

ANT4147/ANG6120C

ENVIRONMENTAL ARCHAEOLOGY

Course Information

Fall 2023

T 9:35a - 10:25a | Th 8:30a - 10:25a

TUR B357

Instructors: Dr. Daniel Contreras | Dr. Michelle LeFebvre

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Office Hours: TBD

Course Description

With a focus on the interdisciplinary science of environmental archaeology, this course addresses questions about past human environments. Students will explore diverse methods, data analyses, and theoretical frameworks of environmental archaeology. Themes include sustainability and resilience over the long-term, environmental influences on cultural transformations, and anthropogenic environments.

Archaeology as a discipline, and environmental archaeology in particular, has been a key contributor to scientific recognition that anthropogenic legacies shape modern environments.

Anthropogenic legacies are central to diverse fields of study, including:

- archaeology
- anthropology
- restoration ecology and conservation
- sustainability and resilience

This course will focus on how archaeologists collect and interpret data that can be used to address the questions that those disciplines - and others - ask about human-environment interactions over the long term. That includes, but is not limited to, archaeological approaches to human-environment interactions and socioecological systems, integration of paleoenvironmental data in archaeological interpretation, and use of archaeological data as paleoenvironmental proxy.

Archives	Methods
Coastal and freshwater environments	zooarchaeology
coastal and marine environments	geoarchaeology
arid environments	archaeobotany/paleoethnobotany
boreal and tropical forest environments	chronostratigraphy
etc.	aDNA/eDNA
	isotopic ecological proxies
	etc.

Generating the data involved in any of these approaches requires identifying *archives* and applying *methods*. With that in mind, this course covers a mix of archives and methods summarized in the table below.

Course Objectives

In completing this course, students will:

- explore the development of Environmental Archaeology as a sub-discipline,
- identify and critically assess current trends in Environmental Archaeology,
- be familiar with types of analyses commonly used in Environmental Archaeology,
- analyze how Environmental Archaeology can contribute to other fields e.g., sustainability studies, conservation and restoration ecology, etc.,
- assess the role of Environmental Archaeology in analyzing and addressing contemporary challenges of biodiversity loss and climate change, and
- develop an understanding of how their research interests or career goals may include or overlap with topics in Environmental Archaeology.

Course structure

This course is a hybrid of lecture, seminar, and lab, in which one-hour sessions on Tuesdays will be largely devoted to lectures with some discussion, while two-hour sessions on Thursdays will include both seminar and lab components.

Course Requirements

Undergraduate Students

Seminar

Reading Responses 18%

Over the course of the semester, students are expected to contribute 6 reading responses to distributed prompts ~300 - 500 words. Due at the beginning of class and submitted via Canvas each Thursday for the weeks assigned.

Participation 11%

All students graduate and undergraduate are expected to be prepared to participate in seminar discussion and demonstrate their engagement with the assigned readings and seminar questions provided by the graduate student leader.

Lab Exercises 21%

This course includes three in-class lab exercises.

Term Project 50%

Angst over what environmental archaeology *is* and what it is *for* was acute twenty years ago Hamilakis 2001; O'Connor 2001. Choosing one of the roles of EA that we consider in class - as contribution to archaeology, anthropology, restoration ecology and conservation, and sustainability - and drawing on at least five sources at least three of which are *not* from our course readings, consider whether EA still suffers from existential angst. If so, why? If not, why not?

Topic 5%

Written description of paper topic one paragraph uploaded to Canvas no later than **13 Oct, 5 pm**.

Annotated bibliography 10%

Annotated bibliography uploaded to Canvas no later than **31 Oct, 5 pm**. Must include at least 5 sources, at least three of which are NOT included in course readings.

Presentation 10%

Each student will give a five minute presentation of their term paper topic, findings, and conclusions. These will be scheduled across November 30 and December 5.

Paper 25%

- 11 or 12 point Times New Roman font; standard 1-inch page margins; double spaced; pages numbered
- 1750 word minimum ~7 pages, 2500 word maximum ~10 pages
- References cited not included in total word count
- **20 Nov** is the deadline to submit paper for instructor feedback prior to submitting the final draft. Instructors will provide feedback by November 30th.
- Final papers uploaded to Canvas by **9 Dec, 11:59 pm**. No exceptions.

