

Questions to the Soil — Guide

3: Boden-Gedächtnis

For Elders and Intergenerational Groups

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Guide 3: Boden-Gedächtnis — The Soil's Memory

For Elders and Intergenerational Groups

Overview

Title	Boden-Gedächtnis / The Soil's Memory / Pamięć Gleby
Target Group	Older residents of Müllrose and the Oder-Spree region, ideally paired with younger participants (school-age or young adults) for intergenerational exchange
Group Size	8–16 (ideally equal numbers of older and younger participants)
Duration	2.5–3 hours (morning format preferred, with Kaffee und Kuchen break)
Location	Erdpuls campus garden (Zone B) and one or two off-campus comparison sites meaningful to elder participants (e.g., a former allotment area, a field edge they remember from childhood)
Season	Autumn is ideal (the memory/decomposition/accumulation metaphor is strongest); spring also works well (awakening/return)
Learning Objectives	By the end of this workshop, participants will: (1) articulate at least three specific soil memories from their lifetime and place them in relation to present-day observable soil conditions at the observation site; (2) identify, with their intergenerational partner, at least one measurable environmental change (water table, species presence/absence, soil color or texture, flood pattern) observable across their lifetime in this landscape; (3) contribute documented oral soil history testimony — a minimum of 300 words of transcribed narrative linked to specific Questions — to the Erdpuls Soil Memory archive, subject to consent; (4) name at least one quality of soil stewardship from their lived experience that they would pass to the younger generation, recorded in their own words

Sustainability Dimensions	Ecological (longitudinal change in soil health across decades; biodiversity loss and gain; water system changes; climate-related landscape shifts observed through living memory); Economic (DDR agricultural collectivization vs. post-reunification land practices; subsistence growing as economic resilience model; memory of soil productivity across economic systems); Social (intergenerational knowledge transfer as community practice; elder dignity through recognized expertise; community memory as educational resource); Cultural (oral history as cultural preservation; <i>Heimatkunde</i> and <i>Schulgarten</i> as DDR-era educational heritage; local landscape as cultural commons)
SDG Links	SDG 4 (Quality Education — intergenerational co-teaching; oral history as legitimate research methodology; lifelong learning across all ages); SDG 11 (Sustainable Cities and Communities — community memory as planning resource; intergenerational social cohesion in the Müllrose region); SDG 15 (Life on Land — longitudinal biodiversity data recoverable only from living memory; historical ecology of the Oder-Spree landscape)
4A-Pathway Focus	Acknowledgment ("I recognize my lifelong relationship with this ground") and Attitude (intergenerational responsibility)
Unique Value	Elders as knowledge-holders, not recipients. Their memory IS longitudinal data.
Methodological Foundations	Oral history methodology (Thomson, 1990; Portelli, 1991): personal memory testimony constitutes legitimate historical and environmental research data. Intergenerational learning theory (Kaplan, 2002): structured exchange between age cohorts as mutual enrichment, not one-directional transmission. Historical ecology (Foster & Aber, 2004): long-term human observation as empirical basis for ecological understanding of place-change.

The Core Principle: Elders as Scientists

This guide inverts the conventional educational relationship. In most workshops, the facilitator holds the knowledge and transmits it to participants. In this guide, the elder participants hold knowledge that no facilitator, no textbook, and no sensor can provide: decades of embodied experience with this specific landscape. They remember what the soil used to be like. They remember what grew where. They remember the floods, the droughts, the changes in farming practice, the buildings that stood and fell. This memory is scientific data — longitudinal, place-specific, experientially grounded.

The younger participants bring a different capacity: comfort with instruments, fresh eyes unhabituated to the landscape, and energy for physical tasks (digging, walking to comparison sites). The exchange between these capacities is the pedagogical engine.

The Questions to the Soil protocol, in this guide, becomes a framework for structured intergenerational dialogue, with the soil as the shared text that both generations read — differently, and therefore more completely.

