

**ANT4930/ANG6930:**  
**Archaeological Perspectives on the Anthropocene**  
**Spring 2020**

**Instructor:**

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Office Hours: W 1:00p -3:00p and by appt

T 3:00p - 3:50p Th 3:00p - 4:55p  
1208H TUR

## Course Description

Our current moment in planetary history is one in which human activity is the dominant influence on Earth's ecosystems. Scientific consensus in the 21<sup>st</sup> century is that this period can and should be distinguished from what went before, terming it the Anthropocene. This course introduces this concept, and explores the ways in which the identification of the Anthropocene is a beginning rather than an end. In particular, it examines the ways in which the concept of the Anthropocene relies on archaeology: how we understand human impacts on our planet relies fundamentally on what we know about human-environment interactions in the past. We will consider how archaeology approaches interactions between human societies and their environments, covering the underlying theoretical issues, surveying the methodologies employed, and critically examining the narratives about past human-environment interactions that archaeologists and paleoecologists produce. Drawing on these conceptual tools, we will examine debates about the identification and meaning of the Anthropocene, its origins and antiquity, and the uses of the concept in the present.

This survey will include an introduction to the scientific and interdisciplinary debates surrounding, as well as key critiques of, the concept of an Anthropocene. This will be an exploration in four parts: 1) the importance of defining the Anthropocene, 2) the challenge of identifying the Anthropocene through specific evidence, 3) case studies in exploration of anthropogenic impacts on past environments, and 4) critiques of the Anthropocene and future directions. Our emphasis will be not so much on whether there is an Anthropocene and when, but on how we can tell and why we should try.

## Course Structure

This course meets twice each week, with a short session on Tues and a longer session on Thurs. Tuesday sessions will consist of a few introductory readings and a mixed lecture/discussion, followed by a more in-depth readings on the same theme and a seminar-style discussion for Thursday sessions. Each student will be asked to facilitate one or two Thursday discussions (depending on enrollment). This is primarily a discussion-based seminar, not a lecture course, and active student participation is integral to its success.

## Course Goals

This course will introduce students to the concept of the Anthropocene, as well as debates about its definition and antiquity. While practical experience with methods used to explore past human impacts on their environments is beyond the scope of this course, a case-study based survey of methods aims to produce students who are informed and critical consumers of data and arguments about the Anthropocene, aware of the potentials and limitations of both paleoenvironmental and archaeological reconstructions of past human-environment interactions.

## Readings

This seminar uses Erle Ellis' *Anthropocene: A Very Short Introduction* (Oxford University Press, 2018) as a background text, and draws from a wide variety of both academic and popular articles and book excerpts. These readings will explore the foundational concepts of the Anthropocene, serve as guides to ongoing debates, and introduce key critiques. Case studies in the acquisition and assessment evidence of past human impacts on their environments will introduce the intellectual tools with which the Anthropocene has been built.

Readings are specified for each class meeting below. ***They should be completed for the class with which they are listed.***

## Requirements and Evaluation

Attendance and active participation in discussion is mandatory. Evaluation will be based on evidence of active engagement in the class, facilitation of those seminars for which you are responsible, and on three written assignments and a final paper.

Your final grade will be calculated as follows:

- 10% Participation (participation in and engagement with class discussion, as well as attendance and occasional written responses to readings)
- 15% Facilitation of seminar(s)
- 45% Three written assignments (detailed below)
- 30% Final Paper (~2500 words)

UF grading policies may be found here: [catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/](https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/).

### Written Assignments

Assignment I: Defining the Anthropocene

The terms of engagement.

Assignment II: The Antiquity of the Anthropocene

Schematizing the arguments.

Assignment III: Grappling with evidence

Working with settlement pattern data.

Final Paper

## Course Policies:

- Late Assignments:

- Late assignments will have their grade reduced by 10% for each day late. Extensions may be granted in case of particular need, but *must* be requested and approved in advance.
- Digital Devices:
  - Using a laptop in class may prove useful in this course. If/when it does, you are expected to resist the temptation to use your laptop for anything other than course purposes during class-time.

