

University of North Carolina  
Department of Geography

Spring 2010

**Geographic Thought:**

*Seminar in the History and Philosophy of Geography*

TR 4.00-6.30, 526A Greenlaw

**John Pickles**

Office Hours: Tuesday 2.00-3.30 or by appointment.

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**Purpose of the Course**

This course explores the different bodies of thought which have shaped the character of geography from the late 19th Century to the present. This exploration crosses the traditional sub-disciplinary divisions of human geography, physical geography and GIScience, examining the ways in which all three have been woven together and pulled apart by broad intellectual trends in the discipline. To accomplish this, we will be reading work from all three sub-disciplines whenever possible. When we are finished, students should understand:

1. The theoretical and practical currents that constitute contemporary the discipline of Geography.
2. The place your own research in disciplinary context.
3. The contingent, historical nature of scientific knowledge and practices.
4. The broad outlines of spatial thought and forms of geographical imagination.

Since a comprehensive approach to such a large topic would be impossible, we will concentrate instead on a number key themes, debates, and controversies that have characterized the development of modern geographical science, and at the same time, we will raise questions about how developments seemingly internal to the discipline have related to broader dynamics in science and society. The seminar concludes with a survey of several contemporary perspectives in geography and their conceptual underpinnings, as well as discussions of contemporary disciplinary identities and the relations between the social and natural sciences in geography.

**Requirements and Evaluation**

Students are expected to read prior to and participate in all class sessions, to engage in discussion and presentation of materials, and to develop a research question and paper on an aspect of disciplinary history relevant to the course.

This is a reading-intensive seminar course (expect about 100-120 pages per week, and set aside time accordingly). Most of the non-text readings are available online in the Library. Others will be made available on Blackboard. Students are expected to come to class meetings having familiarized themselves with the required readings for the week.

The success of the seminar depends on the quality of the class discussions and on our abilities (and at times, the perseverance) to engage with course readings both individually and as a group. Students who do not/cannot meet this first requirement will fare poorly in this class. Student participation in seminar meetings will make up 40% of the final grade.

In practice, the format for the course works like this: each week (after our first meeting), I shall introduce the topic and context of the issues we have been reading about. I shall probably lecture for between 30-60 minutes. We will then have a short period of question and answers for purposes of clarification and elaboration, followed by a 10 minute break. After the break, we will work through the set of readings with students directing most of the discussions. Each text will have been assigned to one or more seminar participants, whose task it will be to briefly summarize and evaluate the chapter or article, to bring out some of the most interesting and significant issues raised in the text, to make connections between the text and other readings of the week or earlier in the semester, and to raise questions of the rest of the class for discussion. These should be thought of as *informal* presentations—for which some preparation is expected, but they are not detailed “oral reports.” Rather, when directing discussions, you should expect to be interrupted and for the conversation to move in unexpected directions.

Everyone will prepare a weekly set of comments and questions sent to me by Monday noon prior to the Tuesday of class (email to [jpickles@unc.edu](mailto:jpickles@unc.edu)). I will make these available on Blackboard for all to access. I shall use these comments and questions to guide my introduction to the topic the next day. These question and comment sheets, along with your leadership of discussion around specific issues and groups of texts, will amount to a possible 30% of your grade.

The major writing projects are worth 45% of your grade. You are required to write three short papers (6-10 pages double spaced, each worth up to 15% of grade), possibly based on the one page weekly reflections, focused on the themes and topics of the course and working closely with the readings to clarify and elaborate issues we discuss in the course of the semester. In each you will be asked to demonstrate that you have a grasp of the literature pertaining to some aspect of the history of the discipline and that you have thought through the kinds of historiographic, epistemological, methodological and intellectual questions on which we will focus throughout the semester. The paper must draw on and work with historiographic methods and sources. I recommend ‘close reading’ which asks of you to work with texts, clarify their claims, and build an argument with and from them. If you want to extend your interpretation of the texts into areas of geography or related fields in which you are interested, I ask that you do so by working from your questions or area of interest into and through the texts and themes we investigate in the course (as opposed to a model of writing that starts with several texts and works out into the issues and readings you encounter outside the course or in contemporary literatures). Thus, for example, someone working on race and the geographies of the city might frame their question in terms of the embedded theories of race and identity, or space and ecology, or the physical models that drove the emergence of diffusion theory. Someone interested in the drivers of landscape change might interrogate the historical and intellectual debates around environmental influence (determinism, possibilism, probabilism) and ask how or to what extent these traditions of thought continue (or do not continue) to shape thinking about agent based models. The substance of the proposal should focus on materials and themes from the course, but will be organized around a question and topic you can negotiate with me.

Students will be evaluated on:

- the quality of class participation (30% of total);
- short weekly written assignments and discussion leadership (25% of total).
- three short papers (15% of total each).

## **REQUIRED TEXTS**

Livingstone, D.N., 1992, *The Geographical Tradition*. Blackwell.

Livingstone, D.N. 2003. *Putting Science in its Place: Geographies of Scientific Knowledge*. University of Chicago Press.

Schulten, S. 2001. *The Geographical Imagination in America, 1880-1950*. University of Chicago Press.