Graduate Students

Seminar

Facilitation 10%

Graduate students are expected to lead at least one Thursday seminar session in the latter part of the semester. The Tuesday prior, each student leader will share via Canvas 2-3 seminar questions for all students to have as a foundation for preparing for seminar discussion on Thursday. The questions are expected to encourage critical thinking, likely including multiple points of consideration e.g., sub-questions, and be substantial enough to form the basis of a seminar discussion. A good approach would be to connect the questions and expected answers or reactions to broader topics in the class, previous readings and discussion, and research interests shared throughout the semester.

Participation 10%

All students graduate and undergraduate are expected to be prepared to participate in seminar discussion and demonstrate their engagement with the assigned readings and seminar questions provided by the graduate student leader.

Lab Exercises 15%

This course includes three in-class lab exercises.

Collaborative Annotated Bibliography 10%

By the end of the course, graduate students will be familiar with a broad range of environmental archaeology methods, and based on a survey of the literature will be prepared to consider how environmental archaeology contributes to intellectual trends in both anthropological archaeology and broader interdisciplinary environmental studies. To take advantage of this collective effort, graduate students will work toward building a collaborative annotated bibliography of recent environmental archaeology literature.

Each week, graduate students will select an additional reading germane to the week's topic and submit a critical annotated entry to a group bibliography. You may share opinions, etc. in addition to a summary of main points. The papers each student submits WILL BE eligible for inclusion in their term annotated bibliography assignment. The entries will be due via Canvas by the start of Thursday class 8:35 am each week.

Term Project 55%

Advocates of environmental archaeology have argued that it contributes - and has great potential to contribute more - not only to archaeology, but also to anthropology, restoration ecology and conservation, and sustainability. Selecting *one* of these claims, evaluate, through a review of recent literature of a topic of your choosing, how well the *practice* of environmental archaeology lives up to the *promise* of environmental archaeology. In addition to a broad range of recent case studies see below, your review should include at least two papers that make explicit claims for environmental archaeology broadly construed, analyzing why and how those claims are made.

Topic 5%

Written description of paper topic uploaded to Canvas no later than **7 Oct, 5 pm**.

Annotated bibliography 10%

Annotated bibliography uploaded to Canvas no later than **31 Oct, 5 pm**. Must include at least 10 sources NOT included in course readings. Remember, any annotated readings you contribute to the class bibliography may be included in this assignment and do not count as a "course reading."

Peer Review 10%

In addition to the course assignments, graduate students are expected to conduct peer-review of one other term paper. Draft papers will be turned in to instructors by **30 Nov, 2 pm**; instructors will distribute drafts to graduate students for peer-review. Each graduate student will

peer-review one other paper. Instructors will provide a review template to follow. Completed reviews will be submitted back to the instructors by **5 Dec, 2 pm**. These will be graded and shared with the authors.

Presentation 10%

Each student will give a five minute presentation of their term paper topic, findings, and conclusions. These will be scheduled across November 30 and December 5.

Paper 20%

- 11 or 12 point Times New Roman font; standard 1-inch page margins; double spaced; pages numbered
- 2500 word minimum ~10 pages, 3500 word maximum ~14 pages
- References cited not included in total word count
- **20 Nov** is the deadline to submit papers for instructor feedback prior to submitting the final draft. Instructors will provide feedback by November 30th.
- Final papers uploaded to Canvas by **9 Dec, 11:59 pm**. No exceptions.

Attendance Policy, Class Expectations, and Late Assignments

Attendance

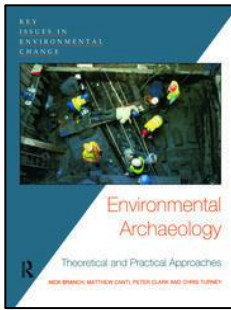
Since attendance is fundamental to the learning goals of this course, it is required. Of course, life may sometimes intervene, in which case you are expected to notify the instructor ahead of time or as soon as practical afterwards. More than two absences will already constitute >10% of the course, and you should consult with the instructor about appropriate make-up activity. Excused absences must be consistent with university policies in the [Graduate Catalog](#) and require appropriate documentation. Additional information can be found in [Attendance Policies](#).

