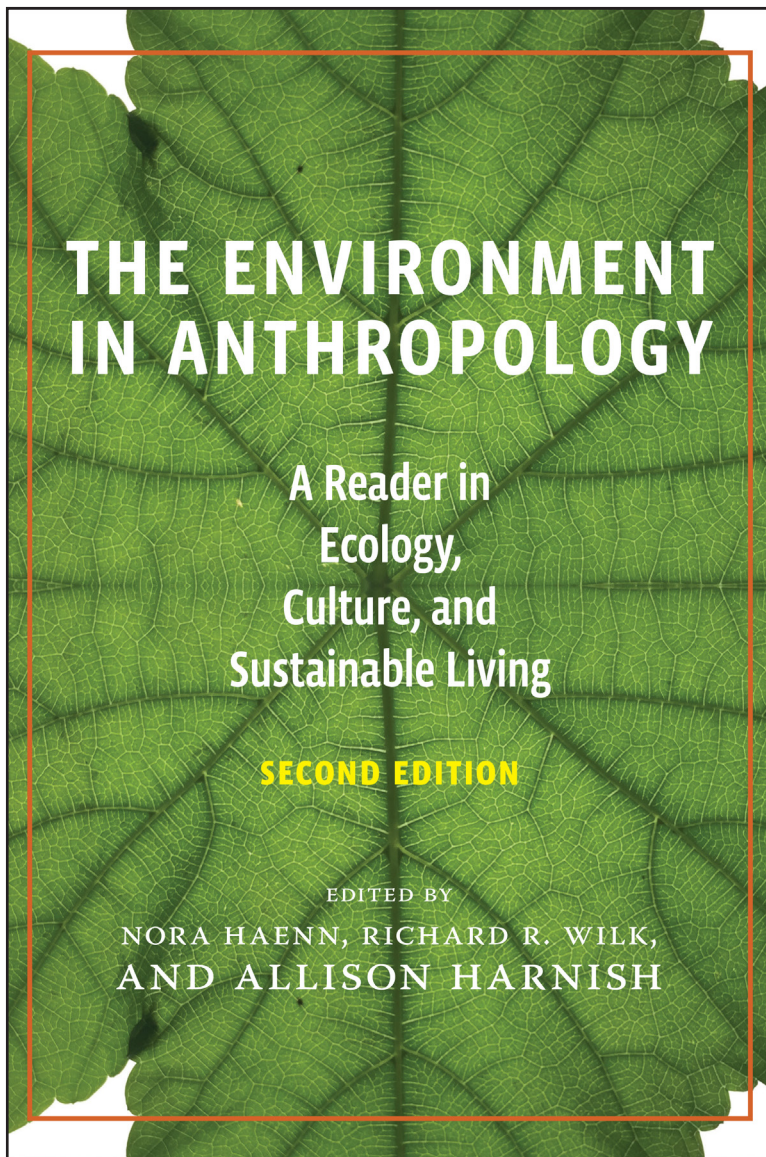


# The Environment in Anthropology

Second Edition

## INSTRUCTOR'S GUIDE



### Why Consider this Book for Your Class?

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- Poses the most urgent questions of environmental protection
- Balances landmark essays with cutting-edge scholarship
- Offers practical tools for solving environmental problems
- Updated edition includes 20 new pieces, new introductory essays, and a teaching guide

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## Overview

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The Environment in Anthropology presents ecology and current environmental studies from an anthropological point of view. From the classics to the most current scholarship, this text connects the theory and practice in environment and anthropology, providing readers with a strong intellectual foundation as well as offering practical tools for solving environmental problems.

Haenn, Wilk, and Harnish pose the most urgent questions of environmental protection: How are environmental problems mediated by cultural values? What are the environmental effects of urbanization? When do environmentalists' goals and actions conflict with those of indigenous peoples? How can we assess the impact of "environmentally correct" businesses? They also cover the fundamental topics of population growth, large scale development, biodiversity conservation, sustainable environmental management, indigenous groups, consumption, and globalization.

This revised edition addresses new topics such as water, toxic waste, neoliberalism, environmental history, environmental activism, and REDD (Reducing Emissions from Deforestation and Forest Degradation), and it situates anthropology in the multi-disciplinary field of environmental research. It also offers readers a guide for developing their own plan for environmental action. This volume offers an introduction to the breadth of ecological and environmental anthropology as well as to its historical trends and current developments. Balancing landmark essays with cutting-edge scholarship, bridging theory and practice, and offering suggestions for further reading and new directions for research, The Environment in Anthropology continues to provide the ideal introduction to a burgeoning field.

## Section 1:

## So, What is Environmental Anthropology

**SECTION SUMMARY:**

Section One introduces readers to some of the foundational concepts and important theories in anthropology and the environment, ranging cultural ecology to feminist political ecology. The chapters in this section illustrate some of the broader trends in anthropological thinking about human-environment interactions and exemplify the ways in which an anthropological framework is well-suited to interrogate and challenge geographic, ethnic, and gender stereotypes. The section concludes with a brief introduction to environmental ethics.

**KEY TERMS:**

adaptation, biodiversity, counter narrative, cultural ecology, culture core, development, ethics, ethnoecology, feminist political ecology, gendered knowledge, holistic, industrial agriculture, modernity, political ecology, primitive, progress, received wisdom, renewable and nonrenewable resources, smallholder, subsistence, sustainability, swidden agriculture

**OVERARCHING QUESTIONS:**

- How do anthropologists go about studying humans' relationships with nature?
- How has this field of study changed over time?

**QUESTIONS FOR EACH CHAPTER:**

Questions to Accompany Chapter 1: "The Concept and Method of Cultural Ecology"

by Julian Steward

1. What is cultural ecology? What are its three fundamental procedures?
2. How is the problem and method of cultural ecology different from other theoretical frameworks?
3. What does holistic mean? How does this definition inform the concept and method of cultural ecology?
4. What is the culture core?
5. Why does Steward suggest that the expression culturally prescribed ways should be used with caution? What does this expression have to do with human-environment interactions?
6. What relationships exist between humans' environments (e.g., deserts, rainforests) and their social patterns (e.g., kinship systems, political formations, economic cooperation)?

Questions to Accompany Chapter 2: "Smallholders, Householders"

by Robert McC. Netting

1. What does Netting mean when he states that binary terms like "traditional and modern, preindustrial and industrial, Western and non-Western, or even extensive and intensive . . . [impose] an evolutionary straitjacket on our thinking"? How does this statement affect our anthropological thinking about human-environment relationships?
2. What does sustainability mean? Why is it that "traditional" cultivators are often assumed to employ more sustainable land-use tactics than "modern" commercial and industrial land users do?

## Section 1:

## So, What is Environmental Anthropology

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 Questions to Accompany Chapter 3: “False Forest History, Complicit Social Analysis: Rethinking Some West African Environmental Narratives”

by James Fairhead and Melissa Leach

1. What is a narrative, as defined by Fairhead and Leach?
2. How do narratives inform our thinking about relationships between people and the environment? How have social scientists helped to produce and reproduce these kinds of narratives over time?
3. What false forest histories are contained in the narratives concerning Kissidougou?
4. What are the political effects of these narratives?
5. What counternarrative do Fairhead and Leach posit in place of the false forest history?
6. What methods do Fairhead and Leach employ in order to discredit the false forest history and substitute their own counternarrative?

## Questions to Accompany Chapter 4: “Gender and Environment: A Feminist Political Ecology Perspective”

by Dianne Rocheleau, Barbara Thomas-Slayter, and Esther Wangari

1. What is feminist political ecology? How is this different from political ecology and the other theoretical frameworks that came before it?
2. What three themes encompass Rocheleau et al.’s feminist political ecology framework?
3. What common threads connect feminist political ecology to other scholarship and movements focused on gender, science, and environment?
4. What do Rocheleau et al. mean when they state that “there are real, not imagined, gender differences in experiences of, responsibilities for, and interests in ‘nature’ and environments but that these differences are not rooted in biology per se”? Can you think of any instances in which your own perceptions of and interactions with nature were affected by gender, culture, class, race, or place?

## Questions to Accompany Chapter 5: “A View from a Point: Ethnoecology as Situated Knowledge”

by Virginia D. Nazarea

1. What two approaches to ethnoecology does Nazarea identify? How do these two approaches differ in regard to their implications for non-Western systems of classification?
2. What does Nazarea add to the anthropological conversation on ethnoecology? To where does she suggest ethnoecologists should turn their attention?
3. How do cognitive anthropology, in general, and the work of Harold Conklin, in particular, inform Nazarea’s perspective?

## Section 1:

### So, What is Environmental Anthropology

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# SECTION 1

Questions to Accompany Chapter 6: "Ethics Primer for University Students Intending to Become Natural Resources Managers and Administrators"

by Richard J. McNeil

1. Which ethical theory or theories resonate most closely with your own social and environmental outlook?
2. Think of an example wherein you employed one ethical theory, then moderated your initial stance by incorporating a second ethical theory. McNeil offers the following example of such a moderation: "I know that I am supposed not to lie, but the truth would hurt his feelings terribly." Have you ever performed such a moderation in regard to your behavior toward the environment?
3. What is the difference between a moral agent and a moral subject?
4. How far into the plant, animal, and other taxa do you extend ethical consideration? Do you include chimpanzees and dolphins in your moral community? What about fish and frogs? What about trees and rocks?
5. What is a moral dilemma? Can you recall an instance when you experienced one of the four types of moral dilemmas identified by Kidder? What moral dilemmas are present in this week's news?

## Section 1:

## So, What is Environmental Anthropology

## Activities

**ACTIVITIES****Activity 1.1: Cultural Adaptations, Culture Contact, and Culture Change (Part I)**

This activity allows students to explore processes of cultural and technological diffusion as mentioned in Chapter 1 (The Concept and Method of Cultural Ecology) by Julian Steward and to consider the ways in which subsistence strategies are sophisticated cultural adaptations to particular environments (e.g., foraging in the Kalahari Desert, herding in the Siberian taiga). The supplementary reading for this activity is typical of anthropological writing from the 1950s. It focuses on material culture, culture contact, and demonstrates the anthropological concept of holism. Instructors might like to note how the field has changed since Laruiston's article was published. Overall, this activity helps students to overcome enduring stereotypes of indigenous, "traditional," or "tribal" cultures as isolated, unsophisticated, and unchanging through time. Additionally, this activity explores possible conflicts between indigenous ecologically adapted cultural practices and introduced worldviews.

**STEPS:**

Have students read/watch either or both the suggested supplementary reading "Steel Axes for Stone Age Australians" and the short documentary, "A Thousand Suns." On their own or in groups, students can then address the corresponding questions.

**Suggested Reading for Activity 1.1:**

Sharp, Lauriston. (1952). Steel Axes for Stone-Age Australians. *Human Organization* 11(2): 17-22. Available [online](#).

Abstract: "Like other Australian aboriginals, the Yir Yoront group which lives at the mouth of the Coleman River on the west coast of Cape York Peninsula originally had no knowledge of metals. Technologically their culture was of the old stone age or paleolithic type. They supported themselves by hunting and fishing, and obtained vegetables and other materials from the bush by simple gathering techniques. Their only domesticated animal was the dog; they had no cultivated plants of any kind. Unlike some other aboriginal groups, however, the Yir Yoront did have polished stone axes hafted in short handles which were most important in their economy."

**Questions to Accompany "Steel Axes for Stone-Age Australians":**

1. What is modernity? How have different anthropologists defined and approached this concept over time?
2. What constitutes modernity in this example?
3. How did the introduction of the steel axe change the kinship and gender relations of the Yir Yoront people?
4. How did the introduction of steel axes alter the community's relationship to their ecology?



## Section 1:

## So, What is Environmental Anthropology

## Activities

## Suggested Film for Activity 1.1:

Marshall, Stephen (Director) & Roshan, Gayatri (Director). (2009). A Thousand Suns [Documentary Film]. USA: Global Oneness Project. Available [online](#).

Abstract: A Thousand Suns (28 minutes) “tells the story of the Gamo Highlands of the African Rift Valley and the unique worldview held by the people of the region. This isolated area has remained remarkably intact both biologically and culturally. It is one of the most densely populated rural regions of Africa yet its people have been farming sustainably for 10,000 years. Shot in Ethiopia, New York, and Kenya, the film explores the modern world’s untenable sense of separation from and superiority over nature and how the interconnected worldview of the Gamo people is fundamental in achieving long-term sustainability, both in the region and beyond.” The global oneness project provides a [factsheet](#) summarizing their critique of the Alliance for a Green Revolution in Africa.

## Questions to accompany the film “A Thousand Suns”:

1. What are wogas?
2. How has the introduction of Christianity affected the indigenous spirituality and human-environment relations in the Gamo?
3. What was the Green Revolution, and what are some of the common critiques launched against it?
4. What is AGRA, and what are the critiques of it?
5. What do AGRA and the new Christianity in the Gamo have in common?

See also the [“Discussion and Action Guide”](#) created by the Global Oneness Project.

## Activity 1.2: Cultural Adaptations, Culture Contact, and Culture Change (Part II)

After students have learned about the Yir Yoront group in “Steel Axes...” and the Gamo Highlands in “A Thousand Suns,” they can carry out their own independent research into the varying subsistence strategies and effects of globalization in other primary food producing communities around the world. This activity invites students to consider, as Steward and Netting did, the different food procurement and land-use methods humans have developed in response to and sometimes in spite of various cultural and environmental constraints.

## STEPS:

Divide students into small groups. Assign a contemporary pastoralist, hunter-gatherer, or swidden farming culture to each group. Have groups research the lives and lifeways of their assigned culture and the ways in which these cultures have historically benefited from or been harmed by introduced technologies, economic systems, systems of governance, and beliefs/worldviews. Have groups answer the following questions:

1. What is the environment like where your assigned culture lives?
2. What features of your assigned culture seem uniquely suited to the environment where they live?
3. What resources are most important to your chosen culture?
4. What effect does your culture seem to have on the environment, and how does the environment affect them in turn?
5. What relationships do they have with neighboring people who do not belong to their culture?
6. What relationships do these groups have with the larger national governments under which they live?

## Section 1:

## So, What is Environmental Anthropology

## Activities

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7. Are there any specific national or territorial policies concerning swidden burning, forest felling, hunting, animal grazing, or nomadic practices that guide these relationships?
  8. How have their ways of life changed as a result of globalization?

The instructor should guide students to find parallels between the examples they researched and the readings in Section 1 as well as the supplementary reading and suggested film for Activity 1.1 above. Students should return and present their findings to the larger class. In addition to consulting standard library resources, instructors and students might also avail themselves of the [Human Relations Area Files](#) (HRAF), an online collection of primary research materials covering nearly 400 cultures.

## Activity 1.3: Villainizing Indigenous Ways, Setting the Record Straight

To what extent do narratives about human relations with nature vilify local (especially indigenous) people? How has social science promoted false ideas about people based on stereotypes and racist preconceptions, and how are anthropologists, historians, and local groups attempting to set the record straight? This activity involves one reading and one film both of which connect most strongly to Fairhead and Leach's contribution in Chapter 3 (False Forest History, Complicit Social Analysis) and the work of archaeologist Charles Redman in Chapter 13 (The Growth of World Urbanism).

## STEPS:

Have students read/watch either or both of the suggested supplementary reading "1491" and the documentary, "Second Nature." On their own or in groups, students can then address the corresponding questions.

## Suggested Reading for Activity 1.3:

Mann, Charles C. (2002, March). 1491. The Atlantic. Available [online](#).

Abstract: "Before it became the New World, the Western Hemisphere was vastly more populous and sophisticated than has been thought—an altogether more salubrious place to live at the time than, say, Europe. New evidence of both the extent of the population and its agricultural advancement leads to a remarkable conjecture: the Amazon rain forest may be largely a human artifact." Recalling the work of environmental historian William Cronon, geographer William Deneven, and anthropologists Clark Erikson and William Balée among many others, Mann reminds us that wilderness is ultimately a human creation and that some of the most iconic features of the Americas—from the Great Plains to the Amazon rainforest—are the result of many years of adaptive land use on the part of Native Americans.

## Questions to accompany the reading "1491":

1. What did Mann learn about Native Americans when he was in high school in the 1970s? What did you learn? What is the "pristine myth"? And how does this differ from what researchers like Erikson and Balée are discovering in the Beni?



## Section 1:

## So, What is Environmental Anthropology

## Activities

2. Mann's review of the series of epidemic diseases to sweep the Americas following the arrival of Europeans is a reminder of the fact that the human-environment relationship is dynamic and that humans are biocultural--that is to say, our culture influences our biology and vice-versa. Not only do humans affect their environments (by changing the landscape, domesticating animals, or introducing new species, for instance), but environments also affect people in turn. How did this dynamism play out in the context of zoonotic diseases among European and Native American populations?
3. How is it that the ravaging effect of European diseases on Native Americans led to a received wisdom that (1) Native Americans were few in number before the arrival of Columbus and (2) that Native Americans were not agricultural, but subsisted in small nomadic bands of hunter gathers?
4. This reading is an excellent bridge between Section 1 and Section 2. It also introduces some of the archaeological concepts discussed in Section 3. Recalling how Mesoamerica was host to its own independent Neolithic Revolution (the first occurred in the Fertile Crescent around 10,000 years ago) Mann notes that we have Native Americans to thank for the some of the recent population booms in Europe and other parts of the Old World. Why is this the case?
5. Why do some anthropologists refer to the Amazon as a "cultural artifact" or "artificial object," according to Mann?
6. How does this relate to the chapters by Steward, Chapter 1 (The Concept and Method of Cultural Ecology); Netting, Chapter 2 (Smallholders, Householders); and Nazarea Chapter 5 (View from a Point)?
7. What are the ethical implications if we believe the thesis of Betty J. Meggers, who argues that the Amazon's soils cannot sustain agricultural activities?
8. What does Meggers say are the possible social and environmental consequences if developers believe the opposite argument, put forth by William Woods and Joseph McCann--that the Amazon can support agriculture?
9. How does this connect to the reading on environmental ethics by Richard McNeil in Chapter 6 (Ethics Primer for University Students)?
10. How does it connect to the story of Kissidougou in Chapter 3 (False Forest History, Complicit Social Analysis)?

