

Questions to the Soil — Guide 4: Boden-Tiefe

For Artists and Researchers (Residency-Depth Immersion)

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Overview

Title	Boden-Tiefe / Soil Depth / Głębia Gleby
Target Group	Artists-in-residence, visiting researchers, citizen science fellows, bio-material practitioners
Group Size	1–6 (intimate; often solo with facilitator introduction)
Duration	Multi-day immersion: initial guided session (3–4 hours) + self-directed repeat observations over the residency period (1–4 weeks)
Location	Full campus and surrounding landscape; the resident chooses their own primary observation site
Season	Any; the seasonal arc experienced during the residency becomes part of the work
Learning Objectives	By the end of this residency engagement, participants will: (1) demonstrate sustained daily soil observation practice over a minimum of 7 consecutive days, evidenced by a weekly log showing measurable progression in the specificity and depth of perception from Day 1 to Day 7+; (2) formulate at least one original research question or artistic concept that emerged directly from the soil encounter practice, documented with reference to specific observations that prompted it; (3) produce a combined interpretation of their chosen site's ecological character integrating sensor data and bodily observation, identifying where the two data sources converge and where they diverge; (4) contribute at least one substantive output — creative work, longitudinal dataset, method documentation, or workshop design — to the Erdpuls knowledge commons, attributed and archived

Sustainability Dimensions	<p>Ecological (deep-time ecological understanding through repeated observation; phenological attention to soil change across weeks; biodiversity documentation at micro-scale; soil as living system in continuous flux);</p> <p>Economic (artist and researcher residency as sustainable creative economy model; bio-material practice as circular economy; residency knowledge contribution as non-monetary economic exchange); Social (open studio and public event as community engagement; methodological knowledge transfer to future residents and facilitators; the resident as a bridge between research/ arts community and local community); Cultural (Goethean natural science as European cultural and intellectual heritage; soil art as materialist-ecological practice with deep roots; citizen science as scholarly contribution across disciplinary traditions)</p>
SDG Links	<p>SDG 4 (Quality Education — research methodology development and sharing; Goethean epistemology as alternative to extractive research paradigms; OER contribution); SDG 15 (Life on Land — longitudinal micro-ecological study; soil biodiversity inventory; phenological dataset contributing to long-term monitoring); SDG 17 (Partnerships for the Goals — interdisciplinary and cross-sector collaboration; knowledge commons contribution; residency as model for arts-science-community partnership)</p>
4A-Pathway Focus	Full pathway, with deepest engagement at Acknowledgment (artistic/research integration of place-knowledge) and Action (creative or scientific output)
Unique Value	Depth of engagement over time; the production of original works (art, research, material experiments) grounded in soil encounter
Methodological Foundations	Goethean phenomenology and participatory science (Bortoft, 1996; Naydler, 1996): intensive dwelling-in-phenomena as the epistemological method for developing new organs of perception. Longitudinal ecological observation (Likens, 1989): systematic repeated measurement at the same site as the basis for detecting change and pattern. Ecological art practice (Wallen, 2012): artistic engagement with ecological systems as a form of environmental research, producing knowledge that scientific frameworks alone cannot generate.

The Residency Context

The Erdpuls artist and research residency offers immersive engagement with the campus and its landscape. Residents live on-site, often for one to four weeks. They arrive with a project — bio-material research, citizen science investigation, conservation practice, artistic exploration — and the Questions to the Soil protocol is offered as a foundational practice that grounds their project in direct, sustained encounter with the place.

Unlike the other guides, this one is not a single-session workshop. It is a protocol for ongoing practice — a daily or regular discipline that deepens over the residency period. The initial facilitated session introduces the method; the resident then carries it forward independently, adapting it to their particular practice.

Initial Session: Facilitated Introduction (3–4 hours)

Part 1 — Site Selection Walk (45 min): The facilitator walks the full campus with the resident. No agenda beyond: "Where does the ground interest you? Where do you feel drawn to kneel?" The resident selects their primary observation site — a patch they will return to repeatedly throughout the residency. The choice is theirs; the facilitator may suggest alternatives only if the chosen site presents safety or access issues.

Proxemic note: This walk is itself a proxemic exercise — the resident is moving from public distance (the campus overview, the arrival, the unfamiliar place) toward personal and intimate distance (finding *the* spot where they want to kneel). The instinct to kneel at a particular location is a proxemic recognition: "This is where I want to enter intimate relationship with the ground." The facilitator should not rush this process. The quality of the entire residency depends on the resident finding a site that draws them into proxemic closeness — not one that was assigned.

Part 2 — Full 13 Questions (90 min): The facilitator guides the resident through the complete protocol at their chosen site, at the full depth described in Appendix A. No simplification, no rushing. The facilitator reads each question aloud, then is silent while the resident observes and records.