## Course Schedule:

	Week	Dates	Topic(s)	Assignment
Part 1: Defining the Anthropocene	1	7/9 Jan	Introduction: What/why is the Anthropocene?	<u>Reading</u> : 9 Jan: Ellis Ch.1; Meyer 2018
	2	14/16 Jan	Understanding the earth system / Diachronic perspective	<u>Reading</u> : 14 Jan: Ellis Ch. 2-3 16 Jan: Lewis and Maslin 2015
	3	21/23 Jan	Anthropogenic influence	<u>Reading</u> : 21 Jan: Ellis Ch.4 23 Jan: Steffen et al. 2011; Waters et al. 2014
	4	28/30 Jan	Kinds, degrees, ubiquity of influence	<u>Reading</u> : 28 Jan: Brannen 2019a; Wing et al. 2019; Brannen 2019b 30 Jan: Ruddiman 2013; Smith and Zeder 2013 <b>Assignment 1 due</b>
Part 2: Identifying the Anthropocene	5	4/6 Feb	Antiquity of the Anthropocene	<u>Reading</u> : 4 Feb: Ellis Ch. 5 6 Feb: Roberts 2019; Ellis and Stephens 2019
	6	11/13 Feb	The case for a Late Anthropocene	<u>Reading</u> : 11 Feb: Crutzen and Stoermer 2000 13 Feb: Zalasiewicz et al. 2015; Walker et al. 2015
	7	18/20 Feb	The case for an Early Anthropocene	<u>Reading</u> : 18 Feb: Ellis Ch. 6; Braje et al. 2014 20 Feb: Foley et al. 2014; Braje and Erlandson 2013
	8	25/27 Feb	Decisions and Definitions (not algorithms)	<u>Reading</u> : 25 Feb: Braje 2015 27 Feb: Ruddiman 2019; Zalasiewicz et al. 2019 <b>Assignment 2 due</b>
		3/5 Mar	<b>No Class – Spring Break</b>	

Part 3: Grappling with evidence: case studies in anthropogenic influence on past	9	10/12 Mar	Island Pacific / paleoenvironmental reconstruction	<u>Reading:</u> 10 Mar: Kirch 1997; Roberts 2014:Ch.2 12 Mar: Kirch 2007
	10	17/19 Mar	Coastal Peru / settlement patterns and agricultural impacts	<u>Reading:</u> 17 Mar: Reindel 2009; Banning 2002:Ch.1-2 19 Mar: <b>Sossna TBD</b>
	11	24/26 Mar	Central Mexico / urbanism and its footprints	<u>Reading:</u> 24 Mar: Millon 1970; Hoffman 2007 26 Mar: Biskowski 2017; Adriano-Morán and McClung de Tapia 2008
	12	31 Mar/ 2 Apr	Global Modeling	<u>Reading:</u> 31 Mar: Ellis et al. 2013; Kaplan 2018) 2 Apr: Kaplan et al. 2010; Klein Goldewijk et al. 2011  <b>Assignment 3 due</b>
Part 4: Complicating the Anthropocene	13	7/9 Apr	Nature/Culture	<u>Reading:</u> 7 Apr: Barry 1999 9 Apr: <b>NO CLASS - Contreras conference</b>
	14	14/16 Apr	Ubiquity and its discontents	<u>Reading:</u> 14 Apr: Ellis Ch. 7-8 16 Apr: Morrison 2015; Davis and Todd 2016; Koch et al. 2019; Moore 2017
	15	21 Apr	Policy implications	<u>Reading:</u> 21 Apr: Buck 2015; Corlett 2015; Braje 2018; Smith 2019; Ellis and Trachtenberg 2014; Swirko 2019; SAFEBOB
		29 Apr	<b>Final Paper due</b>	

## Course Text

- Ellis, Erle C. *Anthropocene: A Very Short Introduction*. Oxford University Press, 2018.