## Suggested Film for Activity 1.3:

Maughan, Graham (Director & Producer). (1996). [Second Nature](#) [Documentary Film]. (1996). United Kingdom: Cyrus Productions.

Abstract: This 42-minute documentary is based on the research that is summarized in Chapter 3 (False Forest History, Complicit Social Analysis) by James Fairhead and Melissa Leach. Contrary to widely-held notions that the forests of West Africa's transition zone (one of the world's most ecologically fragile areas) are undergoing rapid deforestation at the hands of local villagers/farmers, researchers have shown that local villagers/farmers in Guinea's Kissidougou prefecture have been transforming savanna to forest through their agricultural and other activities and that—contrary to the received wisdom passed down from colonial authorities to contemporary politicians and academics, and development officials—forest cover in

## Section 1:

## So, What is Environmental Anthropology

## Activities

Kissidougou is actually on the increase. In addition to adding a visual component to compliment the chapter by Fairhead and Leach, this video also features valuable interviews with and candid footage of Kissidougou residents that combat much of the negative and stereotypical images of African peoples that students are bound to have encountered in news and film (the simple fact that interviewees are speaking both Kissi and French serves as an excellent teaching moment, where instructors might remind students of Africa's colonial history). Moreover, the film includes footage of swidden agriculture (described in the introduction to Section 1) and it also offers a sense of what anthropological research (in particular, remote sensing, interviewing, archival work, and participant observation) often looks like.

## Questions to Accompany the Film "Second Nature":

1. Where do cotton tree seedlings germinate? What does this mean for the study of Kissidougou's forests? How does this affect our understanding of "nature" and of human-environment relationships?
2. What did the researchers find when they consulted a time series of satellite imagery from the Kissidougou region? How did these findings corroborate Kissidougou residents' oral accounts of environmental change?
3. What, according to James Fairhead, was the "principal method" by which they conducted their research?
4. Describe the farming technique that is "at the heart" of the grassland-to-forest transition happening in Kissidougou. How is it that the fences in Kissidougou "live on" even after villages have been abandoned?
5. What are some specific stories/testimonies from interviews with Toly Fondambadou village residents that offer evidence of the grassland-to-forest transition in Kissidougou? What evidence comes from the archives of French military commanders and colonial administrators?
6. How were Dominique Millimouno, James Fairhead, and Melissa Leach received by developers, politicians, and the academic community when they first made their findings public? In what ways does the "false forest history" described by Fairhead and Leach endure in Guinea's political and educational sectors?
7. "Given concerns about the pressure a population places on natural resources," the film states, "these findings seriously undermine assumptions that people are always bad for the environment." Recalling the reading by Charles Mann, can you think of any other instances in which people have managed and enriched a landscape? What constitutes a "better" or a "worse" landscape in the first place?

## Activity 1.4: Feminist Environmental Activism

The purpose of this activity is to challenge perceptions that professional scientists and/or outsiders alone possess the knowledge and tools to address environmental problems. This activity also provides examples of the of gendered knowledge, gendered environmental rights and responsibilities, and gendered environmental politics and grassroots activism as discussed by Rocheleau et al. in Chapter 4.

## Section 1:

## So, What is Environmental Anthropology

## Activities

## STEPS:

Have students watch the documentary “Taking Root” and complete the corresponding questions. Then, they can research other tree-planting initiatives.

## Suggested Film for Activity 1.4:

Merton, Lisa (Director & Producer) & Dater, Alan (Director & Producer). (2008). [Taking Root: The Vision of Wangari Maathai](#) [Documentary Film]. USA: Marlboro Productions.

Abstract: Taking Root (54 min) is an award-winning documentary about the first environmentalist and first African woman to win the Nobel Peace Prize. In 1977, Maathai suggested rural women plant trees to address problems stemming from a degraded environment. Under her leadership, the “simple act of planting trees grew into a nationwide movement to safeguard the environment, protect human rights, and defend democracy.”

## Questions to Accompany the Film “Taking Root”:

1. In defining the theoretical framework called feminist political ecology in Chapter 4 (Gender and the Environment), Rocheleau et al. “suggest that there are real, not imagined, gender differences in experiences of, responsibilities for, and interests in ‘nature’ and environments, but that these differences are not rooted in biology per se. Rather, they derive from the social interpretation of biology and social constructs of gender, which vary by culture, class, race, and place and are subject to individual and social change.” These differences are organized around the following three themes:

- i. gendered knowledge
- ii. gendered environmental rights and responsibilities
- iii. gendered environmental politics and grassroots activism

Across these three themes, Rocheleau et al. further identify five points that are of common interest to feminist political ecologists.

- i. inequity of participation and power in science-as-usual
- ii. abuse and misuse of science on and about women
- iii. assumptions of value-free objectivity and universality in science
- iv. use of culturally-embedded, gendered metaphors in scientific explanation and interpretation
- v. development of alternative ways of knowing and ways of learning based on everyday life, women’s experience, and explicit statements of values

Which (if any) of the three themes and five elements are evident in Wangari Maathai’s Greenbelt Movement? How, specifically, are they manifest?

2. In the beginning of the film, Maathai talks about enlisting women to plant trees with the help of foresters. How did the simple act of planting trees empower women?
3. In what ways does the Greenbelt Movement and Maathai’s explanation about the importance of forests and trees to indigenous cultures parallel the Fairhead and Leach contribution (Chapter 3)? How does it relate to other readings in Section 1?
4. In what ways are race, ethnicity, and gender represented in the documentary?

# SECTION 1: ACTIVITIES

## Section 1:

### So, What is Environmental Anthropology

#### Activities

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5. What relationship does the Greenbelt Movement have with government and policy?
6. How do local people relate to this movement?

After watching the film above, have students research one of the following tree planting campaigns, including Wangari Maathai's Green Belt Movement.

[Green Belt Movement](#)

[Plant A Billion](#)

[Garden City Fund](#)

Students might also investigate whether or not there are any similar tree-planting initiatives in their communities.

Students should explore the following questions in relation to the campaigns:

1. Who are the main actors of the movement?
2. Who are their organizational partners?
3. What is the role of the local people?
4. What is the role of the government in these programs?
5. How do these programs relate to Fairhead and Leach's idea of "received wisdom" coming from top-down institutions and Maathai's notion of "coded wisdom" and grassroots organizations?
6. Who benefits from the programs and in what ways?
7. What risks are involved?

## Section 2:

What does Population have to do with it?

**SECTION SUMMARY:**

Section Two is concerned with environmental change in relation to population outlooks. To probe people's relations to each other and how these relations affect their interactions with the environments in which they live, Alex de Sherbinin et al. unpack the terms "demography," "household," and "population." This section challenges the dystopian future of a particular scholarly tradition that originated in the late 1700s originating with Reverend Thomas Malthus by refuting mono-causal theorizing about the singular effect of population growth on environmental change. The final chapter leads us through the growth of Malthusian narratives and the contemporary doomsday prophesies of Robert Kaplan and into a more balanced projection of the earth's ability to sustain growing numbers of people and the economic and political possibilities that may not allow sustainability to occur.

**KEY TERMS:**

agricultural intensification, capital, carrying capacity, common property, degradation, demography, dystopia, environmental security, ethnocentrism, folk model, household life cycle, household, land tenure, livelihood, Malthusianism, population, population growth, privatization, smallholders, subtractability, scarcity, tragedy of the commons, urbanization, vicious circle model (VCM),

**OVERARCHING QUESTIONS:**

- What is the relationship between population growth and resource scarcity?
- How do human population dynamics influence environmental processes? And how do natural systems affect human demographic patterns, in turn?
- How does demography (the study of human populations, which tracks such characteristics as birthrates, death rates, marriages, and migration) inform environmental studies?
- How many people can the earth support? And, as the mathematical biologist Joel Cohen asks (2011), are increases in population, material consumption, and waste generation compatible with hopes for universal human health and dignity, environmental quality, and freedom from poverty?

**QUESTIONS FOR EACH CHAPTER:**

Questions to Accompany Chapter 7: "Ester Boserup's Theory of Agrarian Change: A Critical Review"

by David Grigg

1. According to Grigg, how does Esther Boserup define intensification?
2. How does intensive agriculture differ from extensive agriculture? How does this inform Boserup's thesis?
3. How do the implicit assumptions identified by Grigg support or hinder Boserup's argument?

Questions to Accompany Chapter 8: "The Benefits of the Commons"

by Fikret Berkes, David Feeny, Bonnie J. McCay, and James M. Acheson

1. How do Berkes et al. define common property (or common pool) resources?
2. What types of property- rights regimes do they identify?

## Section 2:

What does Population have to do with it?

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3. Considering the authors' definition of common pool resources and their taxonomy of property—rights regimes, why do Berkes et al. disagree with Hardin's assertion that "resource degradation is inevitable unless common property is converted into private property or government regulations are implemented?"
4. What specific evidence supports their challenge to Hardin's model?

Questions to Accompany Chapter 9: "7 Billion and Counting"  
by David Bloom

1. How has the pace of human population growth changed since 1800?
2. What are some of the different population projections for 2050 and 2100? What could possibly account for the variation in these projections?
3. What percentage of the projected population increase is predicted to occur in "less developed regions"? What could account for the variation in population growth between "more developed" and "less developed" regions?
4. What could account for the variation in growth rates within a single geographic region, such as Asia, Africa, or Latin America?
5. How might we bring the projections that Bloom mentions into conversation with the subsequent sections in this reader that are oriented around the topics of urbanization, economic growth, international development, globalization, identity, consumerism, and natural resources conservation?

Questions to Accompany Chapter 10: "Rural Household Demographics, Livelihoods, and the Environment"

by Alex de Sherbinin, Leah VanWey, Kendra McSweeney, Rimjhim Aggarwal, Alisson Barbieri, Sabine Henry, Lori M. Hunter, Wayne Twine, and Robert Walker

1. What is a household?
2. What is the livelihood approach, and how are households incorporated into this organizing framework for studying human- environment relationships?
3. What categories of wealth, or forms of capital, do de Sherbinin et al. identify in their review of the population- environment research?
4. How do these various forms of capital play into the relationships between environmental change and (a) fertility, (b) morbidity and mortality, (c) migration, and (d) household life cycle?
5. Why, according to de Sherbinin et al., is it important to pay attention to rural smallholders when studying household population dynamics, livelihoods, and environmental change?



## Section 2:

## What does Population have to do with it?

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Questions to Accompany Chapter 11: "Carrying Capacity's New Guise: Folk Models for Public Debate and Longitudinal Study of Environmental Change"

by Lisa Cliggett

1. What is carrying capacity?
2. What eight problems does Cliggett identify with the carrying capacity concept?
3. Why, in spite of these problems, does Cliggett still assert that carrying capacity is useful as a folk model?

Questions to Accompany Chapter 12: "The Environment as Geopolitical Threat: Rereading Robert Kaplan's 'Coming Anarchy'"

by Simon Dalby

1. Under what conditions did the "conception of 'population' as an object to be controlled, manipulated, and managed by states" develop?
2. When Kaplan's article was published in 1994, what was "new" about it, relative to other theses on environmental security? Is this new component to the argument still relevant?
3. What were/are the political implications of Kaplan's argument?
4. How might we bring Dalby's critique of Kaplan's "The Coming Anarchy" into conversation with Netting's description of innovative, sustainable smallholders (Chapter 2) and Johnson's aversion to binarism (Chapter 29)?
5. What did Matthew Connelly and Paul Kennedy do in their article in Atlantic Monthly that Kaplan did not? How does this lead them to a more optimistic conclusion than Kaplan's?
6. What is ethnocentrism? How is Kaplan's argument ethnocentric, according to Dalby? How does the concept of ethnocentrism relate to the concept of American exceptionalism? And how do these two concepts affect our understanding of international development?

## Section 2:

What does Population have to do with it?

Activities

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### ACTIVITIES

#### Activity 2.1: Climate, Population, and the Environment as Geopolitical Threat

This activity lends a visual perspective to the population projections put forth by Bloom in Chapter 9 (Seven Billion and Counting). Following Dalby's argument in Chapter 12 (The Environment as Geopolitical Threat), the activity invites students to engage with representations of "the environment as geopolitical threat." It gives students the opportunity to apply what they learned from the readings in Section 2 by evaluating aspects of either or both of the films *An Inconvenient Truth* and *This Changes Everything*.

#### STEPS:

Have students watch either or both of the following documentaries and answer the corresponding questions.

#### Suggested Film(s) for Activity 2.1:

Guggenheim, Davis (Director) & Gore, Al (Narrator). (2006). [An Inconvenient Truth](#) [Documentary Film]. USA: Paramount.

Abstract: "Former Vice President Al Gore explains the facts of global warming, presents arguments that the dangers of global warming have reached the level of crisis, and addresses the efforts of certain interests to discredit the anti-global warming cause. Between lecture segments, Gore discusses his personal commitment to the environment, sharing anecdotes from his experiences."

Instructors might also assign Naomi Klein's 90-minute "This Changes Everything" either as an alternative to *An Inconvenient Truth*, or in order to compare these two documentaries that came out approximately ten years apart.

Lewis, Avi (Director & Producer) & Klein, Naomi (Writer & Narrator). (2015). [This Changes Everything](#) [Documentary Film]. USA: FilmBuff.

Abstract: "Filmed over 211 shoot days in nine countries and five continents over four years, *This Changes Everything* is an epic attempt to re-imagine the vast challenge of climate change. Inspired by Naomi Klein's international non-fiction bestseller *This Changes Everything*, the film presents seven powerful portraits of communities on the front lines, from Montana's Powder River Basin to the Alberta Tar Sands, from the coast of South India to Beijing and beyond. Interwoven with these stories of struggle is Klein's narration, connecting the carbon in the air with the economic system that put it there. Throughout the film, Klein builds to her most controversial and exciting idea: that we can seize the existential crisis of climate change to transform our failed economic system into something radically better."

## Section 2:

## What does Population have to do with it?

## Activities

## Questions to Accompany the Films "An Inconvenient Truth" and/or "This Changes Everything"

1. How do the filmmakers engage (or not) with the concept of population growth?
2. In what ways does the film's narrative intersect with other concepts presented in Sections 1 and 2 of the Reader (e.g., adaptation, agricultural intensification, the Tragedy of the Commons, household demographics, carrying capacity, Malthusian collapse, and nature as a social construction)? How does the narrative intersect with ideas from Section 4 (globalization, privatization, indigenous ecological knowledge)?
3. In what ways does(n't) the film depict the vast differences in the consumption and pollution activities of humans around the world (i.e., in the Global North compared to the Global South)?
4. How does(n't) the use of imagery in the film mimic Kaplan's use of imagery to portray the environment as a geopolitical threat?
5. What solutions or alternatives are offered to stop the detrimental effects of climate change, environmental degradation, and population overload? Are these solutions adequate? What would you suggest instead?
6. Do you agree with the idea that, in order to stave off climate change, humans (particularly those in the Global North and other industrialized countries) need to drastically alter their lifestyles? Why or why not? Where do Gore and/or Klein seem to fall on this issue? What are you prepared to give up or to change about your lifestyle in order to secure a sustainable future for yourself and your children?
7. Should it be up to individuals to make consumer decisions and lifestyle changes in order to slow the course of climate change, or should it be up to governments to regulate corporations' and citizens' extraction, production, and consumption activities?

## Activity 2.2: The Rest versus the West: Challenging Stereotypes in Aid Commercials

Simon Dalby's Chapter 12 (The Environment as Geopolitical Threat) examines Robert Kaplan's fatalistic future filled with geopolitical threats and a negative outlook towards impoverished people, particularly those living in developing countries. This activity attempts to investigate the ways in which these two types of people who are often portrayed as either unproductive or threatening to society are dehumanized. By examining charity commercials students begin to unpack subliminal messages about people that play upon the types of stereotypes that emerge in Kaplan's narrative. By exploring the rusty radiator website students are exposed to ways in which people and organizations in developing countries are able to speak back to damaging images that paint them as ignorant, helplessness, and in need of "saving."

## STEPS:

Instruct students to consider the ways in which the environment is or is not presented as a geopolitical threat in media coverage of current events. Humanitarian campaigns and fundraising videos often deploy demeaning stereotypes of non-Western peoples that reify some of Kaplan's language. Instructors should have students watch the charity commercials featured [here](#). This website, managed by the Students' and Academics' International Assistance Fund (SAIH), annually bestows a

## Section 2:

What does Population have to do with it?

