

WTMC SERIES

ON TEACHING &
LEARNING STS

THE VIEW

FROM SOMEWHERE:

Geographies of Knowledge and
STS (online)

Autumn workshop

2022 (3)



WTMC

*Netherlands Graduate Research School
of Science, Technology and Modern Culture*

WTMC Series on Teaching and Learning STS

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WTMC director:
Esther Turnhout

Training co-ordinators:
Alexandra Supper & Andreas Weber

Cover design:
Zahar Koretsky

Information about the series:
a.supper@maastrichtuniversity.nl
a.weber@utwente.nl

www.WTMC.eu

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Directions

Instead of a map of how to get to Soeterbeeck, we provide a map of how to get to our chosen platform and an introduction of our guide for this journey... We will be using Zoom in connection with the collaborative workspace Mural (www.mural.co). Each day has a different Zoom link. You find all links at several places in the program below. What can you expect? During most of the day we will make use of Zoom, sometimes we'll also start Mural to give you the chance to make collaborative notes and prepare questions for the presenters, or to simply exchange ideas and thoughts among each other.

We have also planned a short initial information session to start us off before the workshop itself. That way, we will be able to introduce you to the workshop, check any technical issues and ensure that we are all ready to go when we introduce ourselves to each other and start the lectures and activities.

Practical notes

To do before the Workshop

Allow about two weeks for preparation of this workshop. The compulsory literature consists of roughly 320 pages. At 8 pages per hour, this takes about 38 hours. We expect you to spend about 2 more hours to prepare the skills training, and read part of the recommended literature as you wish. This amounts to 40 hours in all, which is the standard amount of preparation time for a workshop. In preparation, proceed as follows:

1. Read the detailed programme and pay special attention to the activities so that you know in advance what you need to prepare and think about. There is preparation for the skills workshop that you need to do BEFORE the workshop.
2. Read all the assigned literature before the start of the workshop. There is no time to read during the workshop. Make notes about what you don't understand, questions you would like to ask, things you want to discuss.
3. Watch the pre-recorded lectures, which are circulated before the start of the workshop. Perhaps some of the questions you noted down based on the readings are answered by the lectures; and almost certainly, new questions will arise. Make sure to keep track of your thoughts, comments and questions, so that we can draw upon them during the workshop.
4. Check the programme to see if you are a discussant for one of the PhD presentations. Look at the instructions towards the end of this programme which contains guidelines for presenters, discussants and all others!
5. All mentioned time-slots are expressed in **Central European Time (CET)**, for conversation to your location and time zone please use websites such as: <https://www.timeanddate.com>
6. Please don't forget to attend the **workshop information meeting on November 1st, 15:00-16:00 CET**, prior to the start of the workshop!

Attendance and cancellation

- *The workshop will be a mediated, largely synchronous event with asynchronous elements (e.g. pre-recorded lectures).* In the context of this workshop, attendance means being logged on with your camera on during synchronous events (e.g. Q&As, PhD presentations, exercises), as much as bandwidth allows. In order to prevent connection problems, we recommend to use a wired internet connection. Almost all modern routers allow for connections with a network cable. It also means participating in the asynchronous activities that we have included in the programme in order to limit screen fatigue.
- In order to receive credit for attending the workshop, *you are required to be present throughout the entire event.* (The pub quiz is an exception to this, although we hope that most of you will be able to join for this fun social activity nonetheless!) Only calamities are grounds to depart from this rule. If this creates problems, then please contact the coordinators beforehand and as soon as possible.
- On *Tuesday* there will be a pub quiz. Make sure you have a nice, cold drink ready for this!
- If, for any reason, you are unable to attend the workshop, please let Tiyodora Acar

(wttmc@utwente.nl) know as soon as you can. We may be able to offer your place to someone on the waiting list if we know soon enough. If notice of cancellation is received more than 10 working days prior to the start of the workshop, you will receive a refund for all of the fees, minus €150 to cover the costs of administration and course materials. In the case of cancellations received less than 10 working days before the start of the workshop, fees and any other costs that have been incurred by WTMC will not be refunded.

Programme (in CET)

