Constructing terraced rice paddies, eastern Japan; photograph: public domain

Instructor: Mary Larkum, Ph.D.
Office: McMillan Hall 106
Email: marylarkum@wustl.edu
Office hours: TBD
Class Location: McMillan Hall 101
Time: Tuesday and Thursday, 5:30 – 8:00 PM

Course Description
This course explores relationships between human culture and the environment, with a unifying theme of relationships among population, food production, and politics. We will discuss social, ecological, and political aspects of food production systems from foraging to shifting cultivation to intensive cultivation, including questions of sustainability and how these systems are altered by state and industrial intervention. Case studies will be drawn from West and East Africa, the Brazilian Amazon, China, India, New Guinea, and the Philippines. We will also explore ecological and political aspects of industrialized food production, genetic modification, and climate change. Along the way we will pose questions such as:

- Does environment determine (or even shape) culture? Do cultures "evolve" as they switch from foraging to simple agriculture to intensive agriculture?
- In what ways are cultural interactions with the environment controlled by population density? For instance, do we practice destructive agriculture because we are overpopulated?
- Was Malthus right that population inherently tends to outstrip food production? Was he right that this is the prime cause of poverty? If not, why does his theory continue to be so influential? What have been/are the practical effects of this theory?
- We evolved mainly as foragers (hunter-gatherers); what is the situation with foragers today? Do Kalahari foragers provide a window into the human past?
- What is "slash & burn" farming, and why do so many farmers practice it? Is it really the cause of rainforest destruction?
- Are there sustainable intensive small farms in the world? If so, what makes them work?
- Can religious rituals act as regulators of humans and their key resources?
- What was the "Great Leap Forward," and how did it starve 40+ million people? What does this episode tell us about smallholder agriculture?
- What was the "Green Revolution"? Did it really "save a billion lives"? Has it helped or hurt agricultural sustainability?
• How and why has food production become industrialized in this country? Who are the winners and losers in this fundamental change in food production?
• What kinds of foods come from factory farms, and are these farms really efficient?
• What are genetically modified crops? What are the objections to them? Are they critical to the fight against world hunger? Why are they still controversial?
• What role does agriculture play in climate change?

Required Materials

• The reading load is moderate overall, but it is not uniform - there are occasional peaks and troughs. Please look ahead and budget your time.
• Blackboard announcements will be used for class-related material and also for occasional discussion of class-related issues in the news. These discussions are required reading.
• It may be important to know the author of a reading, especially if we have discussed her/him in class. But, for the most part, we are just interested in the information, not the author.

Assignment and Assessment Descriptions: Prompts and grading rubrics will be available on Blackboard.

• Three exams: 20% each (60% of final grade)
All tests will be taken in class. They will feature a variety of question types such as fill in the blank, multiple choice, short answer, and short essay. You will have up to one hour to take each exam. They will cover all material up to the test date. They will not be cumulative, however major ideas and themes will continue throughout the semester and you will be expected to remember them.

• Pollan essay: 15% of final grade
You will write one essay on a set topic from Michael Pollan’s Omnivore’s Dilemma. It will be three to four pages in length, doubled spaced, with consistent use of citation and precise formatting. Formatting and citation will be explained within the assignment prompt. A grading rubric will be employed and it too will be provided with the assignment.

• Final paper: 20% of final grade
A final research paper on any topic relating to culture and environment will be due in Blackboard by 11:59 pm on the last day of class. Your paper will be approximately ten pages long and feature the same formatting and citation requirements as the Pollan essay. As with the essay, instructions and a rubric will be available on Blackboard.

• Class Presentation: 5% of final grade
A five-minute class presentation of your final paper is required. You can choose to give a PowerPoint talk or any other preapproved presentation method.

Grade Divisions: 95.45 and above: A+; 92.45 – 95.45: A; 89.45 - 92.45: A-; 85.45 – 82.45: B+; 82.45 - 85.45: B; 79.45 – 82.45: B-; 75.45 - 79.45: C+; 72.45 - 75.45: C; 68.47 – 72.45: C-; 64.45 – 68.47 D; < 64.45: F

Final Grades that are within two percentage points of a higher grade will be rounded up.
## Preliminary Schedule of Topics, Readings, and Coursework

