

History of Technology Reading Group

2018-19

Lino Camprubí. *Engineers and the Making of the Francoist Regime*. Cambridge, Mass., The MIT Press, 2014.

Eric Schatzberg. *Technology: Critical History of a Concept*. Chicago, IL, Chicago University Press, 2019.

Johan Schot and Vincent Lagendijk. Technocratic Internationalism in the Interwars Years: Building Europe on Motorways and Electricity Networks. *Journal of Modern European History* 6(2), 2008, 196-217.

Waqar H. Zaidi. 'Aviation Will Either Destroy Or Save Our Civilization': Proposals for the International Control of Aviation, 1920-45. *Journal of Contemporary History* 46(1), 2011, 150-178.

Timothy Mitchell. *Rule of Experts. Egypt, Techno-Politics, Modernity*. Berkeley, CA, University of California Press, 2002.

Timothy Mitchell. Carbon Democracy. *Economy and Society* 38(3), 2009, 399-432.

Rudolf Mrázek. *Engineers of Happy Land: Technology and Nationalism in a Colony*. Princeton, NJ, Princeton University Press, 2002.

Thomas P. Hughes. *American Genesis: A Century of Invention and Technological Enthusiasm*. New York, NY, Penguin Books, 1989.

Alfred D. Chandler, Jr.. *Scale and Scope. The Dynamics of Industrial Capitalism*. Cambridge, Mass., Harvard University Press, 1994.

Alfred D. Chandler, Jr.. *The Visible Hand: The Managerial Revolution in American Business*. Cambridge, Mass., Belknap Press of Harvard University Press, 1977.

2019-20

Session 1

David Edgerton. Imitation, Invasion, Innovation. Paper presented in CHOSTM, London, 2 October 2019.

Daniel R. Headrick. *The Tentacles of Progress: Technology Transfer in the Age of Imperialism, 1850-1940*. Oxford, Oxford University Press, 1990. Chapters 1 & 11.

Session 2

David Arnold. Europe, Technology and Colonialism in the 20th Century. *History and Technology, An International Journal* 21(1), 2005, 85-106.

David Edgerton. From Innovation To Use: Ten Eclectic Theses on the Historiography of Technology. *History and Technology: An International Journal* 16(2), 1999, 111-136.

Jonas van der Straeten and Ute Hasenöhlrl. Connecting the Empire: New Research Perspectives on Infrastructures and the Environment in the (Post)Colonial World. *NTM* 24, 2016, 355-391.

Session 3

David Edgerton. *The Shock of the Old. Technology and Global History Since 1900*. London, Profile Books, 2008. Chapter 8.

Hermione Giffard. *Making Jet Engines in World War II. Britain, Germany and the United States*. Chicago, IL, The University of Chicago Press, 2016. Introduction.

John Jewkes, David Sawers and Richard Stillerman. *The Sources of Invention*. London, Macmillan and Co., 1958. Introduction, Conclusion and cases (jet engine, cellophane, nylon and perlon).

Joseph A. Schumpeter. *Capitalism, Socialism and Democracy*. London, Routledge, 2003 [1943]. Especially Part II, chapters VII-XII.

Session 4

Lewis Mumford. *Technics and Civilizations*. Chicago, IL, The University of Chicago Press, 2010[1934].

Session 5

David Edgerton. Tilting at Paper Tigers. *BJHS* 26, 1993, 67-75.

Bruno Latour. Where are the Missing Masses? The Sociology of a Few Mundane Artifacts (pp. 225-258). In Wiebe E. Bijker and John Law (eds.). *Shaping Technology/ Building Society: Studies in Sociotechnical Change*. Cambridge, Mass., The MIT Press, 1992.

John Law. The Olympus 320 Engine: A Case Study in Design, Development and Organizational Control. *Technology and Culture* 33(3), 1992, 409-440.

Trevor J. Pinch and Wiebe E. Bijker. The Social Construction of Facts and Artefacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other. *Social Studies of Science* 14(3), 1984, 399-441.

Stewart Russell. The Social Construction of Artefacts: A Response to Pinch and Bijker. *Social Studies of Science* 16, 1986, 331-46.

Langdon Winner. Upon Opening the Black Box and Finding It Empty: Social Constructivism and the Philosophy of Technology. *Science, Technology & Human Values* 18(3), 1993, 362-378.

Session 6

Jacques Ellul. *The Technological Society*. New York, Vintage Books, 1964.

Herbert Marcuse. *One-Dimensional Man*. London, Routledge, 1991[1964].

Langdon Winner. *Autonomous Technology. Technics-out-of-Control as a Theme in Political Thought*. Cambridge, Mass., The MIT Press, 1978.