### Activities

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“Rusty Radiator” Award on the charity commercial with the most unfair and offensive use of stereotypes and a “Golden Radiator” Award on those commercials that step outside the use of stereotypes and creatively engage their audience. In groups, students should critique one of the videos nominated for the [Rusty Radiator award](#). Focusing on their selected Rusty Radiator-nominated commercial, groups should:

- Discuss and create a list of the stereotypes about people living in “developing countries” that are portrayed in these videos.
- Consider how similar stereotypes are perpetrated in ecological literature, especially in Kaplan’s work
- Ask how these commercials show people empowering themselves locally and/or regionally, promote or challenge top-down interventions, and further images of people in the Global South as dependent upon the mercy and beneficence of the Global North
- Use Dalby’s critique of Kaplan in Chapter 12 to identify other ways in which these charity commercials are problematic.

Next, have students explore some of the charity commercials that were nominated for “[Golden Radiator](#)” awards. The Golden Radiator awards are awarded to commercials that are deemed to be positive representations of people in need that refrain from perpetrating stereotypes. Students should then:

- Create a chart that examines which organizations challenge and which uphold Western biases, corporate priorities, racisms, sexism, and/or classisms.
- Explore the ways in which socioenvironmental stories can be told to maintain people’s dignity.
- Consider how the depictions of people and places in the Golden Radiator Award commercials differ from those in the Rusty Radiator Awards and in Kaplan’s fatalistic future.

The instructor could then assign students to create their own 30 second Public Service Announcement (PSA) to address one of the major themes in this section (or in the Reader or the class as a whole) utilizing the instructions from the [Center for Digital Education](#) as a guide. Students should present their PSAs in the next class.

## Section 3:

## What are Urban, Rural, and Suburban Environments?

**SECTION SUMMARY:**

Section Three focuses on urbanization, economic growth, international development, and environmental degradation. The section begins with archaeological examination of environmental change in ancient cities in Mesopotamia, Mesoamerica, and the American Southwest (Chapter 13) and an economic discussion of the relationship between per capita income and environmental degradation (Chapter 14). Chapter 15 chronicles the events leading up to the disastrous 1984 Bhopal gas leak and describes how the company, the state, and civil society failed in their recovery efforts. Chapter 16 considers the role of agrochemical companies in encouraging the North American lawn aesthetic. Chapter 17 investigates the relationship between poverty and coal mining in West Virginia. And, Chapter 18 explores how initiatives designed to boost economies and promote international development often fail.

**KEY TERMS:**

archaeology, addictive economy, agrochemicals, anti-politics machine, chronic disaster, commercial crops, Consumerism, demography, dependency theory, economic growth, Environmental Kuznets Curve (EKC), industrialism, income-environment relationship, international development, maladaptation, monoculture, urbanism, resource curse.

**OVERARCHING QUESTIONS:**

- What is the goal of development?
- How do the problems of economic growth overlap with those of environmental destruction?
- Does development inevitably destroy nature?
- What is the difference between urbanization and industrialization?
- What does geography (e.g., urban, rural, and suburban space) have to do with patterns of industrialism, economic growth, and development?
- Who benefits from the extraction of fossil fuels, the application of pesticides, and the disasters that accompany these industries?
- What kinds of bureaucratic management do large-scale settlements require, and how capable are these of coping with environmental problems?

**QUESTIONS FOR EACH CHAPTER:**

Questions to Accompany Chapter 13: "The Growth of World Urbanism"  
by Charles Redman

1. What different land-use strategies did the preindustrial Mesopotamian, Mesoamerican, and Hohokam societies employ? How did these strategies affect their environments and their civilizations, in turn?
2. In what ways were the land-management strategies and hierarchical social systems of these agrarian societies adaptive and/or maladaptive?
3. What techniques do archaeologists use to study the impacts of past cultures on the environment?
4. What does Redman say about the role of population growth in shaping human impacts on the environment? How does this relate to what some of the other authors (see section 2) argue about population?

## Section 3:

## What are Urban, Rural, and Suburban Environments?

## Questions to Accompany Chapter 14: "Economic Growth and the Environment"

by Theodore Panayotou

1. What are some different theories about the relationship between economic growth and environmental degradation?
2. What questions should we ask when considering empirical models of environment and growth?
3. How might we bring Cliggett's critique of the concept of carrying capacity (chapter 11) into conversation with the empirical models described by Panayotou?

## Questions to Accompany Chapter 15: "Bhopal: Vulnerability, Routinization, and the Chronic Disaster"

by S. Ravi Rajan

1. What events led up to the catastrophic gas leak at the Union Carbide facility in Bhopal on December 4, 1984? What factors caused the initial leak to transform from an acute calamity into a chronic disaster?
2. In what ways did Union Carbide and its managers and shareholders benefit from the disaster, according to Rajan? Who else benefited from the "ecology of opportunity" that followed the disaster?
3. What "tactics of erasure" did Union Carbide employ in order to deflect responsibility for the leak?
4. In what ways is anthropology particularly well suited to study trends in, and the social and environmental effects of, urbanization, economic development, and industrialism?

## Questions to Accompany Chapter 16: "The Lawn- Chemical Economy and Its Discontents"

by Paul Robbins and Julie Sharp

1. What pressures have agrochemical manufacturers faced over the past few decades, and what has been their response?
2. What, according to Robbins and Sharp, has historically driven the increase in lawn- chemical application, supply or demand?
3. What steps are individuals, organizations, and states taking to challenge the high- input lawn?
4. At various points in the article, Robbins and Sharp strategically deploy words like "self-evident," "uncontroversial," and "ordinary" when describing the American lawn. Why, according to them, is it so important for us to study the history and ecology of such a "relatively noncontroversial landscape" as yards?
5. How does Robbins and Sharp's use of the term "uncontroversial" to describe the cosmetic application of pesticides in the Global North relate to Rajan's use of the term "nonissue" to refer to the tragedy that has befallen a community in the Global South where pesticides are manufactured?



## Section 3:

## What are Urban, Rural, and Suburban Environments?

Questions to Accompany Chapter 17: "Addictive Economies and Coal Dependency: Methods of Extraction and Socioeconomic Outcomes in West Virginia, 1997–2009"

by Robert Todd Perdue and Gregory Pavela

1. The title "Addictive Economies" refers to a comparison made by the environmental sociologist William Freudenburg between the "the short-term logic" of drug addicts seeking their next "fix" and the decision-making processes of policy makers when it comes to resource extraction. Do you find this metaphor useful? Why or why not?
2. What is the "resource curse"? How does Purdue and Pavela's study either support or refute the resource curse literature?
3. Why, according to Purdue and Pavela, are there higher rates of poverty in coal-mining counties?
4. What is the "cost/price squeeze"? How does this affect poverty and per capita income in coalmining areas?
5. What other variables are lessening the viability of the West Virginia coal industry?
6. What trends do Perdue and Pavela predict with respect to the future of underground and above ground mining in Appalachia?

Questions to Accompany Chapter 18: "The Anti-Politics Machine: 'Development' and Bureaucratic Power in Lesotho"

by James Ferguson with Larry Lohmann

1. Why, according to Ferguson and Lohmann, did the Thaba-Tseka Development Project and the livestock development program in Lesotho fail?
2. What do Ferguson and Lohmann mean when they refer to development as an "anti-politics machine"?
3. What is the problem, according to Ferguson and Lohmann, with the question "What should we do?" What is their suggested alternative to this question?

## Section 3:

## What are Urban, Rural, and Suburban Environments?

## Activities

## Activity 3.1: Learning from the Past (Part I): Archaeology and Environmental Change

This activity focuses on archaeology, on learning from the past, and allowing our knowledge of the past to inform decision-making in the present. It gives students a little more exposure to environmental archaeology and invites them to unpack the preconceived notions they may have about human history and the relationship(s) between ancient civilizations and their environment.

## STEPS:

To begin the instructor can create a KWL chart on the board. The first column will explore what the students KNOW about ancient humans' relationship with the environment and prior knowledge. The second column will show what students WANT to know. After they read Chapter 13 by Charles Redman (*The Growth of World Urbanism*) and the recommended supplementary readings, students can fill in the last column of the chart discussing what they LEARNED about ancient humans' relationship with the environment and/or what can be LEARNED about contemporary human relationships with the environment from looking at past human / environment relations. Students may then be directed to work individually or in groups to find an additional research article that chronicles the environmental behaviors of a past civilization. They should summarize the article for the class. Presentations should include a description of the civilization and the author or authors' research credentials. Students should share with the class any lessons learned from their chosen case study that could challenge their preconceived notions and/or that could inform our economic and environmental decision-making today. After each student/group delivers their presentations, students can construct and discuss a second KWL chart.

## Recommended Readings for Activity 3.1

Stromberg, Joseph. (2013, February). [Air Pollution Has Been a Problem Since the Days of Ancient Rome](#). *Smithsonian Magazine*.

Abstract: "By testing ice cores in Greenland, scientists can look back at environmental data from millennia past."

## Activity 3.2: Learning from the Past (Part II): Lessons for Three Gorges

This activity invites students to continue the theme of learning from the past, but with a more contemporary example—the Three Gorges Dam in China and its similarity to other dam projects of the last half century.

## STEPS:

Have students read "Rural Resettlement: Past Lessons for the Three Gorges Project" and explore the PBS website dedicated to the Three Gorges Dam Project, then answer the discussion questions below. Students can be directed to research other dam projects and assess the archaeological and cultural impact those dams had on the associated ecologies and peoples. In their assessment students can determine how the particular dam aided or impeded social, environmental or economic growth. For instance, readings about the Three Gorges Dam and other dam projects may be compared to Cliggett's (Chapter 11) discussion of survival for those displaced by Kariba Dam in Zambia. Students may also be directed to view the award-winning documentary [Up The Yangtze](#). PBS provides a reading list, discussion guide, and a lesson plan to accompany the film [here](#).

## Section 3:

## What are Urban, Rural, and Suburban Environments?

## Activities

## Recommended Reading for Activity 3.2

Jing, Jun. (1997). [Rural Resettlement: Past Lessons for the Three Gorges Project](#) in *The China Journal* 38: 65-92.

Abstract: Jing evaluates the world's largest hydroelectric dam by comparing it with three earlier waterworks projects. Consistent with the theme of this activity, this article connects the past to the present and future.

## Questions to Accompany "Rural Resettlement: Past Lessons for the Three Gorges Project"

- 1) What impact did the creation of the biggest dam project in the world have on the people in the regions directly associated with the Yangtze River?
- 2) How, according to Jing, is the Three Gorges project characteristic of the "radical, unrealistic and dangerously politicized dam projects during the Great Leap Forward (1958-60)"?
- 3) How does this story of economic development relate (or not) to the story of Bhopal (Chapter 15) and/or to the failed development projects in Lesotho (Chapter 18)?

## Activity 3.3: Innovation and the Environmental Kuznets Curve

This section of the reader is focused on urbanization, economic growth, international development, and environmental degradation. The theory that environmental degradation increases then decreases once a nation's people enjoy a higher standard of living is introduced and then critiqued in Chapter 14 by Theodore Panayotou (*Economic Growth and the Environment*). This activity examines some recent innovative urban environmental movements that encourage green space, promote biodiversity, potentially save money, and improve quality of life. After students gain some exposure to these movements, they are then prompted to evaluate the Environmental Kuznets Curve (EKC) theory and the challenges launched by Panayotou.

## STEPS:

Have students watch the film [Edible City](#). The instructor can then share the story of Will Allen, the former NFL pro-athlete turned urban farmer as an example of new movements throughout the nation. Next, instructors should introduce (or invite students to discover on their own) examples of other innovative solutions, such as [vertical forest architecture](#) in Italy, [Gaviotas](#) in Columbia, [rooftop gardens](#), [tiny houses](#), [shipping container homes](#) and other [homes made from recycled materials](#), [green burials](#), [windmill farms](#), and others. Have students evaluate the pros and cons associated with each movement. They should then explore the feasibility of such projects in their own cities, using the following questions as a guide:

- 1) In what ways would this improve or degrade the environment?
- 2) In what ways would this improve or degrade quality of life for urban and/or rural residents?
- 3) To what extent are these projects be available to both industrialized and developing nations? Explain.

## Section 3:

## What are Urban, Rural, and Suburban Environments?

## Activities

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- 4) Do people stand to equally access, benefit, and/or be harmed by such innovations? Or do you see barriers to entry and disproportionate distribution of benefits and/or risks?
  - 5) Would any special permits be required to subsist/build/grow plants in this way?
  - 6) What special considerations would need to be determined (e.g. water, safety, roofing)?
  - 7) How feasible is such a project for your community? What potential benefits or risks does it bring and who bears those?
  - 8) Weigh in: Should this innovation be adopted in your community? Why or why not?

Students should then bring the projects they chose into conversation with the concepts discussed Chapter 14 (*Economic Growth and the Environment*) and come up with arguments agreeing or disagreeing with the Environmental Kuznets Curve (EKC) theory. The instructor can lead a discussion.

## Recommended Film for Activity 3.3

Hasse, Andrew (Director & Producer) & Carl Grether (Producer). (2014). *Edible City* [Documentary Film]. USA: Collective Eye Films. An abridged version of the documentary is available [here](#).

Abstract: "[Edible City](#) is a 55 minute documentary film that introduces a diverse cast of extraordinary characters who are challenging the paradigm of our broken food system. The film digs deep into their unique perspectives and transformative work, finding inspirational, grass-roots solutions based on growing local food systems and economies."

## Activity 3.4: An American Aesthetic

Lawns are as American as apple pie. Chapter 16 (*The Lawn People*) by Paul Robbins and Julie Sharp situates the high-input lawn aesthetic in its political-economic context and asks whether it is demand or supply that drives the prevalent and growing application of insecticides, herbicides, and fertilizers on North American lawns. This activity invites students to read two articles that offer additional social and ecological history of turfgrass and the makeup and maintenance of American lawns. It also goes a step further to encourage students investigate the lawn aesthetic, lawn ordinances, as well as pro- and anti-lawn movements in their communities.

## STEPS:

Have students read "Why Mow?: The Case Against Lawns" by Michael Pollan and/or "Turf Wars" by Elizabeth Kolbert. Then, invite students to research lawns and lawn ordinances in their own community and answer the questions below.

## Suggested Readings for Activity 3.4

Kolbert, Elizabeth (2008, July 21). [Turf War](#). *The New Yorker*.

Abstract: "Petty much by definition, a lawn is unnatural... A lawn may be pleasing to look at, or provide the children with a place to play, or offer the dog room to relieve himself, but it has no productive value. The only work it does is cultural."

## Section 3:

## What are Urban, Rural, and Suburban Environments?

## Activities

Pollan, Michael. (1989, May 28). [Why Mow? The Case Against Lawns](#). *The New York Times Magazine*.

Abstract: "Lawns are nature purged of sex and death. No wonder Americans like them so much... Lawns, I am convinced, are a symptom of, and a metaphor for, our skewed relationship to the land. They teach us that, with the help of petrochemicals and technology, we can bend nature to our will. Lawns stoke our hubris with regard to the land. What is the alternative? To turn them into gardens."

## Questions to Accompany "Turf Wars" and "Why Mow"

- 1) When was the first landscape-gardening book aimed at an American audience published? What was this book responding to and what was it calling for?
- 2) What is culture?
- 3) What cultural purpose do lawns serve?
- 4) How has the lawn been democratized over time? How has it become more artificial? How has it become authoritarian?
- 5) What was the first publication in the anti-lawn movement? What are the main anti-lawn arguments?
- 6) What alternatives to the lawn have been proposed over the years?
- 7) Why does Colbert suggest that advocating for just one single lawn alternative risks reproducing the problem?
- 8) In what ways is the popular image of the lawn and of lawn maintenance a fiction?
- 9) What does Pollan mean when he states that "no lawn is an island"? Why, according to Pollan, is lawn care "regarded as such an important civic responsibility"?
- 10) What is the difference between gardening and lawn care, according to Pollan?
- 11) What is the difference between the lawns that were established in North American and the lawns that existed in Europe?

## Questions to Guide Student Research on Local Lawns

- 1) What ordinances exist on campus and/or in their communities to regulate the lawn and landscape aesthetic? Are there regulations on mowing? On species? On agrochemical use?
- 2) What are the ecological and human health impacts of the machines that are used and the chemicals that are sprayed on their local lawns?
- 3) How much money is spent on landscaping, pesticides and herbicides by their college and/or by the average city resident?
- 4) What are the risks / benefits of having lawns? Are there alternatives to the way lawns are maintained and or utilized?
- 5) What organizations and/or businesses in the area appear to encourage the high-input lawn aesthetic?
- 6) Are there any local clubs or businesses that promote alternatives to the high-input lawn? Are there any international, national, regional, or local chapters of anti-lawn or native plant movements that are active in your area? See, for instance [Wild Ones](#) and/or [Garden For Wildlife](#).
- 7) Is there anything the students can do, either as individuals or as a class, to participate in the growing anti-lawn movement?

