Bruun Maja Hojer, Hasse Catherine, Hoeyer Klaus, Wahlberg Ayo, Douglas-Jones Rachel, Kristensen Dorthe Brogaard and Winthereik Brit Ross (eds) (2022) Palgrave Handbook of the Anthropology of Technology. London: Palgrave MacMillan. ISBN 978-981-16-7083-1

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with a response by Klaus Hoeyer and Brit Ross Winthereik

This review was written as a spoken comment for the launch of the handbook at an event during the 2022 EASST conference in Madrid. Imagine yourself in the audience listening to Wyatt's voice as she reflects on the book. As you will see, Wyatt raised some questions to the editors present, and their responses feature below.

About a month ago, I received an email from Brit (with Klaus in the cc), asking me if I would be willing to provide a "five to ten minute meditation" on this truly remarkable achievement, a comprehensive handbook about the anthropology of technology, during the Madrid conference.

I could lead you in a guided meditation, perhaps inviting you to imagine yourselves in one of the extraordinary fieldwork locations. The ethnographic work of Joe Dumit and Emilia Sanabria might be appropriate. They studied the psychedelic clinical trials and ceremonial uses of an Amazonian herbal brew in Brazil. Just thinking about it might bring on an altered state of consciousness.

But I am a much more boring person, also constitutionally unsuited to conducting ethnographic work. That could also be an interesting meditation, between methods and personalities, how methods choose us rather than we choose methods.

When I tentatively accepted, I pointed out that I am not an anthropologist. Klaus replied very quickly, assuring me that what they wanted was for me to, and I quote "offer the STS community your reflections as to whether it makes sense to have a book focused on anthropology of technology – does it add anything to STS, may it serve as a bridge to STS for anthropologists, or is it basically STS?" And that is what I will try to do, through a very particular lens. I'll end with some questions for them.

But first a few words about the book itself. I am assuming you are at this launch because you already know something about it. It weighs in at 809 pages, 5 parts, 39 chapters, 7 editors, about 45 authors, largely from Denmark and elsewhere in northern Europe, but not exclusively. Congratulations to the editors. I have edited books in the past but never anything so ambitious. There is sometimes criticism (on social media) of the proliferation of handbooks, but they are important. I trust this one will be so.

I have not had time to read all 809 pages, but Klaus and Brit were kind enough to send me three chapters that I asked for: the overall introduction by Maja Hojer Bruun and Ayo Wahlberg; Klaus and Brit's introduction to the section 'Knowing,

Unknowing and Re-knowing'; and the chapter by Dumit and Sanabria I just mentioned about randomized clinical trials of indigenous people's medicine. The main introduction by Bruun and Wahlberg is incredibly useful and will be great for teaching.

I started with the chapter by Klaus and Brit. Full disclosure – I live with Hans Radder, philosopher of technoscience. He is best known in STS for his criticism of the cryptonormativity of STS, published in a couple of articles in *Social Studies of Science* back in the day (1992 – critique of lack of normativity in constructivism, and then again in 1998 as part of the debate on the special issue about the politics of STS). We quite often read each other's work. I correct the occasional comma and marvel at Hans' sentences in English, sentences I could never write myself. He reads my work and often gets stuck on the first paragraph, wanting me to be more precise about x or y. I try to encourage him to go with the flow, think of concepts as companions. Maybe I have absorbed Hans' philosophical precision, and maybe I've lived in the Netherlands too long. Please don't misconstrue what I am about to say as nitpicking.

I started reading Klaus and Brit's chapter and actually got stuck on the first sentence, and even the first six words. These are: "most technologies are knowledge-intensive". The rest of the sentence goes on to say, "and contemporary knowledge production is often technology-intensive". I'm good with that part, and I like the symmetry between the two parts of the sentence, symmetry (from the Strong Programme, an important STS approach from the 1970s and 1980s) being something that STS people like a lot. But "most technologies are knowledge-intensive"? Really? Which technologies? Which knowledge? In design, production, selling, use, repair, disposal? We can discuss that, and I would like to reassure you, I did read the rest of the chapter, and was struck also by the lovely description on p.221 about how to study 'knowing' is also to be open to 'unknowing' or 'ignorance' (though ignorance doesn't get much attention here). All of which are socially embedded, materially entrenched. But maybe we could think about how to combine this with other classifications of knowing or reasoning, such as those put forward by medical historian John Pickstone and STS scholar Chunglin Kwa. Pickstone distinguishes between the following: Deductive (classical Greece), Experimental, Taxonomical, Analogical-hypothetical, Statistical, and Historical-evolutionary (not mutually exclusive). I would add that we are now living through the emergence of a computational style.