## BACKGROUND TEXTS AND READERS OF INTEREST

The following is a list of some books that you might find worth consulting.

- *The Dictionary of Human Geography*
- *The Dictionary of Physical Geography*
- *The History of Landforms*
- Agnew, J., D.N. Livingstone & A. Rogers, 1996, *Human Geography: An Essential Anthology*. Blackwell.
- Bird, J., 1993, *The Changing Worlds of Geography*. Clarendon Press.
- Noel Castree, Alistar Rogers, Douglas Sherman. *Questioning Geography: Fundamental Debates*. Blackwell Publishers.
- Cloke, P., C. Philo and D. Sadler, 1991, *Approaching Human Geography*. Guilford Press
- Entrikin, J.N. and S.D. Brunn (eds.), 1989, Reflections on Richard Hartshorne's "The Nature of Geography", AAG.
- Gould, P.R. and Pitts, E. *Geographical Voices*
- Gregory, D. *Ideology, Science and Human Geography*. Hutchinson.
- Gregory, D., 1994, *Geographical Imaginations*. Basil Blackwell.
- Haggett, P., 1990, *The Geographer's Art*. Basil Blackwell.
- Hartshorne, R., 1939, *The Nature of Geography*. AAG.
- Hartshorne, R., 1960, *Perspective on the Nature of Geography*. John Murray.
- Harvey, D., 1969, *Explanation in Geography*. Edward Arnold.
- Johnston, R.J., 1983, *Philosophy and Human Geography*. Edward Arnold.
- Johnston, R.J., 1991, *Geography and Geographers: Anglo-American Human Geography Since 1945*. Edward Arnold.
- Johnston, R.J., D. Gregory and D.M. Smith (eds.), 1986, *The Dictionary of Human Geography*. Blackwell.
- Kish, G. (ed.). 1978. *A Source Book in Geography (Source Books in the History of the Sciences)*. Harvard University Press.
- Peet, Richard, 1998, *Modern Geographical Thought*. Blackwell.
- Stoddart, D.R., 1986, *On Geography*. Basil Blackwell.
- Unwin, T., 1992, *The Place of Geography*. Longman.

## SCHEDULE OF MEETINGS

- WEEK 1: January 12. Introduction  
WEEK 2: January 19. Thinking Historically  
WEEK 3: January 26. Thinking Geographically  
WEEK 4: February 2. Immanuel Kant (1724-1804) and Enlightenment Geographies  
WEEK 5: February 9. Alexander von Humboldt's Science and Poetics  
WEEK 6: February 16. Inventing the Earth & Darwin, Lamarck, and Evolutionary Theory  
WEEK 7: February 23. Friedrich Ratzel and the Conflict Over Explanation: Diffusion  
WEEK 8: March 2. Friedrich Ratzel and the Conflict Over Explanation: Determinism  
WEEK 9: March 9. NO CLASS: Spring break  
WEEK 10: March 16. Colonial, Cartographies and Post-Colonial Thought  
WEEK 11: March 23. The Geographical Imagination in America, 1880-1950.  
WEEK 12: March 30. War Time and Post-War Geographies  
WEEK 13: April 6. Positivism, Logical Empiricism, and Post-War Spatial Thought.  
WEEK 14: April 13. AAG: Washington DC  
WEEK 15: April 20. Feminism and the Role of Women in Geography  
WEEK 16: April 27. Presentations: Choice from three topics. (1) GIS, Science, and Society; Relevance, Radicalism, and Public Policy. (3) Engaging Complexity.

## SCHEDULE OF READINGS

**WEEK 1.** 12 January 2009

**Introduction**

**WEEK 2.** 19 January, 2009

### THINKING HISTORICALLY

- D.N. Livingstone. Should the History of Geography be X-Rated? *The Geographical Tradition: Episodes in the History of a Contested Enterprise*. Blackwell: Oxford, pp.1-31.
- David N Livingstone. Science, text and space: thoughts on the geography of reading. *Transactions of the Institute of British Geographers*. Volume 30 Issue 4, (2005), pp. 391 – 401.
- F. Driver. New Perspectives on the History and Philosophy of Geography. *Progress in Human Geography*. 18(1), 1994, pp. 92-100.
- D. Demeritt. Social theory and the reconstruction of science and geography. *Transactions of the Institute of British Geographers*, Volume 21, Number 3, September 1996, pp. 484-503.

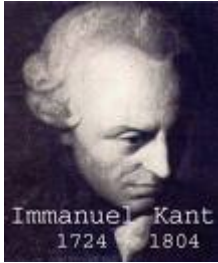
**WEEK 3:** 26 January, 2009

### THINKING GEOGRAPHICALLY

- Livingstone, D.N. 2003. *Putting Science in its Place: Geographies of Scientific Knowledge*. University of Chicago Press, Chapters 1, 2, 5, pp. 1-86, 179-186.
- Carl O. Sauer, "The Education of a Geographer." Reprinted from *The Annals of the Association of American Geographers*, Vol. 46 (1956): 287-99.
- Pattison, W. D. 1964. The Four Traditions of Geography. *Journal of Geography* 63 (5): 211-216.
- Ron Johnston, "Geography: a different sort of discipline?" *Transactions, Institute of British Geographers* 28(2): 133-141
- David Harvey, "On the History and Present Condition of Geography: An Historical Materialist Manifesto," *Professional Geographer*, Vol. 36, No. 1 (February 1984): 1-11.