Late Assignments

No late assignments will be accepted outside of [UF Attendance Policies](#) accompanied by appropriate documentation.

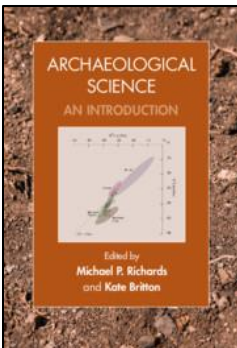
Course Texts

There is one required text, which we will supplement with several articles and book excerpts listed below and available on Canvas.



Branch, N., Canti, M., Clark, P., and Turney, C. 2014.
Environmental Archaeology: Theoretical and Practical Approaches.
 Routledge.

Graduate students are encouraged to also consult:



Richards, Michael P., and Kate Britton editors 2020 *Archaeological Science: An Introduction*. Cambridge University Press, Cambridge.

Course Schedule

Week	Theme	Date	Readings	Due Dates and other notes
1	Course Intro & Big Picture	24 Aug	* optional for undergraduates	
2	Lecture: Why/how Environmental Archaeology? History & Scope	29 Aug	<ul style="list-style-type: none"> • Branch et al. Ch.1 • Van der Leeuw and Redman 2002 • Carleton and Collard 2020 • Kirch 2005* 	

	Seminar: Is Environmental Archaeology environmentally determinist? Why does that matter? Theoretical overview	31 Aug	<ul style="list-style-type: none"> • Butzer 1982:Ch.1 • Wright 1993 • Brumfiel 1992 • Steinberg 2002* 	Why and how should we think about the environment when we ask questions about the human past?
3	Lecture: What's in a name? Popular approaches in environmental archaeology	5 Sept	<ul style="list-style-type: none"> • Balée 2006 • Fitzhugh et al. 2019 • Dotterweich and Schreg 2019 • Crabtree and Dunne 2022 	We will review popular approaches in EA, including historical ecology, human ecodynamics, archaeoecology, and archaeonics
	Seminar: Big picture examples and setting the stage for critically assessing the relevance of environmental archaeology	7 Sept	<ul style="list-style-type: none"> • Branch et al. 5.2 • Ellis et al. 2021 • Rick and Sandweiss 2020 	Please come prepared to think about connecting microscale research issues e.g., data collection to macroscale research relevance e.g., big picture and be ready to share some of your specific interests and/or research goals.
4	Methods I: Geoarchaeology	12 Sept	<ul style="list-style-type: none"> • Branch et al. Ch.2 • French 2015:Ch.2 • Karkanas 2020 	
		14 Sept	<ul style="list-style-type: none"> • Stein 1987 • Frederick 2000 • James 2019 	Lab I: landscape-scale geoarchaeology
5	Methods II: Zooarchaeology	19 Sept	<ul style="list-style-type: none"> • Branch et al. Ch.3 especially pages 106-150 	How and why do we study archaeological animal specimens?
	Guest seminar and zooarchaeology analysis	21 Sept	<ul style="list-style-type: none"> • Wallis and McFadden 2019 	<u>Guest lecture</u> by Neill Wallis Class will include Lab II on the use of primary zooarchaeological vertebrate data to interpret subsistence, habitat of harvest, and

