International Conference

Fetishizing Science

Views of science differ widely even among relatively similar cultures – just consider the many differences between *Humanities* and *Geisteswissenschaften.* But since the early 20th century, there has been general agreement about the priority of the natural sciences – in truth-value, in independence from ideology, and in funding. At the same time, the rise of the history of science as a discipline has cast doubt on most of the myths that make natural science a priority. Recent studies have called into question hard distinctions between reason and nature, while enriching our notions of objectivity, observation, and rationality itself. Leading historians of science, as well as other historians, philosophers and critics will discuss the extent to which the imperialism of the natural sciences can be justified.

Einstein Forum
Am Neuen Markt 7
14467 Potsdam
Tel.: 0331 271 78 0
Fax: 0331 271 78 27
http://www.einsteinforum.de
einsteinforum@einsteinforum.de

Speakers and Themes

Lorraine Daston, Berlin
When Science Went Modern – and Why

Starting circa 1920, commentators on the modern condition – philosophers like Alfred North Whitehead and Edmund Husserl, sociologists like Max Weber and Georg Simmel, and historians like E.A. Burtt and Herbert Butterfield – link modernity with science, more specifically with the Scientific Revolution. It was not any specific discovery of theory or even science-based technology that had wrought this transformation; it was the creation of the "modern mind". Triumphal versions of this narrative celebrated it as the prime mover of the Enlightenment and progress; tragic versions mourned the loss of the cozy medieval cosmos and an enchanted world. But it was the same narrative, however tinged. Its influence on conceptions of modernity in the humanities, social sciences, and among scientists themselves has been immense and enduring, and no amount of countervailing evidence seems able to bury it. Why is this narrative about science and the modern mind so indispensable?

Lorraine Daston is a director at the Max Planck Institute for the History of Science in Berlin and Visiting Professor at the Committee on Social Thought at the University of Chicago. She has published on a wide range of topics in the history of science, including probability and statistics, evidence, wonder and curiosity, the moral authority of nature, anthropomorphism, and scientific images. Recent books include: *Objectivity* (with Peter Galison, 2007); *Histories of Scientific Observation* (co-edited with Elizabeth Lunbeck, 2011); and *How Reason Almost Lost Its Mind: The Strange Career of Cold war Rationality* (with Paul Erikson et al., 2014).

Wendy Doniger, Chicago

Why Hindu Nationalists Insist that Ancient Indians had Nuclear Weapons

Anglophone Hindus in the 19th century both admired and resented British superiority in the realm of science. One of the responses to this ambivalence among leading Hindus, particularly in Calcutta, was to assert that ancient Indians (as early as Vedic times, c. 2000 BCE) had already made major scientific discoveries, not only in grammar and mathematics (which they had, though not as early as that) but in aeronautics (which they had not, ever). These arguments, which never died out entirely, have now resurfaced in fantastic scientific claims made by the present theocracy of Narenda Modi, claims that are causing great embarrassment to Indian scientists. Why do Indian *religious* leaders find it necessary to claim *scientific* knowledge?

Wendy Doniger is the Mircea Eliade Distinguished Service Professor of the History of Religions in the Divinity School at the University of Chicago. Her research and teaching interests revolve around two basic areas: Hinduism and mythology. Her work on mythology addresses themes in cross-cultural expanses, such as death, dreams, evil, horses, sex, and women; while her publications on Hinduism cover a broad spectrum that, in addition to mythology, considers literature, law, gender, and zoology. Doniger has written 16 books, translated (primarily from Sanskrit to English) with commentary nine other volumes, has contributed to many edited texts and has written hundreds of articles in journals, magazines and newspapers. Most recently, she edited (together with Jack Miles) the Volume *Hinduism* for the *Norton Anthology of World Religions* (2014).

