# The Roots of the Anthropocene

Topics in Anthropology

ANTH 399.8 Fall 2021 Syllabus

• WEB Based: Asynchronous/Optional Hybrid Format Department of Anthropology and Archaeology Dr. Matthew Walls

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TA: TBD



The Yellow River – Water Album, Ma Yuan Song Dynasty (1160-1225 AD)

Section	Days	Time	Format
Lecture	Asynchronous	Released	D2L – Video/Interactive content +
		T/TR 14:00	notes & readings
Optional	Thursdays 14:0	00-15:15	Zoom
Tutorial/Discussion	· ·		
Office Hours	Wednesdays 13	3:00- 14:00	By Appointment
TA Office hours	TBD		

Overview: This course examines relationships between humans and earth systems from the combined perspectives of anthropology, archaeology, and paleoecology. The class is designed to be accessible for any student with interest in the environment, and there are no prerequisites. Subject matter focuses on the long term, and specifically on contexts where the actions of past communities structure environmental processes that we take for granted in the present as "natural". The first of the course part focuses on environmental philosophy and will engage the concept of the Anthropocene, which has emerged as a central topic in the environmental sciences. Students will trace the development of the concept in reference to the assumed division of nature and culture that is embedded in most western trajectories of environmental thought. We will assess the question of "when?" the Anthropocene begins, and consider archaeological and paleoecological objections to the assumption that human impact in earth systems is a recent phenomenon. The second part of the course will consist of three case studies of environmental processes that have deep human histories that stretch back to the Paleolithic. This year, case studies will include: 1) The sediment load and flooding of the Huang He/Yellow River, China, 2) anthropogenic soils and global impact of Amazonian "dark earths", and 3) anthropogenic fire and biodiversity in the Mesolithic and Neolithic of Central Europe. The final part of the course turns to the present, and we will adopt a "cybernetic" perspective towards diversity in human-environment systems and global change. We will differentiate between runaway systems, which are not responsive and careen between inner contradictions, and creative systems where biodiversity and other stabilities grow around responsive human behaviours.

## **Learning Outcomes:**

- 1) Develop a comprehensive knowledge of the concept of the Anthropocene and its links to trajectories of environmental thought
- 2) Examine case studies of environmental processes that have been shaped by human actions since the Paleolithic
- 3) Build an understanding of the deep history of human agency in environmental processes, and why it matters in contemporary environmental crises

Prerequisites: None

Format: The course will follow an asynchronous/optional hybrid format. Each week, there will be recorded lectures which will be available through D2L, according to scheduled timeslot for this course (T/TR 14:00-15:15). Each lecture will be paired with complementary readings/web-based interactive material, and I will post a PDF of essential notes. Testable material in this course will include any material covered in the lectures or readings, and I will use the essential notes to highlight sections that are particularly relevant.

There will be a tutorial/discussion session hosted by the TA that will run on Thursdays from 14:00-15:00. In these sessions, topics will be clarified, D2L discussions addressed, and covered material will be discussed. The tutorial session is strictly optional and attendance will not be tracked. You may also utilize office hours or book an appointment for direct communication and help from the instructor.

A lecture and readings schedule, along with course updates, will be available through Desire2Learn (D2L). To make sense of content, students are strongly advised to do the assigned readings prior to watching the lecture.

Course Readings: There is <u>no</u> course textbook <u>but</u> there will be required readings and articles. All assigned readings are either available through digital access via the University of Calgary Library, or access will be made available through D2L. Students are expected to retrieve and do the posted readings <u>before</u> the lecture, and part of the course mark will consist of an annotated bibliography of these readings, as described below. For each lecture, there will be 2-3 peer reviewed articles assigned.