Tuesday, 1 November: 0.1 Workshop introductions (ZOOM LINK)		
15:00 - 16:00 Workshop intro: getting to know each other, technicalities, questions		
Monday, 7 November: STS & Construction of Geographies (ZOOM LINK)		
12:30 – 13:00		Logging in & welcome
13:00 – 14:00	1.1	Annemarie Mol, <i>What is where: on situatedness</i> , Q&A
14:00 – 14:15		Coffee break
14:15 – 15:15	1.2	Core reading
15:15 – 15:30		Coffee break
15:30 – 16:30	1.3.	Annalisa Pelizza, <i>Can data infrastructures for population management shape European orders?</i> , Q&A
16.30 – 17:00		dinner
17:00 – 18:30	1.4	PhD Presentations 1
Tuesday, 8 November: Problematizing and Studying Fluid Geographies (ZOOM LINK)		
11:00 – 12:00	2.1	Jakkrit Sangkhamanee, <i>Sedimentation: Motion and materialization of acknowledgement</i> , Q&A
12:00 – 12:45		Lunch break
12:45– 13:45	2.2	Anti-colonial methods in STS (1) (skills)
13:45 – 14:00		Coffee break
14:00 – 15:30	2.3	PhD presentations 2
15:30 – 15:45		Coffee break
15:45 – 16:45	2.4	Alexandria Poole, <i>Acknowledging Biocultural Heritage as a Pathway for Local Resilience and Sustainability</i> , Q&A
18:30 – 20:30		Social activity : Pub quiz (voluntary)
Wednesday, 9 November: Materiality of Geography (ZOOM LINK)		
10:00 – 11:00	3.1	Cristobal Bonelli & Martina Gamba, <i>When lithium unruliness talks back: Enduring undergrounds on chemical lab plateaus</i> , Q&A
11:00 – 11:15		Coffee break
11.15 – 12:15	3.2	Anti-colonial methods in STS (2) (skills)
12.15 – 13.00		Lunch break
13:00 – 14:00	3.3	Sandra Calkins, <i>Thinking with plots. Exercises for a decolonial biology</i> , Q&A
14.00 – 14.15		Coffee break
14:15 – 15:00	3.4	Farewell & virtual group picture

Introduction to the Workshop

Welcome to the Workshop. Together with our guest speakers, we will explore the geographies of knowledge. The exploration starts here, well before you arrive at the online event. This programme, together with some texts, provides the luggage for your journey. Travel well prepared!

It is advisable that you first carefully study the whole programme, before embarking on the actual reading. This should help you get a sense of the themes and how they connect, and how specific texts fit in those themes. The compulsory reading material amounts to (the equivalent of) roughly 300 pages, which at 8 pages per hour would take you about 37 hours to study. Also, some assignments require preparation, others require you to bring certain things. And finally, we will have a number of participant presentations. Take care to know whether you are scheduled as a discussant for one of them.

For each of you, the ideas and concepts discussed during the workshop will have different kinds of relevance. This depends on your research topic and method, the phase you are currently in, and your personal interest. The workshop is not a “one size fits nobody” event, and getting the most out of it does require some work. Make sure that you have in mind what you would like to learn, and how that can be achieved.

We will work with a variety of different formats and assignments throughout the workshop. The lectures have been pre-recorded, allowing you to prepare by watching them in the lead-up to the workshop itself, and allowing us to focus our valuable time that we have together in the synchronous setting of a Zoom environment on dynamic and interactive discussions with the speakers.

In general, it is good practice to prepare one or more written questions about the reading material and about the pre-recorded lectures for each session. This helps focus your attention during the workshop, and it ensures that you have something to contribute to the discussion, especially if you are not that eager by nature to join discussions. Of course, going with the flow and welcoming things the way they happen to come to you, is also an important mode of learning. So here we go.

Geographies of knowledge & STS

In this workshop, we will address questions about the importance of space and place for the production of knowledge from a variety of perspectives. Each day will focus on a different thematic angle, starting with questions about the construction of geographies on day 1, followed by a problematisation of fluid geographies on day 2, and finally, concluding with an exploration of the materiality of geography on day 3.

On Monday, Annemarie Mol and Annalisa Pelizza help us to set the foundation of our programme by exploring questions about the situatedness of scientific knowledge and the construction of relational topographies.

On Tuesday, we track the movement and fluidity of knowledge, together with our speakers Jakkrit Sangkhamanee and Alexandria Poole.

On Wednesday, we turn our attention to the materiality involved in the geography of knowledge – specifically paying attention, with the lecturers Cristobal Bonelli, Martina Gamba and Sandra Calkins, to the material properties of lithium and greenhouses.

In addition to these lectures and Q&A sessions, we will have a variety of other activities, including a skills training and a discussion of core readings, that help us to make sense of the way in which geography shapes knowledge making, in scientific research at large as well as in the context of our own work as STS researchers. The workshop will be rounded off by presentations of PhD researchers and by a social activity on Tuesday.

We hope you will enjoy preparing for this workshop and look forward to meeting you (again) in a few weeks!

Alexandra Supper and Andreas Weber

Detailed overview

0.1 Intro to the workshop

During this intro meeting **on November 1st, 15:00-16:00 CET** (see zoom link in the table above), we would like to briefly introduce the workshop and some technicalities to you. Moreover, we offer each of you the chance to introduce yourself to the group. And of course, there is also a chance to ask questions.

Monday 7 November: STS & Constructions of Geographies

1.1 Annemarie Mol, *What is where: on situatedness*, Q&A

Science studies brought the sciences down to earth by arguing that, even if scientific theories claim universal salience, scientific practices are situated somewhere. But where? It is possible to answer this question in terms of meridian grids or by calling upon national borders. It is also possible to differentiate between methodological sites – such as *in the lab*, versus *in the wild*. Syntactic and semantic repertoires have rather more fluid boundaries. These may be leaky. And then, as techno-practices travel, they transform, fold together, or fire up jointly in a single site. All in all, asking *where-questions* calls for attention to the spaces mobilised in answering them. Using snap shot examples, I will give some suggestions for how this may be done.