Rivka Feldhay, Tel Aviv

Science as Fetish and the Genealogy of its Critique: The Case of a Hebrew Writer

The "high tech nation" and the "valley of Israel" are some indicators for the fetishization of science in Israel today. Originally, however, modern Hebrew culture and politics were organized around literature rather than science. The paper will focus on the genealogy of the critique of "scientism" by Y.H. Brenner (1881-1921), expressed in his essays, letters and literary texts. Brenner's critique, I shall argue, was rooted in his reading of Nietzsche, a reading mediated through the literary œuvre of Dostoevsky and Tolstoy.

Rifka Feldhay is Professor of History of Science at Tel Aviv University and Director at the Minerva Humanities Center. Her areas of research and teaching are: knowledge and faith in the early modern era, intellectual currents in the Renaissance, Copernicus and Galileo in their own context, science education in Catholic Europe, and the culture of the Baroque and the New Science. She has served as a fellow at the Stanford Humanities Center; the Institute for Advanced Studies in Berlin; the International Research Center for Cultural Studies in Vienna; the Dibner Institute at MIT; the Max Planck Institute for the History of Science in Berlin; and the Collegium Helveticum of the Swiss Federal Institute of Technology in Zurich (ETH). Among her major publications are *Galileo and the Church: Political Inquisition or Critical Dialogue?* (1995); and *Education and History: Cultural and Political Contexts* (ed. with E. Etkes,1998).

Peter Galison, Cambridge/Mass.
Black Hole Fetish

Once in a while, within science, there emerges an object that seems endlessly, obsessively, to function in a multiplicity of registers, in the imaginative, theoretical, empirical, and mathematical-symbolic. The black hole is one such strange shape-shifter, a source of endless, obsessive concern for Hollywood and science fiction writers, for theoretical physicists over the last hundred years, for precision observation, even for mathematicians. What is it that draws such attention, how do such objects relate to the very idea of a fetish in the unstable progression from Marx, Freud, and Lacan? What is it about these entities, names, and images that make it possible to speak all at once of sexuality and galaxy shaping forces?

Peter Galison is Joseph Pellegrino University Professor of the History of Science and of Physics at Harvard University. In 1997 Galison was awarded a John D. and Catherine T. MacArthur Foundation Fellowship. In 1998 he won a Pfizer Award for *Image and Logic* as the best book of that year in the field of History of Science; and in 1999 he received the Max Planck Research award of the Max Planck Society and the Alexander von Humboldt Foundation. His books include *How Experiments End* (1987); *Image and Logic* (1997); *Einstein's Clocks, Poincaré's Maps* (2003); and *Objectivity* (with Lorraine Daston, 2007). He has worked extensively with de-classified material in his studies of physics in the Cold War. His film on the moral-political debates over the H-bomb, *Ultimate Weapon: The H-bomb Dilemma* (with Pamela Hogan, 2000) has been shown frequently on the History Channel and is widely used in courses. With Robb Moss, he directed *Secrecy* (2008) which premiered at the Sundance Film Festival, and, also with Moss, recently completed *Containment* (2015) – about the need to safeguard radioactive materials for a period of 10,000 years. Galison collaborated with South African artist William Kentridge on a multi-screen installation, *The Refusal of Time* (2012). He is currently finishing a book, *Building Crashing Thinking*, about the relationship between the self and modern technologies.

Michael Gordin, Princeton

The Road to Gloro: Max Talmey and the Einsteinian Language

Today the name of Max Talmey (1867-1941) is essentially entirely forgotten, even among specialists in the rather obscure field of the constructed languages. Talmey, an ophthalmologist by trade, was one of the most significant grammarians of Esperanto, before defecting to its renegade schismatic movement of Ido and then, in the 1920s constructing his own language, which he called “Arulo” or “Gloro”. At the same time, he was one of the more successful popularizers of relativity theory; in fact, he believed that relativity theory could be best understood through a language specifically designed with the principles and results of modern science in mind. Talmey’s career can serve as a guiding line through the history of these projects to create a universal, perfect, and/or scientific language in the first half of the twentieth century, one of the least explored regions of the fetishization of science.