WEEK 4: 2 February, 2009

## IMMANUEL KANT (1724-1804) AND ENLIGHTENMENT GEOGRAPHIES



*Kant on Geography:*

"I treat [Geography] not with the completeness and philosophical exactitude in each part, which is a matter for physics and natural history, but with the rational curiosity of a traveler who collates his collection of observations, and reflects on its design."

*On Enlightenment:*

"Enlightenment is man's release from his self-incurred tutelage. Tutelage is man's inability to make use of his understanding without discretion from another. Self-incurred is this tutelage when its cause lies not in lack of reason but in lack of resolution and courage to use it without direction from another. *Sapere aude!* Have the courage to use your own reason!—that is the motto of enlightenment."

Kant (1724-1804) was a lecturer of geography at Königsberg University throughout his career. In addition to his critical writings in philosophy, he wrote several key works in geography, especially *Outline and Prospectus for a Course of Lectures in Physical Geography* (1757) and *Physische Geographie* (1802). In them Kant developed the concept of geography as being concerned with space in contrast to history's concern with time. Space and time were, in this view, the fundamental principles for all worldly objects and for human experience. He is also claimed as 'a founding father' by Anthropology. The classic geographical text on Kant and Geography is J A May. *Kant's concept of geography and its relation to recent geographical thought*. Toronto : University of Toronto Press, 1970.

- Huib Ernste's presentation on Kantian influences in geographical thought. <http://socgeo.ruhosting.nl/html/files/geoapp/InleidingDeel1Eng.pdf>
- B. L. Turner. Contested Identities: Human-Environment Geography and Disciplinary Implications in a Restructuring Academy. *Annals of the Association of American Geographers*. Volume 92 Issue 1, Pages 52 – 74, 2004.
- D.N. Livingstone, R.T. Harrison. Immanuel Kant, Subjectivism, and Human Geography *Trans. Inst. Br. Geogr.* NS, 1981
- Stuart Elden. 2008. Reassessing Kant's geography. *Journal of Historical Geography*.
- M. Foucault. What is Enlightenment? "What is Enlightenment?" ("Qu'est-ce que les Lumières?"), in Rabinow (P.), éd., *The Foucault Reader*, New York, Pantheon Books, 1984, pp. 32-50. <http://www.foucault.info/documents/whatIsEnlightenment/foucault.whatIsEnlightenment.en.html>
- David Harvey. Cosmopolitanism and the Banality of Geographical Evils. *Public Culture*.2000; 12: 529-564.
- Robert B. Loudon. Anthropology from a Kantian point of view: toward a cosmopolitan conception of human nature. *Studies in History and Philosophy of Science Part A*. Volume 39, Issue 4, December 2008, Pages 515-522.
- J. Nicholas Entrikin. Geography's spatial perspective and the philosophy of Ernst Cassirer. *Canadian Geographer / Le Géographe canadien*. Volume 21 Issue 3, Pages 209 – 222, Jun 2008.

WEEK 5: 9 February, 2009

## ALEXANDER VON HUMBOLDT'S (1769-1859) SCIENCE AND POLITICS



"I have omitted to state. . . the extreme satisfaction I have received from Baron Humboldt's communications. The treasures of information which he possesses are inestimable. . . ." Thomas Jefferson, letter, June 7, 1804

"I formerly admired Humboldt, I now almost adore him . . ." Charles Darwin, letter, 1832

- Livingstone, D.N. 2003. *Putting Science in its Place: Geographies of Scientific Knowledge*. University of Chicago Press, Chapters 3-4, pp. 87-178.
- David Livingstone *The Geographical Tradition*, Ch. 3-4, pp.63-139
- Richard Hartshorne. *The Nature of Geography*. Humboldt and Ritter.  
[http://www.colorado.edu/geography/giw/hartshorne-r/1939\\_ng/1939\\_ng\\_ch02.html](http://www.colorado.edu/geography/giw/hartshorne-r/1939_ng/1939_ng_ch02.html)
- Edmunds V. Bunske, "Humboldt and an Aesthetic Tradition in Geography," *Geographical Review*, Vol. 71 (April, 1981): 127-46.
- Marie Louise Pratt. *Imperial Eyes* selections on Humboldtian Science and transculturation.