Readings:

- Mol, Annemarie, and John Law. "Regions, networks and fluids: anaemia and social topology." *Social studies of science* 24.4 (1994): 641-671.
- Müller, Martin. "In search of the global east: Thinking between north and south." *Geopolitics* 25.3 (2020): 734-755.

1.2 Core Reading Session

In the core reading session, we approach the workshop theme of the workshop by closely reading and putting into dialogue two texts that attend to the geographies of science in different ways.

In their contribution to the 2008 edition of *The Handbook of Science and Technology Studies*, Henke and Gieryn distinguish between four waves in the debate about the role of place in understanding scientific practice. Building on these waves, they argue for the need for a fifth wave that makes sense of the enduring importance of place in the 21st century; a period in which scientific knowledge 'has gone global with a vengeance' (Henke & Gieryn 2008, p. 369).

In a 2017 essay, John Law and Wen-Yuan Lin reflect on how the character of STS as a discipline itself "remains a creature of place and time" (Law & Lin, 2017, p. 222) and offer some suggestions to tackle asymmetries in the creation of STS knowledge and theories.

We want to discuss these two texts in relation to each other to help us understand some of the different ways in which place matters to the creation of knowledge, both in science at large and STS specifically.

Please read the two texts before the workshop. Make notes of any questions you want to discuss and of connections that you see between the two texts, as well as between them and other workshop readings. During the workshop, we will discuss the texts **first in groups of 4** and then in a **plenary setting**.

Readings:

- Henke, C.R. & Gieryn, T.F. (2008). 'Sites of scientific practice: the enduring importance of place'. In: E.J. Hackett, O. Amsterdamska, M. Lynch, J. Wajcman (Eds.) (Third edition), *The Handbook of Science and Technology Studies*, The MIT Press, Cambridge/London, pp. 353-376.
- Law, J & Lin, W. (2017) Provincializing Sts: Postcoloniality, Symmetry, and Method, *East Asian Science, Technology and Society: An International Journal*, 11:2, 211-227, DOI: 10.1215/18752160-3823859

1.3 Annalisa Pelizza, Can data infrastructures for population management shape European orders?

Q&A

Is it possible to track changes in the European order by following data infrastructures for population management? Yes, if we analyse the overlap (or lack thereof) of data and institutional architectures. Data architectures organize relationships between data, while institutional architectures arrange the relationships between bodies and organizations. I argue that the first can interfere with the second, and thus shape new de facto institutional topologies.

STS have been keen to provide conceptual tools to account for the relationship between technologically-mediated task allocation and resulting topological arrangements. Think for example at the notions of “script” (Akrich and Latour 1992; Latour 1992) or “geographies of responsibility” (Oudshoorn 2011), which have pointed out that technology is topological relations made durable.

In this lecture I draw on findings about European data infrastructures registering third-country nationals – such as border crossers, asylum seekers, irregular migrants, VISA-supported travellers – to provide evidence that data infrastructures for population management can shape epistemological, organizational and eventually geopolitical European orders. The lecture draws upon data collected and analysed in the context of the “Processing Citizenship” project (ERC StG No 714463, <http://processingcitizenship.eu>).

Readings:

- Akrich, M. (1992) The De-Description of Technical Objects. In: Bijker, W.E. and Law, J., Eds., *Shaping Technologies/ Building Society. Studies in Sociotechnical Change*, The MIT Press, Cambridge/London, pp. 205-224.

- Pelizza, A. (2021). 'Identification as translation: The art of choosing the right spokespersons at the securitized border.' *Social Studies of Science*, 51(4), 487-511. <https://doi.org/10.1177/0306312720983932>

Additional, optional readings:

- Oudshoorn, N. (2011). *Telecare technologies and the transformation of healthcare*. Springer. (first two chapters)
- Pelizza, A. and Van Rossem, W. (2021), 'Sensing European Alterity. An analogy between sensors and Hotspots in transnational security networks,' in Klimburg-Witjes, N., Pöchhacker, N. and Bowker, G.C. (Eds.), *Sensing In/Security: Sensors as Transnational Security Infrastructure*. Manchester: Mattering Press.

1.4. PhD presentations (1)

1. Presenter: Stefan Gaillard, Discussant: Aamina Teladia
2. Presenter: Michiel Bron, Discussant: Wytse Hepkema
3. Presenter: Maria Amuchastegui, Discussant: Michiel Bron

Important: See the guidelines for presenters and discussants at the end of this reader.