Recording for this group is more expansive than for other target groups. The resident is encouraged to use whatever medium feels natural: - Written observation (notebook, structured or freeform) - Drawing (pencil, ink, watercolor, charcoal) - Photography (macro, documentary, artistic) - Sound recording (soil soundscape, crunching, water infiltration, wind through nearby plants) - Material collection (with permission: soil samples for pigment extraction, clay for ceramic work, plant material for bio-material research) - Measurement (full sensor suite: temperature at multiple depths, moisture, pH, conductivity if available)

Part 3 — Sensor Deep-Dive (30 min): For residents, the sensor dialogue goes beyond comparison. The facilitator provides: - Access to the raw Erdpuls sensor data for the nearest station (CSV export or API access) - Historical data for the period preceding the residency (at least one full season if available) - Technical documentation for the sensor types in use - Invitation to install a temporary sensor at the resident's chosen site if desired (via Zone C resources)

Part 4 — Conversation (30 min): An open dialogue between facilitator and resident about how the soil encounter connects to their project. This is not structured by questions but by genuine curiosity: How does what you observed today change what you planned to make/research/investigate? What questions has the soil raised that your project didn't anticipate?

The Ongoing Practice

Daily Minimum (15–20 min): The resident returns to their chosen site at the same time each day. They do not repeat the full 13 Questions every time. Instead, they practice a condensed version:

Three Morning Questions: 1. What is different today from yesterday? (Attend to change: light, moisture, temperature, life activity, smell) 2. What is the same? (Attend to persistence: structure, color, depth, the abiding qualities) 3. What am I beginning to understand that I could not have seen on the first day? (Attend to the emergence of pattern through accumulated observation)

This daily practice is the core of the Goethean method adapted for residency: the same phenomenon, observed repeatedly, reveals its deep structure gradually. Goethe's insight was that the observer must change — must develop new organs of perception — in order to see what the phenomenon is showing. This takes time. A single session, however rich, cannot achieve what three weeks of daily return achieves.

Proxemic note — the deepening trajectory: The daily return to the same 1 m² of soil creates a proxemic relationship that evolves over weeks. Day 1 is novel — the resident enters intimate distance with unfamiliar ground. Day 7 is recognition — the ground begins to "know" the observer, and the observer begins to "know" the ground; specific textures, smells, and temperatures are anticipated before contact. Day 21 is intimate in the full relational sense — the observer detects changes by feel, smell, moisture on the hands; the soil has entered the personal proxemic field permanently. This progression mirrors the human proxemic trajectory of relationship: stranger → acquaintance → intimate. It is the deepest proxemic engagement the toolkit produces and the reason the residency format generates knowledge that no single-session workshop can match.

Solitary observation as proxemic autonomy: Some residents will prefer daily practice entirely alone. In proxemic terms, this is a preference for an unmediated intimate encounter with the phenomenon — no social proxemic interference from another human body in the same space. Another person's sounds, warmth, and movement introduce sensory information that competes with the phenomenon under observation. The Goethean method sometimes requires solitude precisely for this reason. The facilitator should ask early, respect the answer, and make themselves available without being intrusive.

Weekly Deepening: Once per week (suggested), the resident repeats the full 13 Questions at their primary site, recording in full. The accumulated weekly records become a longitudinal dataset that is both scientific (measurable changes over the residency period) and artistic/philosophical (the evolution of the observer's perception).

Comparison Sites: The resident is encouraged to select 2–3 additional sites for periodic comparison: a site with very different soil character, a site at a different position in the landscape (hilltop vs. valley, sun vs. shade, cultivated vs. wild), and a site beyond the campus boundary (to begin the Ring 2 → Ring 3 expansion). Comparison sharpens perception.

The Creative/Research Integration

The protocol does not prescribe what the resident does with their soil encounter. But it does suggest points of integration:

For bio-material artists: The soil itself is a material palette. Clay extracted from different depths and locations has different color, texture, and firing properties. Soil pigments (ochres, umbers, siennas) can be extracted and used directly. The decomposition processes observed in Question 7 (Life Count) and Question 6 (Structure) are the same processes that bio-material practice harnesses. The Questions to the Soil become a sourcing protocol as well as an observation practice.

For citizen science researchers: The daily observation record, combined with sensor data, constitutes a micro-ecological study. The resident may formulate a research question during the residency ("Why does this 2 m² patch support 3x the biodiversity of the adjacent patch?") and design a follow-up investigation. The Erdpuls data infrastructure supports this.

For conservation practitioners: The protocol provides a baseline assessment methodology that can be applied to any site. The resident may develop a simplified version for their home context, or create training materials based on their experience.

For writers, photographers, filmmakers: The discipline of daily return produces material that cannot be generated in a single visit. The gradual shift in perception — from surface impression to structural understanding — is itself a narrative arc. Many residents find that the soil encounter becomes the through-line of their entire residency project, even if they arrived with a different plan.

Citizen Science Output

Residency-depth engagement produces the most rigorous citizen science data in the Erdpuls system: - Multi-week longitudinal observation records (daily + weekly) - Sensor data from temporary installations at the resident's chosen site - Species inventories (if the resident has identification skills or uses apps consistently) - Photographic time-series (the same patch photographed daily from the same position) - Soil samples archived for future analysis (labeled, dated, stored in Zone B)

This data is entered into the Erdpuls archive under the resident's name and linked to their creative/ research output. The combination of scientific data and artistic interpretation is itself a novel form of publication — a pattern that other residency programs could adopt.

