

Technosphere × Knowledge

April 14–16, 2016

April 14, 7–10pm

The Scenario Mode

**With Peter Galison,
Sander van der Leeuw,
Claire Pentecost,
Sebastian Vehlken
Welcome by Katrin Klingan**

**FILM SCREENING · *Containment*
D: Peter Galison, Robb Moss,
Japan/USA 2014, 81 min,
English version**

April 15, 7–10pm

Truth Measures

**With Lawrence Abu Hamdan,
Keith Breckenridge, Melanie Gilligan,
Brian Holmes, Susan Schuppli
Welcome by Anselm Franke**

April 16, 7–10pm

Wisdom Techniques

**With John Tresch, Jeremy Bolen & Andrew Yang,
Sasha Engelmann & Bronislaw Szerszynski
in collaboration with Tomás Saraceno,
FORMATIONS (Alex Martinis Roe & Melanie Sehgal
with Roman Brinzanik, Deborah Haaksman,
Rebekka Ladewig, Julian Schubert, Hendrik Weber)
Welcome by Christoph Rosol**

The Scenario Mode

The scenario has become a mode of knowledge of the first order. Thinking and navigating in socio-technical scenarios—scenarios of the technosphere—has long been an indispensable means to hypothesize upon, imagine and eventually design, the (deep) future. In fact, “running in scenario mode” seems to be the way in which contemporary existence, through the vision of this exploratory practice and tool, exemplifies learning and researching in and on the Anthropocene itself. This evening deals with the trans-methodical arrangement of scenario building and analysis and its specific formatting through institutional and media-based infrastructures. It examines the question of how intelligibility is arranged, trimmed, and codified so that stable scenarios may emerge, temporarily, to provide raw data for empirical voids. What, then, is the architecture, efficacy and viability of this form of knowledge that treats the unknown as a known? And to what extent does scenario science promote the formation and strengthening of the technosphere itself, perpetuating existing technical and mental infrastructures?

7pm

Welcome by *Katrin Klingan*

Presentation

The Alternative Futures Approach
 —Modelling the Unthinkable
Sebastian Vehlken

Scenario techniques are mediators of crises. This holds true for historical examples like the *Thinking About the Unthinkable* (H. Kahn) of atomic warfare or the *Limits to Growth* (D. Meadows et al), as well as for contemporary discussions about climate change. Scenarios generate “hypothetical narratives dealing with the causation, initiation, course and termination of future crises” (B. Bruce-Biggs). Central to such ‘synthetic histories’ (C. Pias) is their specific *Eigenzeit*, a course open for all sorts of “bizarre actions” (H. Kahn) which links the “broad present” (H.-U. Gumbrecht) to a plurality of possible futures. Instead of proposing a right way into a better future, scenario techniques heighten the awareness for the contingencies, the bifurcations, and the precipices lurking ‘on the way’. My presentation will pick out five historical scenes which are exemplary for this mode of futurological exploration—down to computer simulations, the ubiquitous ‘scenario-media’ of today.

SEBASTIAN VEHLKEN is a media theorist and cultural historian. Since 2013, he is Junior Director of the Institute for Advanced Study on Media Cultures of Computer Simulation (MECS), Leuphana University of Lüneburg. In 2015/16, he was Visiting Professor at Humboldt-Universität zu Berlin, University of Vienna, and Leuphana University, and in 2014 Research Fellow at the Internationales Zentrum Kulturwissenschaften (IFK), Vienna. His areas of interest include the theory and history of computer simulation and digital media, the media history of swarm intelligence, and the epistemology of think tanks. His current research project *Plutonium Worlds* explores the application of computer simulations in West-German Fast Breeder Reactor programs from 1960–80.

7.30pm

Film

Containment

Directors: Peter Galison, Robb Moss,
 Japan/USA 2015, 81 min,
 English version
 With an introduction by *Peter Galison*

Left over from the Cold War are a hundred million gallons of radioactive sludge, covering vast radioactive lands. Governments around the world 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.

PETER GALISON is the Pellegrino University Professor (Physics, History of Science) at Harvard University. His books include *How Experiments End* (1987), *Image and Logic* (1997); *Einstein’s Clocks, Poincaré’s Maps* (2003), and *Objectivity* (with L. Daston, 2007). Galison has co-directed three films: *Ultimate Weapon: The H-bomb Dilemma* (2002, with Pam Hogan) *Secrecy* (2008) and *Containment* (2015), both with Robb Moss. Galison’s work also features artistic collaborations, including partnering with South African artist William Kentridge on *The Refusal of Time* (Documenta 13, 2012). He is finishing a book on technology and the self, *Building Crashing Thinking*.