**Required Learning Technologies:** In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology.

- A computer/adequate software and malware
- A current and updates web browser
- Webcam (built in or external)
- Microphone and speaker (built in or external) or headset with microphone
- Broadband internet connection

### **Course Requirements/Marks:**

Quiz 1	The Anthropocene	Sept 23	15%
Quiz 2	The Yellow River	Oct 14	20%
Quiz 3	Amazonia	Nov 4	20%
Quiz 4	Anthropogenic Fire	Nov 25	20%
Annotated	Bibliography	Cumulative	15%
Cybernetic	Futures Assignment	Dec 7	10%

Quiz: The quiz questions will be drawn from the lecture, course readings and from films/interactive media in class. Each quiz may consist of multiple choice, short answer, long answer, and mapping questions that will utilize Google Earth Engine. Quizzes will be non-cumulative and administered via D2L. Quizzes are not open book/open browser, and students are expected to study and prepare before taking the quiz. Before each scheduled quiz, a review sheet will be posted to D2L.

Annotated Bibliography: Students must produce a half-page, single spaced, annotation for at least 15 of the assigned readings. Each annotation will be worth 1% (up to 15% of the total course mark). To receive full marks, each annotation must include a brief summary of the article's argument, its evidence, and broader implications. The annotated bibliography is cumulative and will be handed in by December 7 via D2L. Students are strongly advised to work on the bibliography in coordination with the progression of lectures. A rubric and discussion of annotation goals will be introduced in the first lectures.

<u>Cybernetics Futures:</u> This will consist of a short writing assignment (no more than 5 pages) on topics addressed in the final section of the course, where we will look at the Anthropocene as a cybernetic phenomenon. Details of the assignment will be released in class.

\*Online Quiz policy: Quizzes and exams are designed to be completed in 50 minutes, but students can use an additional 50% of that time (75 minutes in total) to allow for any technical issues that arise. If students experience technical issues at any point during the exam, please contact the instructor and a solution will be found. Students will be able to sit the quiz or exam on their own time within a 72-hour period following the opening dates referred to above and in the attached schedule. During the 72-hour exam period, special zoom office hours with the instructor or TA will be held to address any issues.

**Policy for Late Work/Missed exams or quizzes:** If you know you will miss an important date, or need an extension for written work, get in touch with me prior to the relevant date. In the event of extraordinary circumstances, such as illness, students will have access to extensions. Please refer to https://www.ucalgary.ca/registrar/registration/appeals/student-faq for frequently asked questions. See Supporting Documentation in the Supplemental Information section below for further information.

**Email Policy:** PLEASE include the word ANTH 399 in the title of any email messages to the Instructor or TA. Please keep messages as concise as possible, and we will try to respond within 2 workings days. If you are unable to attend the scheduled office hours, but would still like to speak with me, we can schedule an appointment.

**Grading Scheme:** We will be following the Department of Anthropology and Archaeology's standard scheme.

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A+	95 – 100%	В	75 – 79.9%	C-	59 – 62.9%
Α	90 – 94.9%	B-	71 – 74.9%	D+	55 – 58.9%
A-	85 – 89.9%	C+	67 – 70.9%	D	50 – 54.9%
B+	80 – 84.9%	С	63 – 66.9%	F	< 50%

**Course Schedule:** The readings list, key dates, and lecture schedule will be posted and regularly updated on D2L. The schedule and readings attached to this document are tentative and will be updated.

# **Topic Schedule:**

Date/Lecture	Topic
PART I	What is the Anthropocene?
Sept 7	Introduction
Sept 9	The Separation of Nature and Culture in Environmental Thought
Sept 14	The Old and New Ecologies
Sept 16	The Concept of the Anthropocene
Sept 21	Before/After: When does the Anthropocene Start?
Sept 23	Quiz 1 Released: The Anthropocene
PART II	Case Study 1: Huang Hu/The Yellow River
Sept 28	Yellow River Flood Dynamics and Sediment Load
Sept 30	Paleolithic to Bronze Age: Changing land practices and erosion
Oct 5	Levees and Political Power since the Xia Dynasty
Oct 7	Famous Floods and the Historical Development of States to the Present