The proxemic structure of intergenerational exchange: Hall's proxemics reveals the spatial architecture of this guide's core mechanism. When the younger partner kneels to dig and the elder sits in a chair directing the work, the typical age-power vertical proxemic relationship is inverted: the elder is above, the authority; the youth is below, the hands. This arrangement communicates respect through spatial positioning — a proxemic signal that reinforces the guide's principle without requiring any verbal declaration. The soil sample, passed from the digger's hands to the elder's lap, is the mediating object that maintains intimate proxemic connection between the generations. The elder does not need to kneel to be in intimate relationship with the soil — the soil comes to them.

Preparation and Materials

As in Guide 2, plus: - A recording device (smartphone or dedicated recorder) with elder participants' consent for oral history capture - Printed historical photographs of the Erdpuls campus site and surrounding area, if available - A large-format map of Müllrose (current and historical if available) for the closing exercise - Comfortable seating (folding chairs or benches) at the observation sites — elders should be able to sit while observing - Kaffee und Kuchen supplies for the mid-session break

Critical preparation: Contact elder participants in advance. Explain the format. Ask them: "Can you think of a place in or around Müllrose where the soil has changed during your lifetime? A place that used to be different?" Their answers may suggest comparison sites for the workshop.

Welcome and Framing (20 minutes)

Gather at the Zone E Heritage & Community Hub threshold, with seating available.

"Today is about memory — the soil's memory and yours. Soil records everything that happens to it: every rain, every drought, every plowing, every footstep, every root, every worm. But soil records slowly and silently. It takes a human being who has lived with this soil for decades to read its story.

Each of you who has lived in this region carries a soil memory that is as valuable as any sensor reading. You remember what this garden used to be. You remember what grew in the fields around Müllrose before reunification. You remember how the water behaved, how the seasons felt, what the land smelled like.

Today we bring two kinds of knowledge together. [To the younger participants:] You will dig, measure, count, and record. [To the elder participants:] You will remember, compare, narrate, and interpret. Neither kind of knowledge is complete without the other."

Form intergenerational pairs or small groups (1–2 elders with 1–2 younger participants).

The Experience (90 minutes)

The 13 Questions proceed as in the main protocol, but each question is followed by an **Elder Memory Prompt** — a question specifically designed to unlock longitudinal observation.

Question 1 (First Impression): *Elder Memory Prompt:* "When you first see this patch of ground, what does it remind you of? Is there a place from your past that had soil like this?"

Question 3 (Color): *Elder Memory Prompt:* "Has the soil in this area always been this color? Do you remember it being darker, lighter, redder, sandier? What might have caused the change?"

Question 4 (Touch/Texture): *Elder Memory Prompt:* "When you were young, did you handle soil regularly? In the garden, on the farm, at school? What did soil feel like in your childhood — was it different from how this feels now?"

Question 5 (Smell): *Elder Memory Prompt:* "Smell is the sense most connected to memory. Does this soil smell remind you of anything specific — a place, a person, a time? What soil smells do you remember from your life?"

This question often produces the most extraordinary responses. Elders have described the smell of their grandmother's potato field, the particular odor of the sandy soil by the Schlaube after rain, the difference between the heavy clay soil west of Müllrose and the lighter soil to the east. These are phenomenological data points of irreplaceable value.

Proxemic note — the olfactory-mnemonic link: Hall identified the olfactory code as the most intimate proxemic channel — it operates only at close range and triggers the deepest associative responses. When elders smell soil, something extraordinary happens: the intimate proxemic encounter with the soil activates memories stored at the same intimate distance across decades. The elder is simultaneously in intimate proxemic relationship with the present soil *and* with the remembered soil of sixty years ago. This temporal extension of the proxemic field — memory carrying touch, smell, sound, and thermal sensation across time — is the elder guide's unique contribution. It cannot be rushed. Allow extended time for whatever emerges. Record it. These are the protocol's deepest data.

Question 7 (Life Count): *Younger participants dig and count. Elder participants observe and compare. Elder Memory Prompt:* "Were there more or fewer soil creatures when you were young? Do you remember particular insects or worms? Has anything disappeared that used to be common? Has anything appeared that wasn't there before?"

Question 8 (Water/Infiltration): *Elder Memory Prompt:* "How did water behave in this area when you were young? Were there floods? Dry summers? Has the drainage changed? Were there ditches, streams, or wet areas that no longer exist — or new ones that appeared?"