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics/Assigned Readings/Homework</th>
<th>Major Assignments and Deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1:</td>
<td><strong>T 6/12</strong> &lt;br&gt; Topic: Introductions, syllabus review, The Population Bomb &lt;br&gt; <strong>Film</strong>: <em>The Population Bomb</em> &lt;br&gt; <strong>Reading</strong>: the syllabus</td>
<td>complete “Academic Integrity” in Blackboard</td>
</tr>
<tr>
<td>Week 1:</td>
<td><strong>R 6/14</strong> &lt;br&gt; <strong>Topic</strong>: Theory I = Malthus, Neo-Malthusianism, Evolutionism &lt;br&gt; <strong>Short Film</strong>: <em>neo-Malthusians vs anti-Malthusians</em> &lt;br&gt; <strong>Reading</strong>: Perkins 1997 “Population, Malthus and Neo-Malthusianism”; Malthus 1798 <em>Population</em> chapters 1 and 2 (skim); Morgan 1877 excerpt from <em>Ancient Society</em> &lt;br&gt; <strong>Discussion of Readings</strong>: bring them to class in some form</td>
<td></td>
</tr>
<tr>
<td>Week 2:</td>
<td><strong>T 6/19</strong> &lt;br&gt; <strong>Topic</strong>: Theory II = Cultural and Political Ecology &lt;br&gt; <strong>Reading</strong>: White 1943 “Energy and the Evolution of Culture”; Murphy 1977 “Theories of Julian Steward”; Steward 1938 excerpt from <em>Great Basin Shoshonean Indians</em> &lt;br&gt; <strong>Discussion of Readings</strong>: bring them to class in some form</td>
<td></td>
</tr>
<tr>
<td>Week 2:</td>
<td><strong>R 6/21</strong> &lt;br&gt; <strong>Topic</strong>: foraging/hunting and gathering, herding, the Kalahari, the Masai &lt;br&gt; <strong>Film</strong>: <em>Masai on the Move</em> &lt;br&gt; <strong>Reading</strong>: Lee 1968 “What Hunters Do for a Living”; Wilmse 1994 “Creation of Subsistence Foraging in the Colonial Era”; McCabe et al. 2011 “Adopting Cultivation to Remain Pastoralists: The Diversification of Masai Livelihoods in Northern Tanzania”</td>
<td></td>
</tr>
<tr>
<td>Week 3:</td>
<td><strong>T 6/26</strong> &lt;br&gt; <strong>Topic</strong>: Demography and the origins of agriculture &lt;br&gt; <strong>Film</strong>: Ian Hodder: &quot;Origins of Settled Life; Gobekli and Çatalhöyük&quot; &lt;br&gt; <strong>Reading</strong>: Barker 2009 “Approaches to the Origins of Agriculture”; Katz and Voight 1987 “Bread and Beer”; Ungar 2017 “The Neolithic Revolution”</td>
<td></td>
</tr>
<tr>
<td>Week 3:</td>
<td><strong>R 6/28</strong> &lt;br&gt; <strong>Topic</strong>: shifting cultivation, rainforests, deforestation &lt;br&gt; <strong>Reading</strong>: Hecht and Cockburn 1989 from <em>Fate of the Forest</em>; Conklin 1954 “Ethnoarchaeological Approach to Shifting Agriculture” (read 230-231 and skim the rest); a short excerpt on extensive farming &lt;br&gt; <strong>Exam Review</strong>: come to class with questions</td>
<td></td>
</tr>
<tr>
<td>Week 4:</td>
<td><strong>R 7/5</strong> &lt;br&gt; <strong>Topic</strong>: Interventions: the state and religious institutions &lt;br&gt; <strong>Film</strong>: <em>The Greening of Cuba 2005</em> &lt;br&gt; <strong>Reading</strong>: Becker 1996 <em>Hungry Ghosts</em> chapter 5; Eberstadt 1997 “Great Leap Backward”; Rappaport 1967 “Ritual Regulation of Environmental Relations”; Lansing on Balinese Water Temples</td>
<td></td>
</tr>
<tr>
<td>Week</td>
<td>Day</td>
<td>Topic</td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
<td>-------</td>
</tr>
</tbody>
</table>
| Week 5: | T 7/10 | **Topic:** Capitalist Agriculture – Seeds  
**Reading:** Kloppenburg 1988/2004 First the Seed chapters 1 and 5 | | | **Discussion of Readings:** bring them to class in some form | | |
| Week 5: | R 7/12 | **Topic:** Fertilizer  
**Film:** Rachel Carson’s Silent Spring 1992  
**Reading:** Foster and Magdoff 2000 “Liebig, Marx, and the Depletion of Soil Fertility” | | | | Begin to read Pollan’s Omnivore’s Dilemma |
| Week 6: | T 7/17 | **Topic:** Mechanization  
**Reading:** Giesen and Hersey 2010 “The New Environmental Politics and its Antecedents”  
**Discussion of Readings:** bring them to class in some form | | | | |
| Week 6: | R 7/19 | **Topic:** CAFOs  
Reading: Chang et al. 2014, “Antibiotics in agriculture and the risk to human health”; short news articles in Blackboard  
**Exam Review:** come to class with questions | | | | Pollan essay due in Blackboard by 11:59 PM |
| Week 7: | T 7/24 | **Topic:** The Green Revolution in Mexico  
**Reading:** Cullather 2010: 48-71 “Mexico’s Way Out” | | | | Exam 2: covering weeks 4 – 6  
Exam during first half of class |
| Week 7: | R 7/26 | **Topic:** The Green Revolution in Asia  
**Short Film:** Norman Borlaug and the Green Revolution  
**Reading:** Cullather 2010: 141-146 “A Very Big, Very Poor Country”; Stone and Glover 2016 “The Green Revolution” part of “Disembedding Grain…”  
**Discussion of Readings:** bring them to class in some form | | | | |
| Week 8: | T 7/31 | **Topic:** GMOs I  
**Film:** Bitter Seeds 2012  
**Reading:** National Academy of Sciences 2016: 1-26 Summary (from Genetically Engineered Crops: Experiences and Prospects); Stone 2010, “The Anthropology of Genetically Modified Crops” | | | | |
| Week 8: | R 8/2 | **Topic:** GMOs II  
**Film:** Animal Pharm - inside GMO, transgenics, and cloning  
**Reading:** Stone and Glover 2016 “Disembedding Grain: Golden Rice, the Green Revolution, and Heirloom Seeds in the Philippines” | | | | |
| Week 9: | T 8/7 | **Topic:** GMOs III: Case Studies  
**Reading:** Guo 2004 “Biosafety Issues, Assessment, and Regulation of Genetically Modified Food Plants”; Stone 2012 “Obesogens”  
**Exam Review:** come to class with questions | | | | Class Presentations |
| Week 9: | R 8/9 | **LAST DAY OF CLASS**  
**Topic:** Agriculture and climate change course wrap-up | | | | Exam 3: covering weeks 7 – 9;  
Final Paper due in Blackboard by 11:59 PM |

