York: Columbia University Press.</p> <p>Naroll, Raoul 1962. Floor Area and Settlement Population. <i>American Antiquity</i> 27: 587-589.</p>
2/21	<p><b>Social Organization II</b></p> <p><b>READ:</b> David, Nicholas, Kodzo Gavua, A. Scott MacEachern and Judy Sterner. 1991. Ethnicity and Material Culture in North Cameroon. <i>Canadian Journal of Archaeology</i> 15: 171-177.</p>
2/26	<p><b>Social Organization III</b></p> <p><b>READ:</b> Kamp, Kathryn A., Nicole Timmerman, Greg Lind, Jules Graybill, and Ian Natowsky 1999. Discovering Childhood: Using Fingerprints to Find Children in the Archaeological Record. <i>American Antiquity</i> 64 (2): 309-315.</p>
2/28	<p><b>Project Discussion</b></p> <p>Annotated bibliography with a minimum 10 sources due. For class, be prepared to provide a short description of the relevant literature and an outline of your proposed research. The class will collaborate on your research design.</p>
3/4	<p><b>The Meaning of Artifacts--I</b></p> <p><b>READ:</b> Hodder, Ian 1991. The Decoration of Containers: An Ethnographic and Historical Study. In <i>Ceramic Ethnoarchaeology</i>, edited by William Longacre, pp.71-94. Tucson: University of Arizona Press.</p> <p>Osborn, Alan J. 1996. Cattle, Co-Wives, Children, and Calabashes: Material Context for Symbol Use Among the Il Chamu of West-Central Kenya. <i>Journal of Anthropological Archaeology</i> 15: 107-136.</p>

3/6	<p><b>The Meaning of Artifacts--II</b></p> <p><b>READ:</b> Donley-Reid, Linda W. 1990. The Power of Swahili Porcelain, Beads and Pottery. In <i>Powers of Observation: Alternative Views in Archaeology</i>, edited by Sarah M. Nelson and Alice B. Kehoe, pp.47-59. Archaeological Papers of the American Anthropological Association, No. 2</p> <p><b>Lewis-Williams, David.</b> Wrestling with Analogy : a Methodological Dilemma in Upper Palaeolithic Art Research. <i>Proceedings of the Prehistoric Society</i> 57, Pt. 1:149-160.</p> <p><b>Conferences with Instructor about Research Plan—Experimental Design Due</b> Please prepare a written outline of your research design before the conference. You may well modify it later. If you wish to start on your project earlier (not a bad idea), this conference can be scheduled at an earlier date (BUT NO LATER than today!)</p>
3/11	<p><b>The Formation of Archaeological Sites I</b></p> <p><b>READ:</b> Schiffer, M. B. 1987. Chapter 1: The Nature of Archaeological Evidence. In <i>Formation Processes of the Archaeological Record</i>, pp 3- 23. Albuquerque: University of New Mexico Press.</p> <p>Ashbee, Paul and Peter Jewell. 1998 The Experimental Earthworks Revisited. <i>Antiquity</i> 72: 485- 504.</p>
3/13	<p><b>The Formation of Archaeological Sites II</b></p> <p><b>READ:</b> Sutro, Livingston D. 1991. When the River Comes: Refuse Disposal in Diaz Ordaz, Oaxaca. In <i>The Ethnoarchaeology of Refuse Disposal</i>, edited by Edward Staski and Livingston D. Sutro, pp.13-22. Arizona State University Anthropological Papers No. 42.</p> <p><b>Experimental design proposals due. NOTE: If you need supplies or equipment for your experiment, you will have to discuss this with me well before this, so there is time to order it (assuming it is fairly inexpensive.)</b></p>
<b>Spring Break</b>	
4/1	Conferences and project work day.
4/3	<p>Discussion of Ceramic Project</p> <p><b>READ:</b> Budak, Michael K. 1991. The Function of Shell Temper in Pottery. <i>Minnesota Archaeologist</i> 50 (2): 53-59.</p>
4/8	In class discussion of project and project work session—Readings to be assigned by project director.

4/10	In class discussion of project and project work session—Readings to be assigned by project director.
4/15	In class discussion of project and project work session—Readings to be assigned by project director.
4/17	In class discussion of project and project work session—Readings to be assigned by project director.
4/22	In class discussion of project and project work session—Readings to be assigned by project director.
4/24	In class discussion of project and project work session—Readings to be assigned by project director.
4/27	In class discussion of project and project work session—Readings to be assigned by project director.
4/29	In class discussion of project and project work session—Readings to be assigned by project director.
5/6	Conferences and project work day.
5/8	<p><b>Theoretical Retrospective</b></p> <p><b>READ:</b> Wylie, Alison 1985. The Reaction Against Analogy. <i>Advances in Archaeological Method and Theory</i>, Vol. 8, edited by Michael Schiffer, pp. 63-111. New York: Academic Press.</p> <p>Simms, Steven R. 1992. Ethnoarchaeology: Obnoxious Spectator, Trivial Pursuit, or the Keys to a Time Machine? In <i>Quandries and Quests: Visions of Archaeology's Future</i>, edited by LuAnn Wandsnider, pp. 186-198.</p> <p>Heider, Karl. 1967. Archaeological Assumptions and Ethnographic Facts: A Cautionary Tale from New Guinea. <i>Southwestern Journal of Anthropology</i> 23:52-64.</p>
5/13	<b>Student Project Presentations</b>
5/15	<b>Student Project Presentations</b>