## Section 4:

## How does Globalization affect Environment and Culture?

**SECTION SUMMARY:**

This section addresses the power of globalization in transforming cultures and environments. Chapter 19 (How Do We Know We Have Global Environmental Problems), by Peter J. Taylor and Frederick H. Buttel consider the ways in which scientists and political actors discursively reconstruct local environmental problems in global terms. Richard Wilk discusses the commodification of water in Chapter 20 (Bottled Water). The struggles of indigenous communities' in the Ecuadorian Amazon against land privatization and petroleum "development" is explored by Suzanna Sawyer in Chapter 21 (Indigenous Initiatives and Petroleum Politics in the Ecuadorian Amazon). Anne M. Larson et al. summarize six large tropical forest countries' experiences with Reducing Emissions from Deforestation and Degradation (REDD+) strategies in Chapter 22 (Land Tenure and REDD+: The Good, the Bad, and the Ugly). Chapter 23 (Friction: An Ethnography of Global Connection) by Anna Lowenhaupt Tsing offers a framework for thinking about and studying globalization.

**KEY TERMS:**

agency, capitalism, carbon sequestration, anthropogenic climate change, commodification, discourse, environmental colonialism, friction, global climate models, globalization, hegemony, Indigenous Peoples, Limits to Growth (LTG), market, moral economy, REDD+, science

**OVERARCHING QUESTIONS:**

- What is globalization?
- Does it equally affect peoples and environments?
- How are conservation and sustainability influenced by globalization?
- Who is involved in and who is affected by forces of globalization?
- Does globalization cause culture "clash"?
- How does one go about studying global interconnections and their relationships to environmental processes? "Where," to quote Anna Lowenhaupt Tsing, "would one locate the global in order to study it?"

**QUESTIONS FOR EACH CHAPTER:**

Questions to Accompany Chapter 19: "How Do We Know We Have Global Environmental Problems? Science and the Globalization of Environmental Discourse"

by Peter J. Taylor and Frederick H. Buttel

1. What are some limitations of the LTG model?
2. How does today's science of global environmental change reproduce the language of LTG?
3. How have environmental activists appropriated the knowledge of global environmental change? How are others deconstructing the scientific framework and movement ideology of global environmental change?
4. What role have environmental groups played in the growth of international regimes, such as the United Nations and international development finance institutions? What does this have to do with globalization?
5. What is the debt regime? How does this impact environmental conservation and degradation in the Global South?



## Section 4:

## How does Globalization affect Environment and Culture?

## Questions to Accompany Chapter 20: "Bottled Water: The Pure Commodity in the Age of Branding"

by Richard R. Wilk

1. How has water been differently imagined and portrayed in western European history? What do the different traditional representations of water have in common? Where do they diverge?
2. How are the different cultural meanings of water as well as changing ideas about the body, health, risk, and nature appropriated in advertising and labeling?
3. How does globalization figure into the bottled water industry?
4. How do Taussig and Helms's ideas about distance (physical, temporal, and social) and McCracken's "Diderot Effect" influence the marketing and sale of bottled water?
5. How can consumers express resistance to bottled water as a commodity? What are some of the obstacles to such resistance?
6. In what ways is the consumption of bottled water in and of itself an act of resistance?
7. How are public attitudes about government, risk, safety, business, and trust reflected in the consumption of bottled water?

## Questions to Accompany Chapter 21: "Indigenous Initiatives and Petroleum Politics in the Ecuadorian Amazon"

by Suzana Sawyer

1. What are some of the negative repercussions of petroleum exploration and extraction in Ecuador?
2. What are OPIP and ARCO, and what is their relationship?
3. What do territorio and tierras mean? How do these two terms differ, and what does this difference mean for those indigenous Ecuadorians who support and those who oppose ARCO's presence in Villano?
4. How does globalization factor into Sawyer's history of petroleum politics and indigenous initiatives in Ecuador?

## Questions to Accompany Chapter 22: "Land Tenure and REDD+: The Good, the Bad, and the Ugly"

by Anne M. Larson, Maria Brockhaus, William D. Sunderlin, Amy Duchelle, Andrea Babon, Therese Dokken, Thu Thuy Pham, I. A. P. Resosudarmo, Galia Selaya, Abdon Awono, and Thu- Ba Huynh

1. What is REDD, and what is REDD+?
2. What is the "No Rights, No REDD" movement?
3. What evidence suggests that REDD+ can support land tenure reform?
4. What evidence suggests that REDD+ can promote tenure problems?
5. What other problems are associated with REDD+?
6. What other benefits are associated with REDD+?
7. What action have proponents taken to address the concerns associated with REDD+?

## Section 4:

### How does Globalization affect Environment and Culture?

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Questions to Accompany Chapter 23: "Friction: An Ethnography of Global Connection"

by Anna Lowenhaupt Tsing

1. What are some challenges to global thinking, according to Tsing?
2. What does the term friction mean as Tsing applies it to the study of globalization?
3. How does the term friction in corporate concepts of hegemony and agency?
4. Why does Tsing advocate the study of "messy and surprising" features of global connection?

## Section 4:

## How does Globalization affect Environment and Culture?

## Activities

## Activity 4.1: Profiting from pollutants

This activity builds on Chapter 22 (Land Tenure and REDD+: The Good, the Bad, and the Ugly) by inviting students to watch on pro- and one anti-carbon trading video. After learning a bit more about this proposed climate change solution, students can weigh the pros and cons.

## STEPS:

To introduce students to the arguments for and against cap and trade, have them visit the [United Nations Environment Programme's resource page](#) on REDD+ and watch the UPEP's six-minute video REDD: As Part of the Solution. For the contrarian argument, have students read watch the 10-minute video The Story of Cap and Trade. Instructors might also assign sections of Carbon Trading: How it Works and Why it Fails. They can then use the questions below to lead a discussion on the pros and cons of carbon trading.

## Suggested Films for Activity 4.1

UN-REDD Programme. (2009). [REDD As Part of the Solution](#). United Kingdom: Television for the Environment (TVE).

Abstract: "Produced for the UN's REDD Programme, this film highlights the potential of tropical rainforests for reducing CO<sub>2</sub> emissions. REDD—Reducing Emissions from Deforestation and Forest Degradation in Developing Countries—is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands."

Fox, Lewis (Director), Annie Leonard, Jonah Sachs, & Lewis Fox (Writers), & Free Range Studios (Producer). (2009). [The Story of Cap and Trade](#). USA: The Story of Stuff Project & Climate Justice Now!

Abstract: In the Story of Cap & Trade, "host Annie Leonard introduces the energy traders and Wall Street financiers at the heart of this scheme and reveals the 'devils in the details' in current cap and trade proposals: free permits to big polluters, fake offsets and distraction from what's really required to tackle the climate crisis."

## Suggested Reading for Activity 4.1

Gilbertson, Tamra and Oscar Reyes. (2009). [Carbon Trading: How it Works and Why It Fails](#). Critical Currents No. 7. Uppsala: Dag Hammarskjöld Foundation Occasional Paper Series.

## Questions to Accompany the films and readings for Activity 4.1

- 1) What is carbon trading? When/where did the idea originate? Who are some of the actors involved?
- 2) What does carbon trading have to do with globalization?
- 3) What are the proposed benefits of REDD+?
- 4) What are the flaws associated with REDD+?
- 5) Are there other actions we could take to combat climate change? How do these compare to REDD+?
- 6) What different arguments are made and what overlaps exist between the REDD As Part of the Solution and The Story of Cap and Trade? (The instructor can create a Venn diagram as a visual for student responses).

## Section 4:

How does Globalization affect Environment and Culture?

## Activities

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- 7) How are people from the Global South depicted in the *REDD As Part of the Solution*? Do you see any images like those that were critiqued by Fairhead and Leach (Chapter 3), by Dalby (Chapter 12) or by the producers of the Rusty Radiator Awards (see Activity 2.2)?
  - 8) How do these supplementary resources compliment the assessment of REDD+ by Larson et al. in Chapter 22?
  - 9) How does it affect the message when climate activists stand to benefit financially from the public's adoption of their policy prescriptions?
  - 10) Students can do an IPSO chart (where students identify the Issue, Position, Supporting points, and Outcome or opinion) after viewing the two films and reading various articles on carbon trading.

## Activity 4.2: Branding Natural Resources

This activity considers the importance of water as a human right in light of its growing commoditization. The instructor will show the eighty-minute documentary *FLOW: For Love of Water* and consider the questions presented. Using Richard Wilk's contribution in Chapter 20 as a starting point, students will be asked to explore the United Nations' *Declaration of Human Rights* to determine if access to water should be considered a human right. From there, students can explore the water provision and treatment facilities in their communities and compare their locality to others in the country or around the world.

## STEPS:

The instructor should distribute copies of the United Nations [Declaration of Human Rights](#) and have students read the document aloud. The class can then answer the following questions:

- 1) Were there any surprises in the document?
- 2) Should water be mentioned? Explain why or why not

Show the Documentary *FLOW: For Love of Water* and lead a class discussion using the questions below.

Explore the details behind the IMF and World Bank policies to undermine national sovereignty by using the example of the [Bolivian "Water revolt"](#). Using Detroit as a US example of privatizing water delivery systems, explore parallels between water privatization in the United States and the Bolivian example: [UN officials 'shocked' by Detroit's mass water shutoffs](#)  
[Group Urges Public To Boycott Plastic Water Bottles, Hundreds Sign Petition](#)

Research bottled water boycotts in the UK and around the world. Explore reasons behind the boycotts, outcome, history etc. [Livingstone urges bottled water boycott](#)

- 1) What is it about British identity that enabled success or failure of the boycotts?
- 2) Are there any examples in the United States that parallel the UK? Explain.

Have students brainstorm and identify other resources or necessities to live that have been commodified. This activity can be extended to the students examining water reports of local tap water to see what contaminants are removed and what remain. Visit [Consumer Confidence Reports \(CCR\)](#) or local government website. Students should answer the following questions:

- 1) Who is in control of the water system?
- 2) How many people does it serve?

## Section 4:

## How does Globalization affect Environment and Culture?

## Activities

- 3) What are the major contaminants in the water that are removed/remain?  
What risks are associated with these contaminants?

The students can then choose a place in the world with which to compare their local water supply. Helpful websites might include: [Water.org](http://Water.org), [Access to clean water and sanitation around the world – mapped](http://Access to clean water and sanitation around the world – mapped), and/or [Water for People](http://Water for People)

- i. What percentage of the population has access to potable water?
- ii. Which supply appears safer/more dangerous? Why?
- iii. How does each supply get to the people that consumes it?
- iv. Is the system sustainable and fair?
- v. Do the mechanisms for providing potable water appear to be encouraging privatization or supporting the commons? Explain.

## Suggested Film for Activity 4.2

Salina, Irena (Director) & Steven Starr (Producer). (2008) [FLOW: For Love of Water](http://FLOW: For Love of Water) [Documentary Film]. USA: The Group Entertainment (TGE).

Abstract: "Irena Salina's award-winning documentary investigation into what experts label the most important political and environmental issue of the 21st Century - The World Water Crisis. Salina builds a case against the growing privatization of the world's dwindling fresh water supply with an unflinching focus on politics, pollution, human rights, and the emergence of a domineering world water cartel. Interviews with scientists and activists intelligently reveal the rapidly building crisis, at both the global and human scale, and the film introduces many of the governmental and corporate culprits behind the water grab, while begging the question "CAN ANYONE REALLY OWN WATER?" Beyond identifying the problem, FLOW also gives viewers a look at the people and institutions providing practical solutions to the water crisis and those developing new technologies, which are fast becoming blueprints for a successful global and economic turnaround."

## Questions to Accompany the Film FLOW:

- 1) What are the ethical considerations for privatizing a necessity for human life (like water)?
- 2) What tactics do transnational corporations use to gain control of water?
- 3) Were there any international organizations that helped or hindered accessibility to water?
- 4) How did ordinary citizens unite to find ways to provide water to their communities?

## Section 4:

How does Globalization affect Environment and Culture?

Activities

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Activity 4.3: Development, Energy and Indigenous Communities

This activity focuses on Chapter 21 (Indigenous Initiatives and Petroleum Politics in the Ecuadorian Amazon) by Suzana Sawyer. Beginning with Sawyer's description of Indigenous communities' efforts to resist land privatization and petroleum "development" in the Ecuadorian Amazon, students will explore similar more recent movements occurring throughout the world.

STEPS:

Have students explore the [Idle No More](#) website:

- 1) What is their mission statement? Why did the movement begin?

The instructor can have the students watch/listen to one of the seven webinars on indigenous rights and worldviews presented on the website:

[Live Stream and Webinars](#)

- 1) What overlapping concerns do the Indigenous communities in Sawyer's chapter and the First Nations Peoples in Canada have in relation to resource extraction enterprises?
- 2) In what ways do these movements deal with similar issues of human rights that cause unrest over the privatization of water?
- 3) Have students research the transnational lawsuit brought by citizens of Ecuador against the Chevron Corporation for industrial negligence and environmental contamination.
  - a) What is the status of the suit?
- 4) Have students identify any cases outside of Ecuador in which an oil company has compensated a community for environmental damage.

Where did these cases occur, and what did the settlements entail? Note for instructors: In 2015, the oil firm Royal Dutch Shell reached an out-of court settlement amounting to \$84 million with the Bodo Community in Nigeria. This marks the first time in West African history that an oil company has directly compensated individuals after an oil spill. (see [Shell agrees \\$84m deal over Niger Delta oil spill](#) and [Africa in the News: Shell Compensates Victims of Nigerian Oil Spills, Gambian Coup Backfires and Mining Taxation Central to Upcoming Zambian Election](#)).

Have students research the concept of *sumak kawsay* as it appears in the 2008 Constitution of Ecuador. Also, explore news coverage of the most recent U.N. Climate Change Conference. Note for Instructors: The new constitution introduced in Ecuador in 2008 is revolutionary for its adoption of the indigenous term *sumak kawsay* or *vivir bien*, which translates to "living well" or "living in harmony with nature". Ecuador is the first nation to formally adopt such language, which grants inalienable rights to nature (see [Ecuador Constitution Grants Right to Nature](#) and [The Rights of Nature](#)).

Draw students' attention to the recent wave of homicides which have claimed the lives of environmental activists, the majority of whom were indigenous and working in Latin America. Though Ecuador has incorporated the indigenous concept of *sumak kawsay* into its constitution, indigenous activists continue to be threatened (and killed!) in the struggle over forest resources and indigenous land rights. Four indigenous rainforest activists were killed just months before the 2014 United Nations Climate Change Conference was hosted in Lima, Peru. According to Global

## Section 4:

## How does Globalization affect Environment and Culture?

## Activities

Witness, 185 environmental activists in 16 countries were killed in 2015, more than any other year on record. See the following:

[Widows of Peru's Murdered Indigenous Rainforest Defenders Demand Justice at U.N. Climate Summit](#)

[Berta Cáceres, Honduran human rights and environment activist, murdered](#)  
[Fellow Honduran activist Nelson García murdered days after Berta Cáceres](#)  
[ON DANGEROUS GROUND](#)

What has changed since Susana Sawyer published "Initiatives and Petroleum Politics in the Ecuadorian Amazon" in 1996?

[Shell agrees \\$84m deal over Niger Delta oil spill](#)

- 1) In what ways have indigenous communities found success in their struggles for environmental justice?
- 2) In what ways have their efforts been met with continued injustice?

#### Activity 4.4: Energy, Globalization, Commodity Chains

This activity links with Anna Lowenhaupt Tsing's Chapter 23 (Friction: An Ethnography of Global Connection) and the idea of "friction." The first phase of the activity draws on archaeology (see also Redman's Chapter 13) to help students understand the historic dimensions of globalization. Moving into the present, students will then be asked to do identify either a single commodity (e.g., coffee, cocoa, corn, bananas, broccoli, bacon, telephones, t-shirts, Tupperware) or a single source of energy (coal, gas, nuclear, hydropower, geothermal) and research that item's "commodity chain." The recommended film for this activity impresses upon students that their "stuff" connects them with peoples and places around the world, not only in the extraction and production/assembly links on the commodity chain, but also in disposal—as electronics are regularly retired for disassembly and/or resale in the Global South.

#### STEPS:

##### Part I

- 1) Tsing says "all human cultures are shaped and transformed in long histories of regional-to-global networks of power, trade, and meaning." In order to help students correct the mistaken assumption that globalization is a recent phenomenon, assign each student (or group of students) a culture that existed prior to the industrial revolution and ask that they present at least one piece of written or archaeological evidence to suggest that that group was traveling, trading, colonizing, proselytizing, or otherwise engaging in the activities we associate with globalization.
- 2) Students can examine technological advancements from the historic period that revolutionized the interconnectedness of the world – steam engine, combustible engine, airplane, telephone, or computer.
- 3) Students should find out what raw materials and natural resources go into making the technology they are researching.
  - a) Where do the raw materials come from?
  - b) What companies are/were the main producers of the technology?
  - c) Who are the employees that are extracting the resources?
  - d) What is the relationship with the companies and the local people/culture?
  - e) What happens to the product once it no longer is useful?



## Section 4:

## How does Globalization affect Environment and Culture?

## Activities

Part II

Have students watch PBS's [Frontline/World](#) expose on e-waste (0:20:29) and explore the accompanying website.

- 1) What is the relationship between the West and developing nations?
- 2) What is the human and environmental impact of these practices?
- 3) How is friction created in the processing of e-waste?
- 4) How is this an example of globalization and does it follow any patterns of previous examples of global movements (imperialism/mercantilism)?
- 5) Have students brainstorm alternatives and create a poster on how to deal with problems associated with e-waste (this can be a group or individual activity).

