Anthropology 341 - Food Origins  
Winter 2022  
Asynchronous, WEB.

Ms. Sophie Miller (pronouns: she/they)  
Instructor of Record  
Office and Office Hours: Zoom Office Hours, Tuesdays, 11.30am-1:30pm, and by appointment.  
Email: smiller3@uoregon.edu

Course Description: The course introduces foundational methods, theories, and current understandings of domestication and the origins of agriculture worldwide. Focusing on both domestic animals and plants, from key geographic locations around the globe, students will explore over 10,000 years of human history and food origins using archaeological and scientific data. This course will explore the ways in which information is derived from archaeological and genetic data on domesticated species and how this information can be used in reconstructing the agricultural origins of various cultural groups and environmental settings throughout the recent human past. This knowledge will be applied to discuss current issues on sustainability and biodiversity. Students are expected to demonstrate core knowledge on the transition to agriculture in weekly discussion activities in groups, through written assignments and a final project.

PowerPoint presentations, readings, and discussions will focus on the early practices of human hunting and foraging, how and why some hunter-gatherers became farmers/herders, and the aftermath of this transition – including long-term social, cultural, and environmental changes. We will also explore the methodologies used to provide the data for food origin narratives and will engage in thoughtful examination and discussion about the physical and theoretical approaches to studying the archaeology of food/agriculture.

Learning Outcomes:
Following the successful completion of this course, student will be able to:
- Describe the timing and nature of the major transformations from early hunter-gatherers to agricultural communities.
- Explain the biological processes of domesticated species, both plants and animals.
- Evaluate the evidence used to support reconstructions of early agriculture.
- Explain the cultural role of domesticated species in major archaeological sites and regions.
- Describe regional environmental conditions/changes before and after the emergence of agriculture.
- Integrate scientific literature from multiple disciplines, including archaeology, genetics, zoology, and ecology, and generate testable hypotheses to aid in critically evaluating the results from these studies.

How to Work Through This Course:
This is an entirely online asynchronous remote course that is organized into weekly modules. I
recommend you familiarize yourself with our course by exploring the Canvas course site and reviewing the Modules under the navigation sidebar on the left side of the screen.

There you will find a link to weekly activities, including our course syllabus, our icebreaker, and discussion activities, links to articles, access to files and ppts, and important regulations and guidelines concerning Netiquette. As a course that incorporates discussions, Netiquette is extremely important. Students will also be expected to locate and read peer-reviewed articles and use resources not provided by the instructor.

We will have a weekly schedule of events and assignments, but you may complete the work on your schedule from any location. Every week I will introduce material via recorded lecture videos, and each week you will be required to participate in a discussion board event, which will require you to have watched the video and completed the readings. Some weeks you will also write and submit assignments related to your overall Course Project, which will require you to dig into material outside of the class.

At the beginning of each weekly module is a summary of the key deadlines that describes precisely what you need to complete that week. Please make sure you regularly check your course Canvas page to keep up to date with all course materials.

**Inclusion Statement:**
The College of Arts and Sciences at the University of Oregon affirms and actively promotes the right of all individuals to equal opportunity in education at this institution without regard to race, color, sex, national origin, age, religion, marital status, disability, veteran status, sexual orientation, gender identity, gender expression or any other consideration not directly and substantively related to effective performance. If you feel that you have encountered discrimination or harassment, please inquire at the Office of Affirmative Action & Equal Opportunity (http://aaeo.uoregon.edu, 541-346-3123) for information on your rights, options, and resources. Confidentiality for all parties is respected to the extent possible.

I am a responsible employee. For information about my reporting obligations as an employee, please see Employee Reporting Obligations. Students experiencing any form of prohibited discrimination or harassment, including sex or gender-based violence, may seek information on safe.uoregon.edu, respect.uoregon.edu., or investigations.uoregon.edu or contact the non-confidential Title IX office (541-346-8136), Office of Civil Rights Compliance (541-346-3123), or Dean of Students offices (541-346-3216), or call the 24-7 hotline 541-346-SAFE for help. I am also a mandatory reporter of child abuse. Please find more information at Mandatory Reporting of Child Abuse and Neglect.

**Accommodations:**
The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of this course structure that result in disability related barriers to your participation. You may also wish to contact the Office of Accessible Education (346-1155, uoaeec@uoregon.edu). Their advisers can help you acquire a letter verifying your disability.

