COURSE SYLLABUS

Mapping for Architecture, Urbanism, and the Humanities

Columbia University GSAPP | ARCH4122 | Spring 2020
Fridays 9:00–11:00am | 408 Avery Hall
Office hours: Fridays 11:00–1:00pm (with appointment)
Professor: Emily Fuhrman (ef2512)
Teaching Assistant: Tola Oniyangi (sio2106)

Description

What role does cartography play in our relationship to space? How does technology make sense of places to which we have never been? Through what material practices is data produced, and how is it located? As a result, what cultural attitudes inhabit our maps, how do they (re)produce our environment, and how can they be contested?

This hybrid theory/practice course introduces critical mapping discourse and geographic information systems tools. Of particular interest to humanities students, it examines both historical and contemporary questions with reference to the technology of mapping. Additionally, through the use of open-source GIS software (QGIS), browser-based technologies (Mapbox), and open data (OpenStreetMap), students will learn how to critically use mapping tools and geographic data for spatial analysis and representation. Each class has two parts: in the first half of each meeting we will discuss weekly readings, while the second half serves as a flipped-classroom to address technical and conceptual issues arising from take-home GIS tutorials. The final weeks of the semester will be devoted to developing students’ own critical cartographic research.

Objectives

By the end of this course, students will be able to:

- Critically read a map
- Investigate the cultural attitudes and technologies behind cartographic practices
- Use QGIS to analyze and present geographic information
- Build location-aware dynamic maps for mobile devices
- Make intentional design decisions when creating maps

Requirements and Grading

10% Attentive in-class participation and discussion of assigned reading and tutorials

15% Weekly written responses to assigned reading (200-400 words). These must be posted to canvas by noon the day before class. Responses will structure our in-class discussion and allow you to articulate your
questions for one another beforehand. You may engage not only the readings, but also each other. You may want to:

- Quote and comment on a particularly challenging passage
- Offer a critique of one or more of the texts
- Evaluate a cultural object from the perspective of the text
- Identify larger themes or contrasting viewpoints

15% Weekly mapping tutorials. These are graded by submission only. You may work alone, in pairs or groups of three. Please submit whatever you have completed via email by noon the day before class. You do not need to complete a tutorial to receive full credit, but you do need to have attempted it. If you do not have anything to send, please write a paragraph explaining how far you got and what problems you encountered. These will form the basis for the in-class tutorial.

10% A 10-minute presentation on your analysis/critique of a map or other cartographic practice. Address its context in terms of technology, intended audience, political orientation, and impact, and discuss the effectiveness of its representational and aesthetic choices. Provide some questions or provocations to kick off a short discussion with the class.

50% A research project. By week 8 you should be developing a question or thesis that you want to explore, analyze, or explain using some type of map, broadly defined. Projects can be produced for the web or other digital or physical media, and a white paper will discuss the decisions you made, the methods you used, and what you have learned from the outcome. Please note that late and/or partial credit are not given. Your grade is primarily the result of mindfully engaging in class and your work at the expected time.

Community

This is a discussion-based course. All students and the instructor must be respectful of others in the classroom. If you ever feel that the classroom environment is discouraging your participation or is problematic in any way, please contact me.

Accessibility

GSAPP is committed to full inclusion of all students. Please inform me if you have a disability or other condition that might require accommodations or modification of any of these course procedures. You may speak with me after class or during office hours.

Schedule

1: 01/24 Introduction: Para-Empiricism

Reading

- Borges, Jorge. "On Exactitude in Science."
QGIS Tutorial 1
• Getting Started with QGIS

2: 01/31 Constructing Space

Reading

Additional Reading

QGIS Tutorial 2
• Population Map

3: 02/07 Inscribing Space

Reading
• Harley, J.B. "Deconstructing the Map." Cartographica 26:2, 1989.

Additional Reading

QGIS Tutorial 3
• Data Types & Quantitative 311 Maps

4: 02/14 Spatial Visualizations

Reading

QGIS Tutorial 4
• Using the Census
5: 02/21 Counter-Mapping

Reading

Additional Reading

QGIS Tutorial 5
- Vector Analysis Tools

6: 02/28 Data

Reading
- Harris, Jacob. "Consider the Boolean." 2015.

Additional Reading

QGIS Tutorial 6
- Projections

7: 03/06 The View from Above

Reading

Additional Reading

**QGIS Tutorial 7**
- Georeferencing

**Final Project Brainstorm**

**8: 03/13 Computational Utopias**

**Reading**

**Additional Reading**

**Webmapping Tutorial 1**
- Getting Started with Mapbox

**Spring Break**

**9: 03/27 Locating Locative Media**

**Reading**

**Additional Reading**

**Webmapping Tutorial 2**
• Live Data

*DUE: Research Project Proposals*

**10: 04/03 Geospatial AI**

**Reading**

**Webmapping Tutorial 3**
• Participatory Sensing

**11: 04/10**

**Research Project: Preliminary Presentations**

**12: 04/17**

**Research Project: Final Presentations**

**13: 04/24**

**Research Project: Final Presentations**

**14: 05/01 (No class)**

*DUE: Research Project Whitepaper*

**Online Resources**