Part III:

- 1) After they have come to understand the historic nature of globalization and appreciate that items continue to live on, making their way further down the global commodity chain, even after we are done using them, students can be instructed to research the production process and construct a commodity chain for an item of their choosing, asking essentially the same questions as in Part II. Where does the item come from? What does the extraction process entail? What materials are involved in its production? In its disposal? What are the social and environmental benefits and risks associated with the production, consumption, and/or disposal of this commodity? Who profits and who bears the costs? Students should present their findings to the class and/or present the information they discovered in a panel forum to the public.

## Recommended film for Activity 4.4:

Klein, Peter (Reporter) & The University of British Columbia Graduate School of Journalism (Producer). (June 23, 2009). [Ghana: Digital Dumping Ground](#) [Television series episode]. In David Fanning (Executive Producer) & Sharon Tiller (Series Executive Director), *Frontline/World*. Boston, Massachusetts: WGBH Educational Foundation.

Abstract: "On the outskirts of Ghana's biggest city sits a smoldering wasteland, a slum carved into the banks of the Korle Lagoon, one of the most polluted bodies of water on earth. The locals call it Sodom and Gomorrah. Correspondent Peter Klein and a group of graduate journalism students from the University of British Columbia have come here as part of a global investigation—to track a shadowy industry that's causing big problems here and around the world."

## Section 5:

## How do Identities Shape Ecological Experiences

**SECTION SUMMARY:**

Section Five explores the ways in which identities and social difference influence groups' perceptions of and interactions with nature. Kay Milton opens this section in Chapter 24 (*Cultural Theory and Environmentalism*) by challenging the myth of "primitive ecological wisdom," and noting how the ways in which a culture understands and experiences things like time, power, responsibility, humanity, life, death, and human-nonhuman relationships may influence their receptiveness to environmentalist arguments. Chapter 25 (*Endangered Forests, Endangered People*) interrogates the processes by which indigenous knowledge of the landscape and its biotic elements is appropriated and incorporated into environmentalist campaign materials. Andrea Nightingale's contribution in Chapter 26 (*The Nature of Gender*) reviews historical developments in theorizing about the relationship between gender and the environment. In Chapter 27 ("*But I Know It's True*"), Melissa Checker offers a case study of environmental racism as a low-income African American community in Augusta, Georgia struggles to navigate the scientific environmental risk assessment process. Chapter 28 (*Bringing the Moral Economy back in...*) by Mark Edelman addresses food sovereignty in relation to peasant movements in the Global South. In Chapter 29 (*How to Queer Ecology*) Alex Carr Johnson challenges the nature/human dichotomy and notes that what is considered "normal" and/or "natural" in any given society is often decided by those in power.

**KEY TERMS:**

axes of difference, discourse, dualism, gender, environmentalism, environmental racism, environmental justice, environmental risk assessment, essentialist, ethnobotany, grassroots, heteronormativity, identity, indigenous ecological knowledge, food security, food sovereignty, liberalization, materialist, moral economy, participatory research, reflexivity, queer ecology, studying up, subjectivities, transnational peasant activism, world farm crisis.

**OVERARCHING QUESTIONS:**

- What does cultural diversity have to do with human-environment interactions?
- Are environments perceived and experienced similarly by different people in different places?
- How do social inequalities yield competing environmental narratives?

**QUESTIONS FOR EACH CHAPTER:**

Questions to Accompany Chapter 24: "Cultural Theory and Environmentalism"

by Kay Milton

1. In what ways can anthropological knowledge inform environmental discourse?
2. What are "transcultural" discourses? In what ways is environmentalist discourse "transcultural"?

## Section 5:

## How do Identities Shape Ecological Experiences

## Questions to Accompany Chapter 25: "Endangered Forests, Endangered People: Environmentalist Representations of Indigenous Knowledge"

by J. Peter Brosius

1. In what ways does Brosius's description of the Malaysian state of Sarawak and the relationship of Penan hunter-gatherers to the Sarawak environment differ from those of Davis and Henley?
2. What does Brosius mean when he refers to the "'Plotkinization' of the discourse of indigenous knowledge of medicinal plants"? How does this relate to the concept of globalization, which is discussed in the previous section?
3. What are the effects, according to Brosius, of the metacommentary that reduces the whole of indigenous knowledge down to "the sacred" or "the ineffable"?
4. How do environmentalists' representations of indigenous knowledge, as described by Brosius, relate to the science of global environmental change, as described by Taylor and Buttel (chapter 19)?

## Questions to accompany Chapter 26: "The Nature of Gender: Gender, Work, and Environment"

by Andrea Nightingale

1. How has the relationship between gender and the environment been theorized over the years? What are the contributions and limitations of essentialist, materialist, and political ecological thinking about gender and the environment? How is Nightingale's conceptualization of this relationship different from other theorists'?
2. What is the difference between "gender roles" and "subjectivities"? What does this difference mean for our theorizing of human-environment interactions?
3. In what ways do theories of gender and environment inform development policy?

## Questions to Accompany Chapter 27: "'But I Know It's True': Environmental Risk Assessment, Justice, and Anthropology"

by Melissa Checker

1. Why do Hyde Park residents refer to their neighborhood as a "toxic donut"?
2. What are the four stages in a typical EPA risk assessment methodology? What problems does Checker identify with each stage?
3. In addition to this problematic four-stage assessment strategy, what were some other issues that HAPIC identified with regard to both the EPA's testing procedures and residents' interactions with health officials?
4. What other risks do Hyde Park residents face beyond the exposure to toxic substances? What effects do these risks have on residents' everyday lives?
5. In what ways can anthropologists contribute to the risk assessment process?
6. What are the benefits of a community-based approach to environmental justice?

## Section 5:

## How do Identities Shape Ecological Experiences

Questions to Accompany Chapter 28: “Bringing the Moral Economy Back in . . . to the Study of 21st- Century Transnational Peasant Movements”

by Marc Edelman

1. What was the impetus behind cross- border organizing by peasants and small farmers? What does this have to do with globalization?
2. What is the basis of Vía Campesina’s demand to “take agriculture out of the WTO”?
3. What is “food sovereignty”? How does it differ from “food security”?
4. What is a “moral economy”? How are moral economic norms and sensibilities reflected in the discourse of transnational peasant and small- farmer coalitions?

Questions to Accompany Chapter 29: “How to Queer Ecology: One Goose at a Time”

by Alex Carr Johnson

1. What does Johnson mean when he proposes “queering Nature”? What does queering nature add to contemporary discussions of nature and society?
2. Based on Johnson’s essay but also based on what we have learned from reading scholars like Fairhead and Leach (chapter 3), Robbins and Sharp (chapter 16), Igoe and Brockington (chapter 30), Brosius (chapter 25), Nightingale (chapter 26), and Checker (chapter 27), how is it that “Nature, and the corresponding definition of ‘natural,’” can “betray reality,” as Johnson suggests?
3. In reacting to a review of Peter Matthiessen’s book *The Birds of Heaven: Travels with Cranes*, Johnson proclaims, “Writing about nature means accepting that it will prove you wrong. And right. And render you generally confused.” He later writes that “no man can categorize . . . relations without lying.” Do you see any similarities between the ideas Johnson poses here and those that were presented in the other readings from this section? How might these proclamations help or hinder our thinking and writing about human- nature relationships?

## Section 5:

## How do Identities Shape Ecological Experiences

## Activities

## Activity 5.1: From the Farm to the Institution: Moral Obligations to Food?

The goal of this activity is to get students thinking critically about the food they eat and the agricultural and/or industrial processes it underwent on its way to their plates. It asks students to investigate their own patterns of consumption related to the food industry.

## STEPS:

First, instructors should have students research the impacts of industrial agriculture ([Worldwide Fund for Nature Guide](#)). Students can compare what they encounter on the WWF site with the short film "[Monsanto at a Glance](#)".

- a. What possible biases exist in each source of information?
- b. Which do you trust more to provide you with information about your food?
- c. How do giant agribusinesses such as Monsanto affect small farmers, according to Chapter 28 (Bringing the Moral Economy back in...) by Marc Edelman?
- d. Do you see Monsanto employing any of the tactics that Brewster Kneen describes Cargill using in Chapter 35 (The Invisible Giant: Cargill and Its Transnational Strategies)?

Next, instructors can screen one or both of the recommended films (Food, Inc. and More Than Honey) and assign the first chapter of Barbara Kingsolver's *Animal, Vegetable, Miracle*. They can then lead a class discussion using the questions below.

To facilitate discussion, students should choose three items which most everyone in the group consumes as a fast food/drink. They should then find out where these items are produced. What places of business sell these items? Where do the raw materials for the food items come from? What is the average distance traveled for that food item? How many gallons of oil does this translate to?

Additionally, students can research honey bees and the controversy behind colony collapse.

## Recommended websites:

[University of Minnesota Bee Lab](#)

Shevory, Kristina (December 8, 2010). [The Beekeeper Next Door](#). New York Times.  
Reub, Emily S. (June 25, 2012). [On Roofs and In Gardens, The Beehives of New York](#). New York Times.

Finally, students can be asked to volunteer (maybe an extra credit assignment) to follow Kingsolver's example and live for one or two weeks off of only locally grown foods. Students should keep a food journal and record what they purchased, where, how much it cost, the interaction with the seller and any other observations about how purchasing and eating food in this way differed from their usual habits. At the end of the time have students do a 5 minute presentation on the benefits and challenges of living this way. Is this way of living sustainable in the long term? (Note: if fresh produce is not available or unaffordable, the instructor can lead the students in a discussion/research project focused on the local food ecosystem, on "food deserts," and/or the political-economic dimensions of the regional foodscape).

## Section 5:

## How do Identities Shape Ecological Experiences

## Activities

## Suggested Films for Activity 5.1

Kenner, Robert (Director & Producer) & Elise Pearlstein (Producer). (2008). *Food, Inc.* [Documentary Film]. USA: Magnolia Pictures.

Abstract: "This 2010 Oscar-nominated film lifts the veil on our nation's food industry, exposing the highly mechanized underbelly that's been hidden from the American consumer." [PBS](#) has a number of resources, including plans, to accompany *Food, Inc.*

Imhoof, Marcus (Director & Producer) (2012). [More Than Honey](#) [Documentary Film]. Switzerland: Zero One Film.

Abstract: "Over the past 15 years, numerous colonies of bees have been decimated throughout the world, but the causes of this disaster remain unknown...Scientists have found a name for the phenomenon that matches its scale, "colony collapse disorder," and they have good reason to be worried: 80% of plant species require bees to be pollinated. Without bees, there is no pollination, and fruits and vegetables could disappear from the face of the Earth... Should we blame pesticides or even medication used to combat them? Maybe look at parasites such as varroa mites? New viruses? Travelling stress? The multiplication of electromagnetic waves distributing the magnetite nanoparticles found in the bees' abdomen? So far, it looks like a combination of all these agents has been responsible for the weakening of the bees' immune defenses."

## Recommended Reading for Activity 5.1

Kingsolver, Barbara, with Steven L. Hopp and Camille Kingsolver (2008) *Animal, Vegetable, Miracle: A Year of Food Life*. New York: Harper Collins Publishers.

Abstract: "Author Barbara Kingsolver and her family abandoned the industrial-food pipeline to live a rural life—vowing that, for one year, they'd only buy food raised in their own neighborhood, grow it themselves, or learn to live without it. Part memoir, part journalistic investigation, *Animal, Vegetable, Miracle* is an enthralling narrative that will open your eyes in a hundred new ways to an old truth: You are what you eat."

## Some Possible Discussion Questions

1. How have the ways that we produce and consume food changed over the last century? Provide at least five examples.
2. Has the number of inspections of food processing plants carried out by the FDA increased or decreased since the 1970s? What could account for this change?
3. What is Kevin's Law? Has the law been passed?
4. What is the biggest predictor of obesity in the United States?
5. Why, if we are to alter the food economy in the United States, do we need to see changes at the policy level (and not just at the level of consumers 'voting with their silverware')?
6. What are CAFOs?
7. How is globalization represented in the documentary *Food, Inc.*?
8. How does beekeeping of today differ from the way we kept bees 70 years ago?

## Section 5:

## How do Identities Shape Ecological Experiences

## Activities

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9. What is the logic behind using the pesticides and herbicides during the day? At night?
  10. What surprised you, disturbed you, and/or intrigued you about the More Than Honey documentary?
  11. What about Arizona's ecology and the way people consume food make it a precarious place to live?
  12. Why is it important to Kingsolver to move away from Arizona and back to Appalachia? Specify at least 3 reasons.
  13. What is food culture? Do you agree with Kingsolver that North Americans do not have a food culture to call their own? Why or why not?
  14. What benefits could come from "living off the unsustainable food grid"?
  15. How do the principles of Kingsolver's living off the land movement and the principles of farmers in Edelman's piece overlap?

## Activity 5.2: Race, Place, and Environmental Justice

This activity pairs with Checker's Chapter 27 ("But I Know It's True": Environmental Risk Assessment, Justice and Anthropology). The term environmental racism refers to the uneven distribution of environmental benefits and pollution burdens based on race; environmental justice refers to the social movement that seeks to rectify this imbalance. While Checker's chapter focuses on the disproportionate pollution burdens placed on a minority community when it comes to the siting of toxic facilities, the supplemental article by Tendai Chiterwe focuses on the uneven environmental benefit reaped by wealthy, predominantly white citizens when it comes to ecovillages. In addition to helping round out students' understanding of environmental racism and environmental justice, this activity also helps students to investigate some recent high-profile cases of environmental injustice and explore some of the environmental distribution conflicts occurring in their own communities.

## STEPS:

First, students should read the supplemental article by Tendai Chiterwe. Second, students should be broken into groups with each group assigned an environmental disaster from the last 20 years which is well-represented in the scholarly literature and news reports focusing on environmental justice—for example, the 1995 Chicago heat wave, Hurricane Katrina (2005), the BP Deepwater Horizon oil spill (2010), and the ongoing Flint Water Crisis. Each group should present their disaster to the class, taking care to identify the environmental justice dimensions of their particular event. Finally, students should be directed to the [EPA'S Environmental Justice Screening and Mapping Tool](#) and the [University of Michigan's Environmental Justice Organization Libabilities, and Trade](#) website, wherein they can identify places that may have high pollution burdens and learn about some of the environmental injustices and ecological distribution conflicts occurring in or near their own communities.

## Recommended Reading for Activity 5.2

Chiterwe, Tendai. (2010). Equity in Sustainable Communities: Exploring Tools from Environmental Justice and Political Ecology. *Natural Resources Journal*

Abstract: "Ecovillages are a growing trend in the effort to find social and environmentally sustainable ways to live. Focused on preserving land and creating a sense of community, their design aims to offer middleclass households a way to connect with each other and the natural environment.



## Section 5:

## How do Identities Shape Ecological Experiences

## Activities

Yet missing from this concept is an effort to address equity and environmental injustice concerns. This article examines an ecovillage in upstate New York and some of the opportunities and challenges of including equity and justice in this new socially and environmentally sustainable way to live. It concludes that if ecovillages hope to be more than a greener version of sprawl, they will need to expand their commitment to sustainability by incorporating equity and justice issues, including environmental justice struggles.

## Activity 5.3: Gender and Ecology

Section 5 includes two chapters that engage with gender and ecology. It points out that these relationships and ways of knowing are not biologically determined, but socially constructed. This activity examines the extent to which two well-known women whose professions are directly linked to the environment understand their own pursuit of ecological justice in gendered terms. This Activity may be extended to incorporate Chapter 4 (Gender and the Environment) by Rocheleau et al., which deals with similar issues involving gender and the environment.

## STEPS:

First, [watch](#) Amy Goodman's 2013 interview with Jane Goodall and Vandana Shiva and answer the accompanying questions below. Then, Break up the students into 7 groups. Assign each group one chapter from Vandana Shiva's [Staying Alive](#). Each group should identify the main "Issue" of the chapter, the "Position" of the author, create a "Summary" of the main points that back up the position, and finally identify the "Outcome" of any solutions presented, or give their "Opinion" (IPSO). As they read Shiva's work, they should consider Nightingale's critique of ecofeminism in Chapter 26. With which aspects of Shiva's writing would Nightingale agree? With which would she disagree? Which authors/chapters from *The Environment in Anthropology* seem to most agree and/or disagree with Shiva's position? After they complete the task, each group should present their work to the class.

## Recommended Film for Activity 5.3

Goodman, Amy (Host & Executive Producer). (December 4, 2013). [VIDEO: Extended Interview with Vandana Shiva and Jane Goodall](#). Democracy Now! [Web Exclusive].

Abstract: "An interview with with Jane Goodall and Vandana Shiva at the recent International Women's Earth and Climate Initiative Summit, where they discussed their decades of work devoted to protecting nature and saving future generations from the dangers of climate change. A renowned primatologist, Goodall is best known for her groundbreaking work with chimpanzees and baboons. An environmental leader, feminist and thinker, Shiva is the author of many books, including *Making Peace with the Earth: Beyond Resource, Land and Food Wars* and *Earth Democracy: Justice, Sustainability, and Peace*."

