

HISTORY 207: GLOBAL NATURAL HISTORIES

T-TH 9:30 – 10:45

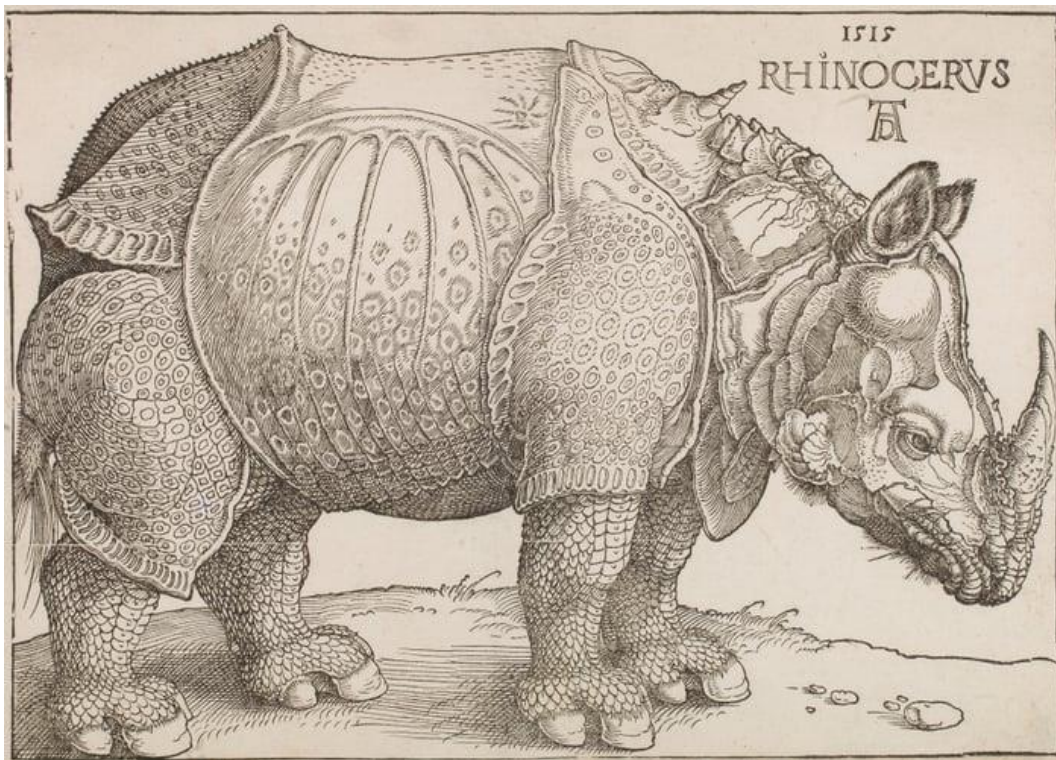
CCC321

Dr. Jerry Jessee

Office: CCC 467

Office Hours: M & W 12:00 – 1:00. Please email to schedule.

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Albrecht Durer's Rhinoceros (1515)

Course Description:

Today, we tend to associate natural science and scientists with laboratories, sophisticated instruments, and lab coats. But before there was “science,” the primary means by which people created a formalized knowledge of the natural world was through “natural history”—the observational study of natural objects like animals, plants, and minerals situated within their environmental milieu.

The science of natural history, however, was not created in a vacuum. Rather, natural history has been molded and fashioned by human beings—humans who envisioned the natural world through the cultural lenses of their particular times and places. Natural history, in other words, is a product of human culture and historical context, not just a way of knowing nature. In this course, we will take a historical and cultural perspective on natural history that asks:

How do the historical and social contexts of scientific activities shape science?

By putting natural history in its historical and cultural context you will gain a firmer understanding that science is not above society but is a social institution that shapes and is shaped by society.

Our method for investigating this essential questions involves a mix of lecture, small/whole-group discussion of readings, and analytical, problems-based workshops. **This is not a lecture course that simply requires you to sit passively and listen.** I have structured the course around critical readings, questions, and learning opportunities that facilitate your ability to make meaning out of issues related to society and science. I am a guide, not a knowledge faucet. You are a seeker, not a vessel waiting to be filled with knowledge. Your success in this course thus requires that you not only attend class, but also complete the readings and come prepared to discuss and work through them with me and your peers. Your active engagement in your own learning will make this a much more rewarding experience.

Note that each lecture listed in the schedule below contains a question that the readings and or/lecture material is designed to answer. Use this question to give you purpose as you read. You should be able to address the question by the time we are through with that day's class.

Learning Objectives:

Essential Questions:

How do the historical and social contexts of scientific activities shape science?

Enduring Understandings:

Students will understand that:

Science is not above society but is a social institution that is integrated into and influenced by society.

