

## MSc thesis topic announcement (Multi)sensory ethnography of/with agroforestry systems in Brandenburg

**Supervisors: Maria Kernecker, Julia Fritzsche, and your university professor**

### **Background and problem:**

Agroecology has been proposed to foster climate change mitigation and adaptation of farms (FAO, 2018; HLPE, 2019; Marrero et al., 2022). Incorporating agroecological principles (see Wezel et al., 2020) into farming practices has been shown to mitigate climate effects across the globe. For example, agroforestry significantly increases soil organic carbon in croplands (Beillouin et al., 2023). Furthermore, agroforestry was put forward as an effective option to climate adaptation by the IPCC (2023), and can play an important role in animal welfare for extensive, integrated systems. It can also protect soils and improve microclimate on fields and across landscapes.

In Brandenburg and across Germany, most research on agroforestry systems has focused on short rotation alley cropping. This has been studied looking into the development of soil organic carbon (Kanzler et al., 2021), microclimatic effects (Kanzler et al., 2019), economic performance (Thiesmeier, 2024), actors' perspectives (Litschel et al., 2023), and land-use conflicts (Unger & Lakes, 2023). Since a comparison of effects on climate resilience between different agroforestry systems has not yet been done, the Agroecology4Climate project will aim to do so based on diverse forms of knowledge. To compliment soil sampling and botanical surveys, we also will rely on the concepts of embodiment – which we understand as the lived experience of a person's body – and the mindful body – where an integrated mind and body become one to collect sensorial information (Scott and Uncles, 2016). This research should fill an important knowledge gap by focusing on the cultural meaning of agroforestry systems.

### **Objectives and research questions:**

The Agroecology4Climate project aims to analyse the climate resilience potential of agroecological farms in Brandenburg using agroforestry systems. To do this, we have interviewed around 50 farms across Brandenburg and have selected 13 fields on 10 farms in which we are doing more in-depth data collection. In this context, this Master thesis project will conduct sensory ethnographic research in these fields during late spring and early summer this year. Diaries, sketch books, or other qualitative data collection methods should recall descriptions of embodied or mindful encounters between the Master student and fields with and without diverse agroforestry strips. For this, being attuned to the senses – vision, smell, taste, sound, touch – is central to find out what kind of knowledge the senses provide about agroforestry fields. This thesis will be embedded in ongoing project work (e.g., field trips to farms in Brandenburg) and contribute to at least one scientific publication.

The Master thesis project should explore the questions: *How do agroforestry fields feel compared to fields where there is no agroforestry? How do more diverse agroforestry fields feel compared to less diverse agroforestry fields?*

**Methods and tasks:**

1. Literature review on sensory anthropology / sensorial ethnography of landscapes and farming systems to specify the scope of the Master thesis
2. Embodied or mindful research, and optionally, interviews (re: perceptions and feelings) with interested farmers
3. Journaling or sketching and/or sound-based and/or photo-based methods to capture what you hear, see, feel in different agroforestry systems.
  - a. What you need is your attention and attunement to your mind/body in different fields – at least 1 day per farm; preferably 2 to capture different weather conditions to draw attention to flesh, emotions, and engagement with the agroforestry system
  - b. Logistical communication with the ZALF project team and farmers will be essential in this process
4. Qualitative analysis of data/information using descriptive, artistic methods and interpretation of findings

**Expected outcome and time plan:**

This work will constitute a Master thesis and can potentially contribute to one scientific publication.

Task	Month					
	1	2	3	4	5	6
Literature review and definition of scope						
Field work						
Data analysis and interpretation						
Write thesis						

**Relevant literature (see listed references as well):**

Bastian, M., 2016. Towards a more-than-human participatory research. In *Participatory research in more-than-human worlds* (pp. 33-51). Routledge.

Horlings, L. G., Nieto-Romero, M., Pisters, S., & Soini, K. (2020). Operationalising transformative sustainability science through place-based research: The role of researchers. *Sustainability Science*, 15(2), 467–484. <https://doi.org/10.1007/s11625-019-00757-x>

Howes, D., 2019. Multisensory anthropology. *Annual Review of Anthropology*, 48(1), pp.17-28.

Ingold, T., 2021. *The perception of the environment: essays on livelihood, dwelling and skill*. Routledge. Chapter 1 and 14 in particular.

Lorimer, J., 2013. More-than-human visual analysis: Witnessing and evoking affect in human-nonhuman interactions. *Deleuze and research methodologies*, pp.61-78.