9.15pm

Discussion

Running in scenario mode:

On the sustainability
of scenario modelling

*With Peter Galison, Sander van der
Leeuw and Claire Pentecost,
moderated by Sebastian Vehlken*

What is the current status of scenario analysis and what does this highly codified mode of knowledge production import for creating sustainable futures? As a tool to investigate long-term dynamics of the human-environment relationship, scenario modeling is central to get from speculation to foresighted steering. But as a decision-making framework with its own mediatic data basis and socio-technical quantification strategies, does scenario science also perpetuate existing conditions and trends? Does it promote self-fulfilling prophecies of a self-maintaining technosphere? As a sustainability science what, then, is the sustainability of the scenario mode itself?

SANDER VAN DER LEEUW pioneered the application of the complex adaptive systems (CAS) approach to long-term human-environment dynamics. He taught in Amsterdam, Leyden, Cambridge (UK), and Paris before becoming the founding director of Arizona State University's interdisciplinary School of Human Evolution and Social Change. He is now a foundation professor in that school and in the School of Sustainability, and a director of ASU's Complex Adaptive Systems Initiative. He is external professor of the Santa Fe Institute and a corresponding member of the Royal Dutch Academy of Arts and Sciences.

CLAIRE PENTECOST is an artist, writer, and Professor in the Department of Photography at the School of the Art Institute of Chicago. Her interdisciplinary practice interrogates the imaginative and institutional structures that organize divisions of knowledge, often focusing on nature and artificiality. Her work positions artistic practice as research, advocating for the role of the amateur in the collection, interpretation, and mobilization of information. Her current projects focus on industrial and bioengineered agriculture, and the hidden costs of the global corporate food system.

Technosphere 2015–18

Technosphere x Knowledge is the second event within the framework of *Technosphere 2015–18*. In a collaborative undertaking with international scientists and artists, the project explores how technical, social, and ecological forces have become wired to create the contemporary global structure. How can this new network be understood and described? How can one live and act within it? Introduced by the geosciences as a means to understand the man-made ecology of new materials, built environments, energy and mobility infrastructures on planetary scale, the concept of the “technosphere” enables a critical examination of the omnipresence and power of technical systems whose often unintended consequences and internal dynamics have coalesced to form a quasi-autonomous power.
→ hkw.de/technosphere

Anthropocene Curriculum Campus: The Technosphere Issue

What forms of knowledge production, education and mediation are capable of meeting the challenges of a new human geological era? From April 14 to 22, 2016, the second edition of the *Anthropocene Campus*, a transdisciplinary teaching and learning experiment, will be held. It explores and tests new and critical fields of knowledge together with 200 scientists, artists, and cultural practitioners. This time the Campus examines the technosphere as a model for understanding the interactions between human, technological, cultural, environmental, and industrial spheres.
→ hkw.de/en/campus

A new component of the Earth system is emerging today, comparable in scale and function to the bio- and hydrosphere. It is driven by the intertwining of natural environments with vast socio-technical forces and an increasingly diverse array of “technological species”. *Technosphere x Knowledge* investigates the interlacing between this technosphere and current modes of knowledge production—how both condition, sustain, and multiply each other. Without modern science there is no technosphere, without the technosphere there is no contemporary knowledge. On the one hand, contemporary knowledge allows for the theoretical understanding and technical mastery of energy and matter, and, thereby, the existence of a technosphere itself. On the other hand, it is the technosphere that arranges, shapes, and propels current knowledge, for example, through media of data pooling and processing, institutionalized evidence production, and the anthropotechniques of learning and comprehending. These three evenings critically investigate exemplary practices and modes of what might be termed “technospherical knowledge,” its reciprocal facilitation and stabilization, the self-fulfilling prophecies and dead-ends this liaison implies, as well as the urgency and utopian potential it entails. It examines the technical means to speculate about an unknowable future, questions the metrics and measures of juridical evidence, and entrains alternative techniques and practices of knowing, sensing, and experiencing.

→ hkw.de/txk

#technosphere

Part of 100 Years of Now

Concept and Realisation: Katrin Klingan, Christoph Rosol
with Anna Sophie Luhn, Janek Müller and Nick Houde



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