

International History and Politics

Academic year 2021-2022

Global History of Science: Colonial Encounters and Beyond

HPI134 - Autumn - 6 ECTS

Wednesday 14h15 - 16h00

Course Description

This course provides an introduction to the history of science by focusing on modern science's complex relationship with colonial rule. While the colonies served as a 'living laboratory' (Helen Tilley) during European expansion, the local and vernacular forms of knowledge European scientists encountered had repercussions on European self-understandings of science. The course examines a wide range of historical and anthropological materials and methods in order to retrace the everyday workings of different scientific disciplines in colonial contexts. Special attention will be paid to the disciplines of anthropology and medicine as well as to disease control in global pandemics. During the 'scientization' of colonialism in the twentieth century new international health institutions emerged which, in turn, had effects on the historical process of decolonization.

> PROFESSOR

Mischa Suter

[Office hours](#)

Tuesday 14:00–16:00

> ASSISTANT

Paul Deshusses

[Office hours](#)

Syllabus

The course will take place in a seminar format with weekly meetings in the classroom. However, in accordance with the Institute's policies, hybrid forms will complement this seminar setting in order to ensure that all students can attend, either in-class or virtually. The precise arrangements will be determined in the first week, depending on enrolment and equipment.

Requirements

Class participation (25% of final grade)

All students read the required readings (marked with an asterisk *), including the primary sources, for each week. The additional "suggestions for further reading" are not required; rather, they might serve as potential entry points for some of your term papers. Students are expected to come prepared and to actively participate in

class. The questions for each week on the syllabus are intended to help structure the reading. In addition, students should come to class with their own questions. For some general points worth considering while reading, please see the section “reading response” below. As a seminar, this class is very much a collective endeavour: make yourself heard in class, listen to others’ arguments, and we will all learn from each other.

Reading response (paper and oral presentation) (30% of final grade)

From week 2 to 13, 1-2 students prepare a more in-depth response to the readings of each week. It consists of two parts:

1) Written response paper (max. 1000 words) sent to the TA and myself to be posted online at 10.00 am the day before class. This is a comparative comment on the reading, in which you reflect on the texts and connect them to the issues raised in class so far. Questions that might be considered include: Does the text intervene in a specific debate? What sources does the author use? Who are the key agents and what the main forces of change identified by the author? What is the essay’s overarching question and how is it connected to its concrete object of analysis? How is the argument structured, what are its strengths and limitations? The assigned primary sources ask for even more questions: What sort of source is this? Why has it been produced? Who speaks? About what? From which perspective and for which purpose? Who might have been the intended audience? Etc.

2) Briefly (5-7 minutes maximum) recapitulate some of the main points of your response paper in class and pose questions for discussion. You may connect your reflections to the overall questions posed by the instructor on the syllabus if you wish. Please refrain from just reiterating the written response paper; rather focus on a few points you want to highlight.

Term paper (45% of final grade)

A paper of 3500-4000 words (including footnotes, but excluding the bibliography) advancing a historical argument on a topic related to colonialism and science. The additional “suggestions for further reading” on the syllabus might help for an initial search for literature. Students are strongly encouraged to analyse a primary source in their papers: for instance, an article written by a scientist, a report by an international organization, a diary, memoir or travelogue or a series of issues of a scientific journal. The paper should approach the source with a pertinent and feasible research question as well as situate the source in its historical context and within the existing historiography on the subject. Alternatively, papers analysing a historiographical debate, based exclusively on secondary sources, are also possible (however, this is generally more difficult than a primary source analysis). The papers will be developed in different stages:

1) Students should have a first idea on what they want to write about and how to approach the topic in the session of week 7 (November 3). For that purpose, students should come prepared with notes and a provisional working title and should be ready to briefly present their envisioned paper in class.

