



GEOG 5800

- Welcome to the class!
 - I hope you get much practical research insight here this semester
 - Research is actually fun to do, but it is important to know how to do it right

GEOG 5800

- Important announcement about next class
 - On August 31, we will meet for that class only at the Willis Library, room 136 (door immediately to the left when you come in the main entrance)
 - This is our library resources session, coordinated by the UNT GIS librarian (our geography department contact for all library issues)
 - Bring library-related questions about your research, if you have any

GEOG 5800

- For all other class details, see the syllabus
 - Let's take a quick look through it now

GEOG 5800

- For all other class details, see the syllabus
 - Let's take a quick look through it now
 - Note my office hours: Mondays, 2-4pm (correction from syllabus, please note this)
 - The class webpage is also another important place to get course resources throughout the semester

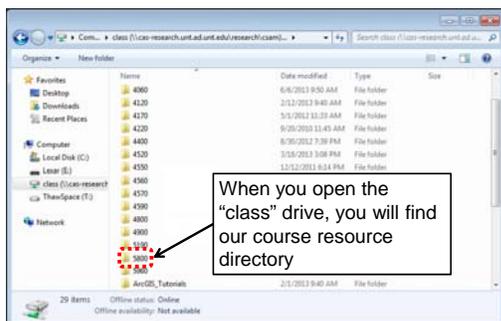
www.murrayrice.com/geog-5800.html

To Access Reading Files in CSAM labs (ENV 336/340):

Go to this location (the "class" drive)

Fall 2015 Key Code to Enter ENV 336: 88456*

To Access Reading Files in CSAM labs (ENV 336/340):



To Access Reading Files in CSAM labs (ENV 336/340):

Name	Date modified	Type	Size
Readings	9/9/2013 10:54 AM	File folder	
Sample Articles	9/9/2013 10:54 AM	File folder	

Inside the 5800 class directory you will find:

1. A directory with electronic versions of your required readings, and
2. A directory with the files for our Article Case Studies discussion (week 5 of the course) – links to these files are also posted on the course website

GEOG 5800

- This class is an introduction to geography as a research field, addressing questions such as:
 - What is geography?
 - What kinds of research do geographers do?
 - How do geographers do research?
 - What do you need to know in planning your own research in geography?

GEOG 5800

- But before we move along to these topics, I want to introduce you to Dr. Murray Rice
 - My education
 - My work background
 - My current research

GEOG 5800

- I think it is also important that you understand the philosophy behind this course in particular

GEOG 5800

- I think it is also important that you understand the philosophy behind this course in particular
 - What you do outside of the classroom is as important as what we do here
 - This is a “hands-on” course
 - You will get out of the course exactly as much as you put into it

GEOG 5800

- Focus of the course: getting you ready to write a complete research plan
 - Because of this focus, I am setting aside some time each week for you to guide the discussion
 - Ask questions based on your research and research plans
 - I hope some of this open discussion will relate to the weekly topics, but it doesn't have to

GEOG 5800

- A couple of key points related to course expectations and our practical, “hands-on” focus:

GEOG 5800

- A couple of key points related to course expectations and our practical, “hands-on” focus:
 - 1. You need to participate in class discussions (this is one element you will be graded on)
 - 2. In order to participate, you need to do the reading and all other work assigned each week: preparation is crucial

Belief and Action

- **Assertion**: what you believe shapes what you do (both as a researcher and as a person)
 - In other words, your actions follow from how you see the world
- **My question for you**: What do you believe about the world?
 - I think it is important for you to give some thought to what you believe and what motivates you

Belief Case Study

- **Example of connection between beliefs and research: the “Scablands” region of Washington State**



Belief Case Study

- **Example of connection between beliefs and research: the “Scablands” region of Washington State**



Belief Case Study

- **Example of connection between beliefs and research: the “Scablands” region of Washington State**



Upper Grand Coulee

Belief Case Study

- **Example of connection between beliefs and research: the “Scablands” region of Washington State**



Steamboat Rock

Belief Case Study

- **Example of connection between beliefs and research: the “Scablands” region of Washington State**



Lake Lenore

Belief Case Study

- **The scablands have some of the most interesting physical geography you will see anywhere on earth**
 - We will view a brief video introduction to what’s so interesting about this area

[PBS Video: Mystery of the Megaflood](#)

Belief Case Study

- **In brief, some key points about how science developed an understanding of the origin of the area**
 - **Glaciation** fits some of the area’s features, such as the broad valleys and the scatter of large boulders (“erratics”) we see here
 - **Problem:** other evidence shows that glaciers did not cover this area