Course Learning Skills:

Students who diligently complete this course in good faith will be able to:

1) *Analyze* through primary and secondary sources how natural history has shaped and been shaped by historical forces.

2) *Analyze* different interpretations of the history of natural history and their impact on understandings of the past.

3) *Analyze* how the institution of natural history have shaped understandings of the natural environment through time.

Required Reading:

Books

Paul Farber, *Finding Order in Nature: The Naturalist Tradition from Linnaeus to E.O. Wilson*, The Johns Hopkins University Press, 2000. Available for text rental at the UWSP Bookstore.

Patricia Fara, *Sex, Botany, and Empire: The Story of Carl Linnaeus and Joseph Banks*, Columbia University Press, 2003. Available for text rental at the UWSP Bookstore.

Juan Pimentel, *The Rhinoceros and the Megatherium: An Essay in Natural History*, Harvard University Press, 2017. Available for text rental at the UWSP Bookstore.

Andrea Wulf, *The Invention of Nature: Alexander von Humboldt's New World*, Vintage, Reprint Edition, 2016. Available for text rental at the UWSP Bookstore or online.

Articles on Canvas: In addition to the books above, you will also be required read articles and bring them to class to discuss. These will be available on Canvas. They are noted in the schedule below with an asterisk (*).

You must read and bring these readings to class on the days we discuss them. Students who regularly fail to bring their readings to class for discussion will be docked attendance.

A really important note about the Canvas reading materials in this course: You have one of two choices for accessing these readings in this course: You can 1) print out the articles in hard copy, or 2) download the articles and bring them to class on an electronic reading device. If you choose option number 2 there are caveats. First, the only electronic devices permissible for the readings are laptops or ipad-type readers. No cell phones! I am strict of this. Second, you must bring your device with you on the day that we discuss those readings. This is the price you pay for going electronic.

Assignments:

Midterm Exam: There will be an online midterm exam that will consist of identifications, short answer prompts, essays, and multiple-choice questions. I will provide a study guide.

Final Exam: The final will be in the same format as the midterm and will be cumulative.

Quizzes: There will be a series of quizzes on lecture and readings throughout the semester. The format will be short answer. There will be a quiz for each day we discuss a book. Questions will require you to answer something that is important from the text, either specific content or an idea/argument. Because this is a large class, I will not be returning your quizzes back to you. For the first couple quizzes I will provide feedback on how the class is performing, expectations on answers, etc. If you would like more substantial and individual feedback on your personal performance, you are encouraged to make an appointment with me during office hours.

In-Class Activities and Assignments: We will be engaging in various writing and group exercises throughout the semester. I will be collecting the products of these exercises and giving you credit for them on CANVAS. They will not be heavily graded or returned to you. Instead, I will be evaluating them on the + √ - system. These marks will be recorded in CANVAS as 3-2-1 respectively. If you complete the work and put forth good effort, you will receive a +. Varying degrees of completeness or effort will result in either a √ or a -. You will be in serious danger of **not** passing this class if you do not complete these assignments. See scale below.

Attendance: Attendance is required for this course. The purpose of this grading category is to reward students who regularly attend class. There is penalty for excessive absences. See below.

Grades (Weighted)

Midterm: 20 %

Final Exam: 25 %

Quizzes: 20%

In-Class Activities and Assignments: 20%

Attendance 15%

Total: 100%

Other Stuff:

Attendance Policy: I will record attendance. You are allowed two absences for the semester. Students who miss more than two classes will be docked 2 full grades (20%) from their attendance grade for each accrued absence after two. An absence is an absence; there are no “excused” absences other than those for university sanctioned events or military duty. In those cases, please provide documentation (official form/announcement or a note from an authority) to seek an approval from me for the absence. This must occur *before the absence*.

What to do if you are absent: First, you do not need to email to notify me that you are going to be absent. The only time you need to contact me regarding an absence is when you have an illness or other serious problem that will require you to miss several classes. If this happens to you, please contact me so we can then discuss whether I can approve an accommodation.

Second, all powerpoints are available on Canvas. Please download these for the date absent. Finally, contact someone in class to obtain any notes from the missed class and get information on any assignments or handouts (these will also always be available on Canvas).

I do not provide alternative options (online or otherwise) for students who miss classes. It is up to you to get up to speed on what you missed during your absence, including notes and any assignments.

Related to absences: I find it incredibly rude for students to leave in the middle of class. If, for some legitimate reason, you need to leave class early, I would appreciate the common courtesy of letting me know before class begins. Students who leave class without permission will be docked attendance for that class.