Oct 12	Film/Guest Lecture	
Oct 14	Quiz 2 Released: The Yellow River	
	Case Study 2: Amazonian Land Practices and Global Impact	
Oct 19	Pedogenesis and the anthropogenic development of dark earths in Amazonia	
Oct 21	Earth mound communities and the wide scale management practices since early agriculture	
Oct 26	Garden Cities and the Rainforest as a Managed Environment	
Oct 28	Colonial visions of Amazonia as pristine wilderness	
Nov 2	New theories on the global impact of genocide and the cessation of Amazonian land practices in the early colonial period	
Nov 4	Quiz 3 Released: Amazonia	
	Case Study 3: Anthropogenic Fire in the Early Holocene of Central Europe	
Nov 16	Fire as a land management tool: ethnographic contexts	
Nov 18	The Pleistocene/Holocene transition in Central Europe	
Nov 23	Paleoecological observations and dynamic communities and changing practices in the Neolithic/Bronze Age	
Nov 25	Quiz 4 Released: Anthropogenic Fire	
Part III	Cybernetics and Creative Systems	
Nov 30	The case of mesofication in North American and European forests – Cybernetic Futures Assignment released	
Dec 2	Cybernetic perspectives in retrospect	
Dec 7	Runaway versus Creative Systems	
Dec 7	Cybernetics Assignment Due. Cumulative Annotated Bibliography should be completed.	

<sup>\*</sup>The complete readings list and bibliographic details will be available and updated through D2L

### **SUPPLEMENTAL INFORMATION**

#### PRINCIPLES OF CONDUCT

The University Calendar includes a statement on the principles of conduct expected of all members of the university community (including students, faculty, administrators, any category of staff, practicum supervisors, and volunteers), whether on or off university property. This statement applies in all situations where members of the university community are acting in their university capacities. All members of the university community have a responsibility to familiarize themselves with the principles of conduct statement, which is available at: <a href="www.ucalgary.ca/pubs/calendar/current/k.html">www.ucalgary.ca/pubs/calendar/current/k.html</a>. Students should also familiarize themselves with University policies regarding non-academic misconduct: <a href="https://www.ucalgary.ca/legal-services/university-policies-procedures/student-non-academic-misconduct-policy">https://www.ucalgary.ca/legal-services/university-policies-procedures/student-non-academic-misconduct-policy</a>

#### PLAGIARISM, CHEATING, AND STUDENT MISCONDUCT

The University of Calgary is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect.

Academic dishonesty is not an acceptable activity at the University of Calgary, and students are **strongly advised** to read the Student Misconduct section in the University Calendar at: <a href="https://www.ucalgary.ca/pubs/calendar/current/k-3.html">www.ucalgary.ca/pubs/calendar/current/k-3.html</a>. Often, students are unaware of what constitutes academic dishonesty or plagiarism. The most common are (1) presenting another student's work as your own, (2) presenting an author's work or ideas as your own without adequate citation, and (3) using work completed for another course. Such activities will not be tolerated in this course, and students suspected of academic misconduct will be dealt with according to the procedures outlined at:

 $\underline{https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-procedure}$ 

For students wishing to know more about what constitutes plagiarism and how to properly cite the work of others, the Department of Anthropology and Archaeology recommends that they attend Academic Integrity workshops offered through the Student Success Centre: <a href="https://www.ucalgary.ca/student-services/student-success/learning/academic-integrity">https://www.ucalgary.ca/student-services/student-success/learning/academic-integrity</a>

#### SUPPORTING DOCUMENTATION

Students may be asked to provide supporting documentation for an exemption/special request. This may include, but is not limited to, a prolonged absence from a course where participation is required, a missed course assessment, a deferred examination, or an appeal. Students are encouraged to submit documentation that will support their situation. Supporting documentation may be dependent on the reason noted in their personal statement/explanation provided to explain their situation. This could be medical certificate/documentation, references, police reports, invitation letter, or a statutory declaration, etc. The decision to provide supporting documentation that best suits the situation is at the discretion of the student. Students cannot be required to provide specific supporting documentation, such as a medical note.

