

ARCHAEOLOGY 415
PREHISTORIC STONE TECHNOLOGY

FALL 2009

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Office Hours: W 10:00-12:00, or by appointment
Lecture/Lab: TR 14:00 – 17:00 ES 859

COURSE DESCRIPTION

The analysis of stone (lithic) tool form, manufacture, and use as applied to reconstruction of past human lifeways. Topics covered include: methods of shaping stone into tools; reconstruction of the lithic reduction process and stages from discarded debitage; lithic fracture mechanics; identification of lithic material types and sourcing to specific quarries; the meaning of stone tool morphology; tool typology; lithic usewear analysis; and the integrative use of these sources of information to reconstruct aspects of tool use, activity areas, site type, settlement patterns, social group, cultural change through space and time, trade, and exchange.

TEXT

Brian Kooyman .2000. *Understanding Stone Tools and Archaeological Sites*. University of Calgary Press and University of New Mexico Press.

GRADING:

Lab Quizzes (5, each for 5%)	25%
Labs	30%
Lithic Analysis Project (Due December 8; NOON)	45%

Grading Scheme

A/A+	90-100%	C	66-69%
A-	86-89%	C-	62-65%
B+	82-85%	D+	56-61%
B	78-81%	D	50-55%
B-	74-77%	F	<50%
C+	70-73%		

DETAILED COURSE STRUCTURE

Although there are distinct lecture and lab components in the course, the course structure is flexible to allow these two portions to mesh as seamlessly as possible. On most days there will be a lecture of about 1-1.5 hours duration. This will be followed immediately by a lab specifically on the material presented in that lecture. In most cases students may preview the material covered by advance reading of the textbook. On some days the entire lecture and lab period will be devoted to lab work and in a few cases most of the period will be devoted to presentation of lecture material (with a break part way through the period). During the second half of the course there are several days assigned as time for students to work on the lithic analysis project. About the end of October there will be a stone tool manufacturing demonstration. Students will have an opportunity to try making stone tools during this demonstration.

i) Lectures: lectures provide the formal theoretical and methodological structure of lithic tool analysis. Lectures employ Powerpoint presentations, actual examples, and other illustrative material to introduce students to the concepts and skills needed to interpret lithic tools from archaeological sites. Occasionally demonstrations are employed to present concepts where appropriate.

ii) Labs: many labs provide multiple examples of artifacts and geological materials for students to examine and handle so that the features critical to analysis and interpretation can be recognized and categorized. The other labs provide practice samples of material from archaeological sites for students to analyze and interpret so as to develop these critical skills.

Evaluation Methods

Evaluation focuses on how well students have learned practical, laboratory analysis skills and to a lesser extent on how well students can use the results of their analyses to reconstruct human activities.

Some of the labs have components that must be handed in for grading. In each case these do not require a formal lab write up, but rather require the student to examine a sample of material and classify it in some manner. A short interpretation, often a provided data sheet, is handed in as the written portion of the lab.

Evaluation is also through five lab quizzes that specifically test practical identification and classification skills. The quizzes consist of a series of stations. A lithic artifact is present at each station and there is a question about that artifact that must be answered.

In the last component of course evaluation, each student is given a sample of a few hundred lithic pieces from an archaeological site. Each student is asked to analyze this material in the manner outlined in the course so as to provide as complete an interpretation as possible of the archaeological site where they were found. The project requires a formal written report including data tables and interpretations from those data. Certain data tables are required prior to project completion so that the work load is more evenly spread over the allotted time period.