

**SYLLABUS**  
**LITHIC TECHNOLOGY (ANTHRO 182A)**

Anthropology Department, UC Santa Cruz  
Summer 2016

**Lecture days/hours:** TTH 12:00-3:00

**Lecture location:** Soc Sci 1, Room 451

**Instructor:** J.S. Reti, Ph.D.

Contact: jreti@ucsc.edu

Office: Room 404 (Social Science 1)

Office Hours: Tuesday and Thursday at 11:30

**COURSE DESCRIPTION:**

Lithic analysis, a sub-discipline of archaeology, focuses on the inferential potential of stone tools with regard to human behavior. Early human ancestors first realized the utility of sharp stone edges for butchery and other practices and, arguably, without the advent of stone tools, human evolution would have taken a very different path. Stone tools allowed early hominins efficient access to meat resources and provided an avenue for cognitive development and three-dimensional problem solving. This course will provide a three-fold approach to lithic analysis: (1) the study of archaeological sites and behavioral change through time relative to lithic technological changes, (2) insight into the art of laboratory lithic analysis and methods employed to attain concrete, quantitative behavioral conclusions, and (3) extensive training in stone tool replication. Such training will provide students with both an appreciation for the skills of our ancestors and with personal skills that will allow for further research into replication and human behavior. Each class meeting will incorporate aspects from each of these objectives.

**COURSE OBJECTIVES:**

Students will gain an in-depth appreciation for and understanding of the nuances of stone tool technology. Through the production of lithic artifacts, the study of archaeological material and broad exposure to archaeological theory, students will leave this course with both the practical knowledge of applied lithic analysis in laboratory settings and the theoretical knowledge to apply conclusions from such analysis. Replication experiments ranging from Early Stone Age Oldowan methods to Native American projectile technology will enable students to experience two million years of behavioral change and master the art of conchoidal fracture production, propagation, and use. Students will also gain insights into a broad range of archaeological sites that will detail hominin behavioral change via material evidence.

**SUGGESTED TEXT:**

Odell, G.H. (2003). *Lithic Analysis. Manuals in archaeological method, theory, and technique*,  
Spring Press, New York, NY.

Academic papers will also be provided for download through the class website. All papers must be read prior to class and students should come to class prepared with questions. All supplemental information, such as assignment sheets and review sheets, will be available through the class website.

## **COURSE REQUIREMENTS:**

Grades will be determined via the following criteria:

1. Lab assignments (one quiz) and spreadsheets..... 35%
2. Presentation of a reading..... 10%
3. Final exam..... 30%
4. Final research paper..... 25%

Each week a lab will be assigned covering applied aspects of lecture topics and analytical questions concerning the experiments being conducted. These labs, including a comprehensive spreadsheet of measurements, will constitute 35% of the final grade for the course. The research paper assignment will be handed out during the second class. This paper will be due on the last class and will be worth 25% of your overall grade. The final exam (30%) will cover both practical elements of the course and conceptual topics covered in the readings. Lastly, each student will be required to present on paper covered in the course and provide a handout to the class that discusses key elements of that paper (10%)

## **ATTENDANCE POLICY:**

Students are expected to attend all classes. If students must miss class, they are required to inform me prior to the day of class, in writing, and provide documented reasons for their absence. In these excused absence cases, students may visit my office hours to discuss materials missed during their absence.

## **SCHOLARSHIP AND CLASS ETIQUETTE:**

All cases of suspected plagiarism and cheating will be reported to the academic deans. I will discuss the issue of plagiarism during lecture, but please visit [www.plagiarism.org](http://www.plagiarism.org) for more information. **Please turn off cell phones while in class and respect the learning environment for other students, including only taking notes on open laptops.**

## COURSE SCHEDULE AND READINGS:

<b>DATE</b>	<b>TOPIC and READING</b>
June 21	Introduction to the course; flake features, manufacturing strategies
June 23	Systematics; Primate Archaeology - Haslam et al. (2009). Primate Archaeology. - Mercader, J. et al. (2007). Chimp archaeology
June 28	Typology; The Oldowan Industrial Complex <b>QUIZ TODAY</b> - Harmond et al. (2015). Lomekwi technology. - Leakey, M.D. (1971). Olduvai Gorge (Oldowan typology).
June 30	Economics; The Developed Oldowan; changing hominin behaviors and landscapes - Blumenschine, R. et al. (2008). Effects of distance from stone source on landscape-scale variation in Oldowan artifact assemblages in the Paleo-Olduvai Basin, Tanzania. - Rogers et al. (1994) – Changing Plio-Pleistocene ranging behaviors at Koobi Fora, Kenya
July 5	Functions; The Acheulian Industry (Africa); <i>Homo erectus</i> , changing morphologies, behaviors, and environments - Odell: Chapter 5 (p. 135-156) - Sharon, G. (2009). Large flake Acheulian.
July 7	<i>Chaine Operatoire</i> ; The Middle Stone Age/Middle Paleolithic; Neanderthals? Humans? Prepared core technologies. - Sellet (1993) – <i>Chaine Operatoire</i> - Dibble, H. (1987). The interpretation of Middle Paleolithic scraper morphology
July 12	Null Hypotheses; The Late Stone Age/Upper Paleolithic; Neanderthal-Human interactions; blade technologies; thrown spears - Eren, M. et al. (2008). Are Upper Paleolithic blade cores more productive than Middle Paleolithic disoidal cores? A replication experiment. - Bar-Yosef, O. (2002). The Upper Paleolithic revolution.

