

HTS 6124

SCIENCE AND TECHNOLOGY BEYOND BORDERS

Prof J. Krige

FALL TERM, 2018 TUESDAYS 6.05 – 8.45pm,

The Mel Old CE

Office hours: Tuesdays, 1.00pm-3.00pm or by appointment

Catalog description: *Discusses the roles of science and technology as instruments of social control and of social change in development and modernization*

This course will deal with the transnational and global circulation of knowledge. It will combine theoretical reflections with case studies. As some of the most important work has been done on knowledge circulation in the British Empire, it will first introduce students to some key texts dealing with the flow of knowledge in that regime. It will then focus on the post-WWII period of modernization, studying how the US implemented science and technology as political weapons to combat communism and shape research agendas among its allies.

When reading texts students need to ask: who are the key actors? What exactly is the knowledge that is circulating 'across borders' and what power relationships are at play in that process i.e. who is passing it on, who are they passing it on to? Is that other an 'empty vessel' or is there some sort of negotiation/reshaping of the knowledge happening? Is it sought by or imposed on the other? What interests do the two poles of the dyad have in knowledge circulation? The most important general learning outcome is that students never again take the circulation and dissemination of knowledge for granted: it is a negotiated process, often embedded in asymmetric power relations that determine what is shared and what denied between nodes in a network.

Evaluation: Class attendance is obligatory. All students are expected to write a term paper of some 12-15 pages (4500-5000 words) submitted by a date to be announced.

To participate in class each student must submit 3-5 bullet points each week at least two hours before class starts. These bullet points are essentially quotes of 3-5 lines from the readings that the student brings to class for further discussion.

IAC Statement on Inclusivity

The Ivan Allen College of Liberal Arts supports the Georgia Institute of Technology's commitment to creating a campus free of discrimination on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. We further affirm the importance of cultivating an intellectual climate that allows us to better understand the similarities and differences of those who constitute the Georgia Tech community, as well as the necessity of working against inequalities that may also manifest here as they do in the broader society

August 21

Sven Beckert, *Empire of Cotton, A Global History* (Vintage Books, 2015) Read as much as you can

August 28 The Global 'Diffusion' of Science and Technology

George Basalla, "The Spread of Western Science," *Science*, 156 (5 May 1967), 611-622.

Roy Macleod, ed, *Nature and Empire. Science and The Colonial Enterprise*, OSIRIS, Vol. 15 (2000). Introduction, pp. 1-10 only

David Wade Chambers and Richard Gillespie, "Locality in the History of Science: Colonial Science, Technoscience and Indigenous Knowledge," in Macleod, OSIRIS, Vol. 15., pp. 221 – 240.

Warwick Anderson, "Remembering the Spread of Western Science" (provided by JK on Canvas)

Warwick Anderson, "Introduction: Postcolonial Technoscience," *Social Studies of Science*, December 2002; vol. 32:5-6: pp. 643-658.

September 4 British India. Science

Kapil Raj, *Relocating Modern Science, Circulation and the Construction of Knowledge in South Asia and Europe, 1650-1900* (Palgrave Macmillan, 2007), pp. 1-138, 181-234.

September 11 High Modernism

James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (Yale University Press, 1998), SELECT CHAPTERS

September 18 Colonial medicine and agriculture

Warwick Anderson, "The Possession of Kuru: Medical Science and Biocolonial Exchange," *Comparative Studies in Society and History* 42.4 (2000), 113-144.

Paul Sutter, "Nature's agents or agents of empire? Entomological workers and environmental change during the construction of the Panama Canal." *Isis*, 2007 December, 98(4):724-54

Papers from a collection edited by Axel Jansen, John Krige and Jessica Wang, to be published in *History and Technology* (provided by JK)

Theresa Ventura, "From Prison to Peninsula: Colonial Knowledge and Practice in the Post-War Bataan Rice Enrichment Project, 1910 – 1950"

Jessica Wang, "Plants, Insects, and the Biological Management of American Empire: Tropical Agriculture in Early Twentieth-Century Hawai'i"

Mari K. Webel, "Trypanosomiasis, Tropic Medicine, and the Practice of Inter-colonial Research at Lake Victoria, 1902-1907."