				relationship to climate at a Woodland period civic ceremonial center on the FL Gulf Coast.
6	Methods III: Archaeobotany/Paleoethnobotany/Anthracology/Palynology	26 Sept	<ul style="list-style-type: none"> • Branch et al. Ch.3 especially pages 67-106 • D'Andrea 2020 	Guest lecture: Kandi Hollenback
	Isotopes	28 Sept	<ul style="list-style-type: none"> • Britton 2020 • Richards 2020 	Guest speaker: John Krigbaum Lecture by Krigbaum followed by instructor-led seminar
		2 Oct		<u>graduate student</u> term paper topics due to instructors by 5pm
7	Methods IV: Chronometry	3 Oct	<ul style="list-style-type: none"> • Branch et al. Ch.4 • Wood 2015 • Blockley 2020 	Why does chronology matter, and how can we build accurate and precise chronologies?
		5 Oct	<ul style="list-style-type: none"> • Contreras 2017 • Sandweiss and Quilter 2012 • Bayliss 2009* • Bayliss et al. 2007* 	Lab III: Intro to OxCal
8	Methods V: Paleoclimatology	10 Oct	<ul style="list-style-type: none"> • Roberts 2014:Ch.2 • Davis 2019 	Palynology if not already covered in Week 6 / Paleoenvironmental proxies
		12 Oct	<ul style="list-style-type: none"> • Brenner et al. 2003 • Medina-Elizalde and Rohling 2012 	Guest Lecture - Mark Brenner Lecture by Brenner, followed by the whole class discussion. Topics may include paleoclimatology and methods, but also long-term research and community building.
		13 Oct		<u>undergraduate student</u> term paper topics due to instructors by 5 pm
9	Methods VI: Archaeological deposits / materials as	17 Oct	<ul style="list-style-type: none"> • Rick et al. 2022 	zooarch/archaeobot/isotopes/aDNA

	archives / paleoenvironmental proxies/ taxonomic diversity		<ul style="list-style-type: none"> • Sandweiss and Kelley 2012 • St. Amand et al. 2020 	
		19 Oct		Visit to FMNH collections: Environmental Archaeology, South Florida Archaeology, Mammalogy, Ornithology
10	Long-term environmental legacies	24 Oct	<ul style="list-style-type: none"> • Boivin et al. 2016 • Foster et al. 2003 • Marshall et al. 2018 	Guest lecture: Kate Grillo
		26 Oct	<ul style="list-style-type: none"> • Pavlik et al. 2021 • Wells et al. 2018 • Hayashida 2005 • Snitker et al. 2022 	Grad student led seminar
		30 Oct		<u>all student</u> annotated bibliographies due to instructors by 5 pm
11	Restoration and Conservation	31 Oct	<ul style="list-style-type: none"> • O'Brien 2001 • Turner et al. 2020 • LeFebvre et al. 2019, 2023 • Oswald et al. 2023, forthcoming 	We will consider these topics broadly macro-scale and then explore more specific engagement at community level interactions and research goal-setting. Case study presentation will focus on vertebrate baselines and biodiversity in The Bahamas and a paleobiology working group.
	Guest lecture and seminar afterwards	2 Nov	<ul style="list-style-type: none"> • Hofman et al. 2015 • Rick 2023 • Shriver-Rice et al. 2022 	Grad student led seminar

12	Diversity of modes of human-environment interaction	7 Nov	<ul style="list-style-type: none"> • Burke et al. 2021 	
		9 Nov	<ul style="list-style-type: none"> • Boivin and Crowther 2021 • Kohler and Rockman 2020* • Nicoll and Zerboni 2020* • Cronon 1996 	Grad student led seminar
13	Sustainability	14 Nov	<ul style="list-style-type: none"> • Van der Leeuw et al. 2011 • Guttman-Bond 2010 	
		16 Nov	<ul style="list-style-type: none"> • Silva et al. 2022 • Fisher 2020 • Jacobson 2022 • LeFebvre et al. 2022 	Grad student led seminar
		20 Nov		Deadline to submit term papers for instructor feedback not graded
14	A “domesticated” world: New World crops and animals	21 Nov	<ul style="list-style-type: none"> • Larson et al. 2014 • Thornton 2016 • Thornton et al. 2021* • Manin et al. 2018* 	
		23 Nov	No Class - Thanksgiving	

15	EA ethics, environmental justice, food security	28 Nov	<ul style="list-style-type: none"> • Riede et al. 2016 • Douglass and Cooper 2020 • Logan 2016 	We will wrap up class contextualizing environmental archaeology within the context of meeting social challenges and evolving ethics.
		30 Nov	Student presentations	Graduate student paper drafts due to instructors for dissemination to peer reviewers by 2 pm
16		5 Dec	Student presentations	Completed graduate student peer-reviews due to instructors for return to authors by 2 pm
		9 Dec		Term papers due by 11:59 pm no exceptions outside of official UF policy

Supplementary Readings

Balée, William

2006 The Research Program of Historical Ecology. *Annual Review of Anthropology* 35:75.

DOI:doi:10.1146/annurev.anthro.35.081705.123231.

