

**Anthropology 4E03
Archaeology of Climate Change and Culture**

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Office hours: Office hours: Tuesday 1:30-2:30, or by appointment

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Classes: Friday 2:30-5:20, Room KTH 105

This course will examine the implications of major past climate change events on the archaeological histories of cultures worldwide. We will look at the ways in which climate-based interpretations are made and disputed within archaeology. We will also address the evidential basis for the timing, nature and extent of climate change events and for interpreting culture histories as their direct result.

Grading:

Article overviews (6 @ 5% each)	- 30%
In-class discussions and presentations	- 10%
Review paper	- 20%
Final paper	- 40%

Article overviews: will require each student to find and briefly describe the focus and content of six published articles on climate change and its effects on archaeologically known cultures. These will include two for each of the major case studies examined throughout the course. One of the articles will address the timing, cause, or evidence for the climate change event in some particular region(s) of the world. The other will argue for or against the implications of that event for some particular culture(s). A template for the overviews will be provided. Each must include a full citation and a brief argument for why the article would or would not be suitable for class reading and discussion. The overviews must be posted on Avenue to Learn prior to the class in which readings for the case study are determined. The articles you each select for the overviews must not have been selected by another student.

Readings, in-class discussions and presentations: points will be awarded for: 1) submission of written comments on assigned readings, 2) your presence and participation in discussions for the selection of articles for reading and discussion, and 3) presentation of a report on your final paper project.

Review paper: will consist of a critical review of claims regarding the implications of one of the three global climate change events examined in the course for one particular culture or region. The focus will be on the evaluation and comparison of claims for and against the role of climate in culture change. A more detailed outline of this assignment will be provided.

Final paper: will be a comprehensive comparative analysis of the implications of any example of global climate change for archaeological histories and long-term culture change in two or more parts of the world. The paper will include an overview of the climate event and archaeological case studies, an assessment of the basis of claims and counter-arguments for climate-based influence on culture history, and an analysis of the effects on the cultures in question. The paper should also address the broader implications of a focus on climate to understand and explain past culture histories, and should consider whether this focus on climate and its effects in the past has any potential for informing responses to current and future climate change events. A more detailed outline of this assignment will be provided.

Penalties will apply for all late and missed assignments unless an MSAF is filed.

SCHEDULED TOPICS AND ASSIGNED READINGS

- Jan. 10** - Introduction: Connecting climate change and culture archaeologically.
- Jan. 17** - Global climate change and archaeology, three examples.
READING: Bar-Yosef et al 2017, Fitzpatrick 2010, 2011, Nunn and Hunter-Anderson 2011, Weiss 2017.
- Jan. 24** - Environmental determinism.
READING: Arponen et al. 2019.
- Jan. 31** - The Younger-Dryas: Causes, timing and evidence.
READING: To be determined in class Jan 24.
- Feb. 7** - The Younger-Dryas: The archaeology of cultural consequences.
READING: To be determined in class Jan 24.
- Feb. 14** - The 4.2 kya event: Causes, timing and evidence.
READING: To be determined in class Feb. 7.
- Feb. 21** - Mid-term recess.
- Feb. 28** - The 4.2 kya event: The archaeology of cultural consequences.
READING: To be determined in class Feb. 7.
- March 6** - El Niño Southern Oscillation (ENSO).
READING: Richardson and Sandweiss 2008, Wilkerson 2008.
- March 13** - Medieval Warm Period/Little Ice Age (MWP/LIA): Causes, timing and evidence.
READING: To be determined in class March 6.
- March 20** - Medieval Warm Period/Little Ice Age: The archaeology of cultural consequences.
READING: To be determined in class March 6.
- March 27** - Research Reports.
- April 3** - Research Reports.