## Questions to Accompany the Democracy Now Interview with Goodall and Shiva

- 1) Who are each of these women? How did they come to be interested in the environment and identify as feminist environmentalists?
  - i) What was the Chipko movement? How did it influence Vandana Shiva?
  - ii) What did Goodall learn in the 1980s that changed her approach to forest and chimpanzee conservation?

## Section 5:

## How do Identities Shape Ecological Experiences

## Activities

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- 2) How do Shiva and Goodall “challenge power” that they feel is damaging to the earth? In other words, how do they hold those in power to account, and serve as “the exception to the rulers”?
    - i) What is it, according to Shiva and Goodall that women bring to environmental discussions and decision-making?
    - ii) How do Shiva and Goodall differently nurture climate action?
      - a) What, according to Shiva, is the single biggest climate solution?
      - b) How does Goodall reframe the discussion and educate the media regarding climate change?

What is [Roots and Shoots](#) (Goodall’s organization)?

What is [Navdanya](#) (Shiva’s organization)?

- 3) How is the protection of the earth synonymous to the protection of young people and future generations, according to Shiva?
- 4) How does our relation to what we eat (our food) connect to our health, to climate change, and to climate action, according to Goodall?
- 5) In what ways do they use language of growing and biology to encourage people to embrace and take hold of their own ecological destinies and wrestle them away from corporations?

## Recommended Reading for Activity 5.3

Shiva, Vandana. (1988). [Staying Alive: Women, Ecology, and Survival in India](#).

London: Zed Books. Available online at

Abstract: “Since at least the days of Francis Bacon, the dominant view in the western world has framed technological and economic development as progress and championed that same narrow vision of ‘progress’ as inherently benevolent and inevitable. Multinational corporations, the IMF and World Bank, national governments, and humanitarian organizations regularly promote development as the only road to security—but those being ‘developed’ know otherwise. *Staying Alive* makes clear why this development paradigm—implemented through enclosure, privatization, corporate piracy, marginalization, and violence—is more accurately characterized as maldevelopment, and how it is inexorably dragging the world down a path of self-destruction. Prescient and fiercely relevant, this pioneering work illuminates how women, more than surviving the crises brought on by development, are creating and safeguarding vital sources of knowledge and vision on not only how to stay alive, but why we should in the first place.”

## Section 6:

## Can Biodiversity be Conserved?

**SECTION SUMMARY:**

Section six explores biodiversity conservation from various perspectives. Taken together, the readings in this section ask to whom do natural resources belong, and who is responsible for their future? In Chapter 30, Jim Igoe and Dan Brockington introduce readers to neoliberal conservation. Nora Haenn's Chapter 31 (The Power of Environmental Knowledge: Ethnoecology and Environmental Conflicts in Mexican Conservation) explores how divergent constructions of nature have triggered conflicts between local campesinos and environmentalists. In Chapter 32 (Radical Ecology and Conservation Science: An Australian Perspective), Libby Robin describes the history of scientific ecology in Australia and chronicles the work of Australia's leading alpine ecologist, Alec Costin. Chapter 33 (Stolen Apes: The Illicit Trade in Chimpanzees, Gorillas, Bonobos, and Orangutans) describes the illegal trade of great apes in markets such as the exotic pets industry and the tourist entertainment industry. In Chapter 34 (Difference and Conflict in the Struggle Over Natural Resources: A Political Ecology Framework), Arturo Escobar encourages readers to understand the ways that economic factors, ecological conditions, and cultural meanings promote inequalities in social power that determine how (and by whom) nature is constructed, appropriated, and utilized.

**KEY TERMS:**

biodiversity, commodification, conservation, deregulation, ecological distribution conflicts, ethnoecology, globalization, neoliberalism, neoliberal conservation, nongovernmental organizations (NGOs), political ecology, privatization, reregulation, structural adjustment programs (SAPs)

**OVERARCHING QUESTIONS:**

- How have conservation strategies changed during the past several decades?
- How have the fields of ecology, economics, and anthropology engaged with conservation practices over the years?
- Who speaks for nature?
- Who has rights to nature, and whose knowledge gets prioritized in international efforts to manage natural resources?
- For whom is biodiversity conserved? And who benefits from its conservation?
- What are the impacts of conservation on local people?
- How do cultural meanings affect groups' support for, or resistance to, conservation efforts? Does biodiversity even exist?

**QUESTIONS FOR EACH CHAPTER:**

Questions to Accompany Chapter 30: "Neoliberal Conservation: A Brief Introduction" by

Jim Igoe and Dan Brockington

1. What is neoliberalism/neoliberalization?
2. What is reregulation? How is reregulation achieved in neoliberal conservation?
3. What is territorialization? How is territorialization achieved in neoliberal conservation?
4. Why is it difficult for big international NGOs (or BINGOs) to take a hard stand on environmental issues?
5. Who benefits from neoliberal conservation? How does territorialization aid them in this process?

## Section 6:

## Can Biodiversity be Conserved?

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6. Why do Igoe and Brockington state that any benefits to people and/or the environment are not an intended consequence of neoliberalism? What is an intended consequence of neoliberalism?
  7. How does neoliberalism's emphasis on competition affect local people?

Questions to Accompany Chapter 31: "The Power of Environmental Knowledge: Ethnoecology and Environmental Conflicts in Mexican Conservation"

by Nora Haenn

1. How does the field of ethnoecology inform Haenn's research?
2. Citing Kay Milton, Haenn recalls some of the many ways in which people may conceptualize the environment. What are some of these different ways?
3. How do Campeche's farmers conceptualize the environment? How have their attitudes been affected by evangelical Catholicism? And how are their attitudes and conceptualizations affirmed through ecological processes, through farmers' interaction with the environment, and through farmers' identification as campesinos?
4. How do campesino land classifications differ from scientific ones?
5. Haenn notes that "Calakmul's campesinos may have a more detailed awareness of divergent knowledge systems" than the other actors involved in the Calakmul Biosphere Reserve. Why might this be the case?
6. How is environmental knowledge implicated in power systems? And how have farmers translated their particular conceptualization of the environment into an argument for sustainable resource use?
7. How does Haenn's case study of conservation in Mexico compare and contrast with the overview of neoliberal conservation provided by Igoe and Brockington?

Questions to Accompany Chapter 32: "Radical Ecology and Conservation Science: An Australian Perspective"

by Libby Robin

1. How is it that ecology was caught "in the cross-fire" between engineering and conservation in the case described by Robin?
2. Why, according to Robin, have Australian ecologists historically tended to drift to other fields?
3. How did Australian ecology change from the 1950s to the 1990s?
4. How is it that ecology came to be synonymous with conservation?

Questions to Accompany Chapter 33: "Stolen Apes: The Illicit Trade in Chimpanzee, Gorillas, Bonobos, and Orangutans"

by Daniel Stiles, Ian Redmond, Doug Cress, Christian Nellemann, and Rannveig Knutsdatter Formo

1. How are great apes trafficked?
2. To whom are they marketed?
3. How do experts go about estimating the number of great apes that have been captured from the wild for illegal trade?

## Section 6:

## Can Biodiversity be Conserved?

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4. How many great apes do they estimate were lost to the illegal trade between 2005 and 2011? What species makes up the majority of that estimation?
  5. If the current situation is left unchanged, how much ape habitat is predicted to remain by 2030?
  6. Who are the primary offenders and profiteers of the illicit trade in live apes?
  7. What actions do the authors of this report recommend be taken in order to counter the live trade in great apes?

## Questions to Accompany Chapter 34: "Difference and Conflict in the Struggle over Natural

## Resources: A Political Ecology Framework"

by Arturo Escobar

1. What do struggles over natural resources in different parts of the world all have in common?
2. How does Escobar define economic, ecological, and cultural distribution conflicts?
3. How do environmental economics and ecological economics differ in their treatment of the ecological and social costs, or externalities, of production? What are the limitations of either approach for the study of distribution conflicts? And how does the study of cultural meanings and processes enhance our understanding of distribution conflicts?
4. What is the academic and applied value of Escobar's focus on difference and distribution conflict?

## Section 6:

## Can Biodiversity be Conserved?

## Activities

## Activity 6.1: Countdown to Extinction

This activity relates to Chapter 33 (Stolen Apes...) by Daniel Stiles et al., which focuses on the illegal trade in primates. Students will watch both the 48-minute documentary *Green* about the Indonesian rainforest, deforestation and orangutan extinction, and Kathryn Bigelow's three-minute animation *Last Days* about the network of crime connected to the illegal elephant ivory trade. Students will then be directed to research other threatened and endangered species.

## STEPS:

Watch the film [Green](#). This 48 Minute film by Patrick Rouxel is a haunting depiction of the memories of an orangutan and the destruction of its habitat to produce consumable products, such as wood flooring, paper products and palm seed oil. Accompanying this film is a valuable [guide](#) featuring short essays by several prominent environmental scholars as well as discussion points for class debates and links to further reading. Instructors should direct their students to read the short essays on this Studying Green site. These essays, the site explains, "were written by a variety of University lecturers who all attended the 2010 WildScreen film festival where *Green* won its coveted Golden Panda award and where the film's creator, Patrick Rouxel, presented and talked about the film. Each essay should take 5 minutes or so to read." Students can be broken into groups, with each group responsible for presenting the main points from their assigned essay. Students should include in their presentations the name and affiliation of their essay's author and their reactions to their author's response.

Of course, habitat loss is a significant driver of species extinctions. But, it is not the only driver, and extinction is not the only outcome of wildlife-harming industries. While *Green* focuses on the environmental destruction wrought by global consumerism and the chapter by Stiles assesses the extent of the live trafficking of great apes, the animated feature by Katherine Bigalow draws our attention to the human costs of illegal ivory trade, which is used to bankroll some of the most notorious terrorist organizations in the world. Before showing *Last Days*, the instructor should open up the discussion by asking students to write on the board an example of an illegal activity or industry that they think might be connected to the slaughter of elephants and rhinos. After they watch the film, the students can return to board to circle which activities or organizations they listed and add the ones they missed. Students should draw lines connecting the activities with organizations to create a visual web.

- 1) Ask students what surprised them about the video and how it related to the Stiles et al. contribution about the illegal trade in primates?
- 2) What evidence is presented in chapter 33 and the film, showing the global scope of the illegal animal trade?
- 3) Who benefits, who loses?

## Section 6:

## Can Biodiversity be Conserved?

## Activities

Instructors should then invite students to research a plant (e.g., eastern hemlock, American chestnut) or animal (e.g., leatherback turtle, big eye tuna) that is currently under threat. The World Wide Fund for Nature (WWF) produces a [directory](#) of vulnerable, endangered, and critically endangered animal species and the United States Department of Agriculture (USDA) maintains a [database](#) of endangered or threatened plants. Students should present their research to the class. In their presentations, they should be sure to include:

- The species name, habitat, and distribution
- The role these species play in the greater ecosystem
- The cause of their threatened status
- The effect their loss could have on humans, plants, and other animals
- Some possible solutions

As a class, students can then look for themes that the various presentations have in common (e.g., perhaps there is a single activity that appears to be threatening multiple species).

## Recommended Films for Activity 6.1

Rouxel, Patrick (Director & Producer). (2009). [Green](#) [Documentary Film]. USA: Green Planet Films.

Abstract: "Her name is GREEN, she is alone in a world that doesn't belong to her. She is a female orangutan, victim of deforestation and resource exploitation. This film is an emotional journey with GREEN's final days. With no narration, it is a visual ride presenting the devastating impacts of logging and land clearing for palm oil plantations, the choking haze created by rainforest fires and the tragic end of rainforest biodiversity. We watch the effects of consumerism and are faced with our personal accountability in the loss of the world's rainforest treasures."

Bigelow, Kathryn (Director & Producer) & Scott Z. Burns (Writer). (2014). [Last Days](#).

Abstract: "African terrorist groups such as al-Shabaab, The Lord's Resistance Army, Boko Haram, and Janjaweed use the sale of illegal ivory to carry out attacks."

For a different take on conservation and terrorism, instructors might also screen Marshall Curry and Sam Cullman's (2011) critically-acclaimed documentary, [If a Tree Falls: A Story of the Earth Liberation Front](#).

Abstract: "In December 2005, Daniel McGowan was arrested by Federal agents in a nationwide sweep of radical environmentalists involved with the Earth Liberation Front—a group the FBI has called America's "number one domestic terrorism threat." For years, the ELF—operating in separate anonymous cells without any central leadership—had launched spectacular arsons against dozens of businesses they accused of destroying the environment: timber companies, SUV dealerships, wild horse slaughterhouses, and a \$12 million ski lodge at Vail, Colorado. With the arrest of Daniel and thirteen others, the government had cracked what was probably the largest ELF cell in America and brought down the group responsible for the very first ELF arsons in this country... Drawing from striking archival footage—much of it never before seen—and intimate interviews with ELF members, and with the prosecutor and detective who were chasing them, If A Tree Falls explores the tumultuous period from 1995 until early 2001 when environmentalists were clashing with timber companies and law enforcement, and the word "terrorism" had not yet been altered by 9/11."



## Section 6:

## Can Biodiversity be Conserved?

## Activities

## Activity 6.2: Conservation and Charismatic Species

This activity explores conservation through the lens of the critically-acclaimed documentary *Blackfish*.

## STEPS:

Show *Blackfish* and invite students to explore the sites "[Ask SeaWorld](#)" and "[SeaWorld Cares](#)". Then, assign the short articles by Titlow, Manby, and Hanson. Lead a class discussion during which the students compare and contrast the various viewpoints offered in this activity's materials and try to connect the story of SeaWorld to the chapters in this section. Connections can also be drawn to Chapter 6 in Section 1 (Ethics Primer for University Students Intending to Become Natural Resources Managers and Administrators by Richard J. McNeil) and Chapter 38 in Section 7 (Protecting the Environment the Natural Way: Ethical Consumption and Commodity Fetishism). How can we bring recent headlines—for example, Harambe the gorilla (Cincinnati Zoo, USA), Marius the Giraffe (Copenhagen Zoo, Denmark), and Cecil the Lion (Hwange National Park, Zimbabwe)—into conversation with the readings in Section 6 and with the *Blackfish* documentary?

## Recommended Film for Activity 6.2

Cowperthwaite, Gabriela (Director & Producer) & Manuel V. Oteyza (Producer). (2013) [Blackfish](#) [Documentary Film]. USA: Magnolia Pictures.

Abstract: "Blackfish tells the story of Tilikum, a performing killer whale that killed several people while in captivity. Along the way, director-producer Gabriela Cowperthwaite compiles shocking footage and emotional interviews to explore the creature's extraordinary nature, the species' cruel treatment in captivity, the lives and losses of the trainers and the pressures brought to bear by the multi-billion dollar sea-park industry. This emotionally wrenching, tautly structured story challenges us to consider our relationship to nature and reveals how little we humans have learned from these highly intelligent and enormously sentient fellow mammals."

## Recommended Readings for Activity 6.2

Titlow, John Paul. (2015, August 4) [SeaWorld is Spending \\$10 Million to Make You Forget About "Blackfish"](#)

Abstract: "Two years after the release of *Blackfish*, a documentary that skewered SeaWorld over its treatment of killer whales, the theme park company is still dealing with declining attendance, negative headlines, celebrity criticism, and pervasive social media trolling. In response, SeaWorld is doubling down on its message and marketing efforts with a multifaceted campaign designed to shift the focus from the whales it holds in captivity... A huge marketing campaign takes the focus off the orcas—but will consumers buy it?"

## Section 6:

### Can Biodiversity be Conserved?

#### Activities

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Manby, Joel. (March 17, 2016). [SeaWorld CEO: We're Ending Our Orca Breeding Program. Here's Why](#). LA Times.

Abstract: "Americans' attitudes about orcas have changed dramatically. When the first SeaWorld Park opened in 1964, orcas, or killer whales, were not universally loved, to put it mildly. Instead, they were feared, hated and even hunted. Half a century later, orcas are among the most popular marine mammals on the planet. One reason: People came to SeaWorld and learned about orcas up close." Now, SeaWorld is ending its orca breeding program and phasing out its theatrical orca shows.

Hanson, Hilary (August 13, 2016). [SeaWorld Stopped Breeding Orcas, But What About Their Other Whales?](#). Huffington Post.

Abstract: "Life in a tank isn't good for belugas, either."

## Section 7:

## Is Green Consumerism the Answer?

**SECTION SUMMARY:**

Section 7 of the Reader addresses issues relating to consumer culture. What is “green” consumerism? Is it a good thing? How do companies manage their corporate image? How does the environment feature in the branding and marketing of various commodities? In Chapter 35 (The Invisible Giant) Brewster Kneen examines Cargill’s business model and how it is that the largest private company in the world has been able to expand its transnational reach while maintaining a down-home folksy image. Martha Honey (Chapter 36) and James Carrier (Chapter 38) investigate the ecotourism and fair trade industries, exposing a darker side to the supposedly “green” and “ethical” consumer trend wherein nature and local cultures become commodities to the detriment of both, while Federico Demaria et al.’s introduction to the degrowth movement (Chapter 37) offers a glimpse at some of the alternatives to consumerism. The activities suggested here allow students to question corporations and ourselves, confront the realities of unfettered consumption, learn about greenwashing, and consider further the idea of degrowth.