Annina Helena Michel, Sarah Hartmann & Rebecca Schneider. 2025. Beyond the view: exploring embodied experiences in rural landscapes, *Landscape Research*, DOI: 10.1080/01426397.2025.2590704

Pink, S., 2010. The future of sensory anthropology/the anthropology of the senses. *Social Anthropology/Anthropologie Sociale*, 18(3), pp.331-333.

Scott, R.O. and Uncles, M.D., 2018. Bringing sensory anthropology to consumer research. *European Journal of Marketing*, 52(1/2), pp.302-327.

Spatz, B. (2017). Embodied Research: A Methodology. *Liminalities: A Journal of Performance Studies*, 13(2).  
<http://liminalities.net/13-2/embodied.pdf>

**Travel costs for fieldwork will be covered. For more information and/or submitting your application in either German or English, as one PDF file, send an email to both: [maria.kernecker@zalf.de](mailto:maria.kernecker@zalf.de) and [julia.fritzsche@zalf.de](mailto:julia.fritzsche@zalf.de) by March 8, 2026.**

## **References:**

- Beillouin, D., Corbeels, M., Demenois, J., Berre, D., Boyer, A., Fallot, A., Feder, F., & Cardinael, R. (2023). A global meta-analysis of soil organic carbon in the Anthropocene. *Nature Communications*, 14(1), 3700. <https://doi.org/10.1038/s41467-023-39338-z>
- FAO. (2018). *Catalysing dialogue and cooperation to scale up agroecology: Outcomes of the FAO regional seminars on agroecology. Summary*. <https://openknowledge.fao.org/items/2ac455d7-3782-4cd1-a02f-ebf815c38ef4>
- HLPE. (2019). *HLPE 14: Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition | FAO*. <https://www.fao.org/agroecology/database/detail/en/c/1242141/>
- IPCC. (2023). *Climate Change 2022 – Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (1st ed.). Cambridge University Press. <https://doi.org/10.1017/9781009325844>
- Kanzler, M., Böhm, C., & Freese, D. (2021). The development of soil organic carbon under young black locust (*Robinia pseudoacacia* L.) trees at a post-mining landscape in eastern Germany. *New Forests*, 52(1), 47–68. <https://doi.org/10.1007/s11056-020-09779-1>
- Kanzler, M., Böhm, C., Mirck, J., Schmitt, D., & Veste, M. (2019). Microclimate effects on evaporation and winter wheat (*Triticum aestivum* L.) yield within a temperate agroforestry system. *Agroforestry Systems*, 93(5), 1821–1841. <https://doi.org/10.1007/s10457-018-0289-4>
- Litschel, J., Berendt, F., Wagner, H., Heidenreich, S., Bauer, D., Welp, M., & Cremer, T. (2023). Key Actors' Perspectives on Agroforestry's Potential in North Eastern Germany. *Land*, 12(2), Article 2. <https://doi.org/10.3390/land12020458>
- Marrero, A., López-Cepero, A., Borges-Méndez, R., & Mattei, J. (2022). Narrating agricultural resilience after Hurricane María: How smallholder farmers in Puerto Rico leverage self-sufficiency and collaborative agency in a climate-vulnerable food system. *Agriculture and Human Values*, 39(2), 555–571. <https://doi.org/10.1007/s10460-021-10267-1>
- Mayer, S., Wiesmeier, M., Sakamoto, E., Hübner, R., Cardinael, R., Kühnel, A., & Kögel-Knabner, I. (2022). Soil organic carbon sequestration in temperate agroforestry systems – A meta-analysis. *Agriculture, Ecosystems & Environment*, 323, 107689. <https://doi.org/10.1016/j.agee.2021.107689>
- Thiesmeier, A. (2024). Comparing the economic performance of poplar-based alley cropping systems with arable farming in Brandenburg under varying site conditions and policy scenarios. *Agroforestry Systems*, 98(6), 1507–1522. <https://doi.org/10.1007/s10457-024-01021-7>
- Unger, M., & Lakes, T. (2023). Land Use Conflicts and Synergies on Agricultural Land in Brandenburg, Germany. *Sustainability*, 15(5), Article 5. <https://doi.org/10.3390/su15054546>
- Wezel, A., Herren, B. G., Kerr, R. B., Barrios, E., Gonçalves, A. L. R., & Sinclair, F. (2020). Agroecological principles and elements and their implications for transitioning to sustainable food systems. A review. *Agronomy for Sustainable Development*, 40(6), 40. <https://doi.org/10.1007/s13593-020-00646-z>