

Preface

To the Series Questions to the Soil

February 2026 | Version 1.2 | CC BY-SA 4.0

Preface

Body first, then instrument. Observation first, then measurement. Wonder first, then data.

— *Erdpuls Design Principle*

Why this series?

We know more about soils than ever before. Satellites measure their moisture. Laboratories analyse their microbiomes. Models project their carbon content across centuries of climate scenarios. And yet: most people who live on this ground have never truly touched it. Never smelled it. Never asked an earthworm for its name.

This gap — between knowing and experiencing, between information and encounter, between what we understand about sustainability and what we actually do — is what educational researchers call the values-action gap. Rational arguments alone do not close it. Data alone does not close it. What closes it is a genuine, embodied experience: the moment when someone kneels, picks up a handful of earth, brings it to their nose, and perceives something they have never perceived before.

This series grew from that moment.

The approach

The "Questions to the Soil" are a protocol for structured sensory observation — thirteen questions that lead progressively into the layers of a local soil: from surface to habitat, from texture to history, from immediate perception to long-term care.

The protocol follows three interlocking methodological traditions:

Goethean natural science. Johann Wolfgang von Goethe was not only a poet but a serious natural scientist. His approach was radical in its simplicity: describe the phenomenon fully before you explain it. Observe first, then interpret. The thirteen questions are Goethean in their structure — they slow perception down until what is actually present becomes visible.

Proxemics. Edward T. Hall showed that people and cultures maintain different distance zones — intimate, personal, social, public — and that each zone activates a different set of sensory channels. Soil is encountered at the most intimate distance: hands, nose, ear, tongue. This series uses Hall's framework deliberately as a pedagogical tool: the way we approach soil spatially is not incidental to learning — it is the learning.

Citizen science. Every observation made through these guides is a potential data point. Life counts, infiltration times, pH readings, oral testimonies — all flow into the Erdpuls soil observation archive. The sensor dialogue in each guide ensures that human perception and instrumental measurement are treated as equally valid and mutually complementary forms of knowledge, not arranged in a hierarchy.

For whom this series was written

The five guides are written for five very different target groups — and deliberately so. A ten-year-old identifying their first springtail needs something different from an artist returning to the same square metre of ground every day for three weeks, or an elder who knew this landscape in childhood and now compares it against decades of memory. The soil is the same; the mode of encounter differs.

All five guides are nonetheless oriented toward the same goal: that participants leave knowing something they did not know before — not about soils in general, but about *this* soil, *here*, *today*. And that this knowledge shapes their action.

How to work with this series

The guides can be used independently or in sequence. The Introduction (Document 00) and Appendix A — the complete 13 Questions protocol — are the shared foundation of all five. Facilitators running multiple guides will find that the terminology, the field materials, and the sensor dialogue remain consistent, while the pace, depth, and pedagogical framing differ significantly by target group.

All guides are published as Open Educational Resources (OER) under Creative Commons CC BY-SA 4.0. They may be copied, translated, adapted, and developed further — on the condition that adaptations are shared under the same terms. We explicitly encourage the transfer of these protocols to other locations, other languages, and other educational contexts. What was developed here for Müllrose belongs to the earth — and therefore to everyone.

Acknowledgements

This series grew from and with the Erdpuls campus in Müllrose, Brandenburg — a place of considerable architectural and cultural heritage being transformed into a centre for sustainability literacy, citizen science, and reciprocal economics. Everyone who has got their hands dirty — literally and figuratively — has contributed to it.

Special thanks go to the soils of the Oder-Spree region: the glacial sand, the sandy loam, the boggy subsoil, the earthworms, springtails, and mycelial networks that made these pages possible in the first place.

Erdpuls Müllrose, February 2026

License & Attribution

© 2025–2026 Erdpuls Müllrose - Center for Sustainability Literacy, Citizen Science and Reciprocal Economics Licensed under [Creative Commons Attribution-ShareAlike 4.0 International \(CC BY-SA 4.0\)](#)

All software components referenced in this series are licensed under the [GNU Affero General Public License v3.0 \(AGPL-3.0\)](#)

This series and its translations were developed with assistance from Claude (Anthropic PBC). All strategic decisions, philosophical positions, and project commitments are those of the author.