

SENSORY STUDIES OF SCIENCE

SE 230144, 2 SST (5 ECTS)

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Teaching Assistants:

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Content and aims of the course

What role do the senses play in the process of making and communicating scientific knowledge? The traditional view of science as a disembodied and a-sensuous practice has recently been called into question by scholars in STS and the history and anthropology of science.

Not only have these scholars investigated the “visual cultures of science”, but they have also shown the importance of sound, touch, smell and taste in scientific practice – and indeed, they have shown that the different senses interact with each other in the making of scientific knowledge.

In this course, we will explore the role of the senses and embodied practices in a variety of scientific disciplines and different sites of knowledge-production, and encounter the method of sensory ethnography as a tool to study the senses in the sciences.

Start: 03.05.2013

Time: 13:00 (but note the variable length!), except on 23.05.2013: 9:30

Place: Seminar room S-T-S C0602, Universitätsstr. 7/II/6, 1010 Vienna (NIG)

SS 2013

Advice for registration:

The registration is obligatory. If you decide not to take part in the seminar, there is the possibility to sign off (online at UNIVIS) with no negative consequences until May 12th, 2013. In this case, please also inform the teaching assistants via e-mail: lv.wissenschaftsforschung@univie.ac.at.

Course attendance:

Attendance is mandatory. Absences up to 20% of total course presence are tolerated.

The reader for this class can be purchased during the institute's main office hours:

Mo + Thu 10:00-15:00

Tue + Wed 10:00-16:00

Please note that plagiarism of any kind is not tolerated at the University of Vienna!

Seminar schedule

Date	Time	Topics
Friday, 3.5.2013	13:00-15:00	Introduction and Course Overview
Monday, 6.5.2013	13:00-15:00	<p>The visual culture of science?</p> <ul style="list-style-type: none"> • Lynch, Michael (2006). "The Production of Scientific Images: Vision and Re-Vision in the History, Philosophy, and Sociology of Science." In L. Pauwels (ed.), <i>Visual Cultures of Science: Rethinking Representational Practices in Scientific Knowledge Building and Science Communication</i>. Hanover/London, Dartmouth College Press: 26-40. • Beaulieu, Anne (2002). "Images Are Not the (Only) Truth: Brain Mapping, Visual Knowledge, and Iconoclasm." <i>Science, Technology, & Human Values</i> 27(1): 53-66 and 74-79. <p>Optional reading:</p> <ul style="list-style-type: none"> • Latour, Bruno (1986). "Visualization and Cognition: Thinking With Eyes and Hands." <i>Knowledge and Society: Studies in the Sociology of Culture Past and Present</i> 6(1): 1-40.
Tuesday, 7.5.2013	13:00-15:00	<p>Science and the senses: questioning the dominance of words, numbers and images</p> <ul style="list-style-type: none"> • Burri, Regula Valérie, Cornelius Schubert and Jörg Strübing (2011). "Introduction: The Five Senses of Science. Making Sense of Senses." <i>Science, Technology & Innovation Studies</i> 7(1): 3-7. • Guggenheim, Michael (2011). "The Proof is in the Pudding: On 'Truth to Materials' in the Sociology of Translations, Followed by an Attempt to Improve It." <i>Science, Technology & Innovation Studies</i> 7(1): 65-86. • Rice, Tom (2008). "Beautiful Murmurs: Stethoscopic Listening and Acoustic Objectification." <i>Senses & Society</i> 3(3): 293-306. • Smith, Mark M. (2007). "Producing Sense, Consuming Sense, Making Sense: Perils and Prospects for Sensory History." <i>Journal of Social History</i> 40(4): 841-849 (up to and including section "Presenting ... Sensory History").
Monday, 13.5.2013	13:00-15:00	<p>Sensory histories of science</p> <ul style="list-style-type: none"> • Roberts, Lissa (1995). "The Death of the Sensuous Chemist: The 'New' Chemistry and the Transformation of Sensuous Technology." <i>Studies in History and Philosophy of Science</i> 26(4): 503-526. • Classen, Constance (2007). "Museum Manners: The Sensory Life of the Early Modern Museum." <i>Journal of Social History</i> 40(4): 895-914.