2) A written proposal due on November 8 at 10:00 AM. The proposal includes a working title of the paper, 1-2 page introduction to the source or topic that includes the paper’s research question and an outline of the paper’s structure (sections, subsections etc.), followed by a 1-2 page bibliography of the secondary sources. The subject should be limited with respect to three dimensions: a topical, a temporal, and a geographical focus. The proposal will be discussed with me in office hours (office hours will be announced during the course).

2) Final paper, due December 30 at midnight: 3500-4000 words (including footnotes, but excluding the bibliography) 12 pt Times New Roman, double-spaced, Word document. Written work has to consistently use a citation style that is common in the humanities; I recommend Chicago style footnotes. Purdue’s Online Writing Lab or University of Wisconsin’s Writer’s Handbook are two helpful points of orientation.

Policies

Phones and headphones should be put away during class, laptops should only be used for taking notes. Don’t use phones for the readings; given the length of the texts this is just not viable. Written work has to be submitted on time, late submissions lead to a penalty of -0.25 per day. Students seeking an extension due to emergencies

(illness, family emergencies) should contact me as soon as possible. Cheating and plagiarism will not be tolerated; the Institute's Guidelines apply.

Pt. I: Introduction

1 // 22 Sept

Introduction and course overview

Please familiarise yourself with the electronic materials and come prepared with any questions about the syllabus. In the introductory session, we will get to know each other and will distribute the reading responses and short presentations. The essay by Chakrabarti and Worboys provides an overview of some of the themes of the seminar. How are their key analytic terms defined and what forms of periodization are proposed?

Optional background reading:

Chakrabarti, Pratik, Worboys, Michael: "Science and Imperialism since 1870", in: Hugh Richard Slotten, Ronald Numbers, David Livingstone (eds.), *The Cambridge History of Science*, Vol. 8: Modern Science in National, Transnational, and Global Context, Cambridge 2020, 9–31.

2 // 29 Sept.

Beyond the diffusion model

George Basalla's model of the "spread of western science" was as influential as it was criticized. How could more interactive and symmetrical frames of reference than his diffusion model look like? What kinds of perspectives does a colonial framework open up for studying the global history of science, and what perspectives does it potentially close off?

Required readings:

* Basalla, George: "The Spread of Western Science", in: *Science*, new ser. 156 (1967) n° 3775, 611–622.

* MacLeod, Roy: "Introduction", in: idem (ed.), *Nature and Empire: Science and the Colonial Enterprise*, Ithaca, NY 2000, 1–13 (= *Osiris*, new ser., 15).

* Sivasundaram, Sujit: "Sciences and the Global: On Methods, Questions, and Theory", in: *Isis* 101 (2010), 146–158.

Suggestions for further reading (not required):

Cohn, Bernard: *Colonialism and its Forms of Knowledge: The British in India*, Princeton 1996.

Fischer-Tiné, Harald: *Pidgin Knowledge: Wissen und Kolonialismus*, Berlin/Zurich 2014.

Poskett, James: *Materials of the Mind: Phrenology, Race, and the Global History of Science, 1815–1920*, Chicago 2019, esp. introd.

Roberts, Lissa: "Situating Science in Global History: Local Exchanges and Networks of Circulation", in: *Itinerario* 33 (2009) 1, 9–30.

Arnold, David: "Europe, Technology, and Colonialism in the Twentieth Century", in: *History and Technology* 21 (2005) 1, 88–106.

Raj, Kapil: *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650–1900*, Basingstoke 2007.

Chambers, David Wade, Gillespie, Richard: "Locality in the History of Science: Colonial Science, Technoscience, and Indigenous Knowledge", in: Roy MacLeod (ed.), *Nature and Empire: Science and the Colonial Enterprise*, Ithaca, NY 2000, S. 221–240 (= *Osiris*, new ser., 15).

Seth, Suman: "Colonial History and Postcolonial Science Studies", in: *Radical History Review*, 2017, N° 127, S. 63-85.

Pt. II: Emerging contours of colonial knowledge

3 // 6 Oct.

