

**Anthropology 375/575: Abracadabra: Language and Memory
in Science and Technology**

MWF 10-10:50

Christopher Kelty

ckelty@rice.edu

What's the difference between natural language and mathematics? Between logic and language? Between memory and storage? Between information processing and thinking? Do words do things? Do algorithms have meaning? What's the relationship between technology and thinking, or between remembering and archiving? What does Dracula have to do with all this?

This is lecture and discussion course in the history and social study of science, technology and language. It is eclectic in its scope and variety, but it sticks to the above questions with each shift. Your lives are saturated with “new media”—computer assisted, created, or manipulated images, texts, tools, and practices. Databases, computer languages, interfaces, standards, protocols: what are the contours of this present? How did we get here and how can we reinterpret the past in the midst of the objects, tools and products of computing? Just how “new” are the “new media”?

There are five sections. We begin by reading about new media technologies — the various ways in which the computer as a medium dominates our contemporary world— and we will return to this subject throughout the semester. Second, we will look at “ars memoria”: systems for organizing and remembering words and things that emerged in Ancient Greece with Simonides and reached their apotheosis at the time of the scientific revolution, but did not exactly disappear. Third, we look at the growth of “universal language” schemes, scientific taxonomy, and the calculus of Leibniz and Newton. These schemes, like memory systems, were intended to organize all human knowledge, or give names to all possible thoughts. Fourth, we follow language as it becomes an object of study in the nineteenth century, and look at the “graphic method”, the birth of the grammophone, the cinematograph, and psychoanalysis. Finally, we end by reading Bram Stoker's *Dracula*; we investigate memory, recording technologies, science and scientific language and ask what bodies and blood might have to do with all this.

Requirements are the following:

Assignments happen approximately every two-three weeks, students will be responsible for assignments varying in length and complexity. They constitute the bulk of your grade. Mandatory **Participation and atten-**

dance will make up the rest.

Required Texts, available at the bookstore:

Lev Manovich, *The Language of New Media*, Cambridge, MA: MIT Press, 2001.

Francis Yates, *The Art of Memory*, Chicago: University of Chicago Press, 1966.

Umberto Eco, *The Search for the Perfect Language*, Oxford: Blackwell Pubs. 1995.

Bram Stoker, *Dracula*, New York: W.W. Norton Publishers, 1997[1897].

Optional:

Friedrich Kittler, *Grammophone, Film, Typewriter*, Palo Alto: Stanford University Press, 1999.

Also **Required** is an electronic reserves reader which will be prepared and available by February 1 for download from the library.

1 From New Media to Old

Week 1

- Jan 14: Introduction: memory, language and technology.
- Jan 16: Lev **Manovich** *Language of New Media*, pgs 1-26.
- Jan 18: **Manovich**, pgs. 27-61

2 Ars Memoriae

Week 2

- Jan 21: MLK day, no class.
- Jan 23: Francis **Yates**, *The Art of Memory*, Chapter 1.
Lecture on Ars Memoriae and the Internet. Passive and Active reading.
- Jan 25: Discussion – New and Old Media, New and Old Memory.

Week 3

- Jan 28: **Yates**, Chapter 5.
Examples of memory systems, what were memory systems for?
- Jan 30: **Yates**, Chapter 6.
A famous memory theatre. Science and Occultism, vs Public and Private Knowledge.
- Feb 01: Discussion: What do you remember?

Week 4

- Feb 04: Paul **Saenger**, *The Space Between Words*, Chs. 1,15.
How to read aloud and the difference it makes. On the origins of literacy.
- Feb 06: Patricia **Crain**, *The Story of A*, Chapter 1.
On the origin of Dick and Jane.
- Feb 08: Discussion. Literacy and printing presses, technological determinism vs. social change.