**Academic Integrity for Remote Learning:**
Here at the University of Oregon, we consider academic honesty to be essential to develop each student's intellectual and academic integrity. In the spirit of the free exchange of ideas, as students and teachers at our university, we recognize and accept the responsibility for academic honesty. As a student who enrolls in this course, you agree to respect and acknowledge the research and ideas of others in your work, and to abide by those rules for your discussions, posts, final projects, etc.

Academic misconduct includes unauthorized help on assignments and examinations and the use of sources without acknowledgments (plagiarism). Academic misconduct is prohibited at UO. I will report all suspected cases of academic misconduct to the Office of Student Conduct & Community Standards.
It is the responsibility of the student to clarify whether an act constitutes academic misconduct before committing or attempting to commit the act.

Plagiarism is a serious and unfortunately common academic offense. Please read the following guidelines for additional information http://libweb.uoregon.edu/guides/plagiarism/students/?tab=5

I will be monitoring all work for evidence of plagiarism. Software is now available which can scan a paper or paragraph and compare it to hundreds of sources on the Internet to analyze the degree of its originality and similarity. In cases in which plagiarism is observed, it is my responsibility to take appropriate action. Please, for your protection and development, cite your sources properly and do not plagiarize. Do your own work. You are capable. You can find proper use and examples of citation methods at the University of Oregon library website: http://researchguides.uoregon.edu/citing-plagiarism/mla

Guidelines for Online Learning:
This course is delivered on a computer using Canvas. This learning management site will allow you to complete academic work in a flexible manner on your computer. Videos, book chapters, online articles, relevant links, and the link to my lectures are all included on the course site. I am available to support and guide you throughout this ten-week course. You can expect to spend approximately 10+ hours per week for a successful outcome, including readings, critical discussion development, research, paper writing and editing, final project development, and other class activities.

"A 4-credit course should engage students for 120 hours over the course of the term." - Credit Hour and Student Workload Policies.

Technical Difficulties: When you register for the class, you will automatically be enrolled in our Canvas site. All problems concerning the use of Canvas, access to Canvas, and computer-related Canvas issues should be handled by the UO Canvas support. You can contact Canvas remotely or via phone (depending on the pandemic restrictions). Anyone seeking Canvas help should call the Technology Service Desk at 541-346-4357. The Tech Desk's phone lines are currently open 8 a.m. to 5 p.m., Monday through Friday. Issues more specifically related to the design and accommodation accessibility of this course and the material should be directed to me. The Canvas site will contain essential information for the course including the syllabus and additional readings.

Make sure that you regularly check your e-mail account which will notify you of material and announcements placed on our Canvas site. If you run into technical difficulties and are unable to upload/submit your assignments, please email them directly to the instructor to timestamp your completion of the assignment, then continue to work on getting them uploaded through Canvas. Emailed assignments will follow the same late penalties as outlined in the syllabus.

Make sure your computer is ready for this course. If you don’t have the following installed on your computer, you might consider accessing them.

- Browsers: Chrome, Safari, or Firefox
- Microsoft Office Suite software, Mac’s Pages, Open Office Suite software, or a compatible word-processing suite
- Adobe® Reader® software (available as a free download at http://get.adobe.com/reader/ (Links to an external site.)
- QuickTime Player, VLC, or any other free video player download
- Webcam or built-in camera on a computer for video chats, like Zoom, Skype, or Google+ Hangouts
- Headphones with an attached mic
- A private student account on YouTube for uploading videos (if necessary) and accessing all elements of uploaded lectures
Netiquette:
• Use proper netiquette
• Identifying yourself with your real/preferred name and pronouns (these can be added to your zoom name)
• Respect the privacy of your classmates and what they share in class.
• Your language should be free of profanity, appropriate for an academic context, and exhibit interest in and courtesy for others’ contributions.
• Be aware that typing in ALL CAPITAL letters indicates SHOUTING!
• Remember not everyone is savvy in remote learning; be patient with each other.
• Certain breaches of netiquette will be considered disruptive behavior.
• Help everyone learn. Be mindful in listening to others’ opinions and awareness of one’s own tendencies (e.g., do I contribute too much or too little?). Understand that we may disagree and that exposure to other people’s opinions is part of the learning experience.