Bayliss, Alex

2009 Rolling Out Revolution: Using Radiocarbon Dating in Archaeology. *Radiocarbon* 51:123–147.

Bayliss, Alex, Christopher Bronk Ramsey, Johannes van der Plicht, and Alasdair Whittle

2007 Bradshaw and Bayes: Towards a Timetable for the Neolithic. *Cambridge Archaeological Journal* 17Supplement S1:1–28. DOI:10.1017/S0959774307000145.

Blockley, Simon

2020 Radiocarbon Dating. In *Archaeological Science: An Introduction*, edited by Kate Britton and Michael P. Richards, pp. 407–423. Cambridge University Press, Cambridge.

Boivin, Nicole, and Alison Crowther

2021 Mobilizing the past to shape a better Anthropocene. *Nature Ecology & Evolution* 53:273–284. DOI:10.1038/s41559-020-01361-4.

Boivin, Nicole L, Melinda A Zeder, Dorian Q Fuller, Alison Crowther, Greger Larson, Jon M Erlandson, Tim Denham, and Michael D Petraglia

2016 Ecological consequences of human niche construction: Examining long-term anthropogenic shaping of global species distributions. *Proceedings of the National Academy of Sciences* 113:6388–6396.

- Brenner, Mark, David A Hodell, Jason H Curtis, Michael F Rosenmeier, Flavio S Anselmetti, and Daniel Ariztegui
 2003 Paleolimnological approaches for inferring past climate change in the Maya region: recent advances and methodological limitations. In *The Lowland Maya area three millennia at the human-wildland interface*, edited by Arturo Gómez-Pompa, M.F. Allen, Scott L. Fedick, and J.J. Jiménez-Osorio, pp. 45–75. Haworth Press, Inc., New York.
- Britton, Kate
 2020 Isotope Analysis for Mobility and Climate Studies. In *Archaeological Science: An Introduction*, edited by Kate Britton and Michael P. Richards, pp. 99–124. Cambridge University Press, Cambridge.
- Brumfiel, Elizabeth
 1992 Distinguished Lecture in Archaeology: Breaking and Entering the Ecosystem - Gender, Class, and Faction Steal the Show. *American Anthropologist* 94:551–568.
- Burke, Ariane, Matthew C. Peros, Colin D. Wren, Francesco S. R. Pausata, Julien Riel-Salvatore, Olivier Moine, Anne de Vernal, Masa Kageyama, and Solène Boisard
 2021 The archaeology of climate change: The case for cultural diversity. *Proceedings of the National Academy of Sciences* 11830:e2108537118. DOI:10.1073/pnas.2108537118.
- Butzer, Karl W
 1982 *Archaeology as Human Ecology: Method and Theory for a Contextual Approach*. Cambridge University Press, New York.
- Carleton, W. Christopher, and Mark Collard
 2020 Recent major themes and research areas in the study of human-environment interaction in prehistory. *Environmental Archaeology* 25:114–130.
- Contreras, Daniel A.
 2017 Correlation is Not Enough – Building Better Arguments in the Archaeology of Human-Environment Interactions. In *The Archaeology of Human-Environment Interaction: Strategies for Investigating Anthropogenic Landscapes, Dynamic Environments, and Climate Change in the Human Past*, edited by Daniel A. Contreras, pp. 3–22. Routledge, New York.
- Crabtree, Stefani A., and Jennifer A. Dunne
 2022 Towards a science of archaeoecology. *Trends in Ecology & Evolution* 37:976–984. DOI:10.1016/j.tree.2022.07.010.
- Cronon, William
 1996 The trouble with wilderness: or, getting back to the wrong nature. *Environmental History* 11:7–28.
- D'Andrea, A. Catherine
 2020 Palaeoethnobotany. In *Archaeological Science: An Introduction*, edited by Kate Britton and Michael P. Richards, pp. 276–313. Cambridge University Press, Cambridge.
- Davis, Dylan S.
 2019 Studying human responses to environmental change: Trends and trajectories of archaeological research. *Environmental Archaeology*:1–14.
- Dotterweich, Markus, and Rainer Schreg
 2019 Archaeonics - Geoarchaeological studies in Anthropogenic Dark Earths ADE as an example for future-oriented studies of the past. *Quaternary International* 502. Landforms, sediments, soils and palaeosols as records of present and former environmental conditions and human-environment interactions:309–318. DOI:10.1016/j.quaint.2018.09.026.

