Labs 9, 10 and 11: Projects and Presentation

GEO 302C

Weeks of April 12th, April 19th, April 26th

This lab description covers multiple weeks. See highlighted text for deadlines.

Goal:

Learn in-depth about a subject related to climate (in the past, present, and/or future) that interests you. Complete a project addressing your subject of interest. Teach other students in your section about what you learned and accomplished.

Step 1(Lab 9): Decide on your topic, your project format, and your group.

Subject of your project

You may choose any subject that relates to past, present, and/or future climate. See list at the end of this document for suggestions. Note that the list of possible topics is NOT limited to the list provided below.

Format of your project

• The "default" format is a poster presentation (see http://www.geo.utexas.edu/courses/302c/LABS/PosterPresentation.htm for examples from last year's class). If you choose to do a poster project, see the guidelines below for how to structure your poster.

• Other formats (e.g., movies, music CDs, etc.) are acceptable, ***provided that*** your TA approves of your plan. Note that all projects will be judged to the same standard (that is, a group that does a movie will be held to the same standard as a group that does a poster).

Group composition

Form small groups of no more than three students. (You may work alone, but keep in mind that "groups" of one will be judged using the same standard as multi-person groups.)

The following information is DUE before your lab section the week of April 12th!!

Each person should make sure that his or her TA has received an email that contains the following information:

1. The members of your group
2. The subject that you propose to present
3. Two questions that you have regarding your project
4. Two questions that you think that the class should be able to answer after hearing your presentation.
5. The section in which you plan to present.
6. If you want to do a project that is NOT a poster, state this explicitly.

Here is an example email that fulfills all six of the requirements listed above:

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To: your TA's email address
From: your email address
Cc: your group members' emails
Subject: 302C proposed project for your name and group members' names
Your TA's name,
Your group members' names and I plan to present our project in your Monday
3:30 PM section. I have cc'ed your group members' names on this message.
For our project, we would like to look at how art can be used as a source of
proxy climate data.
We will do a poster presentation like the ones from last year that are posted
on the course website.
Two questions that we have regarding this topic are:
1. How accurate is art as a source of proxy data?
2. How much do climatologists depend on art as a source of climate
information?
Two questions that we believe the group should be able to answer after
hearing our project presentation are:
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1. Does the Little Ice Age appear in 17th-century European art?
2. Can climate variation be observed in southeast Asian art?
Thanks,
*****

Your TA will promptly evaluate your proposed project and redirect you if necessary. **Your entire Lab 9 grade will be determined by whether or not your TA receives an email linking you to a project subject and group (as outlined above).** It is your responsibility to make sure this happens.

Step 2 (Lab 10): After your TA has approved your proposed work, complete your project. Email your TA if you have questions regarding project composition and scope. Note that each group member should play an integral role in the research and composition of the project.

Step 3 (Lab 11): Present your project in section.

You will present the results of your work (Lab 11) in section the week of April 27, 2009. During this week, you and your group members need attend the section in which your group presents. Presentations should be approximately 5 minutes long. Presentations may be no longer than 8 minutes long.

In your presentation you should:

(1) Succinctly, clearly describe what you wanted to learn and/or accomplish when doing your project.

(2) Explain how your project relates to climate and why it is important and interesting.

(3) Explain or show what you learned/accomplished.

(4) Explain how you learned/accomplished it (that is, the steps that you took to reach your goal).

If you're doing a poster presentation as a project, your poster should be a central part of your presentation.

All group members should in some way participate in the project presentation.

Grading

• Your Lab 9 grade is ENTIRELY based on whether your TA receives the relevant email by the week of Monday, April 12th (see Step 1 above for more info). You either do it (and receive 100 points), or you don't (and receive 0 points).

• Your Lab 10 grade is your project grade.

• Your Lab 11 grade is your in-section project presentation grade.

Lab 9 is a completion grade. For both the project itself and the presentation of the poster/project, we will use the following grading system.

• Check plus (100 points): Excellent

• Check (85 points): Good

• Check minus (70 points): Passable

If the poster/project is not completed, you will receive a 0.

If not all students present the project, you will receive a 0. Choose your group wisely.

Best of Section Awards

Members of each section will vote for their section's best project/presentation. Group members may not vote for their own group. The group deemed "Best of Section" will present their work to the entire 302C lecture (in the week of May 4). **Groups chosen to present in lecture will receive 5 percentage points added to their final semester lab grade.**

Possible Project Subjects

The choice of potential subjects is ***NOT*** limited to the ones on the list.

a) Global Warming

b) Sea Level Change

c) The Ice Ages

d) The Little Ice Age

e) Abrupt Climate Change

f) Climate Modeling
g) Nuclear Winter
h) Proxy Climate Data
i) Cretaceous Climate
j) El Nino
k) Dust Bowl
l) Carbon Balance
m) Water Cycle
n) Desertification
o) Deforestation
p) Urbanization
q) Kyoto Protocol
r) The Day after Tomorrow
s) Climate Feedbacks
t) Volcanoes and Climate
u) Climate Change and Air Quality
v) Climate and Groundwater
w) Akkadian Empire
x) Romans in Brugundy
y) Easter Island
z) Mammoth extinction in North America
aa) Moa extinction in New Zealand
bb) Maya (choose a location and a period)
cc) Cahokia settlement at American Bottom
dd) Spanish Colony of Santa Elena on South Carolina coast
ee) British Colony of Jamestown in Virginia

Each poster should contain the following information:

1) Introduction (Why is it important?)
2) Background (What are people doing about it? For example, the scientific background including the local, regional or global climate change context associated with the event.)
3) Findings (Why is it cool? For example, the climatic, social, cultural, and/or economic impact of the specific event(s); any lessons learned from the coincidence of climate change and human history. Scientific/cause and effect; Cultural and historical aspects; Long term impacts or future implications of climate change on human activities.)
4) Conclusions (What should your classmates know?)
5) References (How do you know this? You need a list of at least 6 references; only three of these may be URLs.)

Poster Presentation Guidelines

The poster design is up to the individual groups but each poster should have the following panels and fit within approximately a **3 ft by 4 ft area**.

• ***Title and Authors***

The title should tell the reader what the poster is about and, if possible, the main finding.

• **Introduction**

The introduction defines the objective of the poster. It should summarize how you went about achieving your objective, the scientific background including the global/regional climate change context associated with the historical event.

• **Diagrams, illustrations, tables, images, or graphs with captions**

Four to six figures should be included. The figures should be able to convey your points concisely and clearly but not be overly complicated (i.e., too many graphs or large tables). The captions should describe the figure and its importance for the subject. A reference should be included if the figure or

data used to make a figure were taken from the published literature. A **location map** for the particular area covered by the event is highly recommended.

• **Conclusions**

States what you conclude or recommend form your research analysis. Conclusions or recommendations are based on evidence presented in your poster. Make certain that they follow logically from, and are supported by, the data/results actually presented.

• **References**

Citations **within the body** of the poster should be referenced by authors and date. For example, (*Moskowitz and Banerjee,* 1979). All such references cited in the poster must be included in the final reference list in alphabetical order.

Resources:

1) The Walter Geology Library.
2) The World Wide Web. (BUT PLEASE DON'T believe everything you find here!)
3) Popular magazines and newspapers.
4) Other libraries. If you have trouble getting started, talk to the reference librarian about your interests.
5) Be sure to reference your sources.

Acknowledgement: Preparing this lab has benefited greatly from the online materials prepared by Emi Ito at the University of Minnesota, 2003; see http://www.geo.umn.edu/courses/3002/spring03/poster_new.html.