Personal Issues: Please contact me immediately if there is a serious issue that relates to your ability to participate in our course. Delays in asking for help will cause you to fall seriously behind in the course, and make-up work will not be accepted unless prior accommodations have been made. However, you may need to provide some documentation, as in the case of computer issues or health-related concerns. If you have a computer-related issue, document the issue, and contact me asap.

As this is an online course, certain activities will not be acceptable excuses for an accommodation, such as personal travel, conference participation, and participation in or travel associated with other events related to campus organizations, clubs, or groups. However, please contact me so I can understand the situation and evaluate the need for an accommodation on a case-by-case basis.

University Health Services help students cope with difficult emotions and life stressors. If you need general resources on coping with stress or want to talk with another student who has been in the same place as you, visit the Duck Nest (located in the EMU on the ground floor) and get help from one of the specially trained Peer Wellness Advocates.

University Counseling Services (UCS) has a team of dedicated staff members to support you with your concerns, many of whom can provide identity-based support. All clinical services are free and confidential. Find out more at counseling.uoregon.edu, or by calling 541-346-3227 (anytime UCS is closed, the After-Hours Support and Crisis Line is available by calling this same number).

Basic Needs: Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live is urged to contact the Dean of Students Office (346-3216, 164 Oregon Hall) for support. The UO Basic Needs Resource Guide includes resources for food, housing, healthcare, childcare, transportation, technology, finances, and legal support.

UO COVID-19 Regulations: The University of Oregon (UO), in accordance with guidance from the Centers for Disease Control, Oregon Health Authority, and Lane County Public Health requires faculty, staff, students, visitors, and vendors across all UO locations to use face coverings, which include masks, cloth face coverings, or face shields, when in UO owned, leased, or controlled buildings. If you are on campus, including in an in-person classroom, please correctly wear a suitable face covering. Students unable to wear face coverings can work with the Accessible Education Center to find a reasonable accommodation.

Additionally, vaccinations are required, and students are encouraged to maintain a 6 ft. distance from others. You can find a full list of the UO covid regulations here, and a statement on required vaccination here: https://coronavirus.uoregon.edu/covid-19-regulations
https://around.uoregon.edu/content/forward-together-what-you-need-know-about-vaccines

Please conduct regular symptom self-checks (https://symptomcheck.uoregon.edu/). In addition, familiarize yourself with these exposure scenarios and guidelines to determine if you should come to campus or an in-
person class after suspected exposure to someone with the virus. https://coronavirus.uoregon.edu/covid-exposure

**Academic Disruption due to Campus Emergency:**
In the event of a campus emergency that disrupts academic activities, course requirements, deadlines, and grading percentages are subject to change. Information about changes in this course will be communicated as soon as possible by email and on Canvas. Given we are meeting online, this should not impact our course or assignments. Students are expected to continue coursework as outlined in this syllabus or other instructions on Canvas until further notice.

**COVID Containment Plan for Classes: (for your awareness, but not relevant to our online class)**
As the University of Oregon returns to in-person instruction, the key to keeping our community healthy and safe involves prevention, containment, and support. Here is information critical to how the UO is responding to COVID-19.

- **Prevention:** To prevent or reduce the spread of COVID-19 in classrooms and on campus, all students and employees:
  - Must comply with UO vaccination policy
  - Must wear face coverings, in all indoor spaces on UO campus
  - Complete weekly testing, if not fully vaccinated or exempted
  - Wash hands, frequently and practice social distancing when possible
  - Complete daily self-checks.
  - Stay home/do not come to campus if feeling symptomatic.
  - Complete the UO COVID-19 case and contact reporting form if you test positive or have been in close contact with a confirmed or presumptive case.

- **Containment:** If a student in class tests positive for COVID-19, all relevant classes will be notified via an email by the Corona Corps Care Team with instructions for students and staff based on their vaccination status. Specifically:
  - **Vaccinated and Asymptomatic students:** Quarantine is not required, but daily self-monitoring before coming on campus is advised; sign up for testing through MAP 3-5 days after exposure if advised you are a contact.
  - **Unvaccinated or partially vaccinated students:** 14-day quarantine advised – do not come to class – and sign up for testing 3-5 days after notification through MAP, if asymptomatic, or through University Health Services (541-346-2770) or your primary care provider, if symptomatic.
  - **Symptomatic students:** stay home (do not come to class/campus), complete the online case and contact form, and contact University Health Services (541-346-2770) or your primary care provider to arrange for immediate COVID-19 testing.