Botany and Slavery: Agrarian roots of colonialism

How was botany – the study, cultivation, and commodification of plants – connected to imperial struggles over resources? How did agriculture inform colonial expansion, if we bear in mind that plantation economies in the colonies and landed elites in the metropolises were among the main drivers of colonialism? How did African, Amerindian, and South-Asian knowledge systems and healing practices intersect with colonial plant sciences? Finally, as a meta-question: in what respect does an altered historical narrative emerge if medical knowledge about plants is viewed as contingent on specific localities, movements, and encounters?

Required readings:

* Drayton, Richard: "Knowledge and Empire", in: P.J. Marshall (ed.), *The Oxford History of the British Empire*, Vol. 2: The Eighteenth Century, Oxford 1998, 231–252.

* Schiebinger, Londa: "Prospecting for Drugs: European Naturalists in the West Indies", in: eadem, Claudia Swan (eds.), *Colonial Botany: Science, Commerce, and Politics in the early Modern World*, Philadelphia 2005, 119–133.

* Gänger, Stefanie: *A Singular Remedy: Cinchona across the Atlantic World, 1751–1820*, Cambridge 2020, 1–29.

Suggestions for further reading (not required):

Carney, Judith, Rosomoff, Richard Nicholas: *In the Shadow of Slavery: Africa's Botanical Legacy in the Atlantic World*, Berkeley, CA 2009, 17–64.

Philip, Kavita: "Global Botanical Networks, Political Economy, and Environmentalist Discourses in Cinchona Transplantation to British India", in: *Revue française d'histoire d'outre-mer* 86 (1999), 119–142.

Drayton, Richard: *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World*, New Haven CT 2000, esp. introd., 85–128.

Schiebinger, Londa: *Secret Cures of Slaves: People, Plants, and Medicine in the Eighteenth-Century Atlantic World*, Stanford, CA 2017, esp. chap. 5.

Kumar, Prakash: "Transnational Knowledge and Colonial Indigo Plantations in South Asia", in: *Modern Asian Studies* 48 (2014) 3, 720–753.

4 // 13 Oct.

The missionary complex

Modern scientific *knowledge* is often presented in contrast to religious *belief*. However, missionaries, from early modern European expansion well into the twentieth century, were heavily involved in scientific projects. By providing holistic accounts of the earth and its inhabitants missionaries fused their religious background with new systematized forms of inquiry. However, with the rise of academic disciplines in the nineteenth century their status was increasingly relegated to the status of amateur savants. In what respect did missionaries embody a specific scientific habitus or persona?

Required reading:

* Harries, Patrick: "Natural Science and *Naturvölker*: Missionary Entomology and Botany", in: idem, David Maxwell (eds.), *The Spiritual in the Secular: Missionaries and Knowledge about Africa*, Grand Rapids, MI 2012, 30–71.

Primary source (also required):

* Livingstone, David: *Missionary Travels and Researches in South Africa [...]*, New York 1860, 1–34.

Suggestions for further reading (not required):

Cleall, Esme: *Missionary Discourses of Difference: Negotiating Otherness in the British Empire, 1840–1900*, Basingstoke 2012, 79–122.

Harries, Patrick: "From the Alps to Africa: Swiss Missionaries and Anthropology", in: Helen Tilley (ed.), *Ordering Africa: Anthropology, European imperialism, and the Politics of Knowledge*, Manchester 2007, 201–224.

Sivasundaram, Sujit: "A Global History of Science and Religion", in: Thomas Dixon (ed.), *Science and Religion: New Historical Perspectives*, Cambridge 2010, 177–197.

Harries, Patrick: *Butterflies and Barbarians: Swiss Missionaries and Systems of Knowledge in South-East Africa*, Athens, OH 2007.

White, Luise: "'They Could Make their Victims Dull': Genders and Genres, Fantasies and Cures in Colonial Southern Uganda", in: *American Historical Review* 100 (1995) 5, 1379–1402.

Pt. III: Disease, medicine and public health

5 // 20 Oct.