### Humboldt Studies

- The Humboldt digital library. <http://dublin.rz.fh-offenburg.de/index.php?page=136>
- Humboldt's plant geography. <http://avhumboldt.net/index.php?page=149>
- Humboldt method. [http://www2.ku.edu/~maxkade/humboldt\\_humboldtian\\_method.htm](http://www2.ku.edu/~maxkade/humboldt_humboldtian_method.htm)
- Alexander von Humboldt in the works of Charles Darwin. <http://dublin.rz.fh-offenburg.de/index.php?page=154#origin>
- Alexander von Humboldt in Washington (1804).  
<http://www2.ku.edu/~maxkade/humboldt/contents.htm>

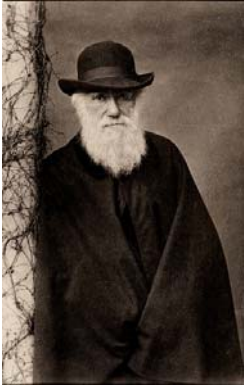
### Captain James Cook:

Voyages: <http://demonstrations.wolfram.com/CaptainCooksVoyages/>

Wikipedia entry : [http://en.wikipedia.org/wiki/James\\_Cook](http://en.wikipedia.org/wiki/James_Cook)

WEEK 6: 16 February, 2009

INVENTING THE EARTH  
&  
DARWIN, LAMARCK, AND EVOLUTIONARY THEORY



Charles Robert Darwin (1809-1882)



Jean-Baptiste Lamarck (1744-1829)

Inventing the Earth

- Livingston, D. N. (1992) "Of design and Dining Clubs" *The Geographical Tradition*. Cambridge, MA: Blackwell. pp. 139-176.
- Barbara A. Kennedy. *Inventing the Earth: Ideas on Landscape Development Since 1740*. Blackwell, 2006, Chapters 1-4, pp. 3-54. 'Inventing Scientific Explanations (3-10), Inventing the Age (and Origin) of the Earth (11-22), Inventing Modern Earth Science: Lyell and 'The Principles of Geology' (23-40), Inventing the Ice Age: the Role of Louis Agassiz' (41-54).

Inventing Evolutionary Models

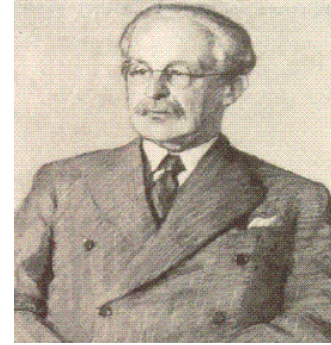
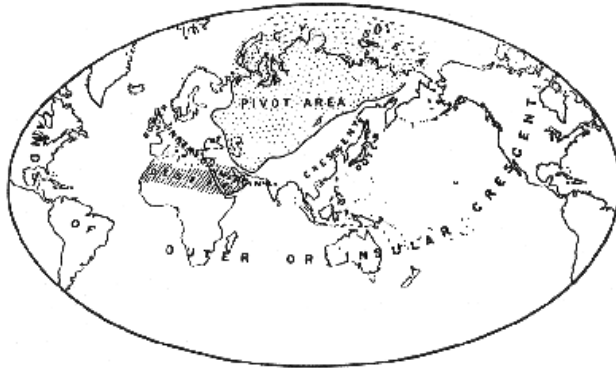
- Livingston, D. N. (1992) "The Geographical Experiment: Evolution and Founding of a Discipline" *The Geographical Tradition*. Cambridge, MA: Blackwell. 177-215.
- Barbara A. Kennedy. *Inventing the Earth: Ideas on Landscape Development Since 1740*. Blackwell, 2006, Chapters 5, pp. 55-71.
- Darwin and Geography: A presentation in the Geographic Thought Course, Portsmouth University, UK: <http://www.envf.port.ac.uk/geo/courses/geogtheo/darwin.pdf>
- D.R. Stoddart, "Darwin's Impact on Geography," *Annals of the Association of American Geographers*, Vol. 56 (Dec., 1966): 683-698.



WEEK 7: 23 February, 2009

## FRIEDRICH RATZEL (1844-1904) AND THE CONFLICT OVER EXPLANATION

### (a) Diffusion and its Travels



Friedrich Ratzel (1844-1904)

Diffusion Theory and Heartland Theory

Sir Halford J. Mackinder (1861-1947)

### (a) Diffusion and its Travels

#### Ratzel

- Friedrich Ratzel, "The Territorial Growth of States," *Scottish Geographical Magazine* 12 (1896): 351-61
- Review *Politische Geographie* by Friedrich Ratzel, *The Geographical Journal*, Vol. 13, No. 2 (Feb., 1899), pp. 171-173
- Woodruff Smith. Friedrich Ratzel.
- Carl Ortwin Sauer. On Origins and Diffusion.

#### Mackinder

- Klaus Dodds and James D. Sidaway. 'Halford Mackinder and the 'Geographical Pivot of History' *The Geographical Journal*, Vol. 170, December 2004.
- Hyndman, Jennifer 'Revisiting Mackinder 1904-2004'. *The Geographical Journal*, Vol. 170, December 2004.
- Excerpts: Gerry Kearns. *Geopolitics and Empire: The Legacy of Halford Mackinder* (Oxford Geographical and Environmental Studies), Oxford University Press, 2009.
- Peter Kropotkin, "Mutual Aid" in P. Appleman (ed), *Darwin: A Norton Critical Edition*, pp 399-405 [1902].