**Disclaimer:** The instructor reserves the right to make modifications to this information throughout the semester.
Course Policies and Information for Students

*Any university policy not explicitly described in this syllabus is still applicable to this course. Please see me if you have any questions.*

Citation Requirements: Please choose a citation style, e.g. the American Anthropologist style guide (provided in Blackboard) or MLA, and please make sure that your usage is consistent for each assignment.

Paper Format: All assignments should be double-spaced, 12-point Times New Roman font or 11-point Arial font. Assignments should have one-inch margins on all sides; and have your name, the date, and the assignment displayed on the first page. If you are emailing work to me, you must include your name in the file name. Example: LAST NAME Ant365 Assign#. Otherwise files should be uploaded to the appropriate assignment link on Blackboard or submitted in hard copy (paper) form.

Attendance: Your active and informed participation at each meeting is an integral part of the educational experience, thus your attendance is critical. If an assignment is due, you are responsible for it, unless you have made prior arrangements with me (i.e. if you are sick, a family emergency, etc.). If you miss class you should get the notes from another student. Specific handouts may be distributed during class, in which case they will be posted on blackboard under course documents. All students should arrive to class on time. Attendance and participation will be recorded and used to increase borderline grades.

Email: Students should check their email regularly as I will send out course information via email. If you need to contact me for any reason the best way to do this is by using email.

Plagiarism: Students are expected to adhere to the Undergraduate Student Academic Integrity Policy, which can be found at [www.wustl.edu/policies/undergraduate-academic-integrity.html](http://www.wustl.edu/policies/undergraduate-academic-integrity.html). I expect that the work you submit will be your own. If you have any questions, please make an appointment with me. All instances of plagiarism and/or cheating will be turned over to the appropriate university committee. If you are unclear as to what constitutes plagiarism, please review your student handbook or come see me. In a nutshell, plagiarism is copying another person’s work and passing the work off as your own. This may be a straightforward “cut and paste” job, a cut-paste-substitute a few key words, or the buying of a paper from another student or paper mill. This is your opportunity to explore this material in depth, and you only cheat yourself (and your peers) by not doing the work yourself. It is my intent to trust you, and therefore, I will not run assignments through SafeAssign.

Technology: I have no problem with you using computers, tablets, iPads, etc. during class. You are adults, and I expect you to be able to manage your time accordingly. Sometimes, we may incorporate technology into group activities. I will communicate with you via email and Blackboard. Cell phone use during class – don’t do it.

Late policy: Life happens. As such, **I will give you ONE no questions asked 24-hour extension on any assignment.** After you use your one late pass, all future late assignments will be penalized 10 points per day (subtracted at midnight). This is to ensure fairness in grading for all class members.