Session 7

Technology and Culture 57(4), 2016.

Session 8

David Edgerton. Turning the Global History of 'Technology' The Right Way Up: The Conceptual Centrality of the Periphery. Paper presented at Academia Sinica, 31 October 2017.

- Also available on lecture presented at GLOKNOS:
<https://www.youtube.com/watch?v=u1HMQXCtH1I&feature=youtu.be>

Kostas Gavroglu, Manolis Patiniotis *et al.* Science and Technology in the European Periphery: Some Historiographical Reflections. *History of Science* 46, 2008, 153-175.

STEP FORUM. *Technology and Culture* 57(4), 2016.

Session 9

Fernando H. Cardoso and Enzo Faletto. *Dependency and Development in Latin America*. Berkeley, CA, University of California Press, 1979.

Eduardo Galeano. *The Open Veins of Latin America*. London, Latin American Bureau, 1997[1973].

Raúl Prebisch. *The Economic Development of Latin America and Its Principal Problems*. United Nations, Department of Economic Affairs, Lake Success, NY, 1950.

Session 10

Samir Amin. *Unequal Development. An Essay on the Social Formations of Peripheral Capitalism*. Sussex, The Harvester Press, 1976.

André Gunder-Frank. *Latin America: Underdevelopment or Revolution*. New York, NY, Monthly Review Press, 1969.

Immanuel Wallerstein. *World-Systems Analysis. An Introduction*. Durham, Duke University Press, 2004.

Session 11

Chris Freeman and Francisco Louça (eds.) *As Time Goes By: From the Industrial Revolutions to the Information Revolution* (Oxford, Oxford University Press, 2002). Chapter 1.

Ernest Mandel. *Long Waves of Capitalist Development. A Marxist Interpretation*. London, Verso, 1995 [1980].

Nathan Rosenberg and Claudio R. Frischtak. Technological Innovation and Long Waves. *Cambridge Journal of Economics* 8, 1984, 7-24.

Bill Warren. Imperialism and Capitalist Industrialization. *NLR* 81, 1973.

Session 12

Ulrich Beck. *Risk Society. Towards a New Modernity*. London, SAGE Publications, 1986.

Jean-Baptiste Fressoz. Beck Back in the 19th Century: Towards a Genealogy of Risk Society. *History and Technology* 23(4), 2007, 333-350.

Jean-Baptiste Fressoz. The Gas Lighting Controversy. Technological Risk, Expertise and Regulation in Nineteenth-Century Paris and London. *Journal of Urban History* 33(5), 2007, 729-755.

Session 13

Dieter Plehwe, Quinn Slobodian and Philip Mirowski (eds.). *Nine Lives of Neoliberalism*. London, Verso, 2020.

Quinn Slobodian. Perfect Capitalism, Imperfect Humans: Race, Migration and the Limits of Ludwig von Mises's Globalism. *Contemporary European History* 28(2), 2019, 143-155.

Session 14

David Edgerton. What Came Between New Liberalism and *Neo-liberalism*? Rethinking Keynesianism, the Welfare State and Social Democracy. In Florence Sutcliffe-Braithwait, Ben Jackson and Aled Davies (eds.). *The Neoliberal Age? Politics, Economy, Society and Culture in Britain since c. 1970*, London, UCL Press, 2020.

Jessica Reinisch. The Society of Freedom in Science, 1940-1963. MSc Dissertation, Imperial College, London, 2000.

Quinn Slobodian. *Globalists. The End of Empire and the Birth of Neoliberalism*. Cambridge, Mass., Harvard University Press, 2018.

Session 15

Karl Gerth. *Unending Capitalism*. Cambridge, Cambridge University Press, 2020.

Frank Trentmann. Crossing Divides: Consumption and Globalization in History. *Journal of Consumer Culture* 9(187), 2009, 187-220.

Session 16

David Edgerton. Elements of a new global history of twentieth-century production.

Miklós Haraszti. I Have Heard the Iron Cry. *NLR* 91, 1975.

NLR Editors. Introduction to Miklós Haraszti. 5-8.

David F. Noble. *Forces of Production. A Social History of Industrial Automation*. New Brunswick, NJ, Transaction Publishers, 2011.

Philip Scranton. Introduction. In *Endless Novelty. Specialty Production and American Industrialization, 1865-1925*. Princeton, NJ, Princeton University Press.

Raphael Samuel. Workshop of the World: Steam Power and Hand Technology in Mid-Victorian Britain. *History Workshop* (3), 1977, 6-72.

Session 17

Michael Burawoy. *The Politics of Production. Factory Regimes Under Capitalism and Socialism*. London, Verso, 1985.