**WEEK 8:** 2 March, 2009

**FRIEDRICH RATZEL (1844-1904) AND THE CONFLICT OVER EXPLANATION  
(a) Determinism, Possibilism, Probabilism**



Professor of Geography and Climatology  
Yale University



Courtesy of the Margaret I. King Library  
Special Collection, University of Kentucky

Ellen Semple Churchill

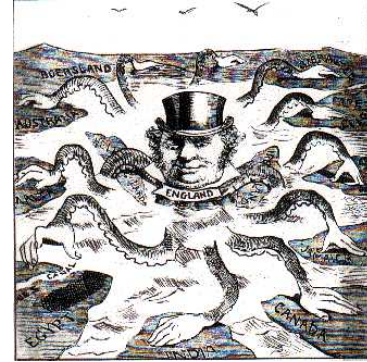
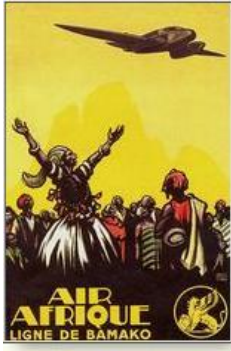
- Ellen Churchill Semple, *Influence of Geographic Environment on the Basis of Ratzel's System of Anthro-geography*. New York: Russell and Russell, 1911. An reprint is available in *Human Geography An Essential Anthology*. Edited by John Agnew, David N. Livingstone, and Alistair Rodgers. Oxford: Blackwell. Pp. 252-267. An online e-reprint from Project Gutenberg can be found at <http://infomotions.com/etexts/gutenberg/dirs/1/5/2/9/15293/15293.htm>
- Read: [www.geos.ed.ac.uk/homes/ikeighre/phdresearch.html](http://www.geos.ed.ac.uk/homes/ikeighre/phdresearch.html)
- [www.csiss.org/classics/content/24](http://www.csiss.org/classics/content/24)
- Ellsworth Huntington, *The Relation of Health to Racial Capacity: The Example of Mexico*, *Geographical Review*, Vol. 11, Issue 2 (1921), pp. 243-264.
- R.S. Platt, *Determinism in Geography*, *Annals of the Association of American Geographers*, Vol. 38, No. 2 (1948), pp. 126-132.
- George Tatham, "The Rise of Possibilism," in Griffith Taylor, *Geography in the Twentieth Century*, (New York: Philosophical Library, 1953): 151-59.
- Richard Peet, "The Social Origins of Environmental Determinism," *Annals of the Association of American Geographers*, Vol. 75 (Sept., 1985): 309-333.
- Livingstone, D. N. (1992) "A Sternly Practical Pursuit: Geography, Race and Empire" *The Geographical Tradition*. Cambridge, MA: Blackwell. 216-259.

**WEEK 9:** 9 March, 2009

**NO CLASS – SPRING BREAK**

WEEK 10: 16 March, 2009

## COLONIALISM, CARTOGRAPHY, AND POST-COLONIAL THOUGHT



- B. Anderson. *Imagined Communities*. Chapter on Census, Map, Museum.
- Stone, J.C. (1988) "Imperialism, Colonialism and Cartography" *Transactions of the Institute of British Geographers*, New Series, Vol. 13, No. 1. 57-64
- J. B. Harley, 1989. Deconstructing the Map. *Cartographia* 26(2): 1-20.
- J. Brian Harley, 'Maps, knowledge and power' pp 277-311 in Denis Cosgrove and Stephen Daniels (eds) *The Iconography of Landscape* (Cambridge: Cambridge University Press, 1989).
- Schulten, S. Introduction and 'Maps for the Masses, 1880-1900'. *The Geographical Imagination in America, 1880-1950*. University of Chicago Press, 2001, pp. 1-44.
- Driver, F. (1992) "Geography's empire: histories of geographical knowledge" *Environment and Planning D: Society and Space* 10: 23-40
- Crush, J. (1994) "Post-colonialism, De-colonization, and Geography" in Godleweska and Smith, eds. *Geography and Empire: Critical Studies in the History of Geography*. Oxford, Basil Blackwell. 333-350
- David Harvey, "Cartographic Identities: geographical knowledges under globalization" in Harvey, *Spaces of Capital: Towards a Critical Geography* (New York: Routledge, 2001), pp 208-233.
- Rose, G. (1996) 'Geography as a science of observation: the landscape, the gaze and masculinity', in Agnew, J. Livingston, D.N. and Rogers, A. (eds.) *Human Geography in Theory: An Essential Anthology*, Blackwell. 341-350

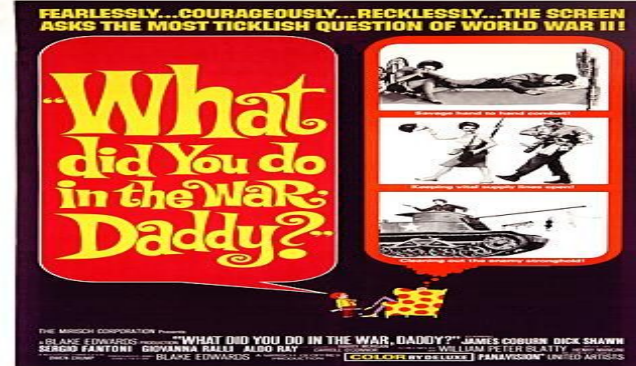
WEEK 11: 23 March, 2009

## THE GEOGRAPHICAL IMAGINATION IN AMERICA, 1880-1950

- Schulten, S. *The Geographical Imagination in America, 1880-1950*. University of Chicago Press, 2001, Chapters 3-7, pp. 45-175.
- Barbara A. Kennedy. *Inventing the Earth: Ideas on Landscape Development Since 1740*. Blackwell, 2006, Chapters 6-7, pp. 72-97 (Inventing a Fluvial Landscape: Powell, Gilbert and the Western Explorations (72-86), Inventing the Geographical Cycle and the Synthetic Genius of W.M Davis (87-97)).
- Davis, William M. 1899. The Geographical Cycle. *Geographical Journal* 14: 481-504.
- Neil Smith, "'Academic war Over the Field of Geography': The Elimination of Geography at Harvard, 1947-1951," *Annals of the Association of American Geographers*, Vol 77 (1987): 155-72.