Douglass, Kristina, and Jago Cooper

2020 Archaeology, environmental justice, and climate change on islands of the Caribbean and southwestern Indian Ocean. *Proceedings of the National Academy of Sciences* 11715:8254–8262. DOI:10.1073/pnas.1914211117.

Ellis, Erle C, Nicolas Gauthier, Kees Klein Goldewijk, Rebecca Bliege Bird, Nicole Boivin, S Díaz, DQ Fuller, JL Gill, JO Kaplan, N Kingston, H Locke, CNH McMichael, D Ranco, TC Rick, MR Shaw, L Stephens, JC Svenning, and JEM Watson

2021 People have shaped most of terrestrial nature for at least 12,000 years. *Proceedings of the National Academy of Sciences of the United States of America* 11817:e2023483118.

Fisher, Chelsea

2020 Archaeology for sustainable agriculture. *Journal of Archaeological Research* 283:393–441.

Fitzhugh, Ben, Virginia L. Butler, Kristine M. Bovy, and Michael A. Etnier

2019 Human ecodynamics: A perspective for the study of long-term change in socioecological systems. *Journal of Archaeological Science: Reports* 23:1077–1094. DOI:10.1016/j.jasrep.2018.03.016.

Foster, David, Frederick Swanson, John Aber, Ingrid Burke, Nicholas Brokaw, David Tilman, and Alan Knapp

2003 The importance of land-use legacies to ecology and conservation. *BioScience* 531:77–88.

Frederick, Charles D

2000 Evaluating Causality of Landscape Change: Examples from Alluviation. In *Earth Sciences and Archaeology*, edited by Paul Goldberg, Vance T. Holliday, and C. Reid Ferring, pp. 1–22. Academic/Plenum Publishers, New York.

French, Charles

2015 *A Handbook of Geoarchaeological Approaches for Investigating Landscapes and Settlement Sites*. Studying Scientific Archaeology I. Oxbow Books, Oxford.

Guttmann-Bond, Erika

2010 Sustainability out of the past: how archaeology can save the planet. *World Archaeology* 423:355–366.

Hamilakis, Yannis

2001 Re-inventing Environmental Archaeology: A comment on “Economic prehistory or environmental archaeology? On gaining a sense of identity.” In *Environmental Archaeology: Meaning and Purpose*, edited by Umberto Albarella, pp. 29–38. Kluwer Academic Publishers, New York.

Hayashida, Frances

2005 Archaeology, Ecological History, and Conservation. *Annual Review of Anthropology* 34:43–65.

Hofman, Courtney A., Torben C. Rick, Robert C. Fleischer, and Jesús E. Maldonado

2015 Conservation archaeogenomics: ancient DNA and biodiversity in the Anthropocene. *Trends in Ecology & Evolution* 309:540–549. DOI:10.1016/j.tree.2015.06.008.

Jacobson, Matthew J.

2022 Archaeological evidence for community resilience and sustainability: A bibliometric and quantitative review. *Sustainability* 1424:16591.

James, L Allan

2019 Impacts of pre- vs. postcolonial land use on floodplain sedimentation in temperate North America. *Geomorphology* 331C:59–77.

Karkanias, Panagiotis

2020 Geoarchaeology. In *Archaeological Science: An Introduction*, edited by Kate Britton and Michael P. Richards, pp. 314–332. Cambridge University Press, Cambridge.

Kirch, Patrick V.