Michael Gordin is Rosengarten Professor of Modern and Contemporary History at Princeton University, where he specializes in the history of modern science. In 2013-4 he served as the inaugural director of the Fung Global Fellows Program. He came to Princeton in 2003 after earning his A.B. (1996) and his Ph.D. (2001) from Harvard University, and serving a term at the Harvard Society of Fellows. In 2011 he was awarded a National Endowment for the Humanities Fellowship and was named a Guggenheim Fellow. He has published widely on the history of science, Russian history, and the history of nuclear weapons, most recently: *Scientific Babel: How Science Was Done Before and After Global English* (2015).

Anthony Grafton, Princeton
John Caius and the Early History of Cambridge

Anthony Grafton is Henry Putnam University Professor of History and the Humanities at Princeton University. His many books include: *Defenders of the Text* (1991); *Cardano's Cosmos. The Worlds and Works of a Renaissance Astrologer* (1999); *The Footnote: A Curious History* (1999); *Worlds Made by Words* (2009); and *The Culture of Correction in Renaissance Europe* (2011). The recipient of numerous awards and fellowships in Europe and in America, including the Balzan Prize for History of the Humanities and the Mellon Foundation Award for Distinguished Achievement in the Humanities, Grafton is a member of the American Philosophical Society and the American Academy of Arts and Sciences, and a corresponding fellow of the Berlin-Brandenburgische Akademie der Wissenschaften and the British Academy.

Caroline Jones, Cambridge/Mass.
Cognitive Science and the Neuro-Fetish

In the 1970s, a spate of disciplines began to attach the prefix “Neuro” to their activities. Psychologists became cognitive neuroscientists, even as computer scientists, physicists, chemical engineers, and medical doctors were collected under the interdisciplinary rubric of a new and burgeoning field – Neuroscience. From this starting point other disciplines gathered new “neuro” wings, particularly neuroeconomics (Kahneman) and neuroaesthetics (Ramachandran). In this talk, I begin with a crystallizing image from monkey research into the visual system, and contrast it to the holism of the Weimar gestalt psychologists whose work it replaced. Discussing the powerful impact in art theory and practice of figures such as Rudolf Arnheim, Ernst Gombrich, and Anton Ehrenzweig in the 1940s-60s, and the loss of that conversation after the twin revolutions of computation and microbiology, I’ll revive a particular film experiment by Austrian expat Fritz Heider to discuss the contemporary pressures on things Neuro today.

Caroline Jones is Professor of Architecture at MIT and Director of the Program in History, Theory and Criticism. A filmmaker as well as an art historian, she specializes in modern and contemporary art, with a particular focus on its technological modes of production, distribution, and reception. Jones’ exhibits and/or films have been shown at the San Francisco Museum of Modern Art, the Hirshhorn Museum and Sculpture Garden in Washington DC, the Hara Museum in Tokyo, the Boston University Art Gallery, and MIT's List Visual Art Center, among other venues. She is the author of several award-winning books in the field, including *Bay Area Figurative Art, 1950-1965* (1990); *Machine in the Studio: Constructing the Postwar American Artist* (1996); and *Eyesight Alone: Clement Greenberg's Modernism and the Bureaucratization of the Senses* (2005). Jones's ongoing research interests include globalism, the agency of the artist, and new media art, the focus of her latest book *The Global Work of Art* (2016).

Philip Kitcher, New York
Progress in the Sciences and in the Arts

The view that the sciences make progress, while the arts do not, is extremely common. This lecture will challenge it. I begin by distinguishing teleological progress from pragmatic progress. You make pragmatic progress not by coming closer to a goal, but by solving some of the problems of your current state. Scientific progress should be seen as pragmatic. When the point is recognized, it becomes evident that scientific progress has social dimensions. A socially embedded notion of scientific progress then allows for a parallel concept of progress applicable to the arts.