**KEY TERMS:**

agribusiness, capitalism, commodity fetishism, consumer culture, ecological debt, ecotourism, ecotourism lite, ethical consumption, degrowth, fair trade, fictitious commodities

**OVERARCHING QUESTIONS:**

What does it mean to be “green”? How can we as anthropologists assess the merits and not-so-merits of green consumerism? Do wealth and consumption always go together? How do we differentiate between “standard of living,” affluence, and overconsumption? Are there limits to human needs and wants? What aspirations are legitimate? What drives high levels of consumption, and what can (or should) be done to persuade people to limit their consumption? Is economic growth compatible with sustainability? Are terms like sustainable development and green consumption inherently oxymoronic?

**QUESTIONS FOR EACH CHAPTER:**

Questions to Accompany Chapter 35: “The Invisible Giant: Cargill and Its Transnational Strategies”

by Brewster Kneen

1. What is PL 480? How did it benefit the Cargill company?
2. What other policies have benefited Cargill over the years?
3. What is “the revolving door of public service”? How does this affect companies like Cargill?
4. In addition to the revolving door, what other lobbying activities does Cargill use to its advantage?
5. How is it that the hybrid seed business is used as a “Trojan Horse” for farmers?
6. Why has Cargill not become a major player in the Japanese feed and meat markets?
7. What sort of resistance has Cargill encountered in India and elsewhere?

## Section 7:

## Is Green Consumerism the Answer?

## Questions to Accompany Chapter 36: "Treading Lightly? Ecotourism's Impact on the Environment"

by Martha Honey

1. What is ecotourism? How does it differ from nature tourism, wildlife tourism, or adventure tourism?
2. Compare and contrast Maho Bay Camps in the U.S. Virgin Islands with Moka Ecolodge in Las Terrazas, Cuba. What are their strengths and shortcomings? Why does Honey suggest that Maho Bay is not real ecotourism?
3. What is "ecotourism lite"?
4. What pressing issues does Honey conclude that the ecotourism industry must address? What steps must be taken to ensure ecotourism's survival?

## Questions to Accompany Chapter 37: "What Is Degrowth? From an Activist Slogan to a Social Movement"

by Federico Demaria, François Schneider, Filka Sekulova, and Joan Martinez-Alier

1. What is degrowth? How is it related to the *res communis* approach?
2. What does the term *Homo economicus* mean? And how do advocates of degrowth view this concept?
3. What is the Easterlin Paradox?
4. What is ecological modernization, and how is it received among degrowth advocates?
5. Why do Demaria et al. argue that economic growth can never eradicate poverty?
6. What is the "nowtopia"?
7. How does this chapter on degrowth compare to Ferguson and Lohmann's chapter on "development" (chapter 18)?

## Questions to Accompany Chapter 38: "Protecting the Environment the Natural Way: Ethical Consumption and Commodity Fetishism"

by James G. Carrier

1. What are "fictitious commodities"? How do they relate to ethical consumption?
2. What is fetishization?
3. How do commodities get fetishized? How are the means by which consumers are able to purchase and consume an object fetishized? How are consumers themselves fetishized? How is the environment fetishized? And what does this mean for ethical consumption?
4. How is it that fetishizing images also define ethicality?
5. How does tourism affect the environment of Montego Bay and Negril?
6. Having read this chapter by James Carrier and the previous chapters by Honey and Demaria et al., what do you think is the most appropriate response, or answer, to our contemporary environmental problems? Is it ecotourism or ethical consumption? Is it degrowth? What other options are there?

## Section 7:

## Is Green Consumerism the Answer?

## Activities

## Activity 7.1: Not a Comfortable Statistic

This activity is primarily directed at students in US classrooms, though it could be easily adapted for classrooms in other countries. The United States is among the top carbon-emitting countries in the world. Per capita, Americans' carbon footprint surpasses those reported for almost every other nation. This can sometimes be a difficult notion for students to grasp. While they might recognize on a general level that Americans consume more energy and materials than citizens of other countries, they may struggle to appreciate the extent of this difference. One way to help students "wrap their heads around" this disparity is to invite them to discover the numbers themselves. This activity does just that by providing a few questions that students must answer by consulting the World Bank's extensive World Development Indicators dataset.

## STEPS:

Begin by reading aloud with the class the three paragraphs on page 367 that start Section 7, taking special care to emphasize the last paragraph (this where the editors introduce the staggering disparity in consumption activity between countries). Next, each student in the class should select a country—any country, as long as it is not the US and as long as there are no repeats among the students. After the students have selected their country, direct them to the World Bank's World Development Indicators dataset, specifically [Table 1.1 Size of the Economy](#), [Table 2.1: Population Dynamics](#), and [Table 3.8: Energy Dependency, Efficiency and Carbon Dioxide Emissions](#). Students should look up and compare for the US and for the country of their choice:

- Country Size (Surface Area) – Table 1.1
- Population – Table 1.1
- Population Density – Table 1.1
- Gross National Income (GNI) – Table 1.1
- GNI Per Capita – Table 1.1
- Average Annual Population Growth – Table 2.1
- CO<sub>2</sub> Emissions – Table 3.8

Depending on the focus of the class and the content of previous course discussions, instructors can direct students to answer any number of interesting questions. Here are a couple possibilities:

1. Compare both the population densities and the emission levels of the US and the selected country.
  - a. How do these figures resonate (or not) with the Malthusian idea that population growth is bad for the environment?
  - b. What other variables might we need to consider in order to test Malthus's assertion?

Note: Instructors wishing to extend the connection to Malthus (who appears in Chapters 7 and 12) might invite students to go a few steps further:

After the students compare population density and CO<sub>2</sub> emissions, they can check out the "[Twelve Countries on Climate Change Hit List](#)" to see where the effects of climate change are being most strongly felt

- i. Are there any overlaps between the countries with the greatest total and per capita CO<sub>2</sub> emissions also the countries projected to be most affected by climate change?
- ii. What does this tell us?

## Section 7:

## Is Green Consumerism the Answer?

## Activities

Students might also compare the “Climate Change Hit List” with recent maps and reports put out by [The Institute for Economics and Peace](#) (IEP) which identify the most and least peaceful countries in the world.

- iii. Are there any overlaps between those countries most at risk from the threats that arise from climate change (droughts, floods, storms, rising sea levels, and agricultural uncertainty) and the countries with the lowest Global Peace Index (GPI) score?
    - iv. What does this tell us?
  2. Compare the Total Metric Tons and Metric Tons Per Capita recorded in 1990 and 2011 for the US and the selected country.
    - a. What is the difference in the emission total and per capita emission levels between the two countries? How great is the gap (i.e., how many times greater or smaller is one than the other)?
    - b. For each country, did emissions go up or down between 1990 and 2011? By what percent? (for example, total emissions for the US rose by approximately 10% between 1990 and 2011, while per capita emissions decreased by 12%).
    - c. If emission levels changed between 1990 and 2011, what could possibly account for this difference? (Could it be population growth? Policy-level interventions? Innovations in technology?) Encourage students to consider what sources they would need to consult to answer this question. Students could then explore those sources and develop their hypotheses as a homework assignment. Additionally, students could research and compare the primary sources of CO<sub>2</sub> emissions for each country (Is it industry? Agriculture? Transportation? Commercial/Residential?). How does knowing the source of CO<sub>2</sub> emissions affect the decisions that citizens or world leaders might make when it comes to combatting climate change? What solutions would you recommend for countries with high levels of agriculture-based emissions? For countries with industrial-, transportation-, commercial-, or residential-based emissions?

Students should share the results of their research in class.

## Activity 7.2: The Story of Governments, Companies, and Consumers

This activity uses two short films and a supplementary reading to encourage students to connect more deeply with chapters 35 (The Invisible Giant) and 37 (What is Degrowth) as well as chapters 14 (Economic Growth and the Environment) and 16 (The Lawn-Chemical Economy and Its Discontents).

## STEPS:

To begin, instructors can direct students to watch the entertaining one-minute animation [The Impossible Hamster](#) and read Clive Thompson’s 2010 article in Mother Jones, “Nothing Grows Forever, Why Do We Keep Thinking the Economy Will?”. Next instructors can direct students to read Andrew Lilico’s 2014 piece in The Telegraph, “Interstellar and The Impossible Hamster Are Wrong: Unlimited Economic Growth Is Possible.”

## Section 7:

## Is Green Consumerism the Answer?

## Activities

Additionally, the instructor can air the 21-minute film *The Story of Stuff* and distribute the accompanying [Fact Sheet](#). After the film has aired, the instructor can request students read the bullets on page one of the Fact Sheet aloud. The instructor can then facilitate a class discussion.

## Suggested Films for Activity 7.2

Simms, Andrew (Writer & Narrator). (2010). [The Impossible Hamster](#) [animation]. United Kingdom: New Economics Foundation.

Abstract: *The Impossible Hamster*, features a giant animated hamster to question the notion of unlimited economic growth.

Fox, Louis (Director) and Annie Leonard (Writer and Narrator). (2007). [The Story of Stuff](#) [Motion Picture]. USA: Free Range Studios.

Abstract: "The Story of Stuff... is a 20-minute, fast-paced, fact-filled look at the underside of our production and consumption patterns. The Story of Stuff exposes the connections between a huge number of environmental and social issues, and calls us together to create a more sustainable and just world. It'll teach you something, it'll make you laugh, and it just may change the way you look at all the Stuff in your life forever."

## Suggested Readings for Activity 7.2

Thompson, Clive. (2010, May). [Nothing Grows Forever: Why Do We Keep Thinking the Economy Will?](#) Mother Jones..

Abstract: The author highlights the work of economists like Peter Victor and Herman Daly, who question whether the Earth can support endless growth and whether it is possible to have a healthy economy that doesn't grow. This burgeoning school of thought is called "no growth" economics. Here, Thompson traces the development of both "no growth" and "pro-growth" economic thinking.

Lilico, Andrew. (2014, November 25). "[Interstellar and The Impossible Hamster Are Wrong: Unlimited Economic Growth Is Possible.](#)"

Abstract: In this short piece, economist and managing director of Europe Economics, Andrew Lilico takes issue with the argument that economic growth cannot go on forever. He frames his argument in response to the amusing and well-known animation produced by the New Economics Foundation called *The Impossible Hamster*.

## Possible Discussion Questions

- What is the message of the film *The Impossible Hamster*? Was this message delivered in a compelling or convincing way? Why or why not?
- How is GDP defined, according to Thompson? What makes GDP a good indicator and what makes GDP a bad indicator of standard of living?
- What is a "decoupled" economy"? Why did Herman Daly call the idea a "chimera"?
- What is "'uneconomic' growth"?
- How can we connect the ideas presented in Thompson's article to Panayotou's chapter on the Environmental Kuznets Curve (Chapter 14)?
- On what points do the "no growthers" disagree with mainstream economists?



## Section 7:

## Is Green Consumerism the Answer?

## Activities

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- How does the “no growth” economy described by Thompson resonate with the concepts of ethical consumption (Chapter 38), greenwashing (see activity 7.4 below), and degrowth (Chapter 37)? Where do these concepts align? And where do they diverge?
  - What three reasons does Lilico provide against the argument that economic growth cannot go on forever? Do you agree with his reasons? Why or why not?
  - In *The Story of Stuff*, narrator Annie Leonard identifies five links in the commodity chain for a consumable resource: extraction, production, distribution, consumption, and disposal. But what is missing from this linear system? What limits does she say it includes? And how do these limits stack up to the arguments presented in the articles by Thompson and Lilico?
  - What concepts from Brewster Kneen’s chapter (*The Invisible Giant*) also appear in *The Story of Stuff*?
  - Along which links in the commodity chain does the process of “commodity fetishism” (From Chapter 38) occur?
  - What is “the golden arrow”? How does Annie Leonard’s explanation of this facet of the commodity chain relate to the argument that Robbins and Sharp make in Chapter 16 (*The Lawn-Chemical Economy and Its Discontents*)?
  - What other connections can be drawn between *The Story of Stuff* and *The Environment in Anthropology*?
  - What are planned and perceived obsolescence? Provide some examples. What does this have to do with culture?
  - How have American consumption habits changed over the last several decades? What else has changed during that same time?
  - Why is recycling good? And why, according to *The Story of Stuff*, might recycling not be enough?
  - Where in the commodity chain can people start staging interventions? What alternatives are suggested in *The Story of Stuff*?

## Activity 7.3: Ecotourism Exposed

This activity builds on the readings by Igoe and Brockington (Chapter 30, Section 6), Honey (Chapter 36, Section 7), and Carrier (Chapter 38, Section 7). By watching a documentary focused on conservation and tourism in Kenya and Namibia, can gain a fuller understanding of commodification of natural and cultural resources and the challenges that ecotourism produces.

## STEPS:

Have students watch the 89-minute documentary *Milking the Rhino*, then engage in a class discussion. Note: Daniel Miller, Baruani Mshale, and Beatriz Zengotitabengoa have written an excellent [educational guide](#) to accompany the film. Instructors are encouraged to consult this guide for additional discussion questions and activities.

## Section 7:

## Is Green Consumerism the Answer?

## Activities

## Suggested Film for Activity 7.3:

Simpson, David E. (2009). [Milking the Rhino](#) [Documentary Film]. USA: Kartemquin Films.

Abstract: This 89-minute documentary “examines the deepening conflict between humans and animals in Africa today.” It follows two communities, one in Kenya and one in Namibia, who are seeking to benefit from tourism and community-based conservation. “The film highlights debates and decision-making processes that unfold within the two communities and in relation to external partners, such as national government agencies, private ranchers and entrepreneurs, and international conservation organizations. It also emphasizes the importance of history to present-day struggles and the direct dependence of local communities on environmental resources. Finally, *Milking the Rhino* raises complicated questions about the relationship between community conservation and conservation through parks, and tourism’s effect on cultural heritage and local livelihoods...”

## Questions to Accompany “Milking the Rhino”

1. What commodities do we see being created and fetishized in *Milking the Rhino*? Who benefits, and what conflicts arise from this? (Note: See Chapter 38 by James Carrier for a review of commodity fetishism)
2. What type of tourism appears to be represented in this film? Is it ecotourism? Or is it what Martha Honey (Chapter 36) would call ecotourism lite? What would the tour operators have to be providing in order for these two case studies to meet the definition of ecotourism?
3. Based on the readings and the film what are some of the benefits of relying on (eco)tourism as a major source of revenue? Are there any dangers of relying on tourism?

As a concluding activity, instructors can introduce students to the concept of a “staycation.” The students can then work in small groups to design a local tourist activity that is eco-friendly and that respects the desires of community residents (here is an opportunity to introduce an ethnographic component). Groups should present their activity to the class and/or lead the class on a tour!

## Activity 7.4: Greenwashing

This section introduces students to the concept of greenwashing and allows them to explore more fully the idea of ethical consumption.

## STEPS:

Begin by having students read “What’s Wrong With Ethical Consumption?” by Jo Littler and answering the accompanying questions. Then, introduce students to the concept of greenwashing. Terra Choice, a company that certifies green products for the Canadian government, has released a Greenwashing Report wherein they evaluate the claims made in the North American consumer market, and produced a useful guide called [“The Seven Sins of Greenwashing”](#). Instructors should distribute the list of sins and air one or more short video clips that introduce the concept of greenwashing (see recommended videos below). After they have been introduced to the seven sins of greenwashing, instructors can invite students to play the [“Name That Sin!”](#) game. Finally, instructors can instruct students to find a product in their

## Section 7:

## Is Green Consumerism the Answer?

## Activities

home or dorm (a bottle of dish soap, a bottle of lotion, a granola bar, a bag of chips—anything that appears to be making a “green” or “eco-friendly” claim on its labeling). Following the example set by TerraChoice and represented in the videos below, students should evaluate the product’s labeling and conduct a little bit of research on that products’ ingredients and the manufacturer’s sourcing and production practices. Students should present their product when they return to class and report which of the seven sins of greenwashing the manufacturer is committing, being sure to explain how, specifically, the sin(s) is/are being committed. If it is the case that the product is not committing one of the seven sins of greenwashing, the student should explain why.

## Suggested Films for Activity 7.4

Mally, Bret (Writer & Director) (2011). Excerpt from *Greenwashers* [Documentary Film].

Abstract: “Featuring renowned environmentalist Bill McKibben and business executive Scot Case, *Greenwashers* is a satirical documentary that blurs the line between green and greed, truth and believability, environmentalism and marketing. Misleading consumers about the environmental benefits of a product or service has become a new marketing standard and *Greenwashers* takes this practice to the extreme. Following a pair of *Greenwashers*, the film illustrates the various strategies, sins, and consequences of greenwash. As a mash-up of real commercials, live events, examples, and both real and fictional characters, this documentary will lead you through a twisting green labyrinth of misdirection. Just enjoy the journey!” To give a striking impression of what greenwashing looks like, instructors should juxtapose BP’s original “[Creepy Baby](#)” commercial with *Greenwashers* director Bret Mally’s [mashup](#). Full [Greenwashers](#) film.

Leamy, Elisabeth (Correspondent) & Sam Champion (Anchor). (November 4, 2009). [It’s Not Easy Being Green: Are Those Products Really Eco Friendly](#). In Jim Murphy & Tom Cibrowski (Executive Producers), *Good Morning America*. New York, New York: ABC News.

Abstract: This five-minute segment on ABC’s *Good Morning America* includes an interview with Scot Case of TerraChoice wherein he introduces the different categories (or “sins”) of greenwashing.

