

## DATABASE ARCHAEOLOGIES: FOUNDATIONS OF THE DIGITAL HUMANITIES

What distinguishes the humanities and the sciences? What are the objectives of each of these divisions of knowledge? What methods define their modes of inquiry? How have computers transformed these methods? How can computational analysis reveal aspects of history and art that humans can never see? When does human perception exceed machine reading?

The ascendant field of the Digital Humanities is uniquely positioned to introduce students to these fundamental questions about humanistic and scientific knowledge production. In drawing out their implications, this course will survey the conceptual foundations and methods of the most promising area of the Digital Humanities: macroanalysis, or large-scale textual analysis. Throughout, our objective will be to understand what place humanistic questions can and should occupy in research environments built on principles of formal logic. We will take up this challenge by considering how to design a truly interdisciplinary method of historical analysis, one compatible with the logical concepts of the computational social sciences and directed by the ethical and philosophical questions of the humanities.

We will begin in the 1960s, with the emergence of new formal methods for describing meaning in language. In particular, we will acquaint ourselves with the analytic concepts that the philosopher Michel Foucault drew upon to construct a method for a logical analysis of historical language. Foucault's "archaeology" is a foundation for this course because it demonstrates the need to modify existing methods for new questions and objectives.

We will then examine how digital humanists are approaching historical and literary analysis today. In the process, we will examine how computational resources reveal new possibilities for analysis, as well as new obstacles. We will conclude by considering the place of interpretation in a digital age. Designed with practical application in mind, this course aims to help students formulate questions, conduct research, perform analysis, and write history. No technical expertise is required.

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### GRADING & REQUIREMENTS

- 20%: Because this is a discussion course, your engagement is crucial to your overall performance. Quality is as important as quantity. Contributions that involve your fellow students are especially encouraged. Attendance is required; more than two unexcused absences will hurt your grade. Complete your reading assignments before class.
- 10%: Lead group discussion once, in groups of two or three. To prepare, meet with me as a group during office hours (or by appointment) the week before.
- 10%: Contribute short reading notes to Chalk.
- 60%: Four assignments: a short analysis of the conceptual foundations of formal description (750 words), group project on network analysis (1000-1250 words + diagrams), a speculative paper (1000-1500 words), and a final project (2500 words).
- No late assignments will be accepted without a legitimate excuse. Each day that an assignment is late, a third of a grade will be deducted. All students should familiarize themselves with the academic honor code. Plagiarism and other forms of academic dishonesty will not be tolerated in this course.

**REQUIRED TEXTS:**

- Peter de Bolla. 2013. *The Architecture of Concepts: The Historical Formation of Human Rights*.  
 Carlo Ginzburg. 1992. *The Cheese and the Worms: The Cosmos of a Sixteenth-Century Miller*.  
 Michel Foucault. 1972 [1969]. *The Archaeology of Knowledge*.  
 Franco Moretti. 2005. *Graphs, Maps, Trees: Abstract Models for Literary Analysis*.

These texts are available at the Seminary Co-op. Other readings will be uploaded to Chalk.

## **PART I: CONCEPTUAL FOUNDATIONS OF HISTORICAL DESCRIPTION**

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**WEEK 1: Introduction to Formal Analysis**

- Foucault. 1969. "Linguistics and Social Sciences," in *Dits et Écrits I*, 821-42
- Arnold Davidson. 1996. "Structures and Strategies of Discourse: Remarks Towards a History of Foucault's Philosophy of Language," in *Foucault and His Interlocutors*, 1-19.

**WEEK 2: Key Concepts in History: Quantitative Analysis**

- Pierre Chaunu. 1977. Excerpt from *Histoire quantitative, histoire sérielle*
- François Furet. 1971. "Quantitative History," 151-167
- A. Bernard Knapp. 1992. "Archaeology and *Annales*: time, space, and change," in *Archaeology, Annales, and Ethnohistory*, 1-22

**WEEK 3: Key Concepts in the History of Science: The Concept**

- Gaston Bachelard. 2002 [1938]. "The Obstacles to Quantitative Knowledge," in *The Formation of the Scientific Mind*, 211-236
- Knox Peden. 2014. "From Consciousness to Concept," in *Spinoza Contra Phenomenology: French Rationalism from Cavallès to Delençe*, 17-64
- Sebastian Luft and Fabien Capeillères. French half of "Neo-Kantianism in Germany and France," in *The New Century: Bergsonism, Phenomenology, and Responses to Modern Science*, 47-86

**WEEK 4: Key Concepts in Linguistics and Analytic Philosophy: Description**

- Noam Chomsky. 1956. "Three Models for the Description of Language," 113-24
- Émile Benveniste. 1973 [1966]. *Problems in General Linguistics Vol. 1*, 3-42
- Robert Nola. 2003. "An Archaeological Dig through Foucault's Texts," in *Rescuing Reason: A Critique of Anti-Rationalist Views of Science and Knowledge*, 363-415

**ASSIGNMENT 1: Analyzing Concepts**

Paper (~750 words). Choose 2 or 3 of the concepts that appear in this unit's readings and define them clearly and succinctly. What questions are these concepts designed to answer? How does Foucault's "Linguistics and Social Sciences" propose they should be adapted for historical analysis? Bonus points for imagining alternative ways they can be used for this purpose.