2005 Archaeology and Global Change: The Holocene Record. *Annual Review of Environmental Resources* 30:409–440.

Kohler, Timothy A., and Marcy Rockman

2020 The IPCC: A primer for archaeologists. *American Antiquity* 85:627–651.

Larson, G, Dolores R Piperno, Robin G Allaby, M D Purugganan, L Andersson, Manuel Arroyo-Kalin, L Barton, C Climer Vigueira, Tim Denham, K Dobney, A N Doust, P Gepts, M T P Gilbert, Kristen J Gremillion, L Lucas, L Lukens, F B Marshall, K M Olsen, J C Pires, Peter J Richerson, R Rubio de Casas, O I Sanjur, M G Thomas, and Dorian Q Fuller

2014 Current perspectives and the future of domestication studies. *Proceedings of the National Academy of Sciences* 111:6139–6146.

LeFebvre, Michelle J., Traci Ardren, Victor D Thompson, Scott M. Fitzpatrick, and Sara Ayers-Rigby

2022 In support of sustainability: The historical ecology of vertebrate biodiversity and native american harvest practices in the florida keys, USA. *Sustainability* 14:6552.

LeFebvre, Michelle J., Susan D. deFrance, George D. Kamenov, William F. Keegan, and John Krigbaum

2019 The zooarchaeology and isotopic ecology of the Bahamian hutia *Geocapromys ingrahami*: Evidence for pre-Columbian anthropogenic management. *PLOS ONE* 14:e0220284. DOI:10.1371/journal.pone.0220284.

LeFebvre, Michelle J., Alexis M. Mychajliw, George B. Harris, and Jessica A. Oswald

2023 Historical DNA from a rediscovered nineteenth-century paratype reveals genetic continuity of a Bahamian hutia *Geocapromys ingrahami* population. *Biology Letters* 19:20220566. DOI:10.1098/rsbl.2022.0566.

Logan, Amanda L.

2016 “Why Can’t People Feed Themselves?”: Archaeology as Alternative Archive of Food Security in Banda, Ghana. *American Anthropologist* 118:508–524. DOI:10.1111/aman.12603.

Manin, Aurelie, Eduardo Corona-M, Michelle Alexander, Abigail Craig, Erin Kennedy Thornton, Dongya Y. Yang, Michael Richards, and Camilla F. Speller

2018 Diversity of management strategies in Mesoamerican turkeys: archaeological, isotopic and genetic evidence. *Royal Society Open Science* 5:171613. DOI:10.1098/rsos.171613.

Marshall, Fiona, Rachel E. B. Reid, Steven Goldstein, Michael Storozum, Andrew Wreschnig, Lorraine Hu, Purity Kiura, Ruth Shahack-Gross, and Stanley H. Ambrose

2018 Ancient herders enriched and restructured African grasslands. *Nature* 561:387–390. DOI:10.1038/s41586-018-0456-9.

Medina-Elizalde, M, and E J Rohling

2012 Collapse of Classic Maya Civilization Related to Modest Reduction in Precipitation. *Science* 335:956–959.

Nicoll, Kathleen, and Andrea Zerboni

2020 Is the past key to the present? Observations of cultural continuity and resilience reconstructed from geoarchaeological records. *Quaternary International* 545:119–127.

O'Brien, Michael J.

2001 Archaeology, paleoecosystems, and ecological restoration. In *The Historical Ecology Handbook: A Restorationist's Guide to Reference Ecosystems*, edited by Dave Egan and Curt Meine, 2001:pp. 29–

54. Island Press, Washington.

O'Connor, Terry

2001 Economic Prehistory of Environmental Archaeology? On Gaining a Sense of Identity. In *Environmental Archaeology: Meaning and Purpose*, edited by Umberto Albarella, pp. 17–27. Kluwer Academic, New York.

Pavlik, BM, LA Louderback, KB Vernon, PM Yaworsky, C Wilson, A Clifford, and BF Coddling

2021 Plant species richness at archaeological sites suggests ecological legacy of Indigenous subsistence on the Colorado Plateau. *Proceedings of the National Academy of Sciences of the United States of America* 11821:e2025047118.