Electronics: All electronics must be turned off during class unless instructed to use them by me. These include cell phones, laptops, and tablets. In some cases, laptop use may be permitted if the student has an accommodation approved by the Disability Services Office (see below). **Please do not be surprised to hear me shout “turn off your cell phone” if I catch you peeking at it in class.**

Notes should be taken by hand on paper.

Late Work: Late assignments will be docked a full point for each day late. I very rarely grant extensions on assignments, so please do not request one unless your situation is extraordinarily urgent.

Early Finals/Midterms: I do not allow students to take early/late exams except in extremely rare occasions (like you are going to have brain surgery on the scheduled exam day).

Accommodations: Students with DATC-approved accommodations: Students with a DATC approved accommodation must meet with me before any accommodations will be granted.

Plagiarism: For information on plagiarism, consult <http://www.uwsp.edu/centers/rights>. See Chapter 14, **Student Academic Standards and Disciplinary Procedures**. I will vigorously pursue all incidents of plagiarism. Also I use turnitin.com for the essays.

Equal Educational Opportunities: If you have a learning or physical challenge which requires classroom accommodation, please contact the UWSP Disability and Assistive Technology Center (6th Floor of the Learning Resources Center) with your documentation as early as possible in the semester. They will then notify me, in a confidential memo, of the accommodations that will facilitate your success in the course. Voice: (715) 346-3365, TTY: (715) 346-3362, <http://www.uwsp.edu/special/disability/studentinfo.htm>.

Writing/Reading Help: This is a reading and writing intensive course. If you need help you can visit the Tutoring and Learning Center in the basement of the Library. They are there to help you with papers etc. This is totally free! Their webpage is

<http://www.uwsp.edu/tlc/Pages/writingReadingTutorials.aspx>. You can also call them to make an appointment at (715) 346-3568.

Notice on Copyright of Course Material: As the instructor, I retain all copyright on lectures, slides, assignments, and other course materials. I do not allow anybody to photograph, film, or otherwise record lectures without my express permission. I do not allow anybody to distribute course materials or otherwise send audio or visual recordings of lectures to people not currently enrolled in this class without my express permission. Posting course material that I have created onto course-sharing websites directly violates my copyright on my materials.

***Note: I reserve the right to alter this syllabus for any reason.**

Class Schedule:

Introduction

Week 1

TUESDAY -- Course Introduction

THURSDAY – The History of Science: An Introduction

(How should we understand the history of science? What is the relationship between science and its broader social and cultural contexts?)

Readings:

Farber, *Finding Order in Nature*, Introduction.

* Lewontin, "A Reasonable Skepticism."

* Schiebinger, "Gender and Natural History."

Unit 1: Recognizing Nature: The Birth of Natural Philosophy (Human Origins to the Ancient World, c 300 bce)

Week 2

TUESDAY -- Classical Greek Natural Philosophy

(What is natural history? What are the limits to understanding the world according to Plato?)

Readings:

* Browne, "Natural History" from *The Oxford Companion to The History of Modern Science*.

* Primary Source: Plato, "Allegory of the Cave" from *The Republic*.

THURSDAY—Classical to Medieval Natural Philosophy

(How did Medieval Societies in Europe and the Islamic World deal with the classical learning from Greece? What is the relationship between natural history and religion in the medieval world?)

Week 3

Unit 2: Ordering Nature: The Origins of Natural History (The Renaissance and Early Modern Era 1400 to 1750 ce)

TUESDAY -- Renaissance Natural History I: The Rhino

(What political contexts shaped European understandings of the Rhino during the Renaissance?)

Readings:

Pimentel, *The Rhinoceros and the Megatherium*, "Prologue" & ch. 1

THURSDAY—Renaissance Natural History II: Commercial Expansion, Cabinets of Curiosity, and the Ancient Authorities

(How did the writings of the ancient authorities shape Renaissance understanding of natural history?)

Readings:

Pimentel, *The Rhinoceros and the Megatherium*, ch. 2.

Week 4

TUESDAY – Renaissance Natural History III: Printing and Albrecht Durer

(How does the story of Ganda and the shift from "words" to "images" reflect the changing ways natural history was understood by Renaissance Europeans?)

Readings:

Pimentel, *The Rhinoceros and the Megatherium*, ch 3.

THURSDAY— Early Modern Classification of Nature: Linnaeus's "Natural" System

(How natural was Linnaeus's natural system? What social contexts shaped his system?)

Readings:

Fara, *Sex, Botany, & Empire*, chs. 1-2.

* Primary Source: Columbus, "On World Geography."

Optional: Farber, *Finding Order in Nature*, ch. 1.

Week 5

TUESDAY— Early Modern Imperial Science: The Cook Voyages, Exploration, and Mapping
(How was science and scientific exploration shaped by the needs of the early modern state?)

