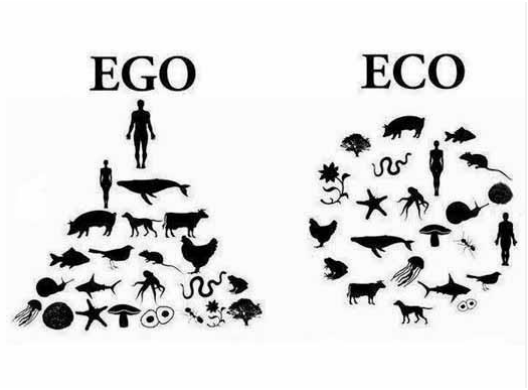

Version 1.6.2020

Finalized version will be posted and reviewed in class January 13

Power and Environment
Political ecology perspectives on conservation and development
(LAS 6938 section 21556 & ANG 6930 section 24841)

Spring 2020, Mondays period 6-8 (12:50-3:50), Grinter Hall 376
Susan Paulson: spaulson@latam.ufl.edu, (352) 273 4730, Grinter Hall 301
Office hours: Mondays 4:00-5:30pm, Thursdays 11:00am-12:30pm. Other times always welcome by appointment

This course brings together natural and social scientists and practitioners to ask: How does power work in and through ecosystems, environmental governance systems, institutions, bodies, and science itself? Participants explore environmental challenges and conflicts on scales ranging from local farms and urban centers to earth systems of atmosphere, geosphere, hydrosphere, and biosphere. Attention is drawn to unequal distribution of environmental benefits and burdens, asymmetrical exchange of material and energy, and contested understandings of human and other nature.

Latin American cases, visions and responses are foregrounded. Materials include recent publications like Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Service, Pope Francis' Encyclical on Care for Our Common Home, The EcoModernist Manifesto, UN Sustainable Development Goals, and the Framework Convention on Climate Change. As course participants critically analyze diverse approaches to conservation and development, they also work toward building positive alternatives for the future.

Topics and approaches to be explored, in order of priorities expressed by 2020 course participants

To be inserted after final participant responds to survey

"Despite, and because of, great acceleration of scientific knowledge and technology over the last few hundred years, human-nature systems are in danger of collapse" (Parra and Walsh 2016: 229).

"Anyone who believes in indefinite growth on a physically finite planet, is either mad or an economist."
— Economist Kenneth E. Boulding

LITERATURE AND OTHER MATERIALS

- Students are not required to purchase any books or other course materials.
- Most required **readings** are available electronically through UF libraries.
- Books, book chapters, and other publications are posted on Canvas.
- V**ideos, podcasts, news and other materials** are available on the internet OR on Canvas.
- A number of assigned readings are available in English, Portuguese and Spanish.

LEARNING OBJECTIVES

The overall goal of this course is to motivate and empower participants to see and to analyze environmental issues in new and transformative ways.

Students who engage actively in this course will develop the capacity to:

Identify power-environment dynamics in empirical cases involving lifestyles, urban planning, energy, and agriculture, forests, wildlife, other domains.

Use evidence-based writing to describe empirical conditions and processes, and to make arguments about power relations at play therein.

Interpret contrasting visions and discourses on human-environment relations, including sustainable development, eco-spiritualism, eco-modernism, eco-feminism, buen vivir and degrowth.

Apply analytic methods including ecological footprint, value chain analysis, ecosystems assessment, embodied consumption, consumption diaries, and material flows analysis.

Assess institutional arrangements for environmental governance on multiple scales, together with competing models for conservation and development.

Define and use contested concepts including conservation, development, sustainability and nature.

Observe processes through which diverse socio-natural worlds are produced, reproduced, and sometimes transformed.

Investigate the distribution and exchange of natural resources and waste.

Reflect critically on their own consumption and lifestyles, the socio-environmental impact of their life choices, and ways to forge more meaningful and sustainable lifestyles.

Explore visions and projects for building more equitable and resilient futures.

COURSE POLICIES

Attendance is required. Class meetings are a vital part of this course. All students are expected to complete assignments and readings before class, to arrive on time for each class, and to participate actively in classroom learning. Absences will be reflected in grades. The class will involve a great deal of interaction and discussion, and students will be rewarded for efforts to learn collaboratively with respect, enthusiasm and open minds.