Students can make a Statutory Declaration as their supporting documentation (available at ucalgary.ca/registrar). This requires students to make a declaration in the presence of a Commissioner for

Oaths. It demonstrates the importance of honest and accurate information provided and is a legally binding declaration. Several registered Commissioners for Oaths are available to students at no charge, on campus, please see ucalgary.ca/registrar.

Falsification of any supporting documentation will be taken very seriously and may result in disciplinary action through the Academic Discipline regulations or the Student Non-Academic Misconduct policy.

#### FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY

Freedom of Information and Protection of Privacy (FOIP) legislation in Alberta disallows the practice of having students retrieve assignments from a public place, such as outside an instructor's office, the department office, etc. Term assignments will be returned to students individually, during class or during the instructor's office hours; if students are unable to pick up their assignments from the instructor, they must provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

#### **GUIDELINES FOR ZOOM SESSIONS**

Zoom is a video conferencing program that will allow us to meet at specific times for a "live" video conference, so that we can have the opportunity to meet each other virtually and discuss relevant course topics as a learning community.

To help ensure Zoom sessions are private, do not share Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published with the instructor's permission.

The use of video conferencing programs relies on participants to act ethically, honestly and with integrity; and in accordance with the principles of fairness, good faith and respect (as per the <u>Code of Conduct</u>). When entering Zoom or other video conferencing sessions (such as MS Teams), you play a role in helping create an effective, safe and respectful learning environment. Please be mindful of how your behavior in these sessions may affect others. Participants are required to us names officially associated with their UCID (legal or preferred names listed in the Student Centre) when engaging in these activities. Instructors/moderators can remove those whose names do not appear on class rosters. Non-compliance may be investigated under relevant University of Calgary conduct policies (e.g. Student Non Academic Misconduct Policy). If participants have difficulties complying with this requirement, they should email the instructor of the class explaining why, so the instructor may consider whether to grant an exception, and on what terms. For more information on how to get the most out of your Zoom sessions visit: https://elearn.ucalgary.ca/guidelines-for-zoom/.

#### ACADEMIC ACCOMMODATIONS

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit <a href="https://live-ucalgary.ucalgary.ca/student-services/access">https://live-ucalgary.ucalgary.ucalgary.ca/student-services/access</a>. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor or the Department Head. The

full policy on Student Accommodations is available at <a href="https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure.">https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure.</a>

#### ACADEMIC MISCONDUCT

"Academic Misconduct" includes such things as cheating, falsification, plagiarism, unauthorized assistance, and failure to comply with exam regulations or an Instructor's expectations regarding conduct required of Students completing academic assessments. Students who participate in, or encourage the commission of, Academic Misconduct will be subject to disciplinary action which could include Probation, Suspension, or Expulsion from the University. For information on academic misconduct and its consequences, please see the University of Calgary Calendar at <a href="https://www.ucalgary.ca/pubs/calendar/current/k-3.html">https://www.ucalgary.ca/pubs/calendar/current/k-3.html</a>

Further support on academic integrity is available at: <a href="https://ucalgary.ca/student-services/student-success/learning/academic-integrity">https://ucalgary.ca/student-services/student-success/learning/academic-integrity</a>

#### INSTRUCTOR INTELLECTUAL PROPERTY

Course materials created by professor(s) (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the professor(s). These materials may NOT be reproduced, redistributed or copied without the explicit consent of the professor. The posting of course materials to third party websites such as notesharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

#### FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

#### **COPYRIGHT LEGISLATION**

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (<a href="https://ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy">https://ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy</a>) and requirements of the copyright act (<a href="https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html">https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html</a>) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks, etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

#### **SUPPORT AND RESOURCES:**

Please visit the Registrar's website at: <a href="https://www.ucalgary.ca/registrar/registration/course-outlines">https://www.ucalgary.ca/registrar/registration/course-outlines</a> for additional important information on the following:

- Emergency Evacuation/Assembly Points
- Wellness and Mental Health Resources
- Student Success Centre
- Student Ombuds Office
- Student Union (SU) Information

• Safewalk