WEEK 12: 30 March 2009

## WARTIME AND POST-WAR GEOGRAPHIES



For the second half of class we will focus on the following readings. Please send me your reflections by the end of day Wednesday March 5<sup>th</sup> before we meet next on Thursday march 6<sup>th</sup>.

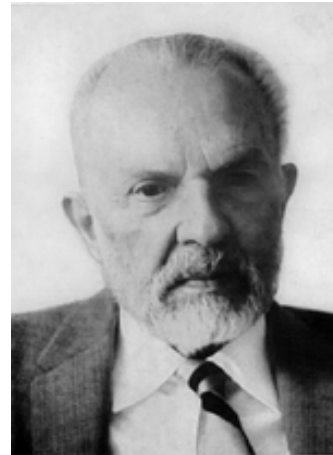
- Schulten, S. *The Geographical Imagination in America, 1880-1950*. University of Chicago Press, 2001, Chapters 8-9, pp. 176-242.
- Andrew Kirby, "What did you do in the war, Daddy?" in A. Godlewska and N. Smith (eds) *Geography and Empire* (Oxford: Blackwell, 1992), pp300-315.
- Trevor J. Barnes and Matthew Farish, "Between Regions: Science, Militarism, and American Geography from World War to Cold War," *Annals of the Association of American Geographers*, Vol. 96(4) (December 2006): 807-26.
- Barbara A. Kennedy. *Inventing the Earth: Ideas on Landscape Development Since 1740*. Blackwell, 2006, Chapters 8, pp.98-111.
- Livingstone, David. 1992. "Statistics Don't Bleed: Quantification and its Detractors" *The Geographical Tradition*. Cambridge, MA: Blackwell. pp. 304-346.
- Derek Gregory. *Geographical Imaginations*. pp. 34-69
- Peter Gould and Forrest Pitts. *Geographical Voices*, [Selections.]

WEEK 13: 6 April, 2009

## POSITIVISM, LOGICAL EMPIRICISM AND POST-WAR SPATIAL THOUGHT



F. A. Moritz Schlick  
(1882-1936)



Rudolf Carnap  
(1891-1970)

This week I would like you all to read:

- Richard Hartshorne. What Kind of a Science is Geography? *The Nature of Geography*. [http://www.colorado.edu/geography/giw/hartshorne-r/1939\\_ng/1939\\_ng\\_ch11.html](http://www.colorado.edu/geography/giw/hartshorne-r/1939_ng/1939_ng_ch11.html),
- Fred Schaefer, "Exceptionalism in Geography: A Methodological Examination," *Annals of the Association of American Geographers*, Vol. 43 (3): (1953): 226-49.
- Peter Gould, "Geography 1957-1977: The Augean Period," *Annals of the Association of American Geographers*, Vol. 69 (1979): 139-51.
- William Bunge, *Theoretical Geography* (Lund, Sweden: C.W.K. Gleerup, 1962), pp. 5-37, 195-97. (Reprinted in Fred E. Dohrs and Lawrence M. Sommers, Introduction to Geography: Selected Readings. New York Thomas Y. Crowell Company, 1967, pp. 346-59.)
- Auguste Comte. Chapter 1 from *Course of the Positive Philosophy*. [http://www.historyguide.org/intellect/comte\\_cpp.html](http://www.historyguide.org/intellect/comte_cpp.html).  
<http://socserv.mcmaster.ca/econ/ugcm/3ll3/comte/Philosophy1.pdf>

Skim the ten volumes of the *International encyclopedia of unified science*, edited by Otto Neurath, Rudolf Carnap [and] Charles Morris. Chicago University Press, 1955. [Davis Library: Q175 .I58 . You are skimming only to get a sense of the goals, focus, and issues covered in the attempt to construct a 'Unified Science'.]. Select one of the volumes and prepare a **one page single-spaced** review of the primary goals and scope of that work. You do not need to read the volume thoroughly, although some of you may get more interested than others in the specifics. I am more interested in you getting an overall sense of the project and the ways in which it articulates a 'new' notion of science and method.

- V.1, no. 1. Encyclopedia and unified science / Otto Neurath, et. al. –
- v. 1, no. 2. Foundations of the theory of signs / Charles W. Morris –
- v. 1, no. 3. Foundations of logic and mathematics / Rudolf Carnap –
- v. 1, no. 4. Linguistic aspects of science / Leonard Bloomfield –
- v. 1, no. 5. Procedures of empirical science / Victor F. Lenzen –
- v. 1, no. 6. Principles of the theory of probability / Ernest Nagel –
- v. 1, no. 7. Foundations of physics / Philipp Frank –
- v. 1, no. 8. Cosmology / E. Finlay-Freundlich –
- v. 1, no. 9. Foundations of biology / Felix Mainx –
- v. 1, no. 10. The conceptual framework of psychology / Egon Brunswik.