## Readings available on Canvas:

- Adriano-Morán, Carmen Cristina, and Emily McClung de Tapia  
2008 Trees and shrubs: the use of wood in prehispanic Teotihuacan. *Journal of Archaeological Science* 35(11):2927–2936. DOI:10.1016/j.jas.2008.06.001.
- Banning, Edward Bruce  
2002 *Archaeological Survey*. Springer Science + Business Media, New York.
- Barry, John  
1999 Environment, Nature and the Nonhuman. In *Environment and Social Theory*, pp. 11–29. Routledge, London.
- Biskowski, Martin  
2017 Staple food preparation at Teotihuacan. *Archaeological and Anthropological Sciences* 9(1):29–38.

- Braje, Todd J.  
2015 Earth Systems, Human Agency, and the Anthropocene: Planet Earth in the Human Age. *Journal of Archaeological Research* 23(4):369–396.  
2018 The Anthropocene as Process: Why We Should View the State of the World through a Deep Historical Lens. *Revista de Estudos e Pesquisas Avançadas do Terceiro Setor* 1:04–19.
- Braje, Todd J, and Jon M Erlandson  
2013 Looking forward, looking back: humans, anthropogenic change, and the Anthropocene. *Anthropocene* 4:116–121.
- Braje, Todd J., Jon M. Erlandson, C Melvin Aikens, Tim Beach, Scott Fitzpatrick, Sara Gonzalez, Douglas J Kennett, Patrick V Kirch, Gyoung-Ah Lee, Kent G Lightfoot, Sarah B McClure, Lee M Panich, Torben C Rick, Anna C Roosevelt, Tsim D Scheider, Bruce Smith, and Melinda A Zeder  
2014 An Anthropocene Without Archaeology—Should We Care. *The SAA Archaeological Record*:26–29.
- Brannen, Peter  
2019a The Anthropocene Is a Joke. *The Atlantic*, August 13.  
2019b What Made Me Reconsider the Anthropocene. *The Atlantic*, October 11.
- Buck, Holly Jean  
2015 On the Possibilities of a Charming Anthropocene. *Annals of the Association of American Geographers* 105(2):369–377.
- Corlett, Richard T  
2015 The Anthropocene concept in ecology and conservation. *Trends in Ecology & Evolution* 30(1):36–41.
- Crutzen, Paul J., and Eugene F. Stoermer  
2000 The “Anthropocene.” *IGBP Newsletter* 41:17–18.
- Davis, Heather, and Zoe Todd  
2016 On the Importance of a Date, or Decolonizing the Anthropocene. *Acme: An International Journal for Critical Geographies*:761–780.
- Ellis, Erle C, Jed O Kaplan, Dorian Q Fuller, Steve Vavrus, Kees Klein Goldewijk, and Peter H Verburg  
2013 Used planet: A global history. *Proceedings of the National Academy of Sciences* 110(20):7978–7985.
- Ellis, Erle C., Lucas Stephens, et al.  
2019 Archaeological assessment reveals Earth’s early transformation through land use. *Science* 365(6456):897–902.
- Ellis, MA, and Z Trachtenberg  
2014 Which Anthropocene is it to be? Beyond geology to a moral and public discourse. *Earth’s Future*.
- Foley, Stephen F, Detlef Gronenborn, Meinrat O Andreae, Joachim W Kadereit, Jan Esper, Denis Scholz, Ulrich Pöschl, Dorrit E Jacob, Bernd R Schöne, Rainer Schreg, Andreas Vött, David Jordan, Jos Lelieveld, Christine G Weller, Kurt W Alt, Sabine Gaudzinski-Windheuser, Kai-Christian Bruhn, Holger Tost, Frank Sirocko, and Paul J Crutzen  
2014 The Palaeoanthropocene – The beginnings of anthropogenic environmental change. *Anthropocene*:1–6.
- Hoffman, Richard C.  
2007 Footprint Metaphor and Metabolic Realities: Environmental Impacts of Medieval