Philip Kitcher is the John Dewey Professor of Philosophy at Columbia University. His research interests lie in the ethical and political constraints on scientific research, the evolution of altruism and morality, and the seeming conflict between science and religion. Kitcher earned his BA from Christ's College, Cambridge, in mathematics and philosophy of science, and a PhD in philosophy from Princeton University. He was elected a fellow of the American Academy of Arts and Sciences in 2002, and the American Philosophical Association awarded him its inaugural Prometheus Prize in 2006 for lifetime achievement in "expanding the frontiers of science and philosophy." Kitcher has also received grants from the American Council of Learned Societies, the Wissenschaftskolleg in Berlin, Alexander von Humboldt Foundation, the National Endowment of the Humanities, the John Simon Guggenheim Foundation, and the Library of Congress. Kitcher's recent books include *The Ethical Project* (2011); *Preludes to Pragmatism* (2012); *Deaths in Venice* (2013); and *Life after Faith: The Case for Secular Humanism* (2014).

Susan Neiman, Potsdam
Sure Path of a Science?

Both before and after Kant, philosophers have promised to "put metaphysics on the sure path of a science" or drop it altogether. What they meant by this is anything but clear. Contemporary historians and philosophers of science have shown that the models of science on which those promises seem to be based have little to do with the actual practices of science, which are laden with value in form, method and goals. Though every serious study of science is in agreement about this, it hasn't seemed to stop attempts to rid science of the normative. I argue that the older notion of *humanities*, rather than the younger one of *Geisteswissenschaften,* would be helpful against such tendencies. I discuss some differences between *humanities* and *Geisteswissenschaften*, and argue that Kant's best discussions of science are anything but scientistic.

Susan Neiman is director of the Einstein Forum. Born in Atlanta, Georgia, Neiman studied philosophy at Harvard and the Free University of Berlin. She was professor of philosophy at Yale University and Tel Aviv University before coming to the Einstein Forum in 2000. Her works include *Slow Fire: Jewish Notes from Berlin* (1992); *The Unity of Reason: Rereading Kant* (1994); *Evil in Modern Thought* (2002), *Moral Clarity: A Guide for Grown-up Idealists* (2008) and *Why Grow Up? Subversive Thoughts for an Infantile Age* (2014).

Glenn W. Most, Pisa
Philology and Science

Is philology a science or not, and if it is, just what kind of science is it? The answers to these questions have differed markedly in the West over the past centuries, in large part due to external pressures and anxieties. Once we understand the role of these issues in the Western Classical tradition, we will be in a better position to compare them with other traditions.

Glenn W. Most is Professor of Greek Philology at the Scuola Normale Superiore di Pisa and simultaneously Professor on the Committee on Social Thought at the University of Chicago. Having studied Classics and Comparative Literature in Europe and the United States, he has previously taught at the Universities of Yale, Princeton, Michigan, Siena, Innsbruck, Heidelberg, and Paris. He is the author of numerous works on Classics, on the history and methodology of Classical studies, on the Classical tradition and Comparative Literature, on literary theory, and on the history of art, and has published articles, reviews, and translations in these fields and also on modern philosophy and literature. His books include *Doubting Thomas* (2005); *The Classical Tradition* (ed. with A.T. Grafton and S. Settis, 2010); and *Les Filles de Melpomène: Quelques héroines tragiques d'Euripide et leurs descendants* (2011).

Katharine Park, Cambridge/Mass.
Rethinking the History of Western Science
Narrative, Translation, and the Longue Durée

The narrative that dominates histories of Western science describes this in terms of episodes separated by two major "translation movements": Greek to Arabic, in the 8th and 9th centuries CE, and Arabic to Latin, in the 12th and early 13th. This chain of custody serves simultaneously to certify the connection between ancient Greek thinkers and early modern European ones and to downplay the role played in this history by their counterparts in the lands of Islam. Yet the geography and chronology on which this narrative rests prove to be incoherent, requiring us to rethink the nature of translation, narrative, and the relationship between Arabic and Latin science in the medieval and early modern worlds.

