LITHIC ANALYSIS

Instructor: Dr. David R. Braun
Office: 203 X Building
Phone: (202) 994-6953
Email: David_braun@gwu.edu
Office hours: Tuesdays 1-2 pm

Course Description: A survey of current techniques in the analysis of stone artefacts. Students will learn the basic principles of morphometric description as well as theoretical concepts behind the use of artifacts to reconstruct patterns in the past. There will be a hands-on component that will require out of class time work on projects.

Course Requirements: Students are expected to attend lectures, complete reading assignments, and participate in class discussions when appropriate. Readings will be posted on blackboard or otherwise be available in paper format. THIS IS A READING INTENSIVE COURSE. Occasionally students will be expected to direct discussion in class. One exam will take place during the course. There will also be multiple practical based exercises during the course. These will be conducted during and outside the class period. There will be a final presentation associated with original data collection and analysis. Projects will be conducted during and outside the class period.

Learning Outcomes:
1) Students will explore and learn the techniques and theories associated with the analysis of chipped stone.
2) Students will investigate specific methodologies used to interpret behavior from stone artifact analysis.
3) Students will critically assess some of the past and present debates surrounding the analysis of stone artifacts.
4) To further student’s professional preparations students will actively engage in the analysis of a subset of stone artifacts to determine the unique nature of these types of datasets.

Assessment: One in class exam will make-up 25% of the final grade. Lab exercises and hand-in assignments will make up 25% of the grade. Class participation and presentations of the readings will make up 20% of your grade. The final 30% of the grade will be based on the presentation of your project at the end of the course. Letter grades will be generally be assigned according to the following scale: 90-100%=A, 86-89%=B+, 80-85%=B, 76-79%=C+, 70-75%=C, 60-69%=D, 59% or below=F. I reserve the right to adjust this scale down a bit if necessary. Thus, if you have an 89% at the end of the semester, your final letter grade will be at least a B+; however, depending on the class’s performance as a whole, this might wind up being an A. In addition, excessive absences may result in failure or final letter grade reduction.

General Policies:

Make-up Exams: Make-up exams will NOT be given, except in cases of University conflicts, severe illness/family emergency, or other similar circumstances (documentation required).
Course Schedule and Topics*

these cases, the make-up must be taken within 1 week of the originally scheduled exam at a mutually convenient time/location.

Cell phones, PDA’s, laptop computers, etc.: It is my strong preference that these items NOT be used in class. If you have a compelling reason to take notes electronically, please see me to discuss your reasons and I will consider your request. Otherwise, I expect not to see these items out during lectures.

Essay Guidelines
All written assignments must be typed, double spaced, not have excessive margins, be an original, solo-produced work, and must conform in style to the standard employed in American archaeology for bibliographic references. Consult the guide for authors in the journal American Antiquity.

Final Project
Students will be expected to conduct an analysis of stone artifacts in order to understand a specific question. These projects should be informed by the literature associated with the readings. A prospectus for the final project should be submitted by October 6th. This project will be associated with a final presentation and paper (8-10 pages) that will be submitted in lieu of a final at the end of the semester.

In Class Presentations
Each student will be responsible for guiding at least one in class discussion based on the reading for that week. Students are expected to produce a written guide for the class discussion and direct discussion. These discussions should be based on readings as well as supplementary readings that the student seeks out during class preparations.

In Class Exercises
Throughout the course of the semester there will be a series of in class exercises that require students to interact with primary data and submit some type of written or graphical exercise. These are expected to be submitted in the class period after the in class exercise unless you are instructed differently.

Extra credit: There will be no extra credit assignments.

PowerPoint: For many reasons, my PowerPoint slides will be posted on Blackboard in .pdf format AFTER the lectures. If you miss class you should get notes for the missed lecture from one of your classmates. There will be content in class that you will not be able to get from the readings or the powerpoint presentations. This makes it essential that you attend class.

General Notes:
Students are required to make their own personal lab folder/notebook to record their observations and the data they collect (i.e. handouts, drawings, attributes of different tool types, etc.)

Students will be required to wear safety goggles (eye protection) during flintknapping exercises.
Course Schedule and Topics*

Class attendance is imperative for a course of this nature which is very much “hands on” in terms of instruction.

**Special Needs:** If you require special accommodations for learning difficulties or physical disabilities, and you have official university acknowledgement of this condition, please see me as soon as possible to discuss appropriate arrangements. E-mailing/calling the day of an exam to notify me of your needs is NOT acceptable.

<table>
<thead>
<tr>
<th>Week</th>
<th>Class Meeting</th>
<th>Topic</th>
<th>Readings</th>
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<tbody>
<tr>
<td>8/27</td>
<td>1</td>
<td>Introduction to Lithic Analysis</td>
<td>None</td>
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<td></td>
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<td>In Class Exercise: Make and draw a whole flake.</td>
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<tr>
<td>9/10</td>
<td>3</td>
<td>NO CLASS DR. BRAUN AT A CONFERENCE IN ITALY</td>
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| 9/3 to 9/10 | 4         | Fracture Mechanics and Knapping Experiments | -Andrefsky Chap 2; Andrefsky Chap 1(pgs 7-10);  

In Class Exercise: Make 5 whole flakes. Determine the relationship between EPA and flake size. Determine the relationship between Platform area and flake size.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Notes</th>
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<tr>
<td></td>
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<td>archaeological typology: Evanston, Ill. : Center for American Archeology</td>
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<td></td>
<td></td>
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<td>Museum, University of Pennsylvania. 202 p. Chap 1;</td>
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<td></td>
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<td>concept revisited.</td>
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<td></td>
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<td>Schiffer MB. 1976.</td>
<td>-Spaulding AC. 1953. Statistical techniques for the discovery of</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>222 p. (Chap 3)</td>
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<td></td>
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<td>Current Anthropology 22(2):185-188.</td>
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<td>Stone Age Prehistory: studies in memory of Charles McBurney. G. N.</td>
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## Course Schedule and Topics

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<tr>
<th>Date</th>
<th>Topic</th>
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**Course Schedule and Topics**

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<tr>
<th>Date</th>
<th>Time</th>
<th>Topic</th>
<th>Details</th>
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<tbody>
<tr>
<td>10/22</td>
<td>9</td>
<td>Reduction Sequence and Chaine Opératoire</td>
<td>In Class Exercise: Find a core from the lab and draw a diacritic model of the core using the techniques described in Inizan et al. and Tostevin.</td>
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# Course Schedule and Topics*

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<tr>
<th>Date</th>
<th>Topic</th>
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<tr>
<td>11/5</td>
<td>NO CLASS DR. BRAUN IN SOUTH AFRICA</td>
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<td>11/12</td>
<td>Projectiles or Not</td>
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<td>In Class Exercise: Make a projectile, spear a pig rib (no...really).</td>
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<td>Identify DIFs and Fracture wings.</td>
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<td>If possible calculate the speed of the projectile using the</td>
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<td>methodology described by Hutchings (Also see Iovita 2013).</td>
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-Villa, P., Boscato, P., Ranaldo, F., Ronchitelli, A., 2009. Stone tools for the hunt: points with impact scars from a Middle Paleolithic site in southern
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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading and Notes</th>
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<tr>
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<td>In Class Test</td>
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* While the topical portion of the schedule is subject to modification, the dates of exams will **NOT** change.