Students identified as close contacts of a positive case will be contacted by the Corona Corps Care Team (541-346-2292).

- **Support:** The following resources are available to you as a student.
  - University Health Services or call (541) 346-2770
  - University Counseling Center or call (541) 346-3277 or (541) 346-3227 (after hrs.)
  - MAP Covid-19 Testing
  - Corona Corps or call (541) 346-2292
  - Academic Advising or call (541) 346-3211
  - Dean of Students or call (541)-346-3216
Good Classroom Citizenship!

- Wear your mask and make sure it fits you well
- Stay home if you’re sick
- Get to know your neighbors in class, and let them know if you test positive
- Get tested regularly
- Watch for signs and symptoms with the daily symptom self-check
- Wash your hands frequently or use hand sanitizer

Complete the UO COVID-19 case and contact reporting form if you test positive or are in close contact with someone who tests positive.

Course Materials:
- Lectures for this course are in the form of narrated slideshow presentations. Lectures will introduce you to each topic, and each lecture is typically around 50-60 minutes long.
- Readings for this course include book chapters and journal articles. All articles and book chapters are available as PDFs through canvas. You do not need to purchase a book for this class.

Course Assignments and Late Policies:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction and Conclusion Exercise</td>
<td>10 points</td>
</tr>
<tr>
<td>Weekly Discussion Boards (x10)</td>
<td>100 points</td>
</tr>
<tr>
<td>Course Project:</td>
<td></td>
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<tr>
<td>Topic Selection</td>
<td>5 points</td>
</tr>
<tr>
<td>Thesis Statement</td>
<td>10 points</td>
</tr>
<tr>
<td>Annotated Bibliography</td>
<td>50 points</td>
</tr>
<tr>
<td>Project Draft</td>
<td>25 points</td>
</tr>
<tr>
<td>Final Project</td>
<td>70 points</td>
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<tr>
<td>Peer Evaluations (x3)</td>
<td>30 points</td>
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</tbody>
</table>

TOTAL: **300 points total**

**Expected levels of performance:**

- **A+:** Quality of student's performance significantly exceeds all requirements and expectations required for an A grade. Very few, if any, students receive this grade in a given course.
- **A:** Quality of performance is outstanding relative to that required to meet course requirements; demonstrates mastery of course content at the highest level.
- **B:** Quality of performance is significantly above that required to meet course requirements; demonstrates mastery of course content at a high level.
- **C:** Quality of performance meets the course requirements in every respect; demonstrates adequate understanding of course content.
- **D:** Quality of performance is at the minimal level necessary to pass the course but does not fully meet the course requirements; demonstrates a marginal understanding of course content.
- **F:** Quality of performance in the course is unacceptable and does not meet the course requirements; demonstrates an inadequate understanding of course content.
Grades will be assigned as follows:

- A+ = 97% and above.
- A = 93 - 96.9%
- A- = 90 - 92.9%
- B+ = 87 - 89.9%
- B = 83 - 86.9%
- B- = 80 - 82.9%
- C+ = 77 - 79.9%
- C = 73 - 76.9%
- C- = 70 - 72.9%
- D+ = 67 - 69.9%
- D = 63 - 66.9%
- D- = 60 - 62.9%
- F = 59.9% and below.

There is currently no extra credit for this course. If the class is taken P/NP, a C- or higher is required to pass the course.

Expectations: Regular online engagement, participation, and maintaining course readings are required to pass this course. Discussion posts and other assignments must be posted or turned in at the scheduled time. Without a documented and cleared excuse, the following late policies will be applied to any and all late assignments.

Late Policies: the following scale for late penalties applies
- up to 10 minutes late: grace period, no penalty
- up to 2 hours late: 5% penalty
- up to 24 hours late: 10% penalty
- Each additional day (>24 hours): 10% per day
- Penalties are taken off the maximum possible score (e.g., 10% penalty on a 20-point assignment is 2 points). No assignments may be turned in after the final course deadline.