<p>Tuesday, 14.5.2013</p>	<p>13:00-15:30</p>	<p>The sciences of the senses</p> <ul style="list-style-type: none"> • Jütte, Robert (2005). <i>A History of the Senses. From Antiquity to Cyberspace</i>. Cambridge: Polity Press, chapter 10: 218-236. • Hankins, Thomas L., and Robert J. Silverman (1995). <i>Instruments and the Imagination</i>. Princeton, Princeton University Press: 128-140. <p>And read one of the following:</p> <ul style="list-style-type: none"> • Crary, Jonathan (1988). "Modernizing Vision". In H. Foster (ed.), <i>Vision and Visuality</i>. Seattle, Bay Press: 29-44. • Parisi, David P. (2011). "Tactile Modernity: On the Rationalization of Touch in the Nineteenth Century." In C. Colligan and M. Linley (eds.), <i>Media, Technology and Literature in the Nineteenth Century: Image, Sound, Touch</i>. Farnham/Burlington, Ashgate: 189-213.
<p>Friday, 17.05.2013</p>	<p>13:00-15:00</p>	<p>Sensory ethnographies of science</p> <ul style="list-style-type: none"> • Pink, Sarah (2009). <i>Doing Sensory Ethnography</i>. London/Thousand Oaks/New Delhi, SAGE Publications: 44-47, 63-73. <p>And read two out of the following three:</p> <ul style="list-style-type: none"> • Helmreich, Stefan (2007). "An Anthropologist Underwater: Immersive Soundscapes, Submarine Cyborgs, and Transductive Ethnography." <i>American Ethnologist</i> 34(4): 621-641. • Hurdley, Rachel (2010). "The Power of Corridors: Connecting Doors, Mobilising Materials, Plotting Openness." <i>The Sociological Review</i> 58(1): 45-64. • Myers, Natasha (2012). "Dance Your PhD: Embodied Animations, Body Experiments, and the Affective Entanglements of Life Science Research." <i>Body & Society</i> 18(1): 151-189. <p>In this session, we will also discuss your plans for a small ethnographic research project of your own, to be discussed during the last two classes. Before the session, think about where and how you plan to conduct your research, and hand in a brief proposal (about half a page) by 09:00 am on the day of the class on moodle. The literature from this session should help you to develop a research design, but don't hesitate to already browse through the literature for the final two sessions for inspiration, too.</p>
<p>Thursday, 23.05.2013</p>	<p>9:30-11:30</p>	<p>The senses in the lab</p> <ul style="list-style-type: none"> • Mody, Cyrus C. M. (2005). "The Sounds of Science: Listening to Laboratory Practice." <i>Science, Technology, & Human Values</i> 30(2): 175-198. • Vertesi, Janet (2012). "Seeing Like a Rover: Visualization, Embodiment, and Interaction on the Mars Exploration Rover Mission." <i>Social Studies of Science</i> 42 (3): 393-414. <p>Optional reading:</p> <ul style="list-style-type: none"> • Schmidgen, Henning (2008). "Silence in the Laboratory: The History of Soundproof Rooms." In J. Kursell (ed.), <i>Sounds of Science - Schall im Labor (1800-1930)</i>. Berlin, Max Planck Institute for the History of Science: 47-61. Available on www.mpiwg-berlin.mpg.de/Preprints/P346.PDF.