Tuesday 8 November: Problematizing and Studying Fluid Geographies

2.1. Jakkrit Sangkhamanee, Sedimentation: Motion and materialization of acknowledgement, Q&A

This seminar will look at the politics of "*acknowledgement*," or how different types of knowledge are suspended in multiple relations in the struggle for visibility, association, intelligibility, and recognition. As the session will demonstrate, knowledge *acknowledgement* is a motion situated in processes of more-than-human movements and ontological entanglements. I use sedimentation as a conceptual analogy and methodology to explore the complexities of how hydroecological knowledge moves and materializes across different ontological assemblages and sociogeographies of ecological politics. The session will investigate sediment material itineraries and invite participants to consider the possibility of thinking knowledge sedimentally through case studies of riparian community advocacy, authority's exhibition of irrigation development, hydrological engineering projects, and urban flood concerns in Thailand.

Readings:

- Sangkhamanee, Jakkrit. 2021. "[Bangkok Precipitated: Cloudbursts, Sentient Urbanity, and Emergent Atmospheres](#)" *East Asian Science, Technology and Society: An International Journal (EASTS)*, Vol.15 Issue 2 (2021): 153-172.
- Sangkhamanee, Jakkrit. 2017. "[An Assemblage of Thai Water Engineering: The Royal Irrigation Department's Museum for Heavy Engineering as a Parliament of Things](#)" *Engaging Science, Technology and Society*, Vol.3 (2017): 276-291.

2.2. Skills Session (1): Anti-colonial methods in STS

How we practice STS – that is the major learning goal of this workshop – is not place independent. Place and the wider intellectual, social and economic geography in which STS is carried out shapes the methods, course, and the outcome of research projects in the field. In the skills sessions of this workshop, we invite you to reflect on the positionality and geography of your own research methods. During this first session, we will divide you in small groups (4-5 participants per group) to discuss the introduction of the study *Pollution is Colonialism* (2021) by Max Liboiron. During your group discussion keep the following questions in mind:

1. How does ‘place’ and ‘geography’ shape the authors’ research methods?
2. What is ‘anti-colonial’ about the authors’ research methods?
3. How could your own research profit from ‘anti-colonial’ and ‘geography aware’ research methods?

N.B. Don’t forget to prepare a short presentation (max 5. minutes) in which you summarize the most important points of your discussion.

Reading:

- Liboiron, M. (2021), *Pollution is colonialism*, introduction

2.3. PhD presentations (2)

1. Presenter: Dipak Chakraborty, Discussant: Georgiana Kotsou
2. Presenter: Suci Lestari Yuana, Discussant: Margot Kersing
3. Presenter: Dienke Stomph, Discussant: Natascha van Bommel

Important: See the guidelines for presenters and discussants at the end of this reader.

2.4. Alexandria Poole, *Acknowledging Biocultural Heritage as a Pathway for Local Resilience and Sustainability*, Q&A

The Sustainable Developments Goals (SDGs) are intended to serve as revisionary and visionary guidelines for a more inclusive and sustainable future and to serve as guidelines for local businesses and communities. Nonetheless, the seventeen SDGs, complete with their 169 targets, remarkably do not mention local ecological knowledge, linguistic and cultural diversity as a high-level priority, and these concepts are only referenced in support of goals oriented towards more specific economic development. How can local communities and policy manage and adapt to climate change, and its significant impacts and disruption, without support for local ecological knowledge, cultural heritage, or relationship to the land from the most fundamental structures in our society? This discussion will focus on what it means to consider the deep connection of considering the co-evolutionary relationship between biological, cultural, and linguistic diversity, by offering

conceptual tools through “biocultural heritage” and what this means for resilience and sustainability from the perspective of evolutionary biology, environmental ethics and ethnoecology and its applications to decolonize infrastructure, policy, and technologies as drivers of change.

Readings (obligatory)

- Poole, Alexandria K. "Where is goal 18? The need for biocultural heritage in the sustainable development goals." *Environmental Values* 27, no. 1 (2018): 55-80.
- Gavin, Michael C., et al. "Defining biocultural approaches to conservation." *Trends in ecology & evolution* 30.3 (2015): 140-145.
- Maffi, Luisa. "Language: a resource for nature." *Nature and Resources* 34, no. 4 (1998): 12-21.

Suggested additional readings:

- Escobar, Arturo. "After nature: Steps to an antiessentialist political ecology." *Current anthropology* 40, no. 1 (1999): 1-30.
- Trisos, Christopher H., Jess Auerbach, and Madhusudan Katti. "Decoloniality and anti-oppressive practices for a more ethical ecology." *Nature Ecology & Evolution* 5, no. 9 (2021): 1205-1212.