Other concerns: If you have a disability that requires an accommodation, please speak with me and consult the Disability Resource Center at Cornerstone ([cornerstone.wustl.edu](http://cornerstone.wustl.edu/)). Cornerstone staff will determine appropriate accommodations and will work with me to make sure these are available to you. All students registered with Student Services will be accommodated. Unexpected life events will be accommodated on an individual basis as needed. Please contact me if issues arise.

Inclusive learning environment statement: The best learning environment—whether in the classroom, studio, laboratory, or fieldwork site—is one in which all members feel respected while being productively challenged. At Washington University in St. Louis, we are dedicated to fostering an inclusive atmosphere, in which all participants can contribute, explore, and challenge their own ideas as well as those of others. Every participant has an active responsibility to foster a climate of intellectual stimulation, openness, and respect for diverse perspectives, questions, personal backgrounds, abilities, and experiences, although instructors bear primary responsibility for its maintenance.

A range of resources is available to those who perceive a learning environment as lacking inclusivity, as defined in the preceding paragraph. If possible, we encourage students to speak directly with their instructor about any suggestions or concerns they have regarding a particular instructional space or situation. Alternatively, students may bring concerns to
another trusted advisor or administrator (such as an academic advisor, mentor, department chair, or dean). All classroom participants—including faculty, staff, and students—who observe a bias incident affecting a student may also file a report (whether personally or anonymously) utilizing the online Bias Report and Support System.

Ethics/violations of academic integrity: Ethical behavior is an essential component of learning and scholarship. Students are expected to understand, and adhere to, the University’s academic integrity policy: wustl.edu/policies/undergraduate-academic-integrity.html. Students who violate this policy will be referred to the Academic Integrity Policy Committee. Penalties for violating the policy will be determined by the Academic Integrity Policy committee, and can include failure of the assignment, failure of the course, suspension or expulsion from the University. If you have any doubts about what constitutes a violation of the Academic Integrity policy, or any other issue related to academic integrity, please ask your instructor.

Writing Assistance: For additional help with your writing, consult the expert staff of the Writing Center (writingcenter.wustl.edu) in Olin Library (first floor). It can be enormously helpful to ask someone outside a course to read your essays and to provide feedback on strength of argument, clarity, organization, etc. The Engineering Communication Center http://engineering.wustl.edu/current-students/student-services/Pages/default.aspx offers students in the School of Engineering and Applied Sciences help with oral presentations, writing assignments, and other communications projects, as well as job-search documents such as resumes and cover letters.

The university’s preferred name policy for students, with additional resources and information, may be found here: registrar.wustl.edu/student-records/ssn-name-changes/preferred-name-policy/preferred-name-policy-student/

Accommodations based upon sexual assault: The University is committed to offering reasonable academic accommodations to students who are victims of sexual assault. Students are eligible for accommodation regardless of whether they seek criminal or disciplinary action. Depending on the specific nature of the allegation, such measures may include but are not limited to: implementation of a no-contact order, course/classroom assignment changes, and other academic support services and accommodations. If you need to request such accommodations, please direct your request to Kim Webb (kim_webb@wustl.edu), Director of the Relationship and Sexual Violence Prevention Center. Ms. Webb is a confidential resource; however, requests for accommodations will be shared with the appropriate University administration and faculty. The University will maintain as confidential any accommodations or protective measures provided to an individual student so long as it does not impair the ability to provide such measures.

If a student comes to me to discuss or disclose an instance of sexual assault, sex discrimination, sexual harassment, dating violence, domestic violence or stalking, or if I otherwise observe or become aware of such an allegation, I will keep the information as private as I can, but as a faculty member of Washington University, I am required to immediately report it to my Department Chair or Dean or directly to Ms. Jessica Kennedy, the University’s Title IX Coordinator.

If you would like to speak with the Title IX Coordinator directly, Ms. Kennedy can be reached at (314) 935-3118, jwkennedy@wustl.edu, or by visiting her office in the Women’s Building. Additionally, you can report incidents or complaints to Tamara King, Associate Dean for Students and Director of Student Conduct, or by contacting WUPD at (314) 935-5555 or your local law enforcement agency. You can also speak confidentially and learn more about available resources at the Relationship and Sexual Violence Prevention Center by calling (314) 935-8761 or visiting the 4th floor of Seigle Hall.

Bias reporting: The University has a process through which students, faculty, staff and community members who have experienced or witnessed incidents of bias, prejudice or discrimination against a student can report their experiences to the University’s Bias Report and Support System (BRSS) team. See: brss.wustl.edu

Mental health: Mental Health Services’ professional staff members work with students to resolve personal and interpersonal difficulties, many of which can affect the academic experience. These include conflicts with or worry about friends or family, concerns about eating or drinking patterns, and feelings of anxiety and depression. See: shs.wustl.edu/MentalHealth