Personal technology in the classroom. During most regular class time students will be fully engaged in listening and interacting, without access to personal technology devices (laptops, smartphones, mobile phones, iPads, and similar technologies). The instructor will indicate when devices may be used for select class activities. Exceptions will be made for students who use personal technology devices in relation to special needs, students who anticipate emergency calls, etc.

UF HELPING RESOURCES

- **Latin American and Caribbean Collection at UF Libraries**: Specialized staff support use and enjoyment of the 500,000 volumes, 50,000 microforms, thousands of current and historical serial titles and digital resources in this world-class collection. LACC library staff provide expert help in online searches for research and study materials.

- **Academic Writing, Grammar and Style:** The UF Writing Studio is committed to helping University of Florida students and faculty meet their academic and professional goals by becoming better writers. We support independent learning and scholarship by providing one-on-one consultations, workshops tailored to specific classes (graduate and undergraduate), and faculty retreats focusing on publishing original research. Students and faculty at all levels and in every discipline are welcome!

- **Technical difficulties with E-learning in CANVAS**: Contact the UF Help Desk at Learning-support@ufl.edu or (352) 392-HELP, then select option 2.

- **Personal Challenges:** Students experiencing crises or personal problems that interfere with general wellbeing are encouraged to utilize the university's counseling resources. The Counseling Center and Student Mental Health both provide confidential counseling services at no cost for enrolled students. Resources are also available for students seeking to clarify career and academic goals and to deal with academic challenges.
  - University Counseling Center, 301 Peabody Hall, 392-1575; personal and career counseling.
  - Student Mental Health, Student Health Care Center, 392-1171, personal counseling.
  - Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161.
  - Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

UF POLICIES

- **Students with Disabilities Act:** The Dean of Students Office coordinates needed accommodations of students with disabilities. This includes the registration of disabilities, academic accommodations within the

classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faculty-student disability related issues. *Dean of Students Office*, 202 Peabody Hall, 392-7066.

- **Software Use:** All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator.
- **Academic Misconduct:** Academic honesty and integrity are fundamental values of the University community. Work submitted for credit by UF students should not include any form of plagiarism, cheating or unauthorized aid. Unless an assignment is explicitly identified as collaborative, all work should be completed independently. Students should understand and follow the Student Honor Code that they signed upon enrollment at the University of Florida: *"I understand the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."*
- Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing **course evaluations online via GatorEvals**. Guidance on how to give feedback in a professional and respectful manner is available at gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at gatorevals.aa.ufl.edu/public-results/ .

LEARNING METHODS

This course brings together ideas and approaches from biology, ecology, anthropology, geography, forestry, economy, sociology, agronomy, political science, environmental studies, development studies, and religious and spiritual studies. Participants explore tensions and possibilities among different assumptions, purposes, and criteria for truth or usefulness.

Course participants meet in person once each week, while conversations and interactions develop continually through a virtual intellectual community interconnected through the course website.

Each weekly meeting will include a lecture by instructor and some kind of participatory learning activity.

Most classes start with **presentations by students** who communicate issues they are passionate about and/or personally involved in, and find ways to make connections with course readings and concepts. Presentations may include power point slides, facilitation of debate or activities, performance, video, or other audiovisual aids. Presentations should last around twenty minutes. This experience is free from grading.

Grades will be based on engagement in a series of learning activities; detailed guidelines for each, together with expectations for student performance, are included below.

GRADED LEARNING ACTIVITIES

Learning activity	**Maximum points to be earned**
Discussion board: comments/videos/creative contributions and questions on weekly readings posted in CANVAS	20 **(**10 commentaries @ 2 points each)
Attendance and participation	10

Active participation in UF conference, March 20-22. Critical review of conference experiences and conversations.	10
5-part activity (40 points total)	
Consumption diary: practice and meaning	5
Critical engagement w ecological footprint (short paper)	5
Embodied material consumption (short paper)	5
Synthesis paper: Analysis of my role in ecological and economic flows; identification of power and pathways available for me to influence global value chains	20
Debate analysis paper, collaborative (25 pts total)	
Draft paper	10
Final paper	10
Presentation of work via slide(s), 3 minute talk, and discussion	5

Letter grades will be implemented using the following scale

		78-79.99	C+	60-62.99	D-	
95-100	A	73-77.99	C	0-59.99		F
90-94.99	A-	70-72.99	C-			
88-89.99	B+	68-69.99	D+			
83-87.99	B	63-67.99	D			
80-82.99	B-					

GUIDELINES AND ASSESSMENT CRITERIA FOR LEARNING ACTIVITIES

Written work

All written work for this course should use U.S. punctuation and follow standards in Chicago Manual of Style, accessible online at UF libraries. Resources and quotes must be properly cited, and references listed as described in The Chicago Manual of Style Author-Date system. Written materials should be uploaded onto CANVAS in Word documents (**not PDF**), unless images or figures require other format. Please include your name in the title of each submitted document.