Katharine Park is Samuel Zemurray, Jr. and Doris Zemurray Stone Radcliffe Professor of the History of Science at Harvard University. Her research and teaching focus on the history of science and medicine in medieval and early modern Europe, and on the history of gender, sexuality, and the body. Her books include *The Cambridge History of Science, vol. 3: Early Modern Science* (co-edited with Lorraine Daston, 2006); and *Secrets of Women: Gender, Generation, and the Origins of Human Dissection* (2006), which won both the History of Women in Science Prize of the History of Science Society and the William H. Welch Medal of the American Association for the History of Medicine.

Nimrod Reitman, Caputh

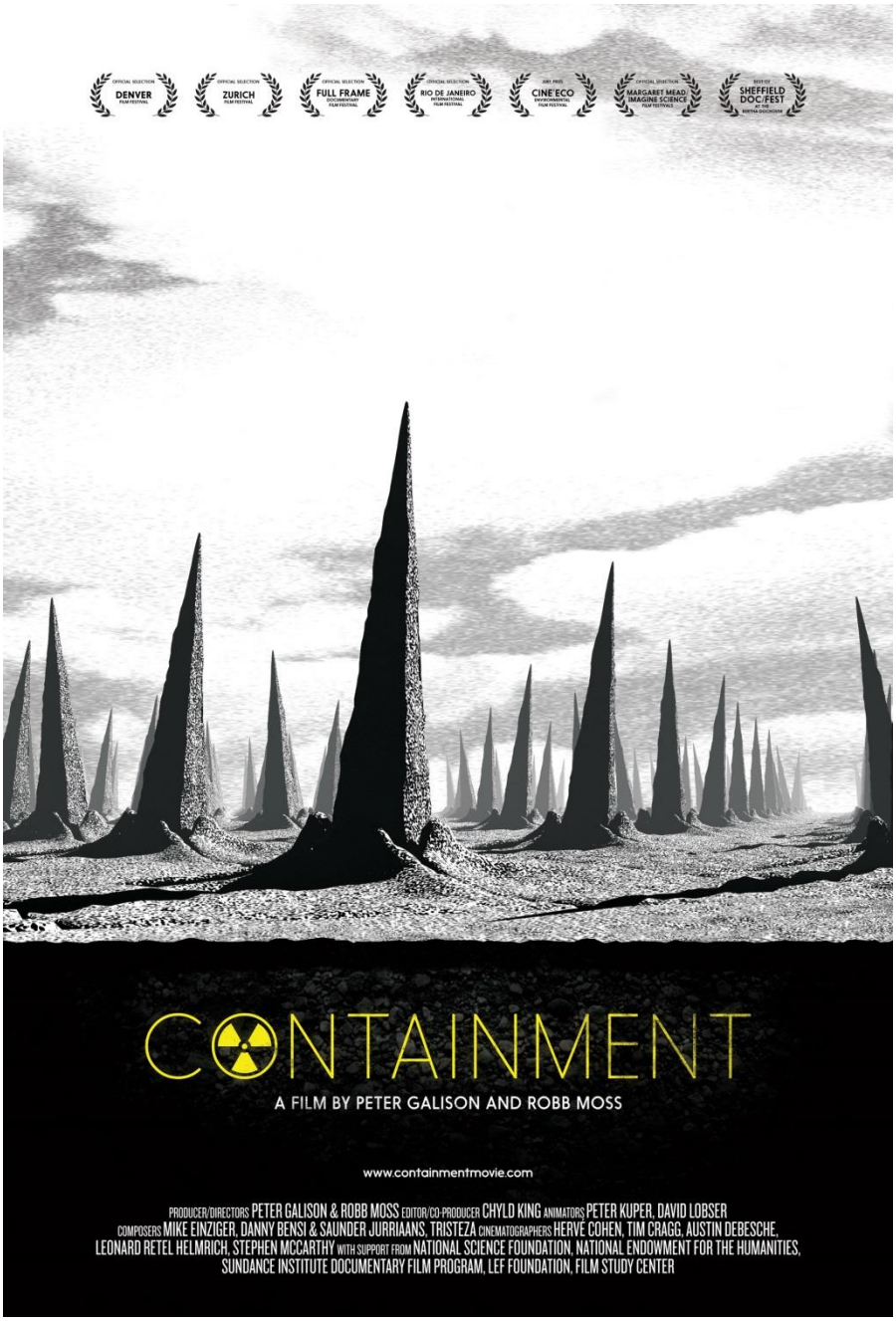
Ersatz Fetish: A Case Study

Psychoanalysis has been devoted to the study of fetishism to the extent that it could be defined as the science of fetishism. Starting from Freud's text on fetishism, the talk offers a reflection on the processes of substitution that are central to any act of fetishism and their psychic offshoots. According to Freud, fetishism is to be found in phenomena ranging from perversion, psychosis, religious feelings, economical circulation, to the scientific drive. The lecture traces the mechanisms that operate the function of libidinal *Ersatz* and explores the way fetishism inflects questions of sexual difference and epistemic genealogy, as well as proscribes a cultural discourse that at once appropriates and attempts to substitute the fetish itself.

Nimrod Reitman received his Ph.D. from the department of German at New York University in June 2015 and is currently the 2016 Albert Einstein Fellow at the Einstein Forum. The historical and philosophical frameworks of his research aim at marking disjunctions in figuration as seen both in the philosophy and the history of thought in Romantic and Modernist poetry. His dissertation, entitled: "On the Serious Motherhood of Men: Dissonance in Music, Rhetoric, and Poetry," describes covert maternal tropologies and disruptions effected by femininity in theories of subjectivity and the history and rhetoric of lamentation