Week 5

- Feb 11: **Yates**, chs. 10 and 17.
The so-called “scientific method” and others
- Feb 13: Vannevar **Bush**, “As We May Think,” from *The Atlantic Monthly*, July 1945, Volume 176, No. 1; pages 101-108.
At <http://www.theatlantic.com/unbound/flashbks/computer/bushf.htm>
Science as encyclopedia, Memex and Hypertext.
- Feb 15: TBA (Discussion: Method and Data)

Week 6

Film screening: “Memento” Time TBA

- Feb 18: Jorges Luis **Borges**, “Funes, his memory” and “Library of Babel”
A.R. **Luria**, *Mind of a Mnemonist*, pgs. 3-40.
The examples of H.M., and Oliver Sacks’ “Last Hippie”
- Feb 20: Discussion

3 Perfect Languages: from tables to algorithms

- Feb 22: Umberto **Eco**, *The Search for the Perfect Language*, Introduction, Chs. 1, 2, (ch. 5 optional).
The multiplicity of languages, Adam and the animals, Plato and Cratylus, Babel, Torah, Kabbalah.

Week 7

- Feb 25: **Eco**, Chapter 4.
Language vs. Logic. vs Diagram. The Ars Magna of Ramon Lull as the origin of logic machines.
- Feb 27: **Yates**, Chapter 8.
Lull’s system as Ars memoria. Lull’s purposes.
- Mar 01: Discussion

Week 8

Mar 04-08: midterm break

Week 9

- Mar 11: **Eco**, Chapter 14.
From Lull to Leibniz. Logic Machines to Calculus.
- Mar 13: Mary M. **Slaughter**, *Universal Languages and Scientific Taxonomy in the Seventeenth Century*, Intro, Ch. 2.
Taxonomies, The idea of order, words/things.
- Mar 15: Discussion

Week 10

- Mar 18: **Slaughter**, Ch. 5; **Eco**, Ch. 10.
The language schemes of the 16th century.
- Mar 20: **Eco**, Ch. 12. **Borges**, “The Analytical Language of John Wilkins” Michel **Foucault**, *The Order of Things*, Chapter 1, Las Meninas. The classical idea of order.
- Mar 22: Discussion

Week 11

- Mar 25: **Eco** Ch. 15.
Other Universal Languages
- Mar 27: Martin **Davis**, *The Universal Computer*, Ch. 7.
The Turing Machine as Universal Language
- Mar 29: No Class (Begin reading Dracula)

4 From the Graphic Method to Psychoanalysis

Week 12

- Apr 01: Robert **Brain**, “Standards and Semiotics”; E.J. **Marey**: “Introduction to the The Graphic Method.”
Language becomes an object of study itself
- Apr 03: Friedrich **Kittler**, *Film, Grammophone, Film, Typewriter*, pgs21-50, (which contain short texts by Jean-Marie Guyau and Rainer Maria Rilke.)
- Apr 05: Discussion

Week 13

- Apr 08: Sigmund **Freud**, “The Mystic Writing Pad” and *Psychopathology of Everyday Life*, Chs. 1, 4.

5 Dracula

- Apr 10: Bram **Stoker**, *Dracula*, Chs 1-10.
- Apr 12: No Class

Week 14

- Apr 15: **Stoker**, Chs. 10-15
- Apr 17: **Stoker**, Chs. 15-17
- Apr 19: Discussion.

Week 15

- Apr 22: **Stoker**, Chs. 18-23.
- Apr 24: **Stoker**, Chs. 24-27.
- Apr 26: Conclusion, Reprise.

Other Important Information:

Incompletes are not given.

Honor Code issues: For the assignments, group investigation and research is encouraged, but each assignment must be the student's own work. In the case of group assignments, division of labor will be up to the students, and any necessary honor code guidelines will be provided.

Any student with a documented disability needing academic adjustments or accommodations is requested to speak with me during the first two weeks of class. All discussions will remain confidential. Students with disabilities will need to also contact Disability Support Services in the Ley Student Center.

Any student with a disability requiring accommodations in this course is encouraged to contact me after class or during office hours. Additionally, students will need to contact Disability Support Services in the Ley Student Center.

If you have a documented disability that will impact your work in this class, please contact me to discuss your needs. Additionally, you will need to register with the Disability Support Services Office in the Ley Student Center.