**+WEEK 14:** 13 April, 2009 **NO CLASS – AAG Washington DC** 14-18<sup>th</sup> April

**+WEEK 15:** 20 April, 2009

**GENDERING SCIENCE:  
FEMINISM AND THE ROLE OF WOMEN IN GEOGRAPHY**

- Wilbur Zelinsky, "The Strange Case of the Missing Female Geographer." *Professional Geographer*, Vol. 25 (1973): 101-05.
- Mildred Berman, "On Being a Woman in American Geography: A Personal Perspective," *Antipode*, Vol. 6, No. 3 (1984): 61-66.
- \_\_\_\_\_. "Sex Discrimination and Geography: The Case of Ellen Churchill Semple," *Professional Geographer*, Vol. 26 (1974): 8-11.
- Linda McDowell and Doreen Massey, "A Woman's Place?" pp 458-475 in J. Agnew, D. Livingstone and A. Rogers (eds) *Human Geography: an Essential Anthology* (Oxford: Blackwell, 1996), [1984]
- McDowell, Linda. 1992. Space, place and gender relations: Part I. Feminist empiricism and the geography of social relations. *Progress in Human Geography* 17(2): 157-179
- McDowell, Linda. 1992. Space, place and gender relations: Part II. Identity, difference, feminist geometries and geographies. *Progress in Human Geography* 17(3): 305-318.
- Gillian Rose, "Feminism and Geography: An Introduction" and "Women and Everyday Spaces," in *Feminism and Geography: The Limits of Geographical Knowledge* (Minneapolis: University of Minnesota Press, 1993), 1-40.
- Susan Hanson, "Geography and Feminism: Worlds in Collision." *Annals of the Association of American Geographers*, Vol. 82 (1992): 569-86.
- Sara McLafferty, "Counting for Women." *Professional Geographer*, Vol. 47 (1995): 436-42.
- Peet, R. (1998) "Feminist theory and the geography of gender." In R. Peet, *Modern Geographical Thought*. Oxford: Blackwell, pp. 247-291.

**WEEK 16:** 27 April, 2009

**PRESENTATIONS:**

In this final week, each of you will make a 15 minute presentation based on one of the following topics and sets of readings. You may link to earlier themes, readings, and discussions, but you do not have to. The paper you present will be the basis for one of your three paper submissions for the course.

**TOPICS 1:  
GIS, SCIENCE AND SOCIETY**

- Openshaw, S. 1991: A view on the GIS crisis in geography, or, using GIS to put Humpty-Dumpty back together again. *Environment and Planning A* 23, 621-628.
- Openshaw, S. 1992: Further thoughts on geography and GIS: a reply. *Environment and Planning A* 24, 463-466.
- Sheppard, E. and Poiker, T., editors 1995: GIS and society. *Special issue of Cartography and Geographical Information Systems*, 22(1).
- Pickles, J. 1997: Tool or science? GIS, technoscience and the theoretical turn. *Annals of the Association of American Geographers* 87, 363-372.

- Pickles, J. 1999: Arguments, debates and dialogues: the GIS social theory debate and the concern for alternatives. In Longley, P. A., Goodchild, M. F., Maguire, D. J. and Rhind, D. W., editors, *Geographical information systems: principles, techniques, management and applications*, New York: Wiley.
- Schuurman, N. 1999: Critical GIS: theorizing an emerging science. *Cartographica* 36(4), 1-99 (Monograph 53).
- Schuurman, N. 2000: Trouble in the heartland: GIS and its critics in the 1990s. *Progress in Human Geography* 24, 569-590.
- Sheppard, E. 2005: Knowledge production through critical GIS: genealogy and prospects. *Cartographica* 40(4), 5-21.
- Michael Goodchild, "Cartographic Futures on a Digital Earth" *Cartographic Perspectives* 36(2000): 1-9.
- John Pickles, "Cartography, Digital Transitions, and Questions of History" *Cartographic Perspectives* 37(2000): 4-18.
- Kwan, M.-P. (2002) "Feminist visualization: Re-envisioning GIS as a method in feminist geographic research." *Annals of the Association of American Geographers* 92.4: 645-661.
- David O'Sullivan, 2006. Geographical information science: critical GIS. *Progress in Human Geography*, Vol. 30, No. 6, 783-791.
- John Cloud, "Imaging the World in a Barrel: CORONA and the Clandestine Convergence of the Earth Sciences" *Social Studies of Science* 31(2001): 231-251.

