

# History of Agriculture

HI 340-001

*Department of History  
North Carolina State University  
Spring Semester 2020*

*Tuesday–Thursday, 3:00–4:15pm  
110 Winston Hall*

## Instructor

Dr. Tate Paulette  
Office location: 460 Withers Hall  
Office hours: Monday 2:00–5:00pm (or by appointment)  
Email: tatepaulette@ncsu.edu  
Phone: 919-513-2216

## Catalog Description

An introduction to the history of agriculture from a global perspective. The course explores our evolving relationship with plants and animals, including the earliest experiments in domestication and husbandry, short- and long-term developmental trajectories, local- and global-scale patterns, and coverage of diverse places and times. Themes include agricultural practices, food systems, landscape transformations, technological innovations, social and political organization, inequality, exploitation, food security, and sustainability.

Credit hours: 3  
Prerequisites: None  
GEP category: Humanities  
GEP co-requisite: Global Knowledge

## Course Overview

At your next meal, take a moment to consider the history of the food you're about to consume. Think about the long process of evolution that gave rise to the plants and (if applicable) animals that appear on your plate, and think about the complex, often global, systems of food production and distribution that have brought these foods to your table. These food systems have a deep history that reaches back thousands of years into the time before writing, before cities, before towns. This is the history of agriculture. It is a history of innovation, experiment, creativity, and persistence but also a history of inequality, expropriation, crisis, and desperation. The history of agriculture is the story of how humans in different parts of the world developed special, symbiotic relationships with particular plants and animals in order to transform them into food, clothing, and other necessities (and luxuries). It is also the story of a radical reworking of the earth's surface and of a long-term process of selection and environmental engineering that has reduced the diversity and resilience of the world's ecosystems. Jared Diamond famously called agriculture "the worst mistake in the history of the human race." Whether you agree with this statement or not, there can be no doubt that our world is now built on a backbone of agriculture and could not be sustained in its present form without it.

This lecture- and discussion-based course provides an introduction to the history of agriculture in global perspective. The course is organized around a series of big questions. We will explore each of these questions (broken down into sub-topics) by engaging with case studies drawn from diverse places and times.

## Expectations

You are expected to attend all course meetings, to complete all of the assigned readings prior to each course meeting, to complete all written assignments by the designated due date / time, and to contribute actively to in-class discussions and activities. You are also expected to be respectful toward your fellow students and the instructor and to abide by the Code of Student Conduct.

## Readings

There is no textbook for the course. All readings will be posted on Moodle. All readings should be completed before class on the day indicated (see schedule below).

## Assessment

Domestication Case Study (*Response paper due 1/20, 11:59pm; in-class presentation 1/21*)

The class will be divided into six groups. Each group will be assigned a different set of chapters from the Mithen 2013 reading (see Readings below). The class will be provided with a set of 3 general questions. Each student will be expected to submit a brief, informal response paper (at least 600 words in length) that answers these questions using the assigned chapters by 11:59pm on January 20. During class on January 21, each group will present a brief oral presentation that answers the same questions, accompanied by a PowerPoint presentation (at least six slides). Group members are expected to coordinate outside of class in order to plan the presentation, create the PowerPoint presentation, determine who will answer each question, etc. All group members must take part in the oral presentation. Each group should upload a single PowerPoint file (.ppt or .pptx) to Moodle by 11:59pm on January 20.

Oral History Project (*Interview due 2/27, 11:59pm; podcast due 4/16, 11:59pm; in-class presentation 4/21-23*)

During the first half of the semester, each student will be asked to conduct an oral interview (at least 20 minutes in length) that explores some facet (or facets) of the history of agriculture. The audio from the interview must be recorded and uploaded to Moodle by 11:59pm on February 27. You should interview someone who has direct personal experience with the field of agriculture, whether in a professional, academic, or household setting. For example, you might choose to interview a relative who has worked or lived on a farm for an extended period of time, a farm owner or farm worker encountered at a local farmer's market, or a professor who has been engaged in breeding, fertilizer development, agricultural extension, etc. You are free to discuss any topic(s) that you like, as long as they engage with the history of agriculture in some fashion.