Tavistock Institute:

Elliott Jaques. Social-analysis and the Glacier Project. *Human Relations* 17(4), 1964, 361-375.

A. K. Rice. Productivity and Social Organization in an Indian Weaving Shed. An Examination of some Aspects of the Socio-Technical System of an Experimental Automatic Loom Shed. *Human Relations* 6(4), 1953, 297-329.

Manchester factory ethnographies:

Sheila Cunnison. *Wages and Work Allocation. A Study of Social Relations in a Garmen Workshop*. London, Tavistock Publications, 1966. Introduction and chapter 2.

Isabel Emmett & D. H. J. Morgan. Max Gluckman and the Manchester Shop-Floor Ethnographies. In Ronald Frankenberg (ed.), *Custom and Conflict in British Society*, pp.140-165.

Tom Lupton. Social Factors Influencing Industrial Output. *Man* 56, 1956, 55-59.

Session 18

Harry Braverman. Labor and Monopoly Capital. The Degradation of Work in the Twentieth Century. New York, NY, Monthly Review Press, 1998[1974].

Session 19

C. C. Baron. Appropriate Technology Comes of Age: A Review of Some Recent Literature and Aid Policy Statements. *International Labour Review* 117(5), 1978, 625-634.

Charles Edquist and Olle Edqvist. Social Carriers of Techniques for Development. *Journal of Peace Research* 16(4), 1979, 313-331.

E. F. Schumacher. *Small is Beautiful. Economics as If People Mattered*. New York, NY, Harper & Row Publishers, 1975.

2020-21

Session 1

Rachel Carson. *Silent Spring*. Greenwich, Conn., Crest Books, 1962.

Jean Martínez-Alier. *The Environmentalism of the Poor*. Johannesburg, World Summit on Sustainable Development, 30 August 2002.

John R. McNeill. *Something New Under The Sun: An Environmental History of the Twentieth-Century World*. London, Penguin Books, 2001. Chapters 10 and 11.

Session 2

Timothy Mitchell. *Carbon Democracy. Political Power in the Age of Oil*. London, Verso, 2011.

Bruno Latour. *Politics of Nature. How to Bring the Sciences into Democracy*. Cambridge, Mass., Harvard University Press, 2004. Introduction, Chapters 1 & 5.

Session 3

Bruno Latour. *We Have Never Been Modern*. Cambridge, Mass., Harvard University Press, 2004.

María Puig de la Bellacasa. *Matters of Care: Speculative Ethics in More than Human Worlds*. Minneapolis, Minn., University of Minnesota Press, 2017. Chapters 1 & 2.

Session 4

Sheila Jasanoff. The idiom of co-production (1-12); Ordering knowledge, ordering society (13-45). In Sheila Jasanoff (ed.). *States of Knowledge. The Co-Production of Science and Social Order*. London, Routledge, 2004.

Sheila Jasanoff. Future Imperfect: Science, Technology and the Imaginations of Modernity (-33); Imagined and Invented Worlds (321-341). In Sheila Jasanoff and Sang-Hyun Kim (eds.). *Dreamscapes of Modernity. Sociotechnical Imaginaries and the Fabrication of Power*. Chicago, IL, The University of Chicago Press, 2015.

Session 5

Animal Agents. *BJHS Themes* 2, 2017. <https://www.cambridge.org/core/journals/bjhs-themes/volume/B9E3AC8A9FC2DBC3C5816E6F19A77DC>

- Amanda Rees. Animal Agents? Historiography, Theory and the History of Science in the Anthropocene. *BJHS Themes* 2, 2017, 1-10.

Donna J. Haraway. *Primate Visions: Gender, Race, and Nature in the World of Modern Science*. New York, NY, Routledge, 1990. Chapter 3.

Session 6

James Belich. *Replenishing the Earth: The Settler Revolution and the Rise of the Angloworld*. Oxford, Oxford University Press, 2011. Introduction, Chapters 3, 4 & 18.

Carlo Cipolla. *Pepper, Wine (and Wool): As the Dynamic Factors of the Social and Economic Development of the Middle Age*. Bologna, Il Mulino, 2012[1973].

Kenneth Pomeranz. *The Great Divergence: China, Europe and the Making of the Modern World Economy*. Princeton, NJ, Princeton University Press, 2000. Introduction, Chapters 5 & 6.

Redcliffe N. Salaman. *The History and Social Influence of the Potato*. Cambridge, Cambridge University Press, 1949. Chapter 21, 23, 32 & 36.

