

Green work and environmental knowledge: A KHK workshop, 27 Nov 2025

What is green work, who are green workers, and how are material cultures of practice and work and sustainable-society-in-transition co-produced? This workshop engages these questions, proceeding from the premise that, generally speaking, studies of environment, science, technology, society (STS), and energy have overlooked studies of material cultures of practice and work and studies of material cultures of practice and work have overlooked studies of environment, STS, and energy. Over the last half-century, public policies have invested increasingly large resources into environmental mitigation and statistics suggest that many environmentally-sustainable green jobs are being stimulated in the process. Yet green work remains an ill-defined “contested discourse” (Teelucksingh 2019) as evidenced in the disparity between US and European data on this subject (Apostel and Barslund 2024). This controversy and the knowledge deficit it implies raises questions of the character and culture of environmental mitigation, including the technologies, infrastructures, and material practices/social relations informed by environmental policy and green industrialization, as well as what a socially and environmentally-just society would look like for the workers expected to build and maintain it.

Schedule:

10:00 Morning coffee

10:15 Welcome and introductions: Matthew N. Eisler, University of Strathclyde

11:00 Keynote: University Professor Ferdinanda Ponci (E.ON Energy Research Center, RWTH Aachen University)

11:40: Q&A, discussion

12:00-1:30 Lunch

1:30 Mila Davids (Eindhoven University)

2:00 Q&A, discussion

2:20 Lisa Claussmann (Paris-PSL)

2:50 Q&A, discussion

3:10 Katie Kung (LMU Munich)

3:40 Q&A, discussion

4:00: Afternoon coffee

4:15: Rosalind Donald (American University)

4:45: Q&A, discussion

5:30-6:30: Wrap-up discussion, moderated by Hannah Star Rogers or Phillip Roth

7:00PM Dinner (Restaurant Elisenbrunnen)

Abstracts:

Green Work in the Semiconductor Industry: The Role of Industrial Research Consortia

Mila Davids, Assistant Professor of History of Technology, Eindhoven University of Technology (m.davids@tue.nl)

Our current environmental challenges require transforming society's energy and material base and production and consumption systems, with far-reaching consequences for work across all sectors. Producing semiconductors consumes vast amounts of energy, water, and chemicals. Given the production complexity and the supply chain's global interdependence, sustainability challenges must be solved in the broader semiconductor ecosystem. The outsourcing and the disintegration of vertically integrated chip manufacturers have made relations in the production chain more crucial, while research has become increasingly collaborative through research consortia. A prime example is the Interuniversity Micro-Electronics Center (IMEC), explicitly modeled on Stanford's Center for Integrated Systems and established in 1984 in Leuven. In 2021, IMEC set up the Sustainable Semiconductor Technologies & Systems Program (SSTS) to support the semiconductor industry in lowering its emissions. Taking IMEC's environmental mitigating activities as a case in point, we will answer the question of which new knowledge, expertise, skills, work/research practices, occupations, and experts were needed.

Geographies of Decarbonization: Distribution and Standardization in the Development of a CCS Infrastructure between France and Norway

Lisa Claussmann, Postdoctoral Fellow in History, Philosophy, and Sociology of Science, Centre for the Sociology of Innovation, i3, Mines Paris-PSL (lisa.claussmann@minesparis.psl.eu)

This paper looks at the conflicts surrounding the materiality of a so-called green industrial sector, focusing on the development of a carbon capture and storage (CCS) infrastructure between France and Norway. While CCS is often framed as a technical 'solution' to climate change, it redistributes CO₂ across Europe according to a specific and uneven task allocation. The French CCS strategy, released in July 2024, identifies two to four "hubs" along the northern, western, and southeastern maritime fronts, where CO₂ is to be captured and transported to offshore storage sites in the North Sea, some located in Norway. The paper examines how carbon-emitting industries, environmental experts, and government agencies work together to present CCS as a green industrial sector. It then shifts focus to CO₂ itself, arguing that this narrative conflicts with the materiality of the infrastructure needed to displace carbon across multiple facilities. The diversity of stakeholders

involved – from capture to storage – generates disputes, particularly around the standardization of CO₂ quality. The paper ends with a discussion on what I call “geographies of decarbonization,” characterized by a specific task distribution between emitting industries in France and industries providing transport and storage facilities, mostly located in Norway.

The Art of Killing Kindly: Invasive Species and the Science of the Bush in Aotearoa, New Zealand

Katie Kung, Rachel Carson Center, LMU Munich katie.aiste@gmail.com

In Aotearoa New Zealand, the “leader” in invasion management (Simberloff 2019), research on invasive species, alongside the ambitious Predator Free 2050 campaign, has profoundly impacted not only the target species but also the career trappers—the bushmen, -women, -people—whose livelihoods are entangled in the bush and the art of killing—how to kill, who to kill, kill for whom, when is something killed—shaped by rewards, conflicts, regulations, and ethics. In this presentation, using 3 case studies, I explore the art of killing kindly in Aotearoa: 1) a Canadian running a sanctuary reliant on volunteer tourists; 2) a German trapper working with a conservation NGO and a local Māori community; and 3) a Pākehā contractor and trap inventor servicing his farm and a public forest. While they seem to work under the same vision of a predator-free future—an ideal of ecological “balance” enacted via the eradication of nonhuman intruders—their practices and realities are contingent on the target species, tools and technologies, the government and university scientists, volunteers, clients, and versions of care and kindness. Multispecies pest control requires multispecies participation, which does not only blur the line of enmity and conviviality, but reveals how they in fact overlap. Investigating the arts of taking, and sometimes sparing, lives, this analysis challenges the totalizing narrative of *Predator Free*, complicating the binary of killing and conservation. It further exposes the limits of eradication as a possibility and the friction within the “scientific” definitions of the “best” way to kill.

Making Hurricane Andrew: Greenwork and the Miami Growth Machine in 1992

Rosalind Donald, Assistant Professor of Public Communication, American University (rdonald@american.edu)

When Hurricane Andrew made landfall in Miami in 1992, it broke the wind measurement devices in its path and flattened new suburban developments. I examine the roles of meteorologists and wind engineers in the controversy this technical failure prompted over the hurricane’s strength. These green workers took different positions based on their material practices and ways of knowing, but also on their positions towards growth and development. While meteorologists argued the destruction to hastily built developments that had sprung up through the Everglades was unavoidable due to the hurricane’s exceptional strength, wind engineers argued Andrew was no more than a Category 2 hurricane, highlighting how poorly builders had constructed the new homes. Using Harvey Molotch’s concept of the city as “growth machine,” I examine how local hurricane experts reinforced the tendency from local businesses and politicians to fix the buildings, not the sprawl. The debate over Andrew shows, moreover, how the reliance on extrinsic events

like hurricanes and other disasters allowed coastal development to continue unchallenged in the United States.