

H A&S 253B / 222B

Northwest Coastal Stories

Order, Chaos, and Resilience in Science and Culture

Spring 2009 · 5 credits · TTh 11:30-1:20, MGH 251

<https://catalysttools.washington.edu/workspace/banasn/4549>

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Office hours

by appointment: *make a suggestion!*

to show up unannounced:

Wed 10-11 or directly after class Tues or Thur



Course announcement

This course will follow Jonathan Raban's remarkable travelogue *Passage to Juneau* on a tour through the human and natural history of the Pacific Northwest coastal waters. We'll discuss chaos theory and the circulation of Puget Sound; coastal ecology and climate change; the art and mythology of the Northwest tribes; the Vancouver expedition and the Romantic Sublime. The unifying theme is the interplay between order and chaos, and how we cope with the limits of our knowledge in an unpredictable world. The course will be driven by student discussion and close reading of a wide range of primary sources, from Haida oral literature to scientific journal articles. There will be opportunities for students to experiment in their writing, as well as in the laboratory.

Required books

at the U Bookstore:

- 1) Raban, *Passage to Juneau*
- 2) Bringhurst, *A Story as Sharp as a Knife*

at the Ave Copy Center (4141 Univ Way, just north of Aladdin's):

- 3) a *course reader* that you'll need for the second week of class.

Format

This course is about **reading and making connections**, not just the Northwest coast and order and chaos.

The goal: after this course, you should be able to pick up a related book (on earth science, ecology, anthropology, climate change, travel writing, nautical adventure stories) on your own, figure out what it's saying, and stitch it into a larger intellectual story about life, history, or nature that goes beyond academic categories.

For every class meeting for which reading is assigned, there is also a standing assignment to identify and share your questions about it (details below). **Reading and re-reading until you have questions**, or see glimmers of connection to disparate things, is the heart of the course. In a way, what happens when we're together on Tuesdays and Thursdays is a support for your reading, not the other way around!

I will lecture sometimes, but only *after* you guys have raised your questions, answered as many as you can among yourselves, and worked as far as you can into each week's material. Lia and I can suggest directions and provide background as requested, but the primary responsibility for bringing good questions to the table is yours. *Use us as a resource; ask us for help; ask our opinion about specific things; don't wait for us to take the lead.*

Assignments

1) **Post questions on the online discussion board.** Every class for which reading is assigned (see Calendar below), post two questions about the reading:

a) a **content** question: i.e., what does the text say?

“I don’t understand the concept of _____.”

“When the author says _____, do they mean _____?”

“What is this author trying to tell me about _____?”

b) an **analysis** question/comment: making connections, evaluating

“Doesn’t this contradict _____ that we read last week?”

“This reading makes me think of that other reading, but it’s just a feeling and I can’t explain why.”

“I think the author is wrong whereas my esteemed classmate _____ is right.”

Deadline: midnight the night before class.

(Note: your analysis question can be a comment or answer instead of a question. Your content question must be an actual question, and it must be about content. Identifying the specific things that you do not understand is a crucial step in active reading. It’s your admission ticket to thinking big lofty thoughts, or deciding that the author’s wrong!)

2) Once during the term, serve as **question synthesizer** (sign up in class on Thur 4/2). This means

- read the discussion board questions before class
- identify ideas that seem especially important / interesting / shared by many classmates—ideas that would make a good **agenda or starting point** for the day’s discussion.
- come to class ready to summarize your favorite 2-4 in **one sentence** each.

We’ll start most discussions with me asking the synthesizers for their report. Keep it short. Longer is not better. This requires a bit of prep. To quote Blaise Pascal: “I have made this letter longer than usual, only because I have not had time to make it shorter.”

3) **Write three papers, about 5 pages each.**

Paper 1 (due 4/30): On the Puget Sound model lab or a another science topic (weeks 1-4).

This could be a straight academic paper, or (more interesting to write, read, and share) a newspaper opinion piece, an Ask Dr. Science column for 4th graders, a cool interweaving of text, photos, and illustration..... More ideas for topic and format to come.

Paper 2 (due 5/19): On Raban, Haida mythology (Bringham), or another humanities topic.

Likewise.

Paper 3 (due 6/10): Read something not on the syllabus and link it to the course themes.

If you tell Lia or me what genres or ideas you’d like to read more about, we will be full of suggestions—or you can find something on your own. You could give an extended review of a book, commentary on a scientific journal article, describe the debate among several authors on a contested topic....

All these are malleable if you have another idea you’re excited about. If you propose a creative alternative, I will almost certainly say yes. Check with me first.