READINGS

Arponen, V.P.J., Walter Dörfler, Ingo Feeser, Sonja Grimm, Daniel Groß, Martin Hinz, Daniel Knitter, Nils Müller-Scheeßel, Konrad Ott, and Artur Ribeiro
2019 Environmental determinism and archaeology. Understanding and evaluating determinism in research design. (Plus Comments) *Archaeological Dialogues* 26:1–26.

Bar-Yosef, Ofer, Miriam Bar-Matthews and Avner Ayalon

2017 12,000-11,700 BP: The Collapse of Foraging and Origins of Cultivation in Western Asia. In *Megadrought and Collapse: From Early Agriculture to Angkor*, edited by Harvey Weiss, pp. 33-67. Oxford: Oxford University Press.

Fitzpatrick, Scott M.

2010 A Critique of the 'AD 1300 Event', with Particular Reference to Palau. *Journal of Pacific Archaeology* 1:168-173.

Fitzpatrick, Scott M.

2011 Defending the Defensible or Offending the Sensible? A Response to Nunn & Hunter-Anderson. *Journal of Pacific Archaeology* 2:100-105.

Nunn, Patrick D. and Rosalind Hunter-Anderson

2011 Defending the Defensible: A Rebuttal of Scott Fitzpatrick's (2010) Critique of the AD 1300 Event Model with Particular Reference to Palau. *Journal of Pacific Archaeology* 2:92-99.

Richardson, James B. and Daniel H. Sandweiss

2008 Climate Change, El Niño, and the Rise of Complex Society on the Peruvian Coast during the Middle Holocene. In *El Niño, Catastrophism, and Culture Change in Ancient America*, edited by Daniel H. Sandweiss and Jeffrey Quilter, pp. 59-75. Washington, D.C.: Dumbarton Oaks.

Weiss, Harvey

2017 4.2 ka BP Megadrought and the Akkadian Collapse. In *Megadrought and Collapse: From Early Agriculture to Angkor*, edited by Harvey Weiss, pp. 93-159. Oxford: Oxford University Press.

Wilkerson, S. Jeffrey K.

2008 *And the Waters Took Them: Catastrophic Flooding and Civilization on the Mexican Gulf Coast*. In *El Niño, Catastrophism, and Culture Change in Ancient America*, edited by Daniel H. Sandweiss and Jeffrey Quilter, pp. 243-271. Washington, D.C.: Dumbarton Oaks.

University Policies

Academic Integrity Statement

You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process.

Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at [Academic Integrity](#).

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one’s own or for which credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

Academic Accommodation of Students with Disabilities

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information, consult McMaster University’s Policy for [Academic Accommodation of Students with Disabilities](#).

Religious, Indigenous and Spiritual Observances (RISO)

The University recognizes that, on occasion, the timing of a student’s religious, Indigenous, or spiritual observances and that of their academic obligations may conflict. In such cases, the University will provide reasonable academic accommodation for students that is consistent with the Ontario Human Rights Code. Please review the [RISO information for students in the Faculty of Social Sciences](#) about how to request accommodation.

Faculty of Social Sciences E-mail Communication Policy

Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including TAs), and from students to staff, must originate from the student’s own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student’s responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

Privacy Protection

In accordance with regulations set out by the Freedom of Information and Privacy Protection Act, the University will not allow return of graded materials by placing them in boxes in departmental offices or classrooms so that students may retrieve their papers themselves; tests and assignments must be returned directly to the student. Similarly, grades for assignments for courses may only be posted using the last 5 digits of the student number as the identifying data. The following possibilities exist for return of graded materials:

1. Direct return of materials to students in class;
2. Return of materials to students during office hours;
3. Students attach a stamped, self-addressed envelope with assignments for return by mail;
4. Submit/grade/return papers electronically.

Arrangements for the return of assignments from the options above will be finalized during the first class.

Course Modification

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check his/her McMaster email and course websites weekly during the term and to note any changes.

McMaster Student Absence Form (MSAF)

In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar "Requests for Relief for Missed Academic Term Work". Please note these regulations have changed beginning Spring/Summer 2015.