Question 10 (Layers): *Elder Memory Prompt:* "If we dig deeper — below what we can see today — what do you think we'd find? Was there ever a road here? A building? A bomb crater? What layers of history are under our feet?"

Question 11 (History): This becomes the centerpiece for the intergenerational exchange. The younger participant records while the elder narrates. The prompt is open: "Tell me everything you know about what has happened on this ground — or ground like it — during your lifetime."

Question 13 (Care): *Adapted:* "If you were advising your grandchild on how to take care of this soil for the next fifty years, what would you say? What mistakes should they avoid? What wisdom from your experience should they carry forward?"

The Memory Break (20 minutes)

Kaffee und Kuchen. Seated. This is not incidental — it is a structured space for informal storytelling. The experience of handling soil together, of kneeling and looking and smelling, often opens memories that only emerge in unstructured conversation. The facilitator listens, notes, but does not direct.

Proxemic design: The Kaffee und Kuchen break is strongly sociopetal by design: circular seating, shared food, warm beverages, close physical proximity. Hall's research showed that shared meals are among the most powerful sociopetal mechanisms in any culture — they draw people into personal and intimate proxemic distance through the mediating objects of food and drink. All sensory channels reactivate: the smell of coffee, the warmth of the cup in the hand, the taste of cake, the sound of quiet conversation. The break is not a rest from the workshop — it is a proxemically designed space where informal knowledge exchange occurs that the formal protocol cannot force. Many of the most valuable elder memories emerge here, when the structured questioning has ended and the proxemic warmth of shared food has opened a different kind of attention.

Sensor Dialogue (15 minutes)

The sensor dialogue for this group has a specific focus: **temporal comparison**. Show the Erdpuls dashboard's historical data — temperature trends over months, moisture patterns, seasonal cycles.

"The sensors have been recording for [X months/years]. But your memories are a sensor that has been recording for sixty, seventy, eighty years. The electronic sensor says soil temperature has averaged [X] this year. What do your memories say? Was it warmer when you were young? Colder? Different?"

If any historical climate or agricultural data for the region is available (e.g., from the DWD — Deutscher Wetterdienst), display it alongside the elder testimony. The convergence or divergence between official records and lived memory is itself a rich discussion.

Citizen Science Output

This guide produces a unique form of citizen science output: **oral soil histories**.

With participants' consent, the recorded elder narratives are transcribed (by younger participants or volunteers) and entered into the Erdpuls archive as "Soil Memory Records." Each record includes: - The elder's name (or pseudonym if preferred) and age - The date and location of the observation - The specific memories shared, linked to the relevant Question - Any historical photographs or documents the elder can provide - The sensor and observation data from the intergenerational partner

These Soil Memory Records complement the instrumental data in a way no other citizen science format can. They are longitudinal, multi-sensory, culturally embedded, and irreplaceable. When an elder who remembers the 1950s soil is paired with sensor data from 2026, the resulting record spans seven decades of place-knowledge.

Closing and Reflection (20 minutes)

Return to the Heritage Hub (Zone E). The facilitator spreads the large-format Müllrose map on the table.

"We've been looking at soil through a 10-cm hole today. Now let's zoom out. On this map, can each pair mark the places where your soil memories come from? The allotment you tended, the field you walked through, the garden your grandmother kept."

Each pair places a mark and shares a one-sentence memory. The map fills with memory-points — a collective soil cartography of Müllrose that exists nowhere else.

The facilitator photographs the annotated map for the archive and connects to the broader toolkit: "This is the beginning of a pattern language for Müllrose's soil. Each of your memories is a pattern — a relationship between people and ground that sustained life in this place. Some patterns have been lost. Some persist. Some are waiting to be renewed."

Token Economy Integration

Activity	Token Element
Sharing soil memories (elder)	Reciprocity (knowledge flows to younger generation)
Recording and transcribing memories (younger participant)	Reciprocity (skill flows to elder generation)
Contributing Soil Memory Record to the archive	Mutualism
Returning for seasonal repeat	Cooperation + Regeneration
Providing historical photographs or documents	Mutualism
Implementing a soil-care recommendation at home based on elder advice	