Grading

25% discussion board questions and synthesizer service: C/NC

25% paper 1

25% paper 2

25% paper 3

For papers, my grading scale is

2.0 major deficiencies

⋮

3.0 fully adequate, no more, no less

⋮

3.4 good

⋮

3.8 excellent

⋮

4.0 above and beyond (I don't give out many of these)

I weight *ideas* and *communication* (communication = clarity and persuasiveness) about equally. If you experiment in a genre that's new for you (first-person narrative like Raban, newspaper op-ed piece, visual communication, etc), then I weight ideas, communication, and *process* about equally. In other words, if you try something hard and fail nobly, your grade will be about the same as if you stick to the familiar and succeed competently. Feel free to append postscripts to your papers explaining your process.

Extensions policy: it's always worth asking, but I expect you to do the considerate thing and *ask in advance*.

Calendar

= discussion board questions required

	<i>Tues</i>	<i>Thur</i>
Week 1	3/31	<input type="checkbox"/> 4/2
Week 2	<input type="checkbox"/> 4/7	<input type="checkbox"/> 4/9
Week 3	<input type="checkbox"/> 4/14	<input type="checkbox"/> 4/16
Week 4	<input type="checkbox"/> 4/21	<input type="checkbox"/> 4/23
Week 5	<input type="checkbox"/> 4/28	4/30: paper 1 due
Week 6	<input type="checkbox"/> 5/5	<input type="checkbox"/> 5/7
Week 7	<input type="checkbox"/> 5/12	<input type="checkbox"/> 5/14
Week 8	5/19: paper 2	<input type="checkbox"/> 5/21
Week 9	<input type="checkbox"/> 5/26	<input type="checkbox"/> 5/28
Week 10	<input type="checkbox"/> 6/2	6/4
Finals	6/10: paper 3 due	

Week 1: Introduction

Thurs 4/2: Raban, ch. 1, "Fitting Out" and ch. 2, "Deep Water" (pp. 3-90)

Post your Discussion Board posts by **midnight Wednesday**.

Week 2: Cycles within cycles, stability and order

This week is about assembling simple, classical stories of how tides, currents, and ecosystems work in coastal waters. This is the only time in the course that we will work from standard science textbooks.

Tues 4/7: Garrison, *Oceanography: Waves, Tides*
Schultz, *The Northwest Coast: A Natural History: Oceanography* (excerpt)

Garrison, *Oceanography*, "Primary Productivity, Plankton, and Plants"

Mann, *Ecology of Coastal Waters*, "Coastal Upwelling Systems"

Thurman & Trujillo, "Energy Flow," "Biogeochemical Cycles"

WHAT TO READ FOR: the questions we'll work on in class are

– **"Describe the chain of cause and effect that connects astronomical motions (earth, moon, and sun) to the currents we see in Puget Sound."**

– **"Describe the chain of cause and effect that connects the wind direction on the Washington coast to the growth of fish populations."**

The goal is to construct simple, clear stories: as you read, decide which details are essential links in the chain and which ones can be safely ignored.

Thurs 4/9: Worster, *Nature's Economy*: excerpt from "The Empire of Reason"

Raban, start of "Sailing into the Sublime" (pp. 91-106)

Worster (Thurs) describes the original understanding of ecology in the 18th century as a stable, perfect arrangement of cycles within cycles, much like the overlapping rhythms of the astronomical tides. Compare the current vision of coastal ecology (Schultz, Garrison, Mann, Thurman and Trujillo): what has changed since the 18th century and what hasn't?

Week 3: Chaos

Things aren't going well for Capt. Vancouver. And they aren't going well either for the idea of simple, stable cycles in ecology. Darkness! Howling despair! Cosmic confusion! Fish!

Tues 4/14: Gleick, *Chaos*: "The Butterfly Effect" and "Life's Ups and Downs"

Botkin, *Discordant Harmonies*, chapters 2-3

Thur 4/16: Raban, rest of "Sailing into the Sublime" (pp. 132-181)

Week 4: Eddies, turbulence, and art

This week, a lab experiment using a scale model of Puget Sound that will deepen our story about waves and tides. Raban and Reid talk about Northwest native visual arts, and we (like Raban) will try to make connections to the behavior of water.

Tues 4/21: Raban, pp. 182-207

Reid, from *Solitary Raven*: "The Classical Artist on the Northwest Coast" & "The Components of the Formline"

Thur 4/23: Duxbury and Duxbury, "Estuaries" and "Flushing Time"

!!! class meets in the Old Ocean Building today, not MGH. Walking directions on the website.

!!! also, 2/3 of you will come on Wed or Thur other than the normal class time! We'll organize in class.