September 25 Latin America

Ricardo Salvatore, *Disciplinary Conquest: U.S. Scholars in South America, 1900–1945*, (Duke University Press, 2016), Introduction, Chapters 1 -4, any one of chapters 5-8, Chapter 9, Conclusion

David Engerman, "American Knowledge and Global Power," *Diplomatic History*, 31:4 (2007), 599-622.

October 2

Timothy Mitchell, *Rule of Experts. Egypt, Technopolitics, Modernity* (University of California Press, 2015), chapters 1, 7

Arturo Escobar, *Encountering Development. The Making and Unmaking of the Third World* (Princeton University Press, 2011), Chapters 1-4.

October 9. NO CLASS

October 16 Rostowian Modernization

David Engerman, Nils Gilman, Mark Haefele, and Michael Latham, *Staging Growth. Modernization, Development, and the Global Cold War* (University of Massachusetts Press, 2003), pp. 1-103, 199-223.

Nick Cullather, "Development? Its History," *Diplomatic History*, 24:4 (2000), 641 - 653.

Michael E. Latham, *The Right Kind of Revolution. Modernization, Development, and U.S. Foreign Policy from the Cold War to the Present* (Cornell University Press, 2011). SELECTED CHAPTERS

October 23 Dam Building/Nation Building

David Ekbladh, *The Great American Mission: Modernization and the Construction of an American World Order* (Princeton University Press, 2010) Introduction, chapters 1, 3, 5, 6.

Nick Cullather, *The Hungry World. America's Cold War Battle Against Poverty in Asia* (Harvard University Press, 2010), Chapter 4

October 30. Famine

Nick Cullather, *The Hungry World. America's Cold War Battle Against Poverty in Asia* (Harvard University Press, 2010), OMIT chapters 2 and 4.

Nick Cullather, "Miracles of Modernization. The Green Revolution and the Apotheosis of Technology," *Diplomatic History*, 28:2 (2004), 227-254

November 6 Overpopulation

Matthew Connelly, *Fatal Misconception. The Struggle to Control World Population* (Belknap/Harvard, 2008), pp. 1-17, 115-276, 370-384.

Nicole Sackley, "Foundation in the Field. The Ford Foundation's New Delhi Office and the Construction of Development Knowledge," in John Krige and Helke Rausch, eds. *American Foundations of World Order in the Twentieth Century* (Vandenhoeck and Ruprecht, 2012), 232-260. (provided by JK)

November 13 Atoms for Peace

Joseph F. Pilat et al, eds, *Atoms for Peace. An Analysis After Thirty Years* (Westview Press), articles by Gerald Tape and Ian Smart (provided by JK)

John Krige, "Atoms for Peace, Scientific Internationalism, and Scientific Intelligence," in Krige and Barth, *Global Knowledge Power. Science, Technology and International Affairs*, OSIRIS, Vol. 21, 2006, pp. 161-81

John Krige, "Technoutopian Dreams, Technopolitical Realities: the Education of Desire for the Peaceful Atom," in Gordon, Tilley and Prakash, eds, *Utopia/Dystopia. Conditions of Possibility* (Princeton University Press, 2010) (provided by JK)

Martin J. Medhurst, "Atoms for Peace and Nuclear Hegemony: the Rhetorical Structure of a Cold War Campaign," *Armed Forces and Society*, 23:4 (1997), 571-93.

Kenneth Osgood, *Total Cold War. Eisenhower's Secret Propaganda Battle at Home and Abroad* (University Press of Kansas, 2006) chapter 5 (provided by JK)

November 20

NO CLASS

November 27

Alison Sandman, "Controlling Knowledge. Navigation, Cartography, and Secrecy in the Early Modern Spanish Atlantic," in James Delbourgo and Nicholas Dew, eds, *Science and Empire in the Atlantic World* (New York, Routledge, 2008), pp. 31-52 (provided by JK)

John Krige, ed., *How Knowledge Moves. Writing the Transnational History of Science and Technology* (University of Chicago Press, 2019), Krige – Introduction and chapter 2; Saraiva, Maher, Siddiqi, Minor, Mateos and Suarez-Dias (provided by JK)

December 4 Summing up