Assignments:

There are two main categories of assignments for this course. These include Canvas-based weekly discussion boards and a term-long final project. There will be different components due that relate to your course project to create milestones during the term prior to the final project deadline. There will be no exams in this course, but you are still expected to engage with the posted material, video lectures, readings, and to regularly participate in course activities.

(1) Weekly Discussions/Essays:

Every week each student will post a research response post (post only within your assigned discussion group). The instructor will post the question(s) about the weekly topic/theme at the start of the week. Each student will be expected to respond to that question(s), which will require you to gather some information from the lecture video and assigned readings. The research post should demonstrate that you have watched the video and gathered information from the readings and have in turn evaluated the question. This should be around 2-4 paragraphs in length (per question) around ~500 words. This post should be made by Friday 11:59 pm of the
assigned week but can be made before Friday (as early as Sunday). Due to the size of the class, I have split the class into smaller groups so that it is easier for people to discuss and read posts from peers. The purpose and goals of these discussion boards are to demonstrate your own comprehension of the topics, to extend and expand your classmate's knowledge or understanding through shared discussion, and to add to your own thoughts and analyses based on the material you have all research and learned. Additional details will be provided in the corresponding Discussion Board. Be sure to include correctly formatted references and in-text citations.

*This is not a random internet blog site. This is not a place to insult or make fun of people even if they are your friends. Please keep Netiquette in mind. There is a zero-tolerance policy for disrespectful and hate-speech.*

### (2) Course Project

The research project is an opportunity for you to critically synthesize and analyze major themes in the archaeology of food origins. Each student will select and research their own project (*topics must be approved by the instructor*). The focus of this assignment is improving your research and presentation skills as well as building deeper knowledge on a selected subject. The presentation subjects are broadly defined but should be relevant to course materials. See each assignment module for more information.

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**Topic Selection/Purpose Statement:** Students must submit a brief general description of the topic they have chosen for their research project. For example - *"I have chosen to research ancient bee-keeping"*. If you are having difficulty selecting a topic, please refer to *"Example Topics"* on Canvas for ideas, and contact the instructor immediately for assistance. I cannot help you select a topic if you do not reach out to me, and topic selection cannot be delayed without severely delaying your overall progress in the course.

- **Guide to selecting a research topic:**
  - Select a food item(s) and research its origins in the archaeological records (e.g., maize, taro, donkeys, guinea pigs, olives, wine).
  - Compare, contrast, and identify the plausibility and strength of two or more theories/perspectives on the origins of agriculture with regional archaeological data (e.g., Optimal Foraging Theory, Human Behavioral Ecology, Social-relation models).
  - Identify social, cultural, and/or environmental impacts of plant or animal domestication and agriculture (e.g., gender and cultural identity, social inequality, state formation, environmental changes, migrations).

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**Thesis Statement:** Students must produce a brief well-crafted thesis statement that demonstrates a clear idea or point that you will be addressing for your final project based on the topic you have selected and had approved.

- For example - *"Apiculture and the collection of honey is an ancient, democratized practice with origins in Mesolithic Europe. However, beekeeping was not widely practiced until the Neolithic when farming communities developed, and artificial hives were first created."*

A thesis statement is a *one or two-sentence* encapsulation of your project's main point, main idea, or main message. Your thesis statement should not generalize a topic or argument but specify the direction your paper (and research) will take.

- In my example, this thesis statement takes a position: beekeeping was able to be done by all people, it was not just elites, but that you will be arguing that the archaeological evidence demonstrates that it was not commonly practiced until people could make artificial hives.
Do not resort to simplistic pro/con statements; it should be clear to the reader what your original and specific angle about the topic is. The submission deadline is on Friday 01/21 (by 11:59 pm) to Canvas>Assignments>Thesis Statement. More information about this will be available in the Week 2 Module.

Annotated Bibliography: Students are responsible for producing an annotated bibliography individually for their own research for their class presentation. The submission deadline is on Friday 02/04 (by 11:59 pm) to Canvas>Assignments>Annotated Bibliography. Canvas Page ‘Research Project’ covers how to build an annotated bibliography with specific examples. The annotated bibliography should summarize at least 5 references in total that are your own search (meaning not from course readings). Each bibliographic ‘entry’ will summarize key contents of readings and their relevance to your presentation in about 500 words.

