Introduction
The behavior of our human ancestors relied on their ability to interact with their environment. This included knowing where to live and what resources to exploit so that societies continued to function economically and socially. The analysis of this interaction forms a key component of Geoarchaeology. Geoarchaeology also is concerned with how traces of human behavior have become embedded in the physical environment and how we, as archaeologists, uncover this evidence. A third emphasis uses geological techniques to reconstruct past environments at or near archaeological sites, providing physical context for cultural adaptations.

Learning Goals
This course will have been a success if by the end you understand the processes by which humans interacted with their physical environment; how archaeological sites are formed in the environment; and the methods by which archaeologists and geologists analyze these sites. You also will hone your ability to critically evaluate the research literature.

Grading
Assessment in this course is based on two 8 - 10 page papers (30% and 40% for first and second paper scores, respectively) and several group assignments involving field and/or laboratory data gathering and analysis (30%). Students present a synopsis of their second paper and lead discussion on that topic at the end of the semester. Group work provides hands-on experience in computational data analysis, field methods, and mapping; assignments usually are due one week after the activity.

Course Outline and Readings
The primary course text is Rapp and Hill (1998) Geoarchaeology. Textbook chapters form the core reading for most topics, along with 1 – 2 additional articles as listed below. For topics where core readings are not specified below, we will announce required readings one week in advance. Students will occasionally lead discussion on one or more of the supplementary reading articles; otherwise these are required only when specifically noted by announcement in class.

Email Policy
Students should plan primarily to consult with the Professors during consultation hours with any questions they have concerning readings, assignments, or course content. If that is not possible, you can email the Professor with a subject heading that begins ‘GEOARCH 270:’ followed by a brief summary (e.g., GEOARCH 270: MISSING READING’ or ‘GEOARCH 270: CHRONOLOGY QUESTION’). This will ensure that your message receives the appropriate attention from the Professor. Professors will do their best to get back to you as soon as possible but, at the latest, you will receive a reply within 48 hours of the receipt of the email. Please be aware that many professors do not check their emails at night or on the weekend. Therefore, it is possible that a message that is sent late Friday night might be read on Monday morning and replied to by Wednesday morning.

Accessibility
Students who think they may need accommodations in this course because of the impact of a disability are encouraged to meet with either of the professors privately early in the semester. Students should also contact Stephanie Bell, Coordinator of Access Services, at 610-526-7351 or sbell@brynmawr.edu, as soon as possible to verify their eligibility for reasonable accommodations. Early contact with the professor(s) and the Access Coordinator will help to avoid unnecessary inconvenience and delays.
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<tr>
<th>Date</th>
<th>Topic</th>
<th>Lead instructor(s)</th>
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<tr>
<td>Week of Aug. 29th.</td>
<td>Introduction: Geological context &amp; archaeology.</td>
<td>DB and PM.</td>
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<td><em>Core Readings</em></td>
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<td>Week beginning Sept. 5th.</td>
<td>Late Quaternary chronology, stratigraphy &amp; paleoclimate. DB</td>
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Week beginning Sept. 12th. Alluvial deposits; fluvial environments. DB and PM

Core Readings

Supplementary Readings

Week beginning Sept 19th. Lake and marine shoreline environments. DB and PM


Week beginning September 26th. Soil features / soil chemistry  DB


Week beginning October 3rd. Cultural deposits and site formation. PM and DB


**Week beginning October 17th.** Bones and bodies in archaeology, MM (tentatively scheduled guest lecture by Melissa Murphy, Anthropology Dept.);
Introduction to Geophysics (Thursday lecture) DB

**Bones**

*Core Readings*


*Supplementary Readings*


**Geophysics**


Fischer, P.M. (1980) Geophysical prospecting at Hala Sultan Tekke, Cyprus Journal of Field Archaeology 7: 479 - 484

**Week beginning October 24th. Geophysics Practicum: Field GPR surveys; DB and PM**

**Week beginning October 31st. Provenance (or is it provenience?) studies: Artifact geochemistry and mineralogy; DB and PM**

**Core Readings.**


**Supplementary Readings**

**Week beginning November 7th. Practicum: Laboratory analysis of artifacts; statistic**
analysis and interpretation of geochemical data. PM and DB

Week beginning November 14th. Artifact Assemblages–How many pots/shells/bones make five? PM 2


Week beginning November 21st. Post-depositional processes. PM


Week beginning November 28th. Dating the Past. DB and PM


Week beginning December 5th. Summary and Synthesis: How does Geoarchaeology contribute to our understanding of the past?

Student-led discussion and presentations.