

Environmental Archaeology

ANTH(ECOL) 4290/6290
12:30-1:45 Tuesdays and Thursdays
Baldwin Hall Room G41

Instructor: Dr. Suzanne Pilaar Birch, Assistant Professor
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Teaching Assistant: Kat Napora, Writing Intensive Program Coach
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Fall 2018 Syllabus

Course Description

How are our lives shaped by the environment around us? And, as scientists argue about whether or not we've entered a new age called "The Anthropocene", how great an impact have humans really made on the environment, from prehistory right up until today? This course will consider the complexities of human-environment interactions using a diachronic and comparative perspective only possible through an archaeological lens. It will explore the ecological relationships between people, animals, and plants in the past and discuss the implications of these dynamic relationships in an increasingly globalized world.

Textbook and Course Materials

One book is required: *Environmental Archaeology*, by E. J. Reitz & M. Shackley (2012).

All readings should be completed before lectures. Additional readings may be assigned. Graduate students are required to complete an additional 5 readings.

Additional Information

Disability Resource Center Please inform me if you have a disability or other condition that might require some modification of any of these course procedures. You may speak with me after class or during office hours. For more information you can contact the Disability Resource Center at (706) 542-8719 or visit drc.uga.edu.

Libraries Our subject librarian is Diane Trap (dtrap@uga.edu). You can contact her with any research or library-related questions.

A Culture of Honesty Earns a Degree of Respect UGA takes academic honesty seriously and so do I. Visit <https://ovpi.uga.edu/academic-honesty> for the full policy.

Topic Outline and Schedule

Important Dates

Add/Drop Period: August 13-17

Midterm Exam: October 4

Deadline to Withdraw: October 17

Last Day of Class: November 29

Schedule

Part 1: Introduction

Week 1 August 14 & 16

People and Environments: Introduction to Environmental Archaeology

Reading: Reitz and Shackley Chapter 1

In-class Weekly Writing Prompt

Week 2 August 21 & 23

Site formation processes and taphonomy

Reading: Reitz and Shackley Chapter 2

In-class Weekly Writing Prompt

Archaeological Science, Research Design and Field Methods

Reading: Reitz and Shackley Chapter 3

Week 3 August 28 & 30

Biological Classifications and Nomenclature

Reading: Reitz and Shackley Chapter 4

Additional Graduate Student Reading: "Introduction", by S.E. Pilaar Birch AND Chapter 1, "Calabrian hounds and roasted ivory (Or, swerving from Anthropocentrism)" by N. Heringman, both in *Multispecies Archaeology*.

Field Trip: Georgia Museum of Natural History

In-class Weekly Writing Prompt

Week 4 September 4 & 6

Exam 1

Writing Workshop 1: Library Visit

Defining and topic

Identifying appropriate sources

Part 2: Methods

Week 5 September 11 & 13

Geoarchaeology: Sediments and Soils

Reading: Reitz and Shackley Chapter 5

Field Trip: Environmental Change Lab and Geomorphology Lab, Dept. of Geography

Week 6 September 18 & 20 ***Paper topics due 9/20***

Archaeology in Microcosm: Viruses, Bacteria, Archaea, Protists, and Fungi

Reading: Reitz and Shackley Chapter 6

Additional Graduate Student Reading: Chapter 14, “The history of the human microbiome: Insights from archaeology and ancient DNA” by L. Weyrich, in *Multispecies Archaeology*.

Archaeobotany: Bryophytes and Vascular Plants

Reading: Reitz and Shackley Chapter 7

Week 7 September 25 & 27

Archaeobotany: Microbotanical remains (Spores, Pollen, Phytoliths, and Starch Grains)

Reading: Reitz and Shackley Chapter 9

Additional Graduate Student Reading: Chapter 6, “Symbiotic architectures” by G. Lucas OR Chapter 8, “Ecologies of rock and art in northern New Mexico” by B. Alberti and S. Fowles, in *Multispecies Archaeology*.

Weekly Practical: Pollen

Week 8 September 2 & October 4 ***Bibliographies due 10/4***

Archaeobotany: Wood, Wood Charcoal, Stems, Fibers, Leaves, and Roots

Reading: Reitz and Shackley Chapter 8

Weekly Practical: Dendroarchaeology

Week 9 October 9 & 11

Invertebrates: Arthropods and Others

Reading: Reitz and Shackley Chapter 10

Molluscs and Echinoderms

Reading: Reitz and Shackley Chapter 11

Additional Graduate Student Reading: Chapter 9, “Oysters and mound-islands of Crystal River along the Central Gulf Coast of Florida” by V.D. Thompson and T.J. Pluckhahn OR Chapter 4, “Trans-Holocene human impacts on California mussels” by Campbell et al., in *Multispecies Archaeology*.

Weekly Practical: Sclerochronology

Week 10 October 16 & 18

Zooarchaeology: Vertebrate remains at archaeological sites

Reading: Reitz and Shackley Chapter 12

Weekly Practical: Faunal analysis

Week 11 October 23 & 25

Stable Isotopes, Elements, and Biomolecules

Reading: Reitz and Shackley Chapter 13

Additional Graduate Student Reading: Chapter 19, “The role of ostrich in shaping the landscape use patterns of humans and hyenas on the southern coast of South Africa during the late Pleistocene” by J. Hodgkins et al., OR Chapter 20, “Prey species movements and migrations in ecocultural landscapes: Reconstructing late Pleistocene herbivore seasonal spatial behaviours” by K. Britton, in *Multispecies Archaeology*.

Field Trip: Center for Applied Isotope Studies

Week 12 October 30 & November 1 ***Outlines due 11/1***

Exam 2

Writing Workshop 2: Outlines and bibliographies

Part 3: Synthesis

Week 13 November 6 & 8

Case Studies: Undergraduate Student Presentations (5)

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Week 14 November 13 & 15 ***First draft due 11/13***

Writing Workshop: Final Paper Peer Review

Guest Lecture

Week 15 November 20 & 22 NO CLASS- THANKSGIVING

Week 16 November 27 & 29 ***Final Papers Due 11/29***

Case Studies: Graduate Student Presentations

Final Discussion: Integration and Synthesis
Reading: Reitz and Shackley Chapter 14

Assessment and Grading

There are 30 scheduled class meetings. Everyone's attendance grade starts at 100 and depends on the percentage of classes you attend.

Undergraduates Total possible points: 700

Points	Description
100	Attendance
100	Participation (including all in-class assignments)
100	Exam 1
100	Exam 2
100	Presentation (10 min)
50	Bibliography (10 sources)
50	Outline
100	Final Paper (including first draft) (3-5,000 words)

Graduates Total possible points: 800

Points	Description
100	Attendance
100	Participation (including all in-class assignments)
100	Exam 1
100	Exam 2
100	Presentation (30 min)
100	Annotated Bibliography (20 sources, 10 annotated)
50	Outline
50	Paper Summaries (Five 500-word summaries)
100	Final Paper (including first draft) (5-8,000 words)