Richards, Michael P.

2020 Isotope Analysis for Diet Studies. In *Archaeological Science: An Introduction*, edited by Kate Britton and Michael P. Richards, pp. 125–144. Cambridge University Press, Cambridge.

Rick, Torben C.

2023 Coastal archaeology and historical ecology for a changing planet. *Journal of Anthropological Research*:000–000.

Rick, Torben C., Abdullah M. Alsharekh, Todd J. Braje, Alison Crowther, Jon M. Erlandson, Dorian Q. Fuller, Kristina M. Gill, Huw S. Groucutt, Maria Guagnin, Richard Helm, Courtney A. Hofman, Mark Horton, Andrea Kay, Ravi Korisettar, Chantal Radimilahy, Leslie Reeder-Myers, Ceri Shipton, Henry T. Wright, Michael Petraglia, and Nicole Boivin

2022 Coring, profiling, and trenching: Archaeological field strategies for investigating the Pleistocene-Holocene-Anthropocene continuum. *Quaternary International* 628:1–17.

Rick, Torben C., and Daniel H. Sandweiss

2020 Archaeology, climate, and global change in the Age of Humans. *Proceedings of The National Academy Of Sciences Of The United States Of America* 11715:8250–8253.
DOI:10.1073/pnas.2003612117.

Riede, Felix, Per Andersen, and Neil Price

2016 Does environmental archaeology need an ethical promise? *World Archaeology* 484:466–481.
DOI:10.1080/00438243.2016.1192483.

Roberts, Neil

2014 *The Holocene: An Environmental History*. 3rd ed. Wiley-Blackwell.

Sandweiss, Daniel H., and Alice R. Kelley

2012 Archaeological Contributions to Climate Change Research: The Archaeological Record as a Paleoclimatic and Paleoenvironmental Archive. *Annual Review of Anthropology* 411:371–391.
DOI:10.1146/annurev-anthro-092611-145941.

Sandweiss, Daniel H., and Jeffrey Quilter

2012 Collation, Correlation, and Causation in the Prehistory of Coastal Peru. In *Surviving Sudden Environmental Change: Answers from Archaeology*, edited by Jago Cooper and Payson Sheets, pp. 117–142. University Press of Colorado, Boulder, CO.

Shriver-Rice, Meryl, M. Jesse Schneider, and Christine Pardo

2022 Charismatic megafauna, regional identity, and invasive species: what role does environmental archaeology play in contemporary conservation efforts? *World Archaeology* 543:429–446.
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University Policies

Grading

Grading scale:

-
- 92.5-100% A
- 90-92.5% A-
- 87.5-90% B+
- 82.5-87.5% B
- 80-82.5% B-
- 77.5-80% C+
- 72.5-77.5% C
- 70-72.5% C-
- 67.5-70% D+
- 62.5-67.5% D
- 60-62.5% D-
- < 60% E

Information on UF grading policy may be found at: [UF Graduate Catalog](#) and [Grades and Grading Policies](#).

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

Students Requiring Accommodation

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing [online evaluations](#). Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students on the [Gator Evals page](#).

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code <https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/> specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc/, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services SARS

Student Health Care Center, 392-1161.

University Police Department at 392-1111 or 9-1-1 for emergencies, or police.ufl.edu.

Academic Resources

E-learning technical support, 352-392-4357 select option 2 or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints Campus

On-Line Students Complaints

HB-7

The Florida State Legislature in HB-7, currently being challenged in court, has expressed its concern about the risks of indoctrination in higher education. Students are encouraged to employ critical thinking and to rely on data and verifiable sources to interrogate all assigned

readings and subject matter in this course as a way of determining whether they agree with their classmates and/or their instructor. No lesson is intended to espouse, promote, advance, inculcate, or compel a particular feeling, perception, viewpoint or belief.

HB-233

In accord with recent dictates of the Florida State Legislature HB-233, currently being challenged in court, students are allowed to record video and/or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are 1 for personal educational use, 2 in connection with a complaint to the university, or 3 as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture *does not* include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments quizzes, tests, exams, field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person or persons, including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.