(You're completely welcome to ask linguistics and philosophy majors or faculty to talk about these concepts.)

## PART 2: HISTORICAL DESCRIPTION

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### WEEK 5: Archaeology

- Foucault. 1999 [1969]. "On the Archaeology of the Human Sciences: Response to the Epistemology Circle," in *Aesthetics, Method, and Epistemology*, 297-334
- Foucault. 1972 [1969]. Part I of *The Archaeology of Knowledge*, 3-17

### WEEK 6: Archaeology in Practice 1

- Part II of *The Archaeology of Knowledge*, 21-76

### WEEK 7: Archaeology in Practice 2

- Part III of *The Archaeology of Knowledge*, 79-131

### WEEK 8: Practicing Archaeology

- Part IV of *The Archaeology of Knowledge*, 135-195

### ASSIGNMENT 2: Network Analysis

This two-part assignment shows how archaeology anticipates the use of network analysis in the digital humanities. In **Part 1**, groups of two or three will choose a chapter of *The Archaeology of Knowledge*. Make a list of the logical concepts used in the chapter. What disciplines do they come from and what are they used for there? How does Foucault use them? Justify your findings by quoting from source materials. Compare Foucault's uses against original uses. Again, it's a great idea to talk to majors and faculty in other departments for help. In **Part 2**, your group will select four texts (I'll help with suggestions). Draw diagrams of a conceptual network in each of the texts. Then compare how these diagrams differ. In a 4-5 page report, summarize your research and provisional conclusions. Note where you ran into problems and where you think these problems come from. Append your diagrams to the report.

## PART 3: DIGITAL HUMANITIES

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### Week 8: Distant Reading

- Franco Moretti. 2000. "Conjectures on World Literature," 54-68
- Katherine Hayles. 2012. "Narrative and Database: Spatial History and the Limits of Symbiosis," in *How We Think: Digital Media and Contemporary Technogenesis*, 175-198

### Week 9: Distant Reading 2

- De Bolla. 2013. Introduction and Chapter 1 in *The Architecture of Concepts*, 1-47

- Daniel Shore. 2010. "WWJD? The Genealogy of a Syntactic Form," 1-25

### Week 10: Practicing Distant Reading 1

- Moretti. 2005. *Graphs, Maps, Trees: Abstract Models for Literary History*

### Week 11: Practicing Distant Reading 2

- De Bolla. 2013. Chapter 3 in *The Architecture of Concepts*, 131-205

### ASSIGNMENT 3: Speculative Paper

1000-1250 words. De Bolla's *The Architecture of Concepts* is an explicit updating of Foucauldian archaeology. So why do the results of De Bolla's project seem so simple in comparison to Foucault's plan of analysis? What obstacles are posed by macroanalysis on the level of scale that Foucault could not have anticipated? In the readings in this unit, which historical method do you think seemed most successful? Why? Formulate a research question of your choosing and explain which method you would choose to pursue it.

## PART 4: INTERPRETATION

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### Week 12: Microhistory

- Ginzburg. 1992 [1976]. *The Cheese and the Worms*
- Ginzburg. 1992. "Clues: Roots of an Evidential Paradigm," in *Clues, Myths, and the Historical Method*, 96-125

### Week 13: Close Reading

- Julie Orlemanski. 2014. "Scales of Reading," 215-33
- Peter Szondi. 1978. "Introduction to Literary Hermeneutics," 17-29
- Clifford Geertz. 1973. "Thick Description: Toward an Interpretive Theory of Culture," in *The Interpretation of Cultures* 3-32

### Week 14: Conclusion

- Foucault. Conclusion to *The Archaeology of Knowledge*, 199-211.

### ASSIGNMENT 4: Final Projects

Over the final two weeks, we will brainstorm final project ideas in class, debating their potential merits and drawbacks based on what we've learned in class so far. You will have the option of writing a final paper on a theoretical topic, forming a group project centered around the application of formal description or computational analysis, or a creative project (individual or group) where you might consider alternative ways of using these methods. Please come into office hours to discuss your project ideas. Details to come.