Session 7

Jerôme Denis and David Pontille. Why Do Maintenance and Repair Matter? (pp. 283-293). In Anders Blok, Ignacio Fariás & Celia Roberts (eds.). *The Routledge Companion to Actor-Network Theory*. New York, NY, Routledge, 2019.

David Edgerton. *The Shock of the Old. Technology and Global History Since 1900*. London, Profile Books, 2008. Chapter 4.

Stephen L. McIntyre. The Failure of Fordism: Reform of the Automobile Repair Industry, 1913-1940. *Technology and Culture* 41(2), 2000, 269-299.

Andrew L. Russell and Lee Vinsel. Hail the Maintainers. *AEON*, published online, 2016.
<https://aeon.co/essays/innovation-is-overvalued-maintenance-often-matters-more>

Andrew L. Russell and Lee Vinsel. After Innovation, Turn to Maintenance. *Technology and Culture* 59(1), 2018, 1-25.

Optional: Lee Vinsel and Andrew L. Russell. *The Innovation Delusion: How Our Obsession with the New Has Disrupted the Work that Matters Most*. New York, NY, 2020.

Session 8

Philip Mirowski. *Science-Mart. Privatizing American Science*. Cambridge, Mass., Harvard University Press, 2011.

David Edgerton. The Political Economy of Science, Prospects and Retrospects (pp. 21-32). In David Tyfield, Rebecca Lave, Samuel Randalls and Charles Thorpe (eds.). *The Routledge Handbook of the Political Economy of Science*. London, Routledge, 2017.

Session 9

John D. Bernal. *The Social Function of Science*. London, Routledge, 1939.

Jerome R. Ravetz. *Scientific Knowledge and Its Social Problems*. New Brunswick, NJ, Transaction Publishers, 1996[1971].

Jerome Ravetz, *BSSRS*. (Transcript of printed source)

Session 10

Friedrich A. Hayek. *The Road to Serfdom*. London, Routledge, 2001[1944].

Friedrich A. Hayek. The Use of Knowledge in Society. *The American Economic Review* 35(4), 1945, 519-530.

Michael Polanyi. The Republic of Science: Its Political and Economic Theory. *Minerva* 1(1), 1962, 54-73.

Hilary Rose and Steven Rose. The Radicalisation of Science. *The Socialist Register*, 1972, 105-132.

Session 11

Frederick Cooper. Modernity (pp. 113-149). In *Colonialism in Question: Theory, Knowledge, History*. Berkeley, CA, University of California Press, 2005.

Brad DeLong. James Scott and Friedrich Hayek. *Grasping Reality* (web), 2007.
<https://delong.typepad.com/sdj/2007/10/james-scott-and.html>

James C. Scott. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven, Conn., Yale University Press, 1998.

Session 12

Michel Foucault, Michel Senellart, François Ewald, Alessandro Fontana and Arnold I. Davidson (eds.). *Security, Territory, Population. Lectures at the Collège de France 1977-1978*. Basingstoke, Palgrave Macmillan, 2007.

Session 13

Michel Foucault, Michel Senellart, François Ewald, Alessandro Fontana and Arnold I. Davidson (eds.). *The Birth of Biopolitics. Lectures at the Collège de France, 1978-79*. Basingstoke, Palgrave Macmillan, 2008.

Session 14

Chandra Mukerji. *Impossible Engineering. Technology and Territoriality on the Canal du Midi*. Princeton, NJ, Princeton University Press, 2009.

Patrick Joyce. *The State of Freedom*. Cambridge, Cambridge University Press, 2013.

Session 15

David Blackbourn. *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany*. London, Pimlico, 2007.

Sarah B. Pritchard. *Confluence. The Nature of Technology and the Remaking of the Rhône*. Cambridge, Mass., Harvard University Press, 2011.

Session 16

Thomas Fleischmann. *Communist Pigs: An Animal History of East Germany's Rise and Fall*. Seattle, WA, University of Washington Press, 2020.

Tiago Saraiva. *Fascist Pigs: Technoscientific Organisms and the History of Fascism*. Cambridge, Mass., The MIT Press, 2016.

Session 17

Thomas P. Hughes. *American Genesis: A Century of Invention and Technological Enthusiasm*. New York, NY, Penguin Books, 1989.

Alfred D. Chandler, Jr.. *Scale and Scope. The Dynamics of Industrial Capitalism*. Cambridge, Mass: Harvard University Press, 1994.

Session 18

Thomas S. Kuhn. *The Structure of Scientific Revolutions*. Chicago, IL, The University of Chicago Press, 1996[1962].

Thomas S. Kuhn. *The Copernican Revolution: Planetary Astronomy in the Development of Western Thought*. Cambridge, Mass., Harvard University Press, 1957.