"The Engine of Modernity"

Construing Science as the Driving Force of History in the Twentieth Century

This workshop examines a familiar couple: science and modernity. How have the two been associated with each other? How has science come to be seen as the core of the modern condition, the very driving force of modernization? And how have these notons been enacted? These questions will be explored by looking at three developments in which scientific modernity has been articulated: (1) the emergence of the science studying disciplines, history, philosophy and sociology of science; (2) the rise of science policies as instruments of modernization; and (3) the rise of theories and practices of science and development. The workshop looks at the interwar to early Cold War periods and considers contexts from Latin America to independent India and from the Soviet Union to the early UN.

If you are interested in attending, please register at heymancenter.org/events/the-engine-of-modernity/.

Dates: May $2^{nd} - 3^{rd}$, 2017

Venue: Heyman Center for the Humanities, 2nd floor, Common Room,

Columbia University

Organizers: Marwa Elshakry (Columbia University)

Geert Somsen (Columbia/Maastricht University)

Sponsors:







DEPARTMENT OF HISTORY



CENTER FOR INTERNATIONAL HISTORY





Program:

Day 1 (Tuesday, May 2, 2017)

9:00-9:30 Introductions & Opening Remarks – Marwa Elshakry & Geert Somsen

9:30-12:45 Session 1: Science in History and Philosophy – Post-WWI

chair: Deborah Coen (Columbia Unversity)

9:30-10:45

Lorraine Daston (MPIWG, Berlin),

"The Secret History of Science and Modernity: The History of Science and the History of Religion"

Elena Aronova (UCSB),

"In the Shadow of Boris Hessen: Boris Zavadovsky and the Visions of Scientific Modernity in the Soviet Union in the 1920s"

10:45-11:00 COFFEE

11:00-12:15

Elise Aurières (Université Paris 1)

"Alexandre Koyré in Interwar Paris"

Marwa Elshakry (Columbia University), in Arabic bibliographies

"Modern Arabic Bibliographies of Science: Between Universalism and Historicism"

12:15-12:45 session discussion

12:45-2:15 LUNCH

2:15-5:30 Session 2: Sociologies of Science and Modernity

chair: Whitney Laemmli (Society of Fellows, Columbia University)

2:15-3:30

Eugenia Lean (Columbia University)

"A Vernacular Sociology of Science in Republican Era China: the Case of Chen Diexian's 'Common Knowledge'"

Alex Csiszar (Harvard University)

"From the Sociology of Organizations to the (Dys)functions of Science: Some Later Merton Theses"

3:30-3:45 TEA

3:45-5:00

Andrew Jewett (Harvard University)

"Hitting the Brakes: James B. Conant and Popular Views of Science"

Geert Somsen (Columbia/Maastricht University)

"The Engine of Internationalization. Conceptions of Science in the Foundation of UNESCO"

5:00-5:30 session discussion

5:30 closing

6:30 SPEAKERS' DINNER

Day 2 (Wednesday, May 3, 2017)

9:45-12:45 <u>Session 3: History and Philosophy of Science – Post-WWII</u>

chair: Kavita Sivaramakrishnan (Columbia University)

9:45-11:00

Steve Fuller (University of Warwick)

"The Fate of the Idea of the 'Open Society' in the Twentieth Century: Should Popper have been Trying to Save it from its Friends Rather Than its Enemies?"

Adriana Feld (CONICET, Buenos Aires) & Federico Vasen (Universidad de Buenos Aires)

"The Latin American Thought on Science, Technology and Development Movement: a Peripheral Modernity"

11:00-11:15 COFFEE

11:15-12:00

George Reisch (independent scholar, Chicago)

"The Structure of Scientific Revolutions and the Midcentury 'Crisis of Man'"

12:00-12:30 session discussion

12:30-2:00 LUNCH

2:00-5:15 <u>Session 4: Modernity and Scientific Development</u>

chair: Matthew Jones (Columbia University)

2:00-3:15

Gabriela Soto Laveaga (Harvard University)

"Scientists Knee-Deep in Wheat: Agriculture, Elusive 'Modernity,' and Hybrid Seeds in Mexico" Małgorzata Mazurek (Columbia University)

"Marxism at UNESCO: Polish Contributions to the UNESCO Survey 'Main Trends in Research of Social and Human Sciences', 1963-1970"

3:15-3:30 TEA

3:30-4:45

Thomas Mougey (Maastricht University)

"Imagining New Worlds: International Science, Politics and Nature in Postwar Amazonia, 1947-1954"

Jahnavi Phalkey (King's College, London)

"Making India Modern"

4:45-5:15 session discussion

5:15-5:45 Final Discussion – chairs: Marwa Elshakry & Geert Somsen

general description:

Science has long been associated with modernity, but the belief that it was its engine, that the modern world owed its existence to modern science, only rose after the beginning of the twentieth century. Pioneered by followers of Edmund Husserl (like Alexandre Koyré), and developed in various places in and outside Europe and the United States, the engine thesis became a widespread article of faith, a commonplace even, with far-reaching academic and political consequences.

Academically, the notion animated the emergence of a number of new disciplines. If science had created the modern condition, then one could only hope to understand modern society (and live in it, and lead it) if one understood science — as a phenomenon. On this principle, Herbert Butterfield helped launch the history of science, arguing that modernity was born in the Scientific Revolution. Robert Merton started the sociology of science, associating the modern democratic order with a scientific ethos. And in philosophy, Karl Popper coupled scientific rationality to the "Open Society" that science required. Many of these scholars developed theories of society in tandem with theories of science. Others started to teach understanding science, most influentially James B. Conant, who offered "Case Histories" in chemistry and physics to all Harvard undergraduates.

But the study of science as the engine of modernity was never a purely academic exercise. At the same time that the above disciplines were created, science came to be taken as the key to economic growth and the basis of modernization – views intimately tied up with the establishment of "science policy" as a function of the state, and "development" as a political aim around the world. Belief in the universality of science reinforced the notion of a single path to modernity. But while such "modernization theory" is mainly known from its American manifestations, similar (and sometimes rival) approaches developed in Asia, the Middle East, and the burgeoning European Union. Science became a subject of study also in Latin America and the Soviet Union. Paradoxically, the belief in universal science proved itself rather diverse. Some of this came out in early UNESCO, which placed science at the heart of its conception of modern culture, and made it the basis for relentless forms of modernization that were not globally welcomed.

In this workshop we want to examine the meanings and implications of the science-as-modernity's-engine thesis. Where did the notion come from? What did its advocates try to achieve? And how were science and modernity themselves reconfigured in the launch of the science studies disciplines? At the same time, we want to explore the links between academia and action. How was the centrality of science related to views of science policy and development? How did these perspectives vary with what modernization meant in different places? And finally and most generally, how did the various ensembles of scholarly activity, discipline formation, and policy design relate to the great upheavals of the time: the devastations of the First and Second World War, the crisis of Europe and its empires, the ascendancy of the United States and the USSR. If this is what modernity looked like, how was science construed as its driving force?