During the second half of the semester, the class will be randomly divided into groups of three. Each group will collaborate to produce a podcast (at least 20 minutes in length) that draws together and comments on selections from their three interviews. The podcast must be uploaded to Moodle as an audio file by 11:59pm on April 16. During class on April 21 and 23, each group will present and lead discussion about a portion of their podcast. The Final Exam will include a question that requires each student to listen to and comment on two of their classmates' podcasts.

Midterm Exam 1 (*due 2/13, 11:59pm*)

Midterm Exam 1 will be an open-book, take-home exam that asks you to answer Questions 1 and 2 (see schedule below) in the form of two short essays (at least 1000 words each). For each essay, you will be expected to make reference (with citations) to all of the associated assigned readings (i.e., the readings associated with the specific question that you are answering). You may also wish to draw on additional material from in-class lectures, videos, and discussions. The exam will be submitted via Moodle.

### Midterm Exam 2 (*due 3/19, 11:59pm*)

Midterm Exam 2 will be an open-book, take-home exam that asks you to answer Questions 3 and 4 (see schedule below) in the form of two short essays (at least 1000 words each). For each essay, you will be expected to make reference (with citations) to all of the associated assigned readings (i.e., the readings associated with the specific question that you are answering). You may also wish to draw on additional material from in-class lectures, videos, and discussions. The exam will be submitted via Moodle.

### Final Exam (*due 4/30, 11:59pm*)

The Final Exam will be an open-book, take-home exam that asks you to answer Questions 5, 6, and 7 (see schedule below) in the form of three short essays (at least 1000 words each). For each essay, you will be expected to make reference (with citations) to all of the associated assigned readings (i.e., the readings associated with the specific question that you are answering). You may also wish to draw on additional material from in-class lectures, videos, and discussions. The exam will also include a question that requires you to listen to and comment on two of their classmates' Oral History Project podcasts. The exam will be submitted via Moodle.

## Grading

### Assessment

Domestication Case Study	5%
Oral History Project	20%
Midterm Exam 1	20%
Midterm Exam 2	20%
Final exam	35%

### Grading Scale

A+	97.00 – 100%	C	73.00 – 76.99%
A	93.00 – 96.99%	C-	70.00 – 72.99%
A-	90.00 – 92.99%	D+	67.00 – 69.99%
B+	87.00 – 89.99%	D	63.00 – 66.99%
B	83.00 – 86.99%	D	60.00 – 62.99%
B-	80.00 – 82.99%	F	00.00 – 59.99%
C+	77.00 – 79.99%		

### Grading Rubric

A Excellent	Work of exceptional quality that satisfies all essential requirements and that demonstrates thorough knowledge of the subject matter, a nuanced appreciation for complex historical issues, and careful attention to detail.
B Good	Work of high quality that satisfies all essential requirements and that demonstrates knowledge of the subject matter, insight into complex historical issues, and accuracy.
C Satisfactory	Work of acceptable quality that fulfills all essential requirements.
D Passing	Work that does not meet acceptable standards of quality but still warrants credit for completion.

## Attendance

You are expected to be present and prepared for all class meetings. Attendance will be taken during each class meeting. If you come to class late, you will be marked absent unless you notify the instructor of your presence immediately following class. You will not be penalized for your first two unexcused absences. After two unexcused absences, each subsequent unexcused absence will decrease your final grade for the course by 1 percentage point.

All excused absences must be cleared with the instructor prior to class or, in the case of unanticipated absences, within one week of the absence. It is your responsibility to contact the instructor with the required documentation and to arrange for any necessary make-up work. Please see the NC State policy on attendance at the following website.

<https://policies.ncsu.edu/regulation/reg-02-20-03-attendance-regulations/>

## Late Assignments

Assignments submitted after the due date will result in an automatic reduction of 10 percentage points (i.e. one whole letter grade) per day late.

## Use of Online Sources

Your writing assignments may include references to online sources, subject to the following restrictions. You may *not* cite Wikipedia.org as a source. You may cite online books and academic journal articles, but these must be referenced as books and journal articles, not as websites. You may also cite web content hosted by academic institutions (web addresses usually end in .edu, .org, or .gov), but each citation must be accompanied by a footnote explaining why the source in question qualifies as a reputable academic source.