Johnson, Erica (Host). (September 14, 2012). [Lousy Labels: Home Edition](#) [Television Series Episode]. In Fowler, Jennifer (Producer) *CBC Marketplace*. Ottawa, Ontario: Canadian Broadcasting Corporation.

Abstract: This 21-minute episode of *CBC Marketplace* includes a top-ten countdown of “lousy labels” that make vague and/or unsubstantiated environmental claims. Which of the seven sins of greenwashing are these 10 products committing?

## Section 7:

## Is Green Consumerism the Answer?

## Activities

## Suggested Reading for Activity 7.4

Little, Jo. (2011). [What's Wrong With Ethical Consumption?](#) In Tania Lewis & Emily Potter (Eds.), *Ethical Consumption: A Critical Introduction*. Pp. 27-39. New York: Routledge.

Abstract: Chapter 2 in Book considers the criticisms of ethical consumption while also presenting the arguments in its favor. The author takes care to define the wide range of practices that are grouped under the term "ethical consumption"—this includes fair trade, anti-sweatshop, local products, organic products, 'green' products, charity-driven products, boycotts, downshifting, upcycling, etcetera, while pointing out that oftentimes any two of these practices might be contradictory. A consumer from Europe who buys Fair Trade wine from Chile or Australia, for example, "contradicts the imperative of 'buying local' to save food miles..." Other problems identified by the author include the potential for corporate co-option, the tendency to "responsibilize" the individual, and the class-based dimensions of ethical consumption.

## Questions to Accompany "What's Wrong With Ethical Consumption"?

1. Describe some of the different practices that fall under the umbrella of "ethical consumption." How is it that some of these practices are contradictory?
2. What is the difference between consumption and consumerism? Why is it that some consider ethical consumerism to be a tautology or impossibility?
3. What is political consumerism?
4. In addition to being potentially inconsistent and contradictory, what other criticisms of ethical consumption exist?
5. What is greenwashing?
6. What is the difference between "green" products and products sold as "organic"?
7. What is the difference between responsibility and accountability? Which is preferred by the CORE coalition? Why?
8. What is the "responsibilization" narrative? What are its strengths and weaknesses?
9. What is the "productive democracy" narrative? What are its strengths and weaknesses?

What are the class/power/affective dimensions of ethical consumption?

## Section 8:

## Okay, Now What?

**SECTION SUMMARY:**

This section begins with an excerpt from Paul Durrenberger's call in his 2014 address to the Society for Applied Anthropology (SfAA) for anthropologists to "get political," to be critical, effect change, and serve the people. Barbara Rose Johnston follows in the next chapter with an overview of her participatory and collaborative work with the American Anthropological Association's (AAA) Human Rights and Environment (HRE) committee, with the United States Environmental Protection Agency (EPA), and with the Marshall Islands Nuclear Claims Tribunal. In all three cases, Johnston served as a consultant for communities involved in environmental decision-making and problem-solving processes and as an advocate for cultural groups seeking meaningful remedy for human environmental rights abuses. Garrett Graddy-Lovelace, Allison Harnish, and Julianne A. Hazlewood describe the trajectory of socio-environmental scholarship, which has begun to steer away from binary thinking toward integrated and engaged research. The authors offer profiles of practicing anthropologists whose work bridges the divide between academy and advocacy. In outlining two interdisciplinary frameworks and two engaged research methodologies that have risen to prominence in environmental social science, Graddy-Lovelace et al. offer a sampling of approaches to guide readers moving forward. The reader concludes with "A Wonderfully Incomplete Bibliography of Action-Oriented Anthropology and Applied Environmental Social Science."

**KEY TERMS:**

applied anthropology, backyard anthropology, collaborative research, culpability gap, historical ecology, meaningful informed consent, meaningful remedy, objectivity, political ecology, privatization, praxis, public interest anthropology, participatory research, solidarity, scholar-advocate

**OVERARCHING QUESTIONS:**

- What ethical and political standpoints have scholars taken in response to their concerns about environmental degradation?
- How can anthropologists and environmental social scientists enter the political process?
- What does it mean to be an advocate?
- Can participatory and collaborative approaches to anthropology yield credible scientific outcomes?
- How far should social scientists go to address environmental issues? How far should anyone go?
- Now that you have arrived at the final section of this reader, you might be wondering, what comes next? Where should you go from here?

**QUESTIONS FOR EACH CHAPTER:**

Questions to Accompany Chapter 39: "Living Up To Our Words"

by Paul Durrenberger

1. Durrenberger makes reference to the famous quote "There but for the grace of God go I" throughout his address. What is the significance of this quote? How does it relate to the work that we do as anthropologists and as environmental social scientists?

## Section 8:

## Okay, Now What?

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2. How did Durrenberger actualize this quote in his work with the International Longshore and Warehouse Union in California? And how did he encourage the American Anthropological Association (AAA) and the Society for Applied Anthropology (SfAA) to adopt its outlook?
  3. Why were Durrenberger and his colleague Kendall Thu unable to influence the process of industrial swine production in Iowa? What was their strategy?
  4. Durrenberger concluded in his 2014 Malinowski Award lecture that anthropologists need to be willing to get political. What are your research interests, and how might you go about “getting political” with regard to your chosen topic? How might you “get political” in other ways— for example, on your campus, in your community, or within your professional organization(s)?

Questions to Accompany Chapter 40: “Social Responsibility and the Anthropological Citizen”

by Barbara Rose Johnston

1. According to Johnston, what distinguishes participatory research from other forms of research?
2. In identifying herself as a “scholar- advocate,” how does Johnston define the term? What was the advocacy goal in her proposal that the AAA and SfAA presidents “establish a joint committee with a mandate to develop and submit case studies to the UN- appointed special rapporteur?” What was the AAA president’s decision on this matter?
3. What was included in the Human Rights and the Environment (HRE) booklet titled *Who Pays the Price?* To whom was this booklet distributed? What were some of the unintended consequences of this booklet and other project reports intended to draw attention to abuses resulting from processes of militarism and development?
4. What is the “culpability gap”? How has the HRE committee shifted its focus in regard to the culpability gap?
5. What is “backyard anthropology”? How is this embodied in the cooperative agreement between the SfAA and the U.S. Environmental Protection Agency (EPA)? How, according to Johnston, was this collaborative partnership different from relationships anthropologists have pursued with other agencies? What was included in the scope- of- work contracts for projects pursued under this partnership?
6. What was most difficult about the SfAA- EPA partnership, according to Johnston? What example does she provide to support her opinion? How was success redefined for the SfAA, the EPA, and the project sponsors in this example?
7. What was Johnston and her team’s role in documenting the biocultural impacts of nuclear weapons testing in the Marshall Islands? What was the goal of this project? And what was included in this contract?
8. How did Johnston and her team overcome the methodological challenge of quantifying families’ qualitative stories in this case?
9. What decision did the Nuclear Claims Tribunal issue in the Rongelap case?
10. What are the limits of informed consent as it is exercised in contemporary research? How are indigenous groups, governments, organizations, and universities addressing these limitations?

## Section 8:

## Okay, Now What?

Questions to Accompany Chapter 41: “World Is Burning, Sky Is Falling, All Hands on Deck! Reflections on Engaged and Action- Oriented Socio- Environmental Scholarship”

by Garrett Graddy-Lovelace, Allison Harnish, and Julianne A. Hazlewood

1. Do you have a disciplinary specialization? If so, what might your disciplinary perspective bring to the study of socio- environmental phenomena? What do the broad disciplinary perspectives— that is, those from the humanities, natural sciences, and social sciences— bring? What do more specific disciplinary perspectives—for example, those from literature, art, philosophy, history, geography, anthropology, sociology, political science, communication studies, chemistry, biology, geology, physics, or astronomy—bring?
2. What separates the modern scientific understanding of nature (the view that was cultivated around the time of the European Enlightenment) from “Other” ways of knowing? What problems have come from the former? How are these two worldviews (which were once very distinct) merging today? And how does this synthesis affect our ability to identify and tackle contemporary socio- environmental issues?
3. What is historical ecology? How does it differ from the earlier theoretical approach of cultural ecology? What makes historical ecology an interdisciplinary approach?
4. What is political ecology? How does it differ from cultural ecology? And how does political ecology incorporate perspectives from multiple disciplines?
5. In what ways are historical ecology and political ecology similar? How are they different?
6. What are participatory and collaborative research methodologies? How do they differ from each other and from other, conventional, research approaches?
7. What are the pressing socio-environmental issues in your community? How might you incorporate the theoretical frameworks and research methodologies described by Graddy et al. into the study of such issues? How would this incorporation enhance your understanding and engagement with the issues in your community?
8. Which chapters in this reader embody the frameworks and methodologies described by Graddy-Lovelace et al.?



## Section 8:

## Okay, Now What?

## Activities

## Activity 8.1: Direct Action

In Chapter 41 (World is Burning, Sky is Falling, All Hands on Deck!) Graddy-Loveless et al. state their “goal in authoring this chapter is not to mire [their] readers in disheartening statistics, but to steer them away from feelings of apathy, fatalism, or helplessness.” In line with the goals of this chapter this activity invites students to explore and present inspiring case studies of socio-environmental justice, empowerment, and problem-solving.

## STEPS:

To begin, the instructor should project the last section of Durrenberger’s speech from Chapter 39, beginning from “I tell you now…” and have the students read it aloud. Next, have students brainstorm issues that need to be addressed in their own communities, universities, the larger world, or within a particular industry. Then, direct students to explore the organization websites at the beginning of Chapter 42. In particular, we recommend the [Beautiful Solutions Gallery and Lab](#), which was launched by Beautiful Trouble in partnership with This Changes Everything (see Activity 2.2). According to their website, “Beautiful Solutions gathers the most promising and contagious strategies for building a more just, democratic, and resilient world.” Working individually or in groups, should select one of the many solutions from the Beautiful Solutions Gallery and Lab and present it to the class. Their presentations should answer the following: Who developed the solution? What problem is this solution seeking to address? What is unique or laudable about the solution’s approach? Who stands to benefit from this solution? How can we assess the solution’s effectiveness? Is it possible to reproduce this solution in other parts of the world? How (could/should) the solution be adapted address the issues that students identified at the outset of this activity? How might it be adapted to suit your own community/region/country? Does learning about this solution help you to feel less helpless in the face of socio-environmental problems? Why or why not?

Instructors may choose to add an ethnographic dimension to this activity, by having students actually seek out and conduct interviews with individuals and groups in their own community who are involved in environmental and social justice initiatives.

## FURTHER STEPS:

After students have shared their solution from the Beautiful Solutions Gallery and Lab, direct them to find similar local initiatives in their home towns or in their local community, region, state, or country. Students can research the organization by exploring its website and reading any news stories that describe its work. Students could also visit the individual/organization and engage in participant observation (by volunteering) and/or they could conduct interviews (either at the organization or about the organization). If students carry out interviews, they should establish a semi-structured interview guide before-hand. Have students develop ten questions and exchange them with their classmates for critique. After the questions are approved, the students can carry out their interview(s). The interviews can provide an students with an opportunity to self-evaluate their interview style (do they speak fast, do they interrupt their respondent, do they ask follow-up questions, do they allow sufficient time for participants to respond?), to appreciate the time and thought that it takes to transcribe, code, and analyze an interview. Students should then present their findings to the class. In their presentations, students might include the following:

## Section 8:

## Okay, Now What?

## Activities

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- A description of the organization and the problems it seeks to address. How does it compare to the solutions they learned about on the Beautiful Solutions website, to the various environmental initiatives that were described in the Environment in Anthropology Reader?
  - Does the insight that students gained from taking this class or reading this text equip them to evaluate the initiative? If so, what would students say are its advantages and/or shortcomings?
  - How does the initiative they explored in this activity exemplify the type of interdisciplinary work mentioned by Graddy-Loveless et al.?
  - A summary of the research methods utilized
  - Does their research qualify as action-oriented anthropology? Why or why not? Was it collaborative or participatory? Why or why not? How could they expand the scope of the project make it more participatory, collaborative, and/or action-oriented?

## EVEN FURTHER STEPS

Perhaps the class is moved to do more than research. After the students have considered some of the pressing local issues and investigated some of the different initiatives in their locality, the class can vote on which cause to support and which solutions model to follow and begin planning feasible ways to get involved. Encourage students to carry forth their plan. Just as Durrenberger had his students write a paper about their experience and what they learned, have students write about their own process.

## Activity 8.2: Research Ethics

This activity is designed to accompany Chapter 40 (Social Responsibility and the Anthropological Citizen by Barbara Rose Johnston). It gives students further exposure to Johnston's work and a chance to learn more about a chapter in US history with which they are likely unfamiliar. Since the last section of the reader is designed to guide students in the consideration and pursuit of their own research, it seems appropriate to conclude with a focus on research ethics.

## STEPS:

First, make sure students are acquainted with contemporary research ethics. The University of Indiana provides a great [tutorial](#) for this purpose. Next, have students watch one of the many short videos that feature original footage from the testing of [Castle Bravo](#)—the most powerful nuclear device ever detonated by the United States. Then, students should read the prologue to Barbara Rose Johnston and Holly Barker's *The Consequential Damages of Nuclear War: The Rongelap Report* and answer the questions below. The instructor can then facilitate a discussion that incorporates some of the broader themes of the reader—i.e., environmental (in) justice, physical and structural violence, science/progress/modernity, ethnographic research methods and what it means to be a scholar-advocate, research ethics, etc. Note: It is likely that students will be wholly unfamiliar with either Operation Castle or the broader atmospheric atomic and thermonuclear testing program of which it was a part. The footage of the Castle Bravo explosion is truly jarring. Let alone Johnston and Barker's account of its environmental, human health, and socioeconomic effects. Thus, it might be beneficial to take some time to allow students to process what they have seen/read and share their reactions.

## Section 8:

## Okay, Now What?

## Activities

## Recommended Readings for Activity 8.3

Pimple, Kenneth D. (2006). [Protection of Human Subjects in Non-Biomedical Research: A Tutorial](#). Indiana University.

Abstract: While this tutorial is focused primarily on non-biomedical research, the general overview of the history of research ethics and the description of informed consent will prove useful for stimulating class discussion on Johnston and Barker's research.

Questions to Accompany "Protection of Human Subjects in Non-Biomedical Research: A Tutorial" Note: These questions are drawn from Section 3 to Section 4.4 (pages 2-9) and Section 5.5 to Section 6.2 (pages 19-23) of the IU tutorial.

1. What is the Nuremberg Code? Why was it enacted?
2. In what ways was the Tuskegee Study abusive to human subjects?
3. What are some examples of human subjects abuses tied to NON-BIOMEDICAL research?
4. What is the Belmont Report? What rules does it establish for researchers studying human subjects?
5. What happened at Virginia Commonwealth University in 2000 as a result of researchers failing to comply with human subjects regulation?
6. What is informed consent? What must be included in an informed consent document?

Johnston, Barbara Rose and Holly Barker (2010). [The Consequential Damages of Nuclear War: The Rongelap Report](#) Walnut Creek: Left Coast Press.

Abstract: "The Rongelap Report is an expert witness report that was submitted to the Republic of the Marshall Islands Nuclear Claims Tribunal (NCT) in September 2001. It was prepared by Barbara Rose Johnston and Holly M. Barker at the request of NCT Public Advocate Bill Graham, with funding provided by the NCT. The report served as evidence in the Nuclear Claims Tribunal hearing on hardship, pain, suffering, and consequential damages experienced by the people of Rongelap, Rongerik, and Ailinginae as a result of the actions and activities of the U.S. nuclear weapons testing program. The hearing took place in the fall of 2001 in Majuro, the capital city of the Republic of the Marshall Islands, with the involvement and testimony of the Rongelap people...whose poignant memories...stand in sharp contrast to the public version of events reported in the media. The report is reproduced here with minor editing done for readability and context"

Questions to Accompany "The Consequential Damages of Nuclear War: The Rongelap Report"

- 1) When was the Nuremberg Code enacted? When did the Belmont Report come out? And when was Bravo detonated? What does this timeline tell us about progression of research ethics during the 20<sup>th</sup> Century? (Note: to answer this question, students will need to consult The Rongelap Report as well as the above research tutorial by Kenneth Pimple).
- 2) What were some of the health effects of nuclear weapons testing in the Marshall Islands?

## Section 8:

### Okay, Now What?

#### Activities

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- 3) Describe at least three problems related to research ethics / integrity that Johnston and Barker identified in their investigation of the US nuclear weapons testing program on the Marshall Islands.
- 4) How was the anthropological perspective and methodology that Johnston and Barker brought to the tribunal particularly well suited for the composition and presentation of this report?
- 5) What parallels can be drawn between Johnston and Barker's work on The Rongelap Report and the various sections of The Environment in Anthropology, in particular the chapters by McNeil (Chapter 6) Dalby (Chapter 12), Rajan (Chapter 15), Taylor and Buttel (Chapter 19), Checker (Chapter 22), Escobar (Chapter 34), and Durrenberger (Chapter 39)?
- 6) How does the Marshall Island research—both the original weapons testing program and the later work of Johnston, Barker, and the Rongelap people—inform your view of anthropology and the environment, of the progression of the field and your own work moving forward?
- 7) To get a sense of what ecological/environmental anthropologists are up to these days, the students might also take a look at the [American Anthropological Association's Anthropology and Environment Section blog](#).