Belief Case Study

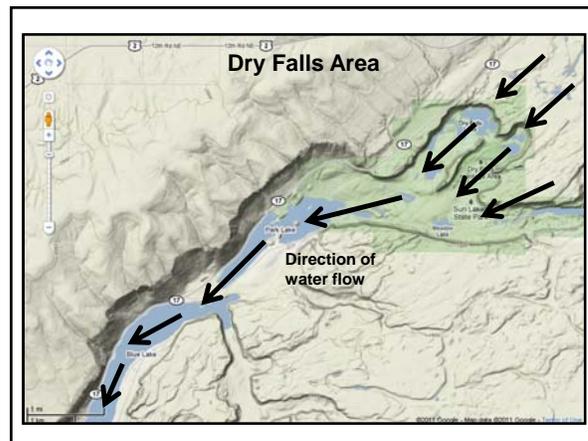
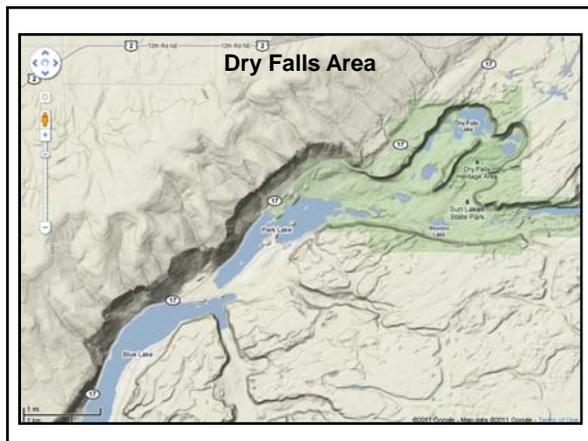
- **In brief, some key points about how science developed an understanding of the origin of the area**
 - **River processes** fit other features, such as the “pot holes” we see in the area
 - **Problem:** typical pot holes generated by large rivers (e.g. the Mississippi or Columbia rivers) can be 1 to 2 feet deep, but some left in the scablands are more than 20 times bigger than that

Belief Case Study

- In brief, some key points about how science developed an understanding of the origin of the area
 - Regardless of these problems, the view of earth scientists up to the 1920s was that long-term process caused what we see
 - This came out of the beliefs of the scientific community that “this is how landscapes evolve” – gradually

Belief Case Study

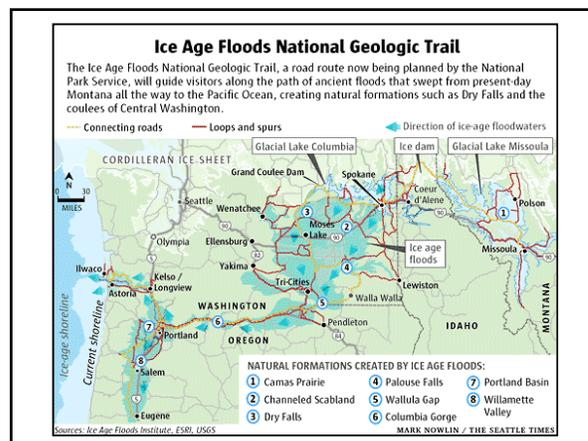
- All of this was challenged in the 1920s by a geologist named J. Harlen Bretz
 - Based on field observation and his own theory-building, Bretz proposed that a single, sudden, catastrophic flood shaped the region
 - The earth science community forcefully rejected Bretz’s idea in 1927 (that can’t be right!)
 - However, findings coming over the next decade supported Bretz, and his theory was accepted



Belief Case Study

- A few references related to Bretz’ work:
 - Bretz, J.H. (1923) "The Channeled Scabland of the Columbia Plateau." *Journal of Geology*, 31, 617-649.
 - Bretz, J.H. (1925) "The Spokane flood beyond the Channeled Scablands." *Journal of Geology*, 33, 97-115, 236-259.
 - Soennichsen, J. (2008) *Bretz’s Flood: The Remarkable Story of a Rebel Geologist and the World’s Greatest Flood*, Sasquatch Books (Seattle, Washington)

Most recently, Bretz’ ideas have become the focus for National Park Service development of a “National Geologic Trail” (really a system of trails across the region)



Belief Case Study

- **Take-away lessons from this example**
 - 1. beliefs (“landscapes emerge from long-term processes”) are a powerful part of science
 - 2. beliefs in science need to be constantly challenged, but thoughtfully so
 - 3. Bretz’s scablands research provides a good example of a scientist who let the evidence lead him to a logical conclusion

Geography and Research

- **Let’s get away from that specific example and think about geography/ earth science in a broader context**
 - **Q:** What do geographers study? How lengthy and varied a list can we compile here?

Geography and Research

- **Geographers make a connection between the idea of geography (what it is) and how we can solve problems with it (how it can be used)**
 - One of our geography faculty, Dr. Chetan Tiwari, does a great job of explaining this very concisely in this “5 Minute Talk”

[UNT's 5 Minute Talks : Chetan Tiwari and Medical Geography](#)

Geography and Research

- ***Last exercise for tonight:*** thinking broadly, what kinds of research would be possible for a geographer to do in the situations shown in the following slides
 - What general descriptions of research OR specific research questions come to mind?
 - Put yourself in brainstorming mode – no wrong answers!