Wednesday 9 November: Materiality of Geography

3.1. Cristobal Bonelli & Martina Gamba, When lithium unruliness talks back: Enduring undergrounds on chemical lab plateaus, Q&A

This paper explores how lithium flows from underground brines to chemical labs. Through an experimental transdisciplinary collaboration between a chemist and an anthropologist, we show how lithium, and its agency as a chemical substance, is metamorphic (Stengers 2021) as it shapes and is shaped the particular ecologies in which lithium participates. While lithium-ions are part of earth ecologies underground, their ionic bindings with different salts are stable as far as they remain far away from human engagements. But when such underground brines are extracted and brought to the surface, lithium’s chemical agency, mostly expressed through its reactivity, it becomes unruly and unstable. In this paper we explore therefore the underground beyond extraction by focusing on lithium metamorphosis within battery labs, the latter understood as a connecting place in-between underground brines and mobile lithium-ion batteries. Building on stories stemming from chemical practices concerned with ‘lithium raw materials’ unruly behavior, we bring to the fore the manifold temporalities present in ‘lithium carbonate’, thus making this raw material into a historical character belonging to deep-time planetary processes. Our transdisciplinary collaboration conceptualizes lithium’s reactivity as an environmental planetary alterity (Bonelli and Walford 2021).

Readings (obligatory):

- Bonelli, C., & Dorador, C. (2021). Endangered Salaries: Micro Disasters in Northern Chile. *Tapuya: Latin American Science, Technology and Society*, 4 , [1968634]. <https://doi.org/10.1080/25729861.2021.1968634>
- Stengers, I. 2021. Receiving the gift: Earthly Events, Chemical Invariants, and elemental powers. In *Reactivating Elements: Chemistry, Ecology, Practice*, edited by Dimitris Papadopoulos, Maria Puig della Bellacasa and Natasha Myers. Duke University Press, pp. 18-33.

Suggested additional readings:

- Bonelli, C., & Walford, A. 2021. Introduction: Environmental Alterities. In C. Bonelli, & A. Walford (Eds.), *Environmental Alterities* (pp. 13-42). Mattering Press.
- Chakrabarty, D. (2009). The Climate of History: Four Theses, *Critical Inquiry*, Vol. 35, No. 2, pp. 197-222

3.2. Skills Session II: Anti-colonial methods in STS

During this session all groups report back (max. 5 minutes) about the outcome of the group discussion which they had on Tuesday.

3.3. Sandra Calkins, Thinking with plots. Exercises for a decolonial biology, Q&A

This lecture attends to place in the biological sciences from an ethnographic immersion in Ugandan labs, greenhouses, and trial fields. These places play important but frequently underacknowledged roles in collaborative research projects. Drawing inspiration from Wynter's discussion of plots, this lecture thinks from mundane and concrete places where scientists grow plants, career prospects, dreams, and imaginations for the future. Plots here becomes many things—spaces mapped out by colonizers, spaces of decolonial and anti-capitalist resistance, physical experimental places and metaphors, and also places where the human is made and remade alongside a multitude of other beings and entities. I examine whether, and if so how, close attention to concrete places can challenge geopolitical hierarchies entrenched in contemporary scientific production.

Readings:

- Calkins, S. (2021, Online First). "Between the lab and the field. Plants and the affective atmosphere of southern science." *Science, Technology, & Human Values*. <https://doi.org/10.1177/01622439211055118>
- Mc Kittrick, Catherine. 2015. "Axis, Bold as Love. On Sylvia Wynter, Jimi Hendrix, and the Promise of Science." In McKittrick (ed.), *Sylvia Wynter. On Being Human as Praxis*, pp. 142-163. Durham, NC: Duke.

Lecturers

Cristóbal Bonelli is a Chilean psychologist, psychotherapist and Associate Professor of Anthropology based at the department of Anthropology of the University of Amsterdam. He is the principal researcher of the ERC project ‘Worlds of Lithium’ (<https://worldsoflithium.eu>), in which he and his team study the replacement of fossil fuel transport with a new fleet of electric vehicles powered by lithium-ion batteries. Through empirical research in Chile, China and Norway, ‘Worlds of Lithium’ sheds light on the disruptive transformations of the landscapes and societies through which lithium travels. He also collaborates with the Center for Intercultural and Indigenous Research (CIIR).

Sandra Calkins is assistant professor for social and cultural anthropology at Freie Universität Berlin. She has done field research in Sudan, Uganda, Australia, and Germany on uncertainty, nutrition, plant molecular biology, botany, and gardening. Her current book project examines dynamics of growth, human–plant relationships, and postcolonial science in Uganda.

Martina Gamba is an Argentinian chemist. Since 2019, she is an Assistant Researcher of the Argentinian National Council for Scientific and Technical Research (CONICET), working on lithium conductive ceramic materials. Since 2017, she is part of the Group of Studies in Geopolitics and Common Goods (geopolcomun.es.org), investigating the problem of lithium in South America. She is co-author of the book "Lithium in South America. Geopolitics, energy and territories" (CLACSO, 2019). Furthermore, she has been developing since 2014 as an assistant professor at the Faculty of Engineering of the National University of La Plata.

Annemarie Mol is Professor of Anthropology of the Body at the Amsterdam Institute for Social Science Research, University of Amsterdam. Her most recent books are *Eating in Theory* (Duke University Press, 2021) and *On Other Terms: Interfering in Social Science English* (co-edited with John Law; SAGE, Sociological Review Monograph, 2020).