- European Cities. In *Natures Past: The Environment and Human History*, pp. 288–325. The University of Michigan Press, Ann Arbor, MI.
- Kaplan, Jed O.  
2018 The Importance of Reference Frame (comment on: The Anthropocene Divide: Obscuring Understanding of Social-Environmental Change). *Current Anthropology* 59(2):217–218.
  - Kaplan, Jed O., Kristen M. Krumhardt, Erle C. Ellis, William F. Ruddiman, Carsten Lemmen, and Kees Klein Goldewijk  
2010 Holocene carbon emissions as a result of anthropogenic land cover change. *The Holocene* 21(5):775–791. DOI:10.1177/0959683610386983.
  - Kirch, Patrick V.  
1997 Microcosmic histories: island perspectives on “global” change. *American Anthropologist* 99(1):30–42.  
2007 Three islands and an archipelago: reciprocal interactions between humans and island ecosystems in Polynesia. *Earth and Environmental Science Transactions of the Royal Society of Edinburgh* 98(01):85–99.
  - Klein Goldewijk, Kees, Arthur Beusen, Gerard Van Dreht, and Martine De Vos  
2011 The HYDE 3.1 spatially explicit database of human-induced global land-use change over the past 12,000 years. *Global Ecology and Biogeography* 20(1):73–86.
  - Koch, Alexander, Chris Brierley, Mark M Maslin, and Simon L Lewis  
2019 Earth system impacts of the European arrival and Great Dying in the Americas after 1492. *Quaternary Science Reviews* 207:13–36.
  - Lewis, Simon L, and Mark A Maslin  
2015 Defining the Anthropocene. *Nature* 519(7542):171–180.
  - Meyer, Robinson  
2018 Geology’s Timekeepers Are Feuding. *The Atlantic*.
  - Millon, Rene  
1970 Teotihuacan: completion of map of giant ancient city in the Valley of Mexico. *Science* 170(3962):1077–1082.
  - Moore, Jason W.  
2017 The Capitalocene, Part I: on the nature and origins of our ecological crisis. *The Journal of Peasant Studies* 44(3):594–630.
  - Morrison, Kathleen D.  
2015 Provincializing the Anthropocene. *Seminar* 673:75–80.
  - Reindel, M.  
2009 Life at the edge of the desert—archaeological reconstruction of the settlement history in the valleys of Palpa, Peru. *New Technologies for Archaeology*:439–461.
  - Roberts, Neil  
2014 *The Holocene: An Environmental History*. 3rd ed. Wiley-Blackwell.  
2019 How humans changed the face of Earth. *Science* 365(6456):865–866.
  - Ruddiman, William F.  
2013 The Anthropocene. *Annual Review of Earth and Planetary Sciences* 41(1):45–68.  
2019 Reply to Anthropocene Working Group responses. *Progress in Physical Geography: Earth and Environment* 43(3):345–351.
  - SAFEBOR  
Santa Fe River Bill of Rights (SAFEBOR). <https://safebor.org/>.