Readings:

Fara, *Sex, Botany, & Empire*, ch. 4.

THURSDAY— Early Modern Botany and Empire: Joseph Banks
(How was botany an imperial science?)

Readings:

Fara, *Sex, Botany, & Empire*, chs. 3 & 6.

Week 6

**Unit 3 Interconnecting Nature: Humboldtian Science
(Modern Era 1750-1850 ce)**

TUESDAY -- The Enlightenment: Mechanistic Philosophy and Comparative Anatomy
(What does it mean to view nature as a machine and how did this view affect people's understanding of the natural world?)

Readings:

* Primary Source: Descartes, Selection from *Discourse on Method*.

THURSDAY-- Humboldt, Chimborazo, and the Geography of Plants
(How did Humboldt's view of nature and geographical space shape views of the natural world?)

Readings:

Wulf, *The Invention of Nature*, "Prologue," & chs. 1; 3-7; 10 (skim chs. 8-9).

Week 7

TUESDAY -- Humboldt's Global Knowledge and *Cosmos*
(What was Humboldt's scientific practice and how did it enable scholars to make global knowledge?)

Readings:

Wulf, *The Invention of Nature*, chs. 13-14; 16 (skim chs 11-12; 15); 18.

THURSDAY—Workshop: Museums and the Legacy of Imperialism
(How do museums tell stories? Do the stories that museums tell have power?)

Readings:

Fara, *Sex, Botany, and Empire*, ch. 5

* Parker, "Coming to Terms with Cook."

* Vogel, "Countries Demand their Fossils Back."

Week 8

Unit 4: Evolving Nature: The Darwinian Revolution
(Modern Era 1850 – 1950 ce)

TUESDAY -- Darwin and the Voyage of the Beagle: Deep Time

(What is deep time and how did scientists of Darwin's time come to understand the nature of deep time?)

THURSDAY— No Class

Due: Midterm (Online)

Spring Break

Week 9

TUESDAY – Darwin's Delay: Pre-evolutionary Theories and Natural Theology

(How did scientists before Darwin understand the organization and design of organisms? What kinds of evolutionary theory existed before Darwin?)

Readings:

* Primary Source: Paley, selections from *Natural Theology*.

THURSDAY-- The Origin of Species

(What are the main features of Darwin's theory and how did he make his argument?)

Readings:

Farber, *Finding Order in Nature*, chapter 5.

* "Introduction" to *On the Origin of Species*.

Week 10

TUESDAY – Reception of Darwin’s Theory
(Was Darwin’s theory accepted or not?)

Readings:

* Whewell, “Consilience of Inductions.”

THURSDAY-- Evolution and the Natural History of Humanity
(What effects did Darwin’s theory have on how people understood themselves and their societies?)

Readings:

* Primary source: Selections from Darwin’s *The Decent of Man* and Huxley’s *Man’s Place in Nature* & “Evolution and Ethics.”

Week 11

TUESDAY – The Experimental Method and the Modern Synthesis

Readings:

Farber, *Finding Order in Nature*, chs. 6 & 8.

THURSDAY – Natural Selection Workshop

Week 12

**Unit 6: Saving Nature: Natural History and Nature Protection
(Modern Era to the Anthropocene, 1850 to Present)**

TUESDAY – The History of Ecology

THURSDAY— Conservation and Preservation Movements

(How did natural history influence the rise of environmental conservation and preservation?)

Readings:

Wulf, *The Invention of Nature*, ch. 23.

* Henry Lowood, "Scientific Forestry Management in Germany."

* Pinchot, "Ends and Means."

Week 13

TUESDAY -- Natural History in Person and Film

(What new kinds of meaning did people attribute to nature in the late 1800s and early 1900s and why?)

Readings:

Farber, *Finding Order in Nature*, ch. 7.

Read the article from "Wild Things: The Blog of the Wildlife Conservation Society Archives." URL Link:

<http://www.wcsarchivesblog.org/the-african-plains-a-new-vista-to-the-wonders-of-nature/>

* Primary Source: Osborne, "The Opening of the African Plains."

THURSDAY-- Film: "Grizzly Man"

Week 14

TUESDAY -- Discussion: "Grizzly Man"

THURSDAY – Biodiversity Crisis: EO Wilson and the Sixth Extinction

(How is the natural history of the planet now, in the Anthropocene, being driven by human history?)

Readings:

Farber, *Finding Order in Nature*, chapter 9.

* Kolbert, "The Sixth Extinction."

Week 15

TUESDAY – The Anthropocene: Human History as Natural History in the Anthropocene

THURSDAY – No class! Prepare for final exam.

Final: Monday 5/15—12:30-2:30