Annalisa Pelizza is professor of Science and Technology Studies at the University of Bologna; before that she was associate professor at the University of Twente. She is vicepresident of STS Italia and member of the EASST Council. Her research on “governance by data infrastructures” studies how data systems and practices can entail long-term but unnoticed transformations in modern institutions, which are often buried in technical minutiae. She has been the recipient of several European Commission “Excellence in science” grants and currently leads the “Processing Citizenship” (<http://processingcitizenship.eu>) program, funded by the European Research Council.

Alexandria Poole is Assistant Professor at the University of Twente in the philosophy section. Her primary research interests are developing urban environmental ethics, comparative environmental philosophy, and sustainability discourse at the intersection of technology and values. She incorporates post-colonial, environmental, critical race, and feminist critiques into her teaching and research. She also serves as book reviews editor for the journal *Environmental Values*.

Jakkrit Sangkhamanee is an Associate Professor in Anthropology at the Faculty of Political Science, Chulalongkorn University in Bangkok, Thailand. His recent research topics deal with issues in science, technology, and society (STS), focusing on water infrastructure, state floods, and cities.

About the coordinators:

Alexandra Supper is an assistant professor at the Faculty of Arts and Social Sciences, Maastricht University. Her research interests include the role of role of sensory skills in scientific practice, the construction of scientific authority and the dynamics of (inter)disciplinary communities. She serves as (associate) editor of the journals *Science and Technology Studies* and *Journal of Sonic Studies*. Alexandra holds an MA degree in sociology from the University of Vienna (2007) and a PhD in science and technology studies, which includes WITMC training, from Maastricht University (2012).

Andreas Weber is an assistant professor in the research group of Science, Technology and Policy Studies (STePS) at the University of Twente. Most of his research and teaching examines the relationship between **Science, Technology and Culture (=STC)** from a long-term and global perspective. Andreas has a special interest in the history of natural history and chemistry in insular Southeast Asia and Europe. This includes research into how computational technologies can be used to increase access to and learn from biodiversity heritage collections gathered in former colonial areas. His research in the digital heritage domain also allows him to reflect upon how the growing use of computational technologies impacts research in the humanities, and, more generally, our understanding of culture and technology in society. Andreas holds a MA degree (2005) and a PhD, both from Leiden University (2012). In 2015-2016, Andreas was a John C. Haas fellow of the Science History Institute in Philadelphia.

Participants

No	First name	Surname	University/ Organisation	What is the topic of your research?
1	Maria	Amuchastegui	York University	My research will explore the priority dispute over the "discovery" of binary numeration from the perspective of postcolonial STS. It will emphasize the work of the seventeenth-century Spanish philosopher Juan Caramuel Lobkowitz, who took seriously the marginalized knowledge of indigenous peoples. It will explore how the indigenous peoples of the New World inspired Caramuel to develop his theory of numeration, his notion that there exist "many possible arithmetics."
2	Michiel	Bron	Maastricht University	Currently, I am conducting a PhD research at Maastricht University in the project "Managing Scarcity and Sustainability" with Professor Cyrus Mody and dr. Vincent Lagendijk. My research, which is co-funded by the Comité d'Histoire de l'Électricité et de l'Énergie (EDF), focuses on the historical development of nuclear energy and the influence of oil industry actors on this development. As part of this research I am looking at the development of early nuclear research and geosciences.
3	Chiara	Carboni	Erasmus University Rotterdam	In my PhD, I examine through ethnographic case studies how digitalization (especially digitization and automation) reconstitutes work, knowledge, and care for healthcare (non-)professionals.
4	Efe	Cengiz	University of Groningen	In the Aegean Region of Turkey (Ege), lives and worlding practices of more-than-just- humans are entangled within the forest-like landscapes of Zeytinlikler. These olive landscapes are therefore sites of epistemic, political, environmental, and vital struggle. This research shall take the olive related knowledge infrastructures in Ege as its focal point into these struggles. Through the culmination of four distinct projects, this thesis will investigate and critique existing Knowledge Infrastructures (KIs) in their relation to local ecology, and advocate for sustainability and epistemic justice in these landscapes.