## Use of Laptop Computers and Tablets

You may use a laptop computer or tablet to take notes in class and to access the assigned readings, but this privilege may be revoked at any time (for the class as a whole) if it is being abused.

## Academic Integrity

Regardless of discipline, honest and rigorous scholarship is at the foundation of a Research I institution. Students are bound by the academic integrity policy as stated in NCSU Code of Student Conduct: <http://policies.ncsu.edu/policy/pol-11-35-01>. Students are required to uphold the university pledge of honor and exercise honesty in completing every assignment. Instructors may require students to write the Honor Pledge on every exam and assignment and to sign or type their name after the pledge ("I have neither given nor received unauthorized aid on this test or assignment."). Violations of academic integrity will result in referral to the Office of Student Conduct with a recommendation of a failing grade for the assignment.

## Writing and Speaking Tutorial Services

If writing is difficult for you, please visit the Writing and Speaking Tutorial Services to review drafts of assignments before they are due. The Service offers free one-on-one consultation with experienced tutors who can help with all levels and stages of writing. There are six locations around campus that offer drop-in services. For more information go to:

<https://tutorial.dasa.ncsu.edu/writing-speaking/>

### Accommodations for Students with Disabilities

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services Office in Suite 2221, Student Health Center, Campus Box 7509, 919-515-7653.

<https://dso.dasa.ncsu.edu/>. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.01) <https://policies.ncsu.edu/regulation/reg-02-20-01>.

### Electronically-hosted Course Components

Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web postings, where relevant to the course.

Examples include online discussions of class topics, and posting of student coursework. All students are expected to respect the privacy of each other by not sharing or using such information outside the course.

### NC State University Policies, Regulations and Rules

Students are responsible for reviewing the PRRs which pertain to their course rights and responsibilities. These include:

<http://policies.ncsu.edu/policy/pol-04-25-05> (Equal Opportunity and Non-discrimination Policy Statement)

<http://oied.ncsu.edu/home/> (Office for Institutional Equity and Diversity)

<http://policies.ncsu.edu/policy/pol-11-35-01> (Code of Student Conduct)

<http://policies.ncsu.edu/regulation/reg-02-50-03> (Grades and Grade Point Average)

<https://policies.ncsu.edu/regulation/reg-02-20-15> (Credit-Only Courses)

<https://policies.ncsu.edu/regulation/reg-02-20-04> (Audits)

<https://policies.ncsu.edu/regulation/reg-02-50-03> (Incompletes)

## Schedule

(Note: Schedule is subject to change with appropriate notification to students.)

Week	Topic	Date	Readings	Assignments
1	Introduction	1/7	No readings	
	Agriculture: Past and present	1/9	Diamond 1987 Tauger 2011 (Ch. 1, 8)	
<i>Question 1: Who domesticated whom?</i>				
2	Agency in human-plant-animal relations	1/14	Pollan 2002 Scott 2017	
	Domestication	1/16	McCorrison and Field 2019	
3	Domestication in world history	1/21	Mithen 2003 (see group assignments below under "Readings")	Domestication Case Study presentations
	Selective breeding and genetic modification	1/23	Fedoroff and Brown 1999	
<i>Question 2: How have humans transformed the earth to support agriculture?</i>				
4	Land	1/28	Erickson 2000	
	Water	1/30	Mithen 2012	
5	Soil	2/4	Howell 2013	
	Legibility, standardization, and simplification	2/6	Scott 1998 (Ch. 1, pp. 11–22)	
<i>Question 3: How do new technologies and techniques impact agricultural systems?</i>				
6	Hoes, plows, and animal traction	2/11	Russell 2004	
	Transportation	2/13	Cronon 1991	Midterm Exam 1 due 11:59pm
7	Polyculture, crop rotation, fallowing, and monocropping	2/18	Scott 1998 (Ch. 8)	
<i>Question 4: Who farms, and why does it matter?</i>				
7	Smallholders and peasants	2/20	Netting 1993	
8	Gender	2/25	Carney and Elias 2006	
	Unfree labor	2/27	Tauger 2011 (Ch. 2)	Oral History Project interview due