Week 5: Reading myth and living myth

This week we start working on Northwest *ethnography* just as we've previously been working on Northwest *oceanography*. (Are these studies as parallel as the words suggest?) Bringhurst and Raban both discuss the torturous path of translation and misunderstanding through which native mythology comes down to us, and Bringhurst helps us figure out what categories of art and literature myth really belongs in—I feel he challenges our our stereotypes about “what native peoples believe” better than any author I know.

Chapter 1 from Bringhurst is a careful, beautiful translation of a Haida story, which we will spend all of Tuesday trying to make sense of: read it closely. I strongly recommend reading it more than once.

There's a theme of *transformation* running through the Haida sources this week; what else in the readings so far does that theme connect them to?

Tues 4/28: Bringhurst (a book, not in the course reader):
Prologue pp. 13-15
ch. 1, pp. 27-49
ch. 2, pp. 50-63 (skimming is okay)
ch. 5, pp. 111-117

Thur 4/30: Bringhurst, ch. 6, pp. 135-145
Raban (pp. 239-248, 299-309, 318-323, 331-341)
Paper 1 due at class time: turn in via the class website

Week 6: Tricksters and instability

Okay. Hang on. Wait a minute. What does it mean for a culture to declare that a horny, potty-mouthed raven made everything in the universe the way it is—and that the stories of this are their most sacred and serious literature—especially when the story changes every time an ethnographer tries to pin down the details? The whole thing seems a bit—chaotic.

Tues 5/5: Bringhurst, pp. 208-235
Hyde, *Trickster Makes This World*, Introduction & “That’s My Way, Coyote, Not Your Way” (excerpt)
Snyder, “The Incredible Survival of Coyote”, from *A Coyote Reader* (Bright, ed.)
Duff, *Bird of Paradox*, “Haida Art Was for Thinking”
Thur 5/7: Bringhurst, pp. 263-276, 372-382

Week 7: Salmon and Komogwa

The end of Raban's story, which he ties to the discoveries of the Alaska salmon researcher Bruce Finney. We'll read a journal article by Finney that explains further, and try to wrap a bunch of threads together as Raban does.

Tues 5/12: Raban, pp. 346-349, 360-370, 399-end
Thurs 5/14: Finney et al., "Fisheries productivity in the northeastern Pacific Ocean over the past 2200 years" (*Nature*, 2004)

Week 8: Scales of change

So if native sea-watchers and modern fishery managers both can't predict the rise and fall of salmon, what chance do we have? How far do familiar patterns of change in climate and living systems stretch, and what patterns appear at scales farther from our experience? We'll examine some tools we have to track patterns of natural variability, and on Thursday try to make analogies between natural evolution and cultural evolution.

Tues 5/19: scales of change in Pacific ecosystems and climate, reading TBD

Paper 2 due at class time

Thur 5/21: Gould, *Wonderful Life*, ch. 1 "The Iconography of an Expectation"
re-read Raban, pp. 71-76, 318-323

Week 9: Resilience

Just as "chaos" has a particular technical meaning within its range of cultural meanings, so does "resilience," a powerful current idea in ecology and systems theory which embraces both order and chaos in a particular way. On Tues we'll talk about it in ecological context, and on Thurs focus on a complex Haida story—a Komogwa story, although the storyteller never calls his undersea lord by that name—that may or may embody the same idea of resilience.

Tues 5/26: Gunderson and Holling, *Panarchy*: "Caricatures of Nature"

Barbour, "Ecological Fragmentation in the Fifties," from *Uncommon Ground* (Cronon, ed.). Pages 233-238 are required, the rest is optional.

Botkin, *Discordant Harmonies*, chapter 10

Thur 5/28: Bringhurst, ch. 3, "The One They Hand Along"

Week 10: Possible futures; understanding the consequences of our actions

This week is set aside to talk about what all this means in practical terms for the decisions our society needs to make about how we manage or don't manage nature (and ourselves). There are many possibilities, and which ones we pursue is up to the class. Some possibilities:

- How does **global warming** fit into the many patterns and timescales of change we discussed in Week 8? If the climate is always changing naturally, why does such an overwhelming majority of the people who study those changes think that the one new change humans are causing is such a big deal?
- Likewise on the subject of **overfishing and mass extinction**: where does human action in recent centuries fit into longer patterns of evolution? How do these issues of evolution affect ecosystems?
- A lot of people talk these days about "**managing for resilience**," as opposed to managing for keeping-nature-exactly-the-way-it-is-right-now. What does this mean in practice?
- What are the lessons for us from the ways that **native peoples** on this coast kept both themselves and their salmon fisheries alive for thousands of years? What combination of ecology, economics, mythology, and luck was involved?

Tues 6/2: Botkin, *Discordant Harmonies*, postscript: "A Guide to Action"
other readings TBD

Thurs 6/4: no new reading

Finals week

Wed 6/10: **final papers due, 5 pm**