<p>Friday, 24.05.2013</p>	<p>13:00-15:30</p>	<p>The senses in the field and on the test-site</p> <ul style="list-style-type: none"> • Bruyninckx, Joeri (2012). "Sound Sterile: Making Scientific Field Recordings in Ornithology." In T. Pinch and K. Bijsterveld (eds.), <i>The Oxford Handbook of Sound Studies</i>. Oxford/New York: Oxford University Press, 127-150. • Goodwin, Charles (1994). "Professional Vision." <i>American Anthropologist</i> 96(3): 606-615. • Masco, Joseph (2004). "Nuclear Technoaesthetics: Sensory Politics from Trinity to the Virtual Bomb in Los Alamos." <i>American Ethnologist</i> 31(3): 349-373.
<p>Monday, 27.05.2013</p>	<p>13:00-15:30</p>	<p>The senses in the library and study</p> <ul style="list-style-type: none"> • Mattern, Shannon (2007). "Resonant Texts: Sounds of the American Public Library." <i>Senses & Society</i> 2(3): 277-302. • Hillesund, Terje (2010). "Digital Reading Spaces: How Expert Readers Handle Books, the Web and Electronic Paper." <i>First Monday</i> 15(4-5). <p>During this discussion, we will draw and reflect upon your own experiences of doing a sensory ethnography of an academic library (unless you are studying a lecture for the next meeting). In preparation of the meeting, submit a short report (about 2 pages) describing your most interesting findings and most striking observations by 09:00 am on the day of the class on moodle.</p>
<p>Wednesday, 29.5.2013</p>	<p>13:00-15:30</p>	<p>The senses in the lecture hall</p> <ul style="list-style-type: none"> • Barany, Michael J. and Donald MacKenzie (forthcoming). "Chalk: Materials and Concepts in Mathematics Research." In C. Coopmans, M. Lynch et al. (eds.), <i>Representation in Scientific Practice Revisited</i>, MIT Press, Preprint. • Knoblauch, Hubert (2008). "The Performance of Knowledge: Pointing and Knowledge in PowerPoint Presentations." <i>Cultural Sociology</i> 2(1): 75-97. <p>During this discussion, we will draw and reflect upon your own experiences of doing a sensory ethnography of a lecture (unless you studied a library for the previous meeting). In preparation of the meeting, submit a short report (about 2 pages) describing your most interesting findings and most striking observations by 09:00 am on Monday, the 27th of May on moodle.</p>

Requirements for passing the course:

To pass the seminar, students are expected to complete the following tasks:

- Read and discuss the required readings.
- Conduct a small ethnographic study of an academic library or academic lecture.
- Write a final essay, and hand it in on time.

Grading scheme:

20%	In-class participation
10%	Research design for the sensory ethnography
20%	Written report of your sensory ethnography
45%	Final essay
5%	Delivery of assignments on time and formal criteria (citation, layout, ...)

Grades are between 1 and 5, 1 being the best grade, 5 being a fail.

Requirements for assignments:

For your ethnographic study, you will need to hand in on moodle a **short proposal** (about half a page) of what you intend to do by 09:00 am on Friday, May 17th. A **short report** (about 2 pages) detailing your most important findings and most striking observations has to be handed in by 09:00 am by Monday, May 27th. We will draw upon these experiences in our discussions during the final two sessions, so be prepared to **discuss them in class!**

You are free to choose your own subject for your **final essay** related to the theme of the course. You may choose to make use of your ethnographic research presented during class, but are not obligated to do so. Whether your essay is primarily ethnographic, historical or theoretical, it must show a thorough engagement with the literature from this course. It should be between 12 and 15 pages long, and is due on **July 31st, 2013**.

Important Grading Information:

If not explicitly noted otherwise, all requirements mentioned in the grading scheme and the attendance regulations must be met. If a required task is not fulfilled, e.g. a required assignment is not handed in or if the student does not meet the attendance requirements, this will be considered as a discontinuation of the course. In that case, the course will be graded as "fail" (5), unless there is a major and unpredictable reason for not being able to fulfill the task on the student's side (e.g. a longer illness). In such a case, the student may be de-registered from the course without grading.

If any requirement of the course has been fulfilled by fraudulent means, be it for example by cheating at an exam, plagiarizing parts of a written assignment or by faking signatures on an attendance sheet, the student's participation in the course will be discontinued, the entire course will be graded as "not assessed" and will be entered into the electronic exam record as "fraudulently obtained".