The first chapter, the overall introduction, does a wonderful job of tracing the history of the notion of technology in anthropology. I really recommend it – for teaching, for all of the non-anthropologists. It is also a topic that can keep STS people busy, and there are lots of points of connection between them. Donald MacKenzie and Judy Wajcman in their introduction to the *Social Shaping of Technology* back in 1985 define technology as:

1. Sets of physical objects – cars, vacuum cleaners, computers;
2. Human activities needed to make technologies work – doing;
3. What people know – technology is knowledge – those physical objects are useless without the "know-how to use them, repair them, design them and make them." (p.3)

So Klaus and Brit are spot on, and MacKenzie and Wajcman also go on to talk about visual, tactile knowledge as well as formalized knowledge. This was a reminder to me that there are indeed lots of points of overlap between STS and anthropology.

Where has this meditation taken me? Reminder to keep reading outside one's own particular field, reminder to keep talking about definitions because what might seem like nitpicking to some has important analytic, methodological and normative consequences. It also has important political consequences. I loved the first note of Dumit and Sanabria: "arguing for a better definition of technology does not change the ongoing effect of the category of the standard view of technology." I can really relate to that. Arguing against technological determinism which I (Wyatt, 2008) and pretty much all of STS have done really doesn't stop powerful social actors from imposing their technologies and their views of the technology-society relationship onto the world.

I would like to end with some questions to Brit and Klaus.

1. What does STS offer to the anthropology of technology?
2. What is the anthropology of technology origin story? This is a genuine question. Constructivist STS (from the late 1970s and '80s) was a response to analytic philosophy of science and its focus on knowledge claims, and also a response to normative perspective of Mertonian sociology of science and its focus on stratification of science, emergence of new fields, visible and invisible networks of scientists. What is the question to which anthropology of technology is the answer?

Thank you again for the invitation to say a few words today, and congratulations on this impressive volume.

References

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Response by Klaus Hoeyer and Brit Ross Winthereik

Thank you, Sally, for making time to engage with the Handbook! We are grateful that you recommend it to STS scholars, despite the possible vagueness of first sentences. Thanks also for the really nice questions. They both, in a sense, turn our initial question to you back on us, as you are asking us to explain the reasons for, and benefit of, a handbook for the *anthropology* of technology – granted that we already have several for STS. Are there any differences worth exploring between anthropology and STS? Admittedly, when embarking on the project, we quickly realized that we ourselves rarely make any distinctions between anthropology and STS in our own citation practices and collaborations. The work with the book therefore became a reason for thinking about the distinctly anthropological heritage. And while we do not suggest policing any sharp disciplinary boundaries, we do believe there is something to be gained by exploring different linages of thinking. Which brings us to your two questions:

1. STS offers to anthropology a keen interest and expertise in how materiality in the broadest possible sense shapes realities and how technology impacts on 'the human condition'. STS, to a larger extent than anthropology, engages the actual artifacts and scientific modes of reasoning as elements of the analysis. STS has at hand a wide variety of ways in which the field makes technology an object of research and a matter of concern more broadly. While STS has borrowed research methods from a number of fields including anthropology, STS has contributed to thinking about technologies as elements of large technological systems, assemblages, or infrastructures. STS knows how to foreground materiality without automatically 'backgrounding' the social and the political.
2. Why is there a need for the anthropology of technology? What is the origin story of this book? One answer to the question is that Maja Bruun saw that many anthropologists were working with technology, but often outside traditional anthropology departments. She saw a need for something bringing together people who might be on the fringes of their original discipline but who did not see themselves as fully belonging to the STS field. This handbook may serve as a bridge between these communities and help STS scholars feel more at home in anthropology and anthropologists relax about being traversed enough in STS. Then comes the question of the origin story of the anthropology of technology. This is largely told in the introduction. When you then ask us: "What is the question to which anthropology of technology is the answer?" the answer revolves around what we felt we gained from focusing on the anthropological heritage. First, to never lose sight of 'anthropos': human hopes and concerns, also those that may have been silenced. Second, to think of technologies as part of a much longer history than what typically preoccupies STS. Pottery making and fishing nets, for example, make you think more clearly about the habitual, bodily, elements of knowing. This is why we do not think the sentence 'most technologies are knowledge-intensive' is in any way too vague or all-encompassing. It reminds us that even pottery making is knowledge-intensive (but different types of knowledge than those used in a laboratory). Working on this book directly inspired our own work as we began seeing the relevance of, for example, Levi-Strauss' book on *The Savage Mind* for current big data practices. By looking into the anthropological heritage, we gained new inspiration for contemporary STS problems. There is not *one* problem for which anthropology is the answer, but the related disciplines of anthropology and STS bring different repertoires of conceptual thinking along with them, and we hope this introduction to the anthropology of technology will inspire new ideas, new linkages, and allow us to identify new problems…also in STS.