9	Corporations and industrial agriculture	3/3	Fitzgerald 2003	
<i>Question 5: What happens when agricultural products migrate?</i>				
9	Moving crops	3/5	Watson 1983	
10	NO CLASS: Spring Break	3/10	No reading	
	NO CLASS: Spring Break	3/12	No reading	
11	The Columbian Exchange	3/17	Carney 2001	
	Globalization 2: Standardization and susceptibility	3/19	Dunn 2017	Midterm Exam 2 due 11:59pm
<i>Question 6: How have empires transformed agriculture (and vice versa)?</i>				
12	Grains and tubers	3/24	Kosiba 2018	
	Chocolate	3/26	Coe and Coe 1996	
13	Cotton	3/31	Beckert 2014	
<i>Question 7: Why do agricultural systems fail?</i>				
13	Climate change, drought, and soil exhaustion	4/2	Weiss 1996	
14	Salinization and river channel shift	4/7	Zhang 2009	
	Resilience, sustainability, and the long term (Guest lecture: John Millhauser, NCSU, Sociology and Anthropology)	4/9	Millhauser and Morehart 2018	
15	Topic TBD (Guest lecture: Rob Dunn, NCSU, Applied Ecology)	4/14	Reading TBD	
	NO CLASS	4/16	No reading	Oral History Project podcast due
<i>Oral History Project</i>				
16	Oral histories	4/21	No reading	Oral History Project presentations
	Oral histories	4/23	No reading	Oral History Project presentations
<i>Final exam</i>				
17	FINAL EXAM	4/30		Final exam due 11:59pm

## Readings

- Beckert, Sven. 2014. *Empire of cotton: A global history*. New York: Alfred A. Knopf. (Introduction)
- Carney, Judith A. 2001. African rice in the Columbian Exchange. *Journal of African History* 42: 377–396.
- Carney, Judith, and Marlène Elias. 2006. Revealing gendered landscapes: Indigenous female knowledge and agroforestry of African shea. *Canadian Journal of African Studies* 40, no. 2: 235–267.
- Coe, Sophie D., and Michael D. Coe. 1996. *The true history of chocolate*. London: Thames and Hudson. (Ch. 3, The Aztecs: People of the fifth sun; Ch. 4, Encounter and transformation; Ch. 6, The source)
- Cronon, William. 1991. *Nature's metropolis: Chicago and the Great West*. New York: W. W. Norton and Company. (Ch. 3, Pricing the future: Grain, pp. 97–126)
- Diamond, Jared. 1987. The worst mistake in the history of the human race. *Discover Magazine* May 1987: 64–66.
- Dunn, Rob. 2017. *Never out of season: How having the food we want when we want it threatens our food supply and our future*. New York: Little Brown and Company. (Ch. 1, A banana in every owl; Ch. 4, Escape is temporary; Ch. 5, My enemy's enemy is my friend)
- Erickson, Clark L. 2000. The Lake Titicaca Basin: A Precolumbian built landscape. In *Imperfect balance: Landscape transformations in the Precolumbian Americas*, ed. David Lentz, 311–356. New York: Columbia University Press.
- Fedoroff, Nina V., and Nany Marie Brown. 1999. *Mendel in the kitchen: A scientist's view of genetically modified foods*. Washington, DC: Joseph Henry Press. (Ch. 1, Against the ways of nature)
- Fitzgerald, Deborah K. 2003. *Every farm a factory: The industrial ideal in American agriculture*. New Haven: Yale University Press. (Ch. 4, Farms as factories: The emergence of large-scale farming)
- Howell, David L. 2013. Fecal matters: Prolegomenon to a history of shit in Japan. In *Japan at nature's edge: The environmental context of a global power*, eds. Ian Jared Miller, Julia Adeney Thomas, and Brett L. Walker, 137–151. University of Hawai'i Press.
- Kosiba, Steve. 2018. Cultivating empire: Inca intensive agricultural strategies. In *The Oxford handbook of the Incas*, eds. Sonia Alconini and Alan Covey. Oxford: Oxford University Press.
- McCorriston, Joy, and Julie Field. 2019. *World prehistory and the Anthropocene: An introduction to human history*. London: Thames and Hudson. (Ch. 8, Producing food: Domestication and its consequences in Southwest and East Asia)
- Millhauser, John K., and Christopher T. Morehart. 2018. Sustainability as a relative process: A long-term perspective on sustainability in the northern Basin of Mexico. *Archaeological Papers of the American Anthropological Association* 29: 134–156.
- Mithen, Steven. 2003. *After the ice: A global human history, 20,000–5000 BC*. Cambridge: Harvard University Press.
- Group 1: Ch. 4, Village life in the oak woodland; Ch. 5, On the banks of the Euphrates; Ch. 6, One thousand years of drought; Ch. 9, In the Valley of Ravens