- Smith, Anna V.  
2019 The Klamath River now has the legal rights of a person. *High Country News*, September 24.
- Smith, Bruce D., and Melinda A. Zeder  
2013 The onset of the Anthropocene. *Anthropocene* 4:8–13.
- Steffen, W, J Grinevald, P Crutzen, and J McNeill  
2011 The Anthropocene: conceptual and historical perspectives. *Philos Trans A Math Phys Eng Sci* 369(1938):842–867.
- Swirko, Cindy  
2019 Santa Fe advocates launch new strategy. *Gainesville Sun*, July 30.
- Walker, Mike, Phil Gibbard, and John Lowe  
2015 Comment on “When did the Anthropocene begin? A mid-twentieth century boundary is stratigraphically optimal” by Jan Zalasiewicz et al. (2015), *Quaternary International*, doi.org/10.1016/j.quaint.2014.11.0450. *Quaternary International*:1–4.
- Wing, Scott L, Jan Zalasiewicz, Colin N Waters, John McNeill, Will Steffen, Erle C Ellis, Naomi Oreskes, Michael Wagreich, Daniel DeB. Richter, Colin Summerhayes, Peter Haff, William Shotyk, An Zhisheng, Anthony D Barnosky, Alejandro Cearreta, M. Edgeworth, P L Gibbard, J Grinevald, Martin J Head, Catherine Jeandel, Reinhold Leinfelder, Neil Rose, and Mark Williams  
2019 Letters: ‘The Anthropocene Epoch Is Not Hubris.’ *The Atlantic*.
- Zalasiewicz, Jan, Colin N Waters, Martin J Head, Clément Poirier, Colin P Summerhayes, Reinhold Leinfelder, Jacques Grinevald, Will Steffen, Jaia Syvitski, Peter Haff, John R McNeill, Michael Wagreich, Ian J Fairchild, Daniel D Richter, Davor Vidas, Mark Williams, Anthony D Barnosky, and Alejandro Cearreta  
2019 A formal Anthropocene is compatible with but distinct from its diachronous anthropogenic counterparts: a response to W.F. Ruddiman’s ‘three flaws in defining a formal Anthropocene.’ *Progress in Physical Geography: Earth and Environment* 43(3):319–333.
- Zalasiewicz, Jan, Colin N Waters, Mark Williams, Anthony D Barnosky, Alejandro Cearreta, Paul Crutzen, Erle Ellis, Michael A Ellis, Ian J Fairchild, Jacques Grinevald, Peter K Haff, Irka Hajdas, Reinhold Leinfelder, John McNeill, Eric O Odada, Clément Poirier, Daniel Richter, Will Steffen, Colin Summerhayes, James P M Syvitski, Davor Vidas, Michael Wagreich, Scott L Wing, Alexander P Wolfe, An Zhisheng, and Naomi Oreskes  
2015 When did the Anthropocene begin? A mid-twentieth century boundary level is stratigraphically optimal. *Quaternary International* 383:196–203.

## University Policies:

### Attendance Policy, Class Expectations, and Make-Up Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: [catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/](http://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/)

### Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

## Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via [ufl.bluer.com/ufl/](https://ufl.bluer.com/ufl/). Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

## 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/scsr/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.

## Campus Resources:

### Health and Wellness

**U Matter, We Care:** If you or someone you know is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu), 352-392-1575, or visit [umatter.ufl.edu/](https://umatter.ufl.edu/) to refer or report a concern and a team member will reach out to the student in distress.

**Counseling and Wellness Center:** Visit [counseling.ufl.edu/](https://counseling.ufl.edu/) or call 352-392-1575 for information on crisis services as well as non-crisis services.

**Student Health Care Center:** Call 352-392-1161 for 24/7 information to help you find the care you need, or visit [shcc.ufl.edu/](https://shcc.ufl.edu/).

**University Police Department:** Visit [police.ufl.edu/](https://police.ufl.edu/) or call 352-392-1111 (or 9-1-1 for emergencies).

**UF Health Shands Emergency Room / Trauma Center:** For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [ufhealth.org/emergency-room-trauma-center](https://ufhealth.org/emergency-room-trauma-center).

### Academic Resources

**E-learning technical support:** Contact the UF Computing Help Desk at 352-392-4357 or via e-mail [athelpdesk@ufl.edu](mailto:athelpdesk@ufl.edu).

**Career Connections Center:** Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services [career.ufl.edu/](https://career.ufl.edu/).

**Library Support:** [cms.uflib.ufl.edu/ask](https://cms.uflib.ufl.edu/ask) various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center:** Broward Hall, 352-392-2010 or to make an appointment 352-392-6420.

**General study skills and tutoring:** [teachingcenter.ufl.edu/](https://teachingcenter.ufl.edu/) Writing Studio: 2215 Turlington Hall, 352-846-1138.

**Help brainstorming, formatting, and writing papers:** [writing.ufl.edu/writing-studio/](https://writing.ufl.edu/writing-studio/)

**Student Complaints:** [scsr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/](https://scsr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/)