

STS 6234/UAP 5424: Perspectives on Infrastructure and the Urban Environment

Virginia Tech Northern Virginia Center [Falls Church VA]

Tuesday, 6:30-9:00 p.m.

12-week summer class beginning May 20

Dr. Shannon A. Brown

Visiting Assistant Professor of Science and Technology Studies

(703) 465-8007 [home]

email: sbrown3@verizon.net

Course Description:

In this seminar course, we will examine significant works of scholarship on the technology of urbanization since the early nineteenth century. Scholarly approaches to and interpretations of the study of transportation networks, large technical systems (electricity supply, sewer, and gas distribution), and environmental matters (pollution, population density) will serve as points of review, analysis, and discussion for the class. Readings will be drawn from technology history, environmental history, sociology, and urban studies. The focus of the course will be the works of Lewis Mumford, Thomas Hughes, Martin Melosi, Joel Tarr, David Nye, and other who have contributed to the study of the intersection of technology and urbanization in the modern world.

Course Requirements:

You will be required to submit two papers for credit during this semester. The first paper will be a bibliographic essay that explores a specific infrastructure-related STS topic (history, policy/politics, sociology) describing the major academic works, summarizing the arguments that define the field. You should write between 12 and 15 pages. There is no limit to the number of books and articles that should be included in your bibliographic essay, but you should select works that are representative of the scholarship on the subject and can be given a fair treatment within the established page limit.

The second paper can be either a museum exhibit proposal draft (modeled on one of several formats—to be provided to the class by the instructor later in the term) or an analytical work that addresses an infrastructure-related STS topic. Later in the term, I will provide you with a more detailed requirements list for this second paper assignment.

All students will be responsible for keeping up with the course reading. Your participation grades will be based on informal readings presentations (assigned to individuals the week prior) and open discussion.

Grading:

30% attendance and participation

35% bibliographic essay (12-15 pages)

35% analytical essay (8-10 pages)

Required Books (in order of use):

Donald Reid, *Paris Sewers and Sewermen: Realities and Representations*
Wolfgang Schivelbusch, *Disenchanted Night: The Industrialization of Light in the Nineteenth Century*
Mark Rose, *Cities of Light and Heat: Domesticating Gas and Electricity in Urban America*
Gerard Keoppel, *Water For Gotham*
Thomas Parke Hughes, *Networks of Power*
David Nye, *Electrifying America: Social Meanings of a New Technology*
Martin Melosi, *Effluent America*
Clay McShane, *Down the Asphalt Path*
Jennifer S. Light, *From Warfare to Welfare*

Reading and Assignment Schedule

(Reading assignments are subject to change; assignments marked “TBD” will be announced in class several weeks before discussion.)

Week 1 [Week of May 19]

Introduction and Course Overview

Week 2 [Week of May 26]

Thinking About Infrastructure

Reid, *Paris Sewers and Sewermen*

Week 3 [Week of June 2]

Infrastructure and Control of the Urban Environment

Schivelbusch, *Disenchanted Night*

Week 4 [Week of June 9]

Perspectives on Modern Urban Networks: Gas and Lighting

Rose, *Cities of Light and Heat*

Week 5 [Week of June 16]

Perspectives on Modern Urban Networks: Water Supply

Keoppel, *Water For Gotham*

Week 6 [Week of June 23]

Large Technical Systems

Hughes, *Networks of Power* (pp. TBD)

Week 7 [Week of June 30 – No Class (Holiday Week)]

Week 8 [Week of July 7]

Social-Cultural Approaches to Understanding Infrastructure

Nye, *Electrifying America*

MIDTERM PAPER DUE

Week 9 [Week of July 14]

Infrastructure and Urban Ecology: Technology, Population Density, and Pollution

Melosi, *Effluent America*

Week 10 [Week of July 21]

TBD

Week 11 [Week of July 28]

Perspectives on Urban Transportation Networks: Highways and Roads

McShane, *Down the Asphalt Path*

Week 12 [Week of August 4]

Light, *From Warfare to Welfare*

FINAL PAPER DUE