Global connections and colonial disease control: the case of cholera

Cholera arguably represented the quintessential nineteenth-century pandemic disease. Moreover, cholera led to manifestations of colonial crisis as it exposed specific vulnerabilities of empires. How did fears of contagion inform colonial policies?

Required readings:

* Arnold, David: "Cholera and Colonialism in British India", in: *Past and Present* 113 (1986), 118–151.

* Huber, Valeska: "Pandemics and the Politics of Difference: Rewriting the History of Internationalism through Nineteenth-Century Cholera", in: *Journal of Global History* 15 (2020) 3, 394–407.

Suggestions for further reading (not required):

Peckham, Robert: "Symptoms of Empire: Cholera in Southeast Asia, 1820–1850", in: Mark Jackson (ed.), *The Routledge History of Disease*, London 2016, 183–201.

Harrison, Mark: "The Great Shift: Cholera Theory and Sanitary Policy in British India, 1867–1879", in: Biswamoy Pati, Mark Harrison (ed.), *Society, Medicine and Politics in Colonial India*, London 2018, 37–60

Arnold, David: *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India*, Berkeley, CA 1993, chap. 4.

6 // 27 Oct.

Colonialism, anti-colonialism and international regimes of public health

This session continues the topic of disease control into the twentieth century. At the same time we deepen our discussion about colonial medicine. The Marks essay, which you should read first, raises points that still inform

debates in historiography today: what made colonial medicine specific? We then apply some of the perspectives drawn from the Marks essay to the history of the WHO, on which the essays by Amrith and Lee offer contrasting views. How did colonial legacies, anticolonial impulses and cold war polarities shape the WHO's politics of health?

Required readings:

* Marks, Shula: "What Is Colonial about Colonial Medicine? And What Happened to Imperialism and Health?", in: *Social History of Medicine* 10 (1997), 207–219.

* Amrith, Sunil S.: "Internationalising Health in the Twentieth Century", in: Glenda Sluga, Patricia Clavin (eds.), *Internationalisms: A Twentieth-Century History*, Cambridge 2017, 245–264.

* Lee, Sung: "WHO and the Developing World: The Contest for Ideology", in: Andrew Cunningham (ed.), *Western Medicine as Contested Knowledge*, Manchester 1997, 24–45.

Primary source (also required):

* "Epidemiology and the World Health Organisation", in: *Lancet* 257 (1951) Nr. 6652, 457–458.

Suggestions for further reading (not required):

Tilley, Helen: "Traditional Medicine Goes Global: Pan-African Precedents, Cultural Decolonization, and Cold War Rights/Properties", in: *Osiris* 36 (2021), 132–159.

Tworek, Heidi: "Communicable Disease: Information, Health, and Globalization in the Interwar Period", in: *American Historical Review* 124 (2019) 3, 813–842.

Pearson, Jessica Lynn: *The Colonial Politics of Global Health: France and the United Nations in Postwar Africa*, Cambridge MA 2018, introd., chaps. 3, 4.

Manela, Erez: "A Pox on your Narrative: Writing Disease Control into Cold War History", in: *Diplomatic History* 34 (2010), 299–323.

Zimmer, Thomas: "In the Name of World Health and Development. The World Health Organization and Malaria Eradication in India, 1949–1970", in: Marc Frey, Sönke Kunkel, Corinna Unger (eds.), *International Organizations and Development, 1945–1990*, London 2014, 126–149.

7 // 3 Nov.

Researching and writing a term paper

Please come prepared with notes on your envisioned term paper (a provisional working title, an idea on the sources you want to use as well as the historiography you'll read) and be ready to debate your project with your peers. In addition, we will discuss research strategies in libraries and archives.

Pt. IV: Race, Culture, Subjects

[Please note: paper proposal due November 8, 10.00 AM]

8 // 10 Nov.

Racial science and scientific racism

It hardly needs saying that ideas of race and related notions of hierarchy exerted a most violent influence in history. But what was the role of science in that regard? Moreover, is there, from a historical perspective, a clear line to draw between science and pseudo science? And: Is it useful or misleading to distinguish racial science from scientific racism?