Every student is encouraged to visit the UF writing studio for support in developing scholarly writing skills and strategies: http://writing.ufl.edu/writing-studio/ On each student's first paper, instructor will mark punctuation and style errors, but not subtract points. Errors that are repeated in later papers are penalized.

Comments, questions, and creative expressions inspired by weekly readings posted in CANVAS discussion space

Before midnight each Sunday, students post on CANVAS critical reflections on readings and videos assigned for the week, and on optional materials explored. These reflections may take the form of videos, artwork, written comments, poetry, or other. Keep written entries under 250 words, respond briefly to postings by classmates, and try to move from monologue statements toward dialogue conversations among diverse voices.

Each posting should do *at least one* of the following:

- Identify and define one key concept in the readings.
- Provide and discuss a quote from readings/videos that expresses an idea or argument that you think is valuable or interesting, or that raises doubts or confusion.

The insights and questions circulated on our electronic discussion board serve to enrich classroom conversations. For each class meeting, one student will lead in-class discussion motivated by readings, taken posted responses into consideration.

Power-environment debate analysis paper written in pairs

Working in pairs, students produce papers that describe one environment-related challenge, and engage two or three contrasting responses to that challenge, identifying power operating on various scales and places in each position and approach. An example of an issue might be: How to supply global demand for food without further degrading the environment? Competing responses might be: (A) Expand high tech agroindustries and GMOs to produce more food. (B) Support more balanced and efficient distribution of nourishment to reduce obesity *and* starvation, as well as waste. (C) Shift support to plant-based local food grown via agroecology, permaculture and other low-impact means. Papers draw on course concepts and materials, and complement these with resources discovered outside of class.

Target length is 2000 to 3000 words. All resources and quotes must be properly cited, and full references listed as described in: http://www.chicagomanualofstyle.org/tools_citationguide.html

Each writing pair will submit two versions of the paper: an initial version that will be critiqued by instructor, and a final version that responds to suggestions.

Each version of the paper may earn up to 10 points according to the following criteria:

Criteria	A successful debate paper will:	points
name challenge	Clearly identify the environmental challenge to be addressed	1
method	Clearly describe your method, positioning, and collaboration in producing this paper. Describe and discuss research methods applied by investigators you cite in this paper	1
Phenomenon in context	Use specific information, citing sources, to describe phenomenon and relevant history, geography and cultural background, identifying power dynamics operating in each	1
connect w. course	Use relevant ideas and information from at least 4 materials assigned for this course (publications, videos, websites)	2
competing responses	Identify 2 or 3 contrasting ways to address the challenge, review literature on each w attention to positioning of authors/orgs	2
analysis	Assess pros and cons of each alternative (for differently located people and places), with special attention to power	2
writing and references	Show correct punctuation and grammar, subject-pronoun coordination, full attribution of quotes and paraphrases, complete reference list according to The CMS Author-Date system	1

In class, each student pair will present a brief (3-5 minute) presentation on their debate paper, then facilitate an interactive discussion. Practice timed presentations! Study examples and hints for 3 minute thesis presentations.

Participation in and critical review of LAS Annual Conference
Participate in the UF 2020 Annual Conference. Write a 300-400 word paper on the conference, in which you comment specifically on at least two events (e.g. workshop, presentation, performance) associated with within the 3-day gathering.