Token Economy Integration

Activity	Token Element
Completing the initial facilitated session	Cooperation
Maintaining the daily practice (verified by log)	Cooperation + Regeneration

Activity	Token Element
Contributing sensor data from temporary installation	Mutualism
Producing a creative/research output that integrates soil encounter	Mutualism + Regeneration
Presenting findings at a public event or open studio	Reciprocity
Documenting the method for future residents	Mutualism

Facilitator Notes

BNE Qualification Requirements (Areas 6.1.1/6.1.2 — minimum: one of the following): Facilitator should hold either (6.1.1) formal qualifications in environmental science, ecology, art or design, research methods, or conservation practice, or (6.1.2) demonstrated personal qualification: documented experience with contemplative or phenomenological practice in a natural science or artistic context, plus Erdpuls facilitator induction including personal extended practice of the full 13 Questions protocol across at least two seasons. The critical personal qualification for this guide is not subject expertise but *capacity to hold space for open-ended autonomous inquiry* — the ability to introduce the method thoroughly and then withdraw without redirecting the resident's emerging practice. The facilitator's own relationship with soil, place, and sustained attention is the most important qualification.

Pre-Residency Preparation (Area 3.3.1): Before the resident's arrival: (a) share the Erdpuls campus documentation pack, including campus map, Zone descriptions, site-access permissions, and sensor network overview, so the resident arrives knowing what infrastructure is available; (b) provide the "Residency Protocol Guide" PDF (a self-contained guide to the daily practice, weekly observation structure, and documentation formats); (c) schedule a 30-minute pre-arrival video call to discuss the resident's project, answer practical questions, and orient them to the sensor data portal; (d) arrange access to Zone C (Makerspace) for residents wishing to install temporary sensors — this requires advance coordination.

Post-Residency Follow-Up Resources (Area 3.3.3): After the residency closes: (a) archive all contributed datasets, observation logs, and outputs in the Erdpuls knowledge commons within 4 weeks, with the resident's preferred attribution; (b) provide the resident with a complete export of sensor data for their site and period, in CSV and PDF formats; (c) issue a "Residency Completion Letter" confirming participation and contribution — useful for the resident's portfolio, grant applications, and institutional reporting; (d) invite the resident to contribute a short reflection (one page or a 5-minute recorded conversation) for the Erdpuls "Resident Voices" archive — documenting how the soil encounter shaped their practice; (e) maintain contact with the option of a follow-up public event, virtual or in-person, where the resident can share their output with the Müllrose community.

The facilitator's role changes over the residency. On Day 1, the facilitator guides. By Week 2, the facilitator is a dialogue partner, checking in but not directing. By Week 3–4, the resident has internalized the method and the facilitator is a resource, not a guide. This withdrawal is intentional — the Goethean method requires that the observer develop their own relationship with the phenomenon, which cannot happen under continuous instruction.

Artistic freedom: The facilitator should not impose any expectation of what the creative output "should" look like. If a painter decides the soil encounter has changed their use of color but not their subject matter, that is a valid outcome. If a researcher abandons their original hypothesis because the soil showed them something more interesting, that is a valid outcome. The protocol serves the resident's practice, not the other way around.

Solitude: Some residents will prefer to conduct the daily practice entirely alone. Others will want periodic check-ins. Ask early, respect the answer, and make yourself available without being intrusive. (See the proxemic note on solitary observation in The Ongoing Practice above.)

Proxemic Design Notes

The residency as proxemic immersion: This guide produces the deepest proxemic engagement in the entire toolkit because it operates over time. Where other guides produce a single intense intimate encounter (2–4 hours), the residency produces weeks of daily returns — accumulating proxemic depth that transforms the resident's relationship with the place. The Three Morning Questions are the proxemic instrument: each day's visit adds another layer of sensory familiarity until the resident can detect changes by feel alone.

The facilitator's proxemic withdrawal: On Day 1, the facilitator is present at personal distance — guiding, prompting, sharing. By Week 2, the facilitator has withdrawn to social distance — checking in, available but not directing. By Week 3–4, the facilitator is at public distance or absent — the resident has internalized the method and the proxemic relationship is between the resident and the soil, not between the resident and the facilitator. This progressive withdrawal is itself a proxemic design: it creates space for the resident's own intimate relationship with the phenomenon to develop without social proxemic interference.

The open studio as proxemic re-expansion: When residents present their work at a public event, the proxemic field expands from the intimate (resident-soil) back to the public (resident-audience). The challenge is maintaining the depth of the intimate encounter in the public presentation. Bring the soil into the presentation space. Have the resident demonstrate their daily practice. Let the audience touch, smell, and handle the same materials. This re-grounds the public-distance presentation in intimate-distance experience.

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