Required readings:

* Stepan, Nancy Leys: *The Idea of Race in Science: Great Britain, 1800–1960*, Basingstoke 1982, ix–xxi.

* Germann, Pascal: "Race in the Making: Colonial Encounters, Body Measurements and the Global Dimensions of Swiss Racial Science, 1900-1950", in: Patricia Purtschert, Harald Fischer-Tiné (eds.), *Colonial Switzerland: Rethinking Colonialism from the Margins*, Basingstoke 2015, 50-72.

* Sibeud, Emmanuelle: "A Useless Colonial Science? Practicing Anthropology in the French Colonial Empire, circa 1880-1960", in: *Current Anthropology* 53 (2012) suppl. 5, 583–594.

Suggestions for further reading (not required):

Conklin, Alice: *In the Museum of Man: Race, Anthropology, and Empire in France, 1850–1950*, Ithaca, NY 2013, chap. 4.

Anderson, Warwick: "Racial Conceptions in the Global South", in: *Isis* 105 (2014), 782–792.

Anderson, Warwick: *The Cultivation of Whiteness: Science, Health, and Racial Destiny in Australia*, Carlton 2002, 11–40.

Wagner, Kim A.: "Confessions of a Skull: Phrenology and Colonial Knowledge in Early Nineteenth-Century India", in: *History Workshop Journal* 69 (2010) 1, 27–51.

Seth, Suman: "Materialism, Slavery, and *The History of Jamaica*", in: *Isis* 105 (2014), 764–772.

Fischer-Tiné, Harald: "From Brahmachary to 'Conscious Race Culture': Victorian Discourses of 'Science' and Hindu Traditions in Early Indian Nationalism", in: Crispin Bates (ed.), *Beyond Representation: Colonial and Postcolonial Constructions of Indian Identity*, New Dehli 2006, 241–269.

Stepan, Nancy Leys: "Race and Gender: The Role of Analogy in Science", in: *Isis* 77 (1986) 2, 261–277.

9 // 17 Nov.**The rise of ethnography in anthropology**

Early protagonists had advertised anthropology as a science for “the government of subject peoples”. One of the field sciences (i.e., the sciences exploring the world and its inhabitants), anthropology turned to exploring the humans in their variety. By the interwar period, interests moved from physical to predominantly social aspects. With this shift came an – though, as we have seen, uneven – decline in biological notions of race and the emergence of “culture” as an object of analysis. How did fieldwork as a mode of investigation relate to this shift within the discipline? Were fieldwork and an interest in “culture” more likely to also engender criticisms of colonialism than the physical and biological approaches? In this session, we focus on the French tradition in contrast to British and U.S.-American developments.

Required reading:

* Clifford, James: "Power and Dialogue in Ethnography: Marcel Griaule's Initiation", in: George Stocking (ed.), *Observers Observed: Essays on Ethnographic Fieldwork*, Madison WI 1983, 121–156.

Primary source (also required):

* Leiris, Michel: "The Ethnographer Faced with Colonialism", in: idem, *Brisées – Broken Branches*, transl. Lydia Davis, San Francisco 1989, 112–131.

Suggestions for further reading (not required):

Rivers, W.H.R.: "The Government of Subject Peoples", in: A.C. Seward (ed.), *Science and the Nation*, Cambridge 1917, S. 302–328 [Primary source]

Kuklick, Henrika: "The British Tradition", in: eadem (ed.), *A New History of Anthropology*, Malden 2008, 52–78.

Kuklick, Henrika: "Personal Equations: Reflections on the History of Fieldwork, with Special Reference to Sociocultural Anthropology", in: *Isis* 102 (2011), 1-33.

Meyerowitz, Joanne: "'How Common Culture Shapes the Separate Lives': Sexuality, Race, and Mid-Twentieth-Century Social Constructionist Thought", in: *Journal of American History* 96 (2010) 4, 1057–1084.