5	DIPAK KR	CHAKRABOR TY	Indian Institute of Science Education and Research Bhopal	Tentative title- The state, Scientists and Public Perception: Revisiting Space Programme in Post-Colonial India, 1960s-90s. The proposed research intends to explore space science's tripartite relations respectively with India's postcolonial state, scientists, and public perception. It wants to understand: firstly, the context and processes through which the space programme took shape at the postcolonial political institutions of India, secondly, how space sciences became institutionalized as an educational discipline; thirdly, the socio-pedagogical backgrounds and experiences of the Indian space scientists-engineers; finally, the ways in which public started engaging with the space science. Exploring these aspects are extremely important, as they can help us perceive how space programme since the late twentieth century started shaping the nature of state authority, position of the techno-scientific experts and public emotion-culture for the twenty-first century India.
6	Juliette	Davret	Nantes University	My research focuses on the role of geotechnologies and geoinformation in planning. I examine the use of digital tools at each stage of marine spatial planning and reveal the socio-technical network and power relation involved between the stakeholders. I use assemblage theory and actor-network theory as a framework to understand the marine governance through digital tools.
7	Masha	Denisova	Maastricht University	My research concerns the interrelationships between private healthcare spaces and evidence-based medicine in Russia. Drawing on the informality studies and STS, I explore how private spaces enable certain knowledge practices and innovation; and how these spaces are secured in the ambiguous environment of Russian healthcare.
8	Stefan	Gaillard	Radboud University	My PhD research is imbedded in the larger European project NanoBubbles, which focuses on how, when and why science fails to correct itself. My own research focuses on how overpromising occurs within the field of nanobiology. To answer my research question I first conceptualize what exactly overpromising entails. Subsequently, I will look into historical examples (over)promising and how relevant actors debate these promises. Finally, I investigate how institutional and political policies (dis)incentivize overpromising.
9	Wytske	Hepkema	Radboud University	I study attempts at error correction in science, using a case study in nanobiology. Some researchers are very active in responding to errors, other might choose to ignore. I am interested in why researchers engage or not, and what this not engaging

				(or ignoring) looks like in practice.
10	Margot	Kersing	Erasmus University	The use of big data in the local social domain.
11	Vera	Kools	Eindhoven University of Technology	For my PhD research I aim to create insights in the characteristics, (potential) roles and needs of different stakeholders and ecosystems in the sustainable energy transition, to see how they can participate in and contribute to a just energy transition. I will analyze what makes effective stakeholder ecosystems and which contextual factors affect the success. Research directions that I am interested in include energy literacy, energy poverty and gender in just energy transitions, energy citizenship and energy democracy.
12	Georgiana	Kotsou	Maastricht University	Investigating international chemistry conferences and the forms of sociability developed in them during the course of the 20th century. My research is part of the larger European collaborative project "The Scientific Conference: A Social, Cultural, and Political History" funded by the Humanities in the European Research Area network. I am particularly interested in the rituals and routines of conference culture and their role in scientific identity formation, community building, and knowledge production.
13	Joost	Kuijper	University of Twente	Already known
14	Syb	Kuijper	Erasmus University	In my PhD project, I ethnographically explore how differentiated nursing practice is implemented in daily healthcare practice and its significance for how nurses position themselves in the field of healthcare and healthcare policy.
15	Junzhe	Lin	University of Groningen	The PhD project examines the global circulation of the psychiatric phenomenon neurasthenia (Shenjing Shuairuo) between China and the United States. Through the case study of the movement of "neurasthenia", the project intends to provide a historical, theoretical and critical study of translation between different medical knowledge systems.
16	Irene	Niet	Eindhoven University of Technology	Governance of AI in the energy transition
17	Klaudia	Prodani	University of Twente	The topic is broadly defined as political and justice critique of environmental modelling. We will look at the performativity of models - how they shape the

				worlds they seek to describe. We will focus on how inequalities (including those between the global North and South) shape and are in turn shaped by environmental modelling.
18	Tessa	Roedema	Vrije Universiteit Amsterdam	My research explores public discussions on contested science. Polarization around scientific topics, sensationalization and politicization of science provide challenges and complex dynamics for science communication practitioners. With action-oriented research, we aim to transform the science communication ecosystem towards an open, inclusive and reflective field. In my work, I focus on supporting reflective science communication practice and sensemaking processes of citizens on science, to facilitate constructive public dialogues on science.
19	Candida	Sanchez Burmester	Maastricht University	I am conducting historical and ethnographic research on the role of conferences in nanobiology. I am interested in how prominent claims in this field have evolved and have (or have not) been challenged at conferences, and how the natural and built environment of conferences fosters different kind of science-industry connections. My PhD is part of the ERC-funded project ' NanoBubbles: how, when and why does science fail to correct itself'.
20	Jim	SION	Université Paris Cité	Production of knowledge in way to improve food sovereignty in a french overseasee territory. History of postcolonial agri-food politics. Innovation and transformation of a island agricultural model.
21	Anastasia	Stoli	Maastricht University	My subproject (subproject #4, in the wild, global) focuses on the ways public participation is produced in the practices employed by DIY technology developers to create medicines globally and outside state-regulated spaces. This project uses Four Thieves Vinegar Collective (FTVC), a volunteer network of anarchists and hackers developing do-it-yourself (DIY) medical technologies, as the core case study. The goal of this subproject is to gain an understanding of how informal and formal means interact and are configured in the process of such bottom-up initiatives.
22	Dienke	Stomph	Wageningen UR	A research which becomes through the study of how soil and human bodies carry memories and traces across territories and time scales. The PhD thesis responds to eco-societal calls for (re)vitalising of the liminal, the circular, the playful and the ambiguous through their performance. It does so through the study of practices of intra-relational becoming. Zooming into illustrative cases