## TOPICS 2:

### RELEVANCE, RADICALISM AND PUBLIC POLICY

- David Harvey, Population, Resources, and the Ideology of Science, *Economic Geography*, Vol. 50, No. 3 (1974), pp. 256-277.
- Richard Peet. Inequality and Poverty: A Marxist-Geographic Theory, *Annals of the Association of American Geographers*, Vol. 65, No. 4 (1975), pp. 564-571.
- Watts, M. 1983. *On the poverty of theory: natural hazards research in context*. In Interpretations of Calamity. Edited by K. Hewitt. Boston: Allen & Unwin Inc. 231-262.
- William Bunge, "A Report to the Parents of Detroit on School Decentralization." Discussion Paper No. 2, Department of Geography Field Notes, Michigan State University.
- Andy Merrifield, Situated knowledge through exploration: reflections on Bunge's 'geographical expeditions'. *Antipode* 27(1995): 49-70.
- Harvey, D. (1972) "Revolutionary and Counter-Revolutionary Theory in Geography and the Problem of Ghetto Formation," *Antipode* 4 (2): 1-13, 1972 (with comments and reply by Morrill, Getis, Berry, and Harvey)
- White, G. F. (1972) "Geography and Public Policy," *Professional Geographer*, 24 (2): 101-104
- Trewartha, G. T. (1973) "Comments on Geography and Public Policy," *Professional Geographer*, 25 (1): 78-79
- Richard Peet, "The Development of Radical Geography in the United States." *Progress in Human Geography*, Vol. 1 (1977): pp. 64-87.
- \_\_\_\_\_. "Societal Contradiction and Marxist Geography," *Annals of the Association of American Geographers*, Vol. 69, No. 1 (1979): 164-69.
- Soja, E. (1980) "The Socio-Spatial Dialectic," *Annals of the Association of American Geographers* 70 (2): 207-225
- Peet, R. (1998) "Radical geography, Marxism and Marxist geography." In Peet, R. *Modern Geographical Thought*, pp. 67-111. Oxford: Blackwell.



- Eugene J. McCann, "Race, Protest, and Public Space: Contextualizing Lefebvre in the U.S. City." *Antipode*, Vol. 31 (1999): 163-184.
- Laura Pulido, "Rethinking Environmental Racism: White Privilege and Urban Development in Southern California," *Annals of the Association of American Geographers*, Vol. 90, No. 1 (2000): 12-40.
- David Harvey, "On the history and present condition of geography: an historical materialist manifesto" in Harvey, *Spaces of Capital: Towards a Critical Geography* (New York: Routledge, 2001), pp 108-120 [1984].
- Lucy Jarosz and Victoria Lawson, "'Sophisticated People Versus Rednecks': Economic Restructuring and Class Difference in America's West," *Antipode: A Radical Journal of Geography* 34, no. 1 (2002): 8-27
- David Ley, Structural Marxism and Human Geography: A Critical Assessment, *Annals of the Association of American Geographers*, Vol. 72, No. 1 (1982), pp. 30-59.

### **TOPICS 3: ENGAGING COMPLEXITY**

- Derek Gregory, "Areal Differentiation and Post-Modern Human Geography" pp 211-232 in J. Agnew, D. Livingstone and A. Rogers (eds) *Human Geography: an Essential Anthology* (Oxford: Blackwell, 1996), first published 1989.
- Peet, R. (1998) "Poststructuralism, postmodernism, and postmodern geographies." In Peet, R. *Modern Geographical Thought*, pp. 194-246. Oxford: Blackwell
- Duncan, J. S. (1980) "The Superorganic in American Cultural Geography," *Annals of the Association of American Geographers*, 70(2):181-198
- Jameson, F. (1984) "Postmodernism, or the cultural logic of late capitalism," *New Left Review* 146:53-92
- Mitchell, D. (1995) "There's No Such Thing as Culture: Towards a Reconceptualization of the Idea of Culture in Geography," *Transactions of the Institute of British Geographers*, 20 (1): 102-116; with commentary and reply in 21(3):572-582, 1996.
- Dixon, D.P. and Jones III, J.P. (1998) My dinner with Derrida, or spatial Analysis and poststructuralism do lunch. *Environment and Planning A*, 30(2):247-260
- Dixon, D. P. and Jones III, J. P. (1996) "Editorial: For a *Supercalifragilisticexpialidocious* Scientific Geography." *Annals of the Association of American Geographers* 86(4):767-779
- Clive Barnett, "The cultural turn: Fashion or progress in human geography?" *Antipode* 30 (1998):379-394.
- Dixon, D.P. and Jones III, J.P. (2004) "What Next?" *Environment and Planning A*. 36:381-390
- Rhoads, B. L. and C. E. Thorn (1994) "Contemporary Philosophical Perspectives on Physical Geography with Emphasis on Geomorphology" *Geographical Review* 84(1): 90-101
- Malanson, G. P. (1999) "Considering Complexity" *Annals of the Association of American Geographers* 89(4):746-753
- Malanson, George P. David R. Butler, and Stephen J. Walsh. 1990. Chaos Theory in Physical Geography. *Physical Geography* 11(4): 293-304.
- Phillips, J. D. (2003) "Sources of Nonlinearity and Complexity in Geomorphic Systems" *Progress in Physical Geography* 27(1):1-23
- Harrison, S. and Dunham, P. (1998) "Decoherence, quantum theory and their implications for the philosophy of geomorphology." *Transactions of the Institute of British Geographers* 23.4:501-514.