Mandler, Peter: *Return from the Natives: How Margaret Mead Won the Second World War and Lost the Cold War*, New Haven Ct 2013, introd., chap. 1.

Jezequel, Jean-Hervé: "Voices of their own? African participation in the production of colonial knowledge in French West Africa, 1910-1950", in: Helen Tilley (ed.), *Ordering Africa: Anthropology, European imperialism, and the Politics of Knowledge*, Manchester 2007, 145–172.

10 // 24 Nov.

Science, race, and antiracism in the aftermath of World War II

In 1950, UNESCO issued the first of four statements on science and race. Intended as a rebuttal of racial prejudices, the statements provide a testing probe of sorts for historical investigation into the mid-century relation between science, race, and antiracism. What were the main conceptual tensions at work in defining the object of "race"? And how did, in the process, scientific communities communicate to wider, increasingly global, publics?

Required readings:

* Brattain, Michelle: "Race, Racism, and Antiracism: UNESCO and the Politics of Presenting Science to the Postwar Public", in: *American Historical Review* 112 (2007) Nr. 5, 1386–1413.

* Gil-Riaño, Sebastián: "Relocating Anti-Racist Science: The 1950 UNESCO Statement on Race and Economic Development in the Global South", in: *British Journal for the History of Science* 51 (2018) 2, 281–303.

Primary sources (also required):

* "Statement on race, Paris, July 1950", in: UNESCO (ed.), *Four statements on race*, Paris 1969, 30–35.

* "Statement on the nature of race and race differences, Paris, June 1951", in: UNESCO (ed.), *Four statements on race*, Paris 1969, 36–43.

Suggestions for further reading (not required):

Lévi-Strauss, Claude: *Race and History*, Paris 1952.

Müller-Wille, Staffan: "Claude Lévi-Strauss on Race, History, and Genetics", in: *Biosocieties* 5 (2010) 3, 330–347.

11 // 1 Dec.

Colonising Mind and Soul? Psychology and Psychiatry

The psychological disciplines (experimental psychology, psychoanalysis, psychiatry) held a complex relationship to colonial rule. Investigations into the minds and souls of colonized peoples virtually always worked under the premises of civilizational hierarchy and yet the concrete results of research time and again contradicted these very premises. How did psychology negotiate notions of universality and particularity of the psyche?

Required readings:

* Linstrom, Erik: "The Politics of Psychology in the British Empire, 1898-1960", in: *Past and Present* 215 (2012), 195–233.

* Lemov, Rebecca: "X-Rays of the Inner Worlds: The Mid-Twentieth-Century American Projective Test Movement", in: *Journal of the History of the Behavioral Sciences* 47 (2011) 3, 251–278.

Primary source (also required):

* Lambo, T. Adeoye: "The Concept and Practice of Mental Health in African Cultures", in: *East African Medical Journal* 37 (1960) 6, 464–471.

Suggestions for further reading (not required):

Antić, Ana: "Decolonizing Madness? Transcultural Psychiatry, International Order and Birth of a 'Global Psyche' in the Aftermath of the Second World War", in: *Journal of Global History*, 2021 (online first).

Ernst, Waltraud: "Practising 'Colonial' or 'Modern' Psychiatry in British India? Treatments at the Indian Mental Hospital in Ranchi 1925-1940", in: eadem (ed.), *Transnational Psychiatries: Social and Cultural Histories of Psychiatry in Comparative Perspective, c. 1800–2000*, Cambridge 2010, 80-115.

Vaughan, Megan: *Curing Their Ills: Colonial Power and African Illness*, Cambridge 1991, chap. 5.

Pt. V: Development**12 // 8 Dec.****Technopolitics: From *mise en valeur* to development**

This is the first of two sessions on the politics of technology and development. In terms of topic it focuses on agriculture, in terms of perspectives on the relation between technology and the state: what were the – unpredictable – power effects of technology in different settings?