				of (diasporic) capoeira and human-inclusive soil life as practices of vibrant and intra-active circular bodies 'always becoming something other than what it was becoming' (Merrell 2005, p. 274). In an effort to understand what it means to survive in liminal spaces of suppression, exploitation, forced migration, intoxication, neglect, violence, commodification across territories and centuries, and what this implies for restor(y)ing intra-relational becoming.
23	Aamina	Teladia	RUG	A study of the key factors of energy transitions at different scales : local, regional and national and the alignment or misalignment of these factors in relation to niche innovation breakthrough or lock-in.
24	Olga	Temina	Maastricht University	My research focuses on practices that lead to construction of access to medicines for patients with oncological and rare diagnosis in Russia. I pay special attention to role that patient organizations play in this process and their political epistemic projects. Theoretically my research is drawing from the STS literature and informality studies.
25	Maja	Urbanczyk	NTNU	Nonknowledge and ignorance in decision-making processes regarding the introduction/implementation of software to be used by the public.
26	Natascha	van Bommel	Eindhoven University of Technology	I am interested in questions related to justice in energy systems and the energy transition. Part of my work focuses on (energy) communities and the way in which they enact energy justice, but I am also interested in the different aspects of justice and the tradeoffs that have to be made between these justice aspects to create energy transition policy. I have conducted fieldwork in Belgium, Spain, Italy and India.
27	Tamalone	van den Eijnden	University of Twente	Looks into how transformative change may be achieved to bend the curve of biodiversity loss. For this purpose, we will look at biodiversity as a social issue, including a critical examination of the underlying structural factors.
28	Monica	Vasile	Maastricht University	I work on a history of reintroducing endangered species, focusing on three case-studies: the recovery of the Przewalski's horse, the Vancouver Island marmot and the takahe rail of New Zealand. My approach combines history of science with history of conservation and animal history.
29	Tessel	Wijne	Utrecht University	Digital Innovations for Animal-Free Safety Assessment

30	Suci Lestari	Yuana	Utrecht University	This research aims to thoroughly discuss power dynamics within and between multiple stakeholders in the platform economy. By using case studies in Indonesia, this research offers a contribution to the narratives of Global South experiences. The aim of this research is to analyze the discursive and institutional dynamics of the platform economy in transportation in Indonesia.
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PhD Presentation guidelines

For presenters

- Send the title & summary of your presentation to the discussant assigned to you at least 1 week before the workshop.
- A projector and PC are available. Copy your presentation onto the PC in advance. You may want to use your own laptop, which usually works fine, but mind that it poses an extra risk of technical issues. Also, if you have video material, make sure you have it downloaded locally. There is internet, but relying on YouTube etc. is risky.
- The duration of your presentation should be **15 minutes**. Then there is another 15 minutes for the discussant and plenary discussion. We keep time very strictly.
- Try to make a sophisticated choice on what you want to present. One typical pitfall is wanting to give an overview of your whole PhD project, which leads to an unfocused and overloaded presentation. Rather select an interesting aspect of your research and discuss it in-depth.

For discussants

- Make sure you receive the title & summary of the presentation at least 1 week before the workshop. Contact the presenter if needed.
- After the presentation: join the presenter in the front of the room
- Present your comments in **5 minutes** max.
- Mind that being a discussant is not about pointing out all the flaws in the presenter's argument, but about setting the stage for a constructive discussion. Offering critique is good, but also try to bring out what the potentials of the argument are for improvement, and to identify some questions for the speaker or the group as a whole.
- You may want to get in touch with the presenter to prepare some comments. Feedback should address the quality of the presentation itself (slides, clarity, focus) as well as its content.

All others

- Listen carefully and attentively to the presentation.
- Join the discussion after the discussant has given their feedback.
- Chances are that there is not enough time to discuss all questions from the audience. Please write them down on the feedback form. Even without discussion, your questions might be very valuable for the presenter!

Feedback on Presentations

This is to help you give feedback to your fellow participants, some of whom will be presenting their research during this event.. Write your comments during or immediately after the presentation in the chat or a shared google document.

Points to consider when preparing feedback (you don't need to cover everything):

- Attractiveness of title and opening
- Clarity and significance of problem definition, research questions and aims (refinement of, addition to, clarification or rejection of an existing thesis)
- Use of theory and/or historiography (concepts, interpretations, etc.)
- Embeddedness in fields relevant to WTMC
- Clarity of structure
- Presentation of the method(s) employed
- Validity and reliability of the method(s) employed
- Accessibility of the research data to the audience
- Use of (intriguing and relevant) details and examples
- Clarity of argument
- Relation to the nature and level of expertise of audience
- Use of PowerPoint and other audio-visual resources
- Contact with audience and audibility of speech
- Clarity and significance of conclusions
- Response to questions and comments
- Time management