- indicate the title, place, time and presenter(s) of the event
- identify the main message(s) communicated by the event
- discuss an aspect of the event that you found interesting, motivating, insightful
- discuss an aspect of the event that provoked disagreement, frustration, boredom
- connect the event to content or ideas covered in our course readings and lectures
- include one statement, experience, conversation, or image that impacted you

Participate freely in other relevant events, describe on canvas discussion board, bring ideas to class

Center events calendar: http://www.latam.ufl.edu/calendar/
Tropilunch seminar, 12:45 every Tuesday in Grinter 376 http://www.tcd.ufl.edu/news/tropilunch
TCD news and events http://www.tcd.ufl.edu/news-events

5-part activity

(1) Consumption diary: practice and meaning

Keep a diary of everything you consume during 24 hours. In addition to obvious commodities (food, water, shampoo) pay attention to the light, heat, electricity, transportation services you use; the technology you access (television, books, computers); the information and entertainment you consume. Feel free to add any comments or information about instances or habits of consumption. A range of approaches and schema are welcome: students doing this exercise have identified between 20 and 200 instances of consumption in one day.

Select five acts or moments of consumption during your day, and write about the empirical sensations involved (sight, sound, touch, taste, smell), cultural and personal meanings evoked by the act. Write about your decisions and judgements concerning these acts of consumption. Be aware of the feelings and thoughts (or lack thereof) that accompany each act, and search for any forces or relations of power operating therein.

Sources for ideas:

Household Consumption & the Environment EU. Prezi

Empty promises Craze for minimalism

(2) Critical engagement with ecological footprint (short paper)

Write a brief paper (600-800 words) that addresses the following.

- Define ecological footprint, and explain how it is calculated. Mention water footprint and carbon footprint.
- Describe how National Footprints are calculated, and how these calculations are (and may be) used by governments.

- Discover something interesting or curious about eco-footprint patterns across countries and/or cities.
- Take the quiz describing your life now in Gainesville, and take it again describing your life in the city/country where you grew up.
- Using **quantitative** results, describe your ecological footprint as determined in online activities.
- What insights did the experience provide about how you might reduce your footprint?
- What are some benefits and limitations of each of these personal footprint calculators as educational and awareness-raising tools?

Process:

- Study Eco Footprint on main site, read carefully "How the Footprint Works," "Country Work" and "City and Regional Work."
- On the open data platform, Look at Global Footprint Network's National Footprint Accounts, compare countries by data, and browse case studies.
- Using the GFN calculator AND at least two of the following websites (or similar ones that you identify), do exercise that examine your personal ecological footprint and provide suggestions for managing your footprint.

Some complementary quizzes ~~ search for more online

- Foodprint calculator
- The Greens *Zero Footprint Youth Calculator*

(3) Embodied material consumption (short paper)

Write a brief paper (500-800 words) about 1 good or service selected from your consumption diary.

- Research the life cycle of selected commodity.
- Identify material and energy embodied during its life cycle, production and consumption processes, and emissions/wastes produced along the way.
- Comment on use of emergy, HAANP, material flows analysis, or other measurement systems.
- Map out a model life cycle of your chosen good or service.
- Chart and analyze power dynamics that support and shape the process.

"Embodied Material Consumption" is the energy, water and all other resources that have been used to produce a good or service and to transport it to the place of consumption, together with the waste and emissions generated along the way. When I do a web search, for example, I not only use the electricity powering my laptop, but also the energy and materials used to produce the laptop and the content viewed. Even more substantially, my use relies on large high-energy servers and distant data processing centers that manage and distribute content.

You may not be able to trace the life cycle of the exact kiwi that you ate for breakfast; instead look on company websites and other sources to find out what you can about the life cycle of an average kiwi sold by a certain company or consumed in the US. You are welcome to use information and quantifications already compiled by others – just cite the sources.

The report should include a timeline roughly representing the life cycle of your good or service. Here is an (incomplete) example of some elements that make up the embodied material consumption of a hamburger:

- Water, sun, soil to grow grass in pasture
- Water, sun, soil to grow soy and corn crops produced for feed
- Agrochemicals to fertilize, insecticide, etc.
- Tractor and fuel to plant and harvest crops

- Factory that turns soy and corn into balanced feed
- Fuel to transport feed to cattle farms
- Methane greenhouse gas emissions in form of cow farts
- Veterinary drugs, growth hormones, nutraceuticals for cattle
- Truck/train and diesel to transport cattle to slaughterhouse
- Materials to construct, light, power and clean slaughterhouse
- Materials to construct, light, power and clean slaughter and packing machines
- Energy for freezer compartments to store meat
- Freezer truck and diesel to transport meat to restaurant
- Energy for fridge or freezer in restaurant
- Gas to cook on grill
- Styrofoam shell to serve burger
  Physical consumption of one yummy hamburger
- To landfill: styrofoam shell, serving bag, napkins, refuse from farms and slaughterhouses, used tractors/trucks/freezers/slaughter machines/stoves
- To water table: runoff from fertilizers, pesticides, manure, etc.
- To atmosphere: emissions from fertilizer production, farming, farting, transporting, cooking, etc.
- Etc.