in German, Italian, and Hebrew literature. He is currently completing a book project on the rhetoric of the musical lament and a monograph on the poetry of Ingeborg Bachmann. In addition to his research, he has been working as an art curator and has curated a number of exhibitions in Israel, and Germany, to which he also contributed catalogue entries. Reitman is a classically trained pianist who has performed as a soloist and chamber musician throughout Europe, Israel and the USA.

Containment (USA, 2015, 77 min)
A Film by Peter Galison and Robb Moss

Can we contain some of the deadliest, most long-lasting substances ever produced? Left over from the Cold War are a hundred million gallons of radioactive sludge, covering vast radioactive lands. Governments around the world, desperate to protect future generations, have begun imagining society 10,000 years from now in order to create monuments that will speak across the time. Part observational essay filmed in weapons plants, Fukushima and deep underground—and part graphic novel—*Containment* weaves between an uneasy present and an imaginative, troubled far future, exploring the idea that over millennia, nothing stays put.



PROGRAM

Thursday, June 9

19:00
Opening Lecture
Peter Galison
Black Hole Fetish

Friday, June 10

11:00
Susan Neiman
Sure Path of a Science?

12:00
Philip Kitcher
Progress in the Sciences and in the Arts

15:00
Katharine Park
Rethinking the History of Western Science: Narrative, Translation, and the Longue Durée

16:00
Michael Gordin
The Road to Gloro: Max Talmey and the Einsteinian Language

17:30
Lorraine Daston
When Science Went Modern – and Why

19:00
Filmscreening
Containment
(Peter Galison and Rob Moss, USA 2015)

Saturday, June 11

10:30
Nimrod Reitman
Ersatz Fetish: A Case Study

11:30
Caroline Jones
Cognitive Science and the Neuro-Fetish

12:30
Anthony Grafton
John Caius and the Early History of Cambridge

15.30
Glenn Most
Philology and Science

16:30
Rivka Feldhay
Science as Fetish and the Genealogy of its Critique: The Case of a Hebrew Writer

18:00
Wendy Doniger
Why Hindu Nationalists Insist that Ancient Indians had Nuclear Weapons