Required readings:

* Bonneuil, Christophe: "Development as Experiment: Science and State Building in Late Colonial and Postcolonial Africa, 1930–1970", in: *Osiris*, new ser., 15 (2000), 258–281.

* Hodge, Joseph Morgan: "The Hybridity of Colonial Knowledge: British Tropical Agricultural Science and African Farming Practices at the End of Empire", in: Brett Bennett, Joseph Hodge (ed.), *Science and Empire: Knowledge and Networks of Science across the British Empire, 1800–1970*, Basingstoke 2011, 209–231.

Primary source (also required):

* Worthington, E.B.: *Science in the Development of Africa: A Review of the Contribution of Physical and Biological Knowledge South of the Sahara*, London 1958, selections: 19–27, 279–286.

Suggestions for further reading (not required):

Matasci, Damiano: "Internationalising Colonial Knowledge. Edgar Barton Worthington and the Scientific Council for Africa, 1949–1956", in: *Journal of Imperial and Commonwealth History* 48 (2020) 5, 892–913.

Clarke, Sabine: *Science at the End of Empire: Experts and the Development of the British Caribbean, 1940–1962*, Manchester 2018.

Robertson, Thomas: "New Frontiers: World War II Technologies and the Opening of Tropical Environments to Development", in: Stephen J. Macekura (ed.), *The Development Century: A Global History*, Cambridge 2018, 107–129.

Cullather, Nick: "Development and Technopolitics", in: Frank Costigliola, Michael Hogan (ed.), *Explaining the History of American Foreign Relations*, Cambridge 2016, 102–118.

Serlin, David: "Confronting African Histories of Technology: A Conversation with Keith Breckenridge and Gabrielle Hecht", in: *Radical History Review*, 2017, n° 117, 87–102.

13 // 15 Dec.

Technopolitics: Circulating experts and labouring bodies

This session is concerned with human agents and their (asserted) forms of knowledge. In technological settings. It focuses on the adaptability of technological expertise during decolonization and the racialization of labour forces in the tech sector. Who were the agents forming technological knowledge and how did technology and politics, in turn, form these agents?

Required readings:

* Mehos, Donna, Moon, Suzanne: "The Uses of Portability: Circulating Experts in the Technopolitics of Cold War and Decolonization", in: Gabrielle Hecht (ed.), *Entangled Geographies: Empire and Technopolitics in the Global Cold War*, Cambridge MA: MIT Press 2011, 43–74.

* Nakamura, Lisa: "Indigenous Circuits: Navajo Women and the Racialization of Early Electronic Manufacture", in: *American Quarterly* 66 (2014) 4, 919–941.

Suggestions for further reading (not required):

Mitchell, Timothy: *Rule of Experts. Egypt, Techno-Politics, Modernity*, Berkeley u.a. 2002, esp. chap. 2.

Hecht, Gabrielle: "Hopes for the Radiated Body: Uranium Miners and Transnational Technopolitics in Namibia", in: *Journal of African History* 51 (2010) 10, 213–234.

Adas, Michael: *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance*, Ithaca, NY 1989, esp. chap. 4.

Anderson, Warwick: "Introduction: Postcolonial Technoscience", in: *Social Studies of Science* 32 (2002) 5-6, 643–658

14 // 22 Dec.

Ethnoscience? The emergence of "indigenous knowledge" as a category

One of the main insights of the course is that in virtually *all* instances colonial scientific knowledge was decisively shaped by the encounters with local knowledge systems. However, the conscious *reflection* on these encounters has its own history: when, how, and why did "indigenous knowledge" emerge as a category of thought? In what respect can "indigenouness" itself be regarded as a modern invention?

The second half of the session is devoted to a reflection on the seminar: what did we learn, what did we miss? Please come prepared with a short list of the main insights from the seminar as seen from your perspective as well as with the most pressing unanswered questions.

Required reading:

* Tilley, Helen: "Global Histories, Vernacular Science, and African Genealogies: or, Is the History of Science Ready for the World?", in: *Isis* 101 (2010) 1, 110–119.