Finally, identify some forces and relations of power that support the current dynamics of value chains, and that might be activated to change them in positive ways. The following news brief, for example, suggests that the enormous impacts of energy use and emissions related to internet use could be mitigated by using human brain power to achieve certain technological innovation.

Your Video Binging Is Killing The Planet, But There May Be A Solution

Following are excerpts from our reading, and other links that might be interesting.

People and the Planet 2012, 48-49. As international trade increases, the production of goods can become increasingly detached from direct consumption. Goods exported from one country to another carry with them **"embodied" material consumption**, which is necessary for their manufacture. Thus the water use and CO2 emissions of More Developed Countries appear lower than they would under full accounting, because they are partially outsourced to Less Developed Countries.

Embodied Water. People and the Planet 2012, 51. Virtual or **embodied water** refers to the amount of freshwater (including soil water) used during the production process of a good or service. Producing goods and services generally requires water (Hoekstra 2003). For example, it requires about 1,000 cubic meters of water to produce a ton of grain (Hoekstra and Hung 2003). Countries limited in available freshwater rely on importing food to compensate for lack of production ability (Brown and Matlock 2011).

Embodied energy is an accounting method which aims to find the sum total of the energy necessary for an entire product life-cycle. Determining what constitutes this life-cycle includes assessing the relevance and extent of energy into raw material extraction, transport, manufacture, assembly, installation, disassembly, deconstruction and/or decomposition as well as human and secondary resources. Different methodologies produce different understandings of the scale and scope of application and the type of energy embodied.

Embodied energy

You can find a pdf of the book Stuff: The Secret Lives of Everyday Things on the following link, and/or read it online with Google books.

The Secret Life of Your COMPUTER. This article was extracted with permission from *Stuff: The secret lives of everyday things* by J. Ryan and A. Durning. Published by Northwest Environment Watch, Seattle WA, 1997.

(4) Synthesis paper: Analysis of my role in ecological and economic flows and my power to influence global value chains

Write a paper that synthesizes aspects of research and thought from steps 1, 2 and 3. The essay of 2000-3000 words may include excerpts from your consumption diary, value chain model, or other, in text or as appendices.

The paper should focus on one item or instance of your consumption diary. Build on your embodied material consumption work to develop a life cycle of the item from its roots in natural resources to its consumption and waste disposal. Identify several dimensions of the process that involve exchanges (economic or ecological), and that are conditioned by relations of power. Discuss ways in which those relations work: did a powerful corporation get the rights to extract valuable resources from a poor country? Did certain actors perform low paid and dangerous work in mines? Or exhaust their local soils and ecosystems intensifying agricultural production? Did lobbyists pressure for lower regulations?

Resources:

Look at Juliet Schor's article, finding inspiration in the ways that she analyzes power relations in the value chains of bananas and clothing. Note her identification of **precise** salary and benefit advantages obtained through off-shore labor, **specific** expressions of military and political power (invasion of Guatemala), **particular** manipulation of international convention (WTO), etc. Note that sources of this information are carefully documented.

Schor, Juliet. Prices and quantities: Unsustainable consumption and the global economy. Ecological Economics 55 (2005) 309 – 320

Best Practice Guideline for Agricultural and Value Chains. International Federation of Organic Agriculture Movements.

Gary Gereffi, John Humphrey, Raphael Kaplinsky, and Tim Sturgeon (2001) "Globalisation, Value Chains and Development." ***IDS Bulletin*** 32 (3).

Check out papers in Special Section on "Ecologically unequal exchange and ecological debt," edited by Alf Hornborg and Joan Martinez-Alier.

(5) Presentation

The last step requires portraying your analysis visually in a couple slides, and conveying it to the group in a 3 minute presentation. A key part of this challenge is finding ways to present complex systemic research in

concise clear messages. Practice timed presentations! Study examples and hints for 3 minute thesis presentations.