- Group 2: Ch. 18, Two villages in southeast Europe; Ch. 19, Island of the dead; Ch. 20, At the frontier
- Group 3: Ch. 29, Herders and the 'Christ-Child'; Ch. 30, A double-take in the Oaxaca Valley; Ch. 31, To Koster; Ch. 32, Salmon fishing and the gift of history
- Group 4: Ch. 37, Pigs and gardens in the highlands; Ch. 39, Down the Yangtze; Ch. 40, With the Jomon
- Group 5: Ch. 43, A long walk across the Hindu Kush; Ch. 44, Vultures of the Zagros; Ch. 45, Approaching civilization in Mesopotamia
- Group 6: Ch. 46, Baked fish by the Nile; Ch. 49, A South African tour; Ch. 51, Sheep and cattle in the Sahara; Ch. 52, Farmers in the Nile Valley and beyond
- Mithen, Steven. 2012. *Thirst: Water and power in the ancient world*. Cambridge, MA: Harvard University Press. (Ch. 7, A million men with teaspoons: Hydraulic engineering in ancient China, 900 BC – AD 907)
- Netting, Robert McC. 1993. *Smallholders, householders: Farm families and the ecology of intensive, sustainable agriculture*. Stanford: Stanford University Press. (Ch. 8, Chinese smallholders)
- Pollan, Michael. 2001. *The botany of desire: A plant's-eye view of the world*. New York: Random House. (Introduction: The human bumblebee)
- Russell, Nerissa. 2004. Milk, wool, and traction: Secondary animal products. In *Ancient Europe, 8000 B.C. to A.D. 1000: An encyclopedia of the barbarian world*, eds. Peter I. Bogucki and Pam J. Crabtree, 325–333. New York: Charles Scribner's Sons.
- Scott, James C. 1998. *Seeing like a state: How certain schemes to improve the human condition have failed*. New Haven: Yale University Press. (Ch. 1, Nature and space, pp. 11–22; Ch. 8, Taming nature: An agriculture of legibility and simplicity)
- Scott, James C. 2017. *Against the grain: A deep history of the earliest states*. New Haven: Yale University Press. (Ch. 2, Landscaping the world: The domus complex)
- Tauger, Mark B. 2011. *Agriculture in world history*. London: Routledge. (Ch. 1, The origins of agriculture and the dual subordination; Ch. 2, Agriculture in antiquity: The first great conflicts over land and freedom; Ch. 8, Conclusion)
- Watson, Andrew M. 1983. *Agricultural innovation in the early Islamic world: The diffusion of crops and farming techniques, 700–1100*. Cambridge: Cambridge University Press. (Ch. 1, Introduction; Ch. 16, The routes; Ch. 17, The agents; Ch. 18, A medium for diffusion; Ch. 19, The pull of demand; Ch. 23, An agricultural revolution?; Ch. 24, Agriculture in its context)
- Weiss, Harvey. 1996. Desert storm. *The Sciences*, May/June 1996: 30–36.
- Zhang, Ling. 2009. Changing with the Yellow River: An environmental history of Hebei, 1048–1128. *Harvard Journal of Asiatic Studies* 69, no. 1: 1–36.