Project Draft: students are required to submit a rough draft of their final project. It should be clear from the draft that you have begun to think about the organization of your paper as well as researching your question(s). A good paper requires more than one draft, so it is unlikely this will be the final form of your paper. You will not be assessed for formatting and spelling/grammatical errors, but you should have around ~1-2 pages of drafted research/ideas that have some generalized structure. I will be looking for a demonstration that you have begun the research beyond finding sources for your annotated bibliography and that you are beginning to put together your ideas and analyses into a more coherent form that can be revised for the final submission. This is due Friday of Week 7 (02/18) by 11:59 pm (PST) but may be submitted earlier. This will be the only draft that I can provide you with direct comments on so make sure you are thoughtful about your submission to maximize the effectiveness of my feedback.

Final Project: The paper will summarize your chosen research topic, presenting key debates, knowledge, and any potential issues about the topic. You should support your research with specific (archaeological) examples, primarily drawing from your annotated bibliography citations. You may include references that were not in your annotated bibliography, but you need to include these additional sources in a ‘Reference List’ at the end.


Grading is based on the appropriateness of your topic, the amount of time, research, and effort you put into your project, and the organization/presentation of the project (the final form). When finished, you will upload your final projects on or before Friday of Week 9 (03/04) by 11:59 pm (PST) to the designated Final Project Board (available in Week 8). You will only need to attach a file and will be responding to your pre-selected classmates on this board too.

Format:

- Your final project format will be a ~3-5-page report/research paper (it can be longer but be concise!). These should be double-spaced pages with 1-inch margins, and the page requirement should not include your references or title pages and exclude the spaces you allot to figures, images, and graphs, etc.
Please use standard font sizes and include page numbers. Make sure you organize your paper into subsections with proper headings. Your paper should include a title page, reference page(s), and some image(s) such as a graph, chart, figure, etc.

A thorough analysis of your proposed topic will likely include a number of references, so please keep this in mind as you develop your paper. However, a well-rounded essay will likely be the result of an intensive review of the course and outside literature.

Please format your references to your liking, however, please be consistent in format. Limit your use of direct quotations; it is better to summarize in your own words. However, do not plagiarize! Cite and reference your sources and do so often.

Make sure you proofread your paper carefully for spelling and grammatical errors. As this will not be your first draft, I will be expecting a clean and revised piece of work.

Peer-Evaluations: Each student will need to view/read the final projects of 3 other students and provide feedback. A rubric will be created for you to grade three preselected fellow classmates' final projects. Your evaluations of those projects will need to be submitted on or before Friday of Week 10 (03/11) by 11:59 pm (PST). Your responses to your peer's final projects should be focused on constructive criticism (e.g., what you like about the final project for each person and suggested areas for improvement). Your response posts should be well-composed and around ~2 paragraphs in length (~250+ words per response). Again, the purpose and goal of each response is to extend your classmates' thinking, knowledge, understanding, and analyses based on your own research and learning.
Weekly Schedule*

Note: class schedule is subject to change in the event of extenuating circumstances, or may be otherwise modified, as I feel appropriate. Green references are optional but provide additional information/ideas/examples beyond the assigned readings and lectures.

WEEK 1: Introduction to Food Origins


----------------------------------Additional/Recommended Resources: -------------------------------------------------------


WEEK 2: History of Reconstructing 'Food Origins'


WEEK 3: Theories of Food Origins

- O’Brien, Michael J., and Kevin N. Laland 2012 Genes, culture, and agriculture: An example of human


--- Additional/Recommended Resources: ----------------------------------


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**WEEK 4: Food Production and Agriculture in Southwest Asia**


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**WEEK 5: Food Production and Agriculture in East Asia**


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WEEK 6: Food and Identity


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WEEK 7: Ancient Alcohol


WEEK 8: Food Production and Agriculture in Central/South America


WEEK 9: Food Production and Agriculture in North America


Week 10: Sustainability and Agriculture

• Khoury, Colin K., Daniel Carver, Stephanie L. Greene, Karen A. Williams, Harold A. Achicanoy, Melanie Schori, Blanca León, John H. Wiersema, and Anne Frances 2020 Crop wild relatives of the United States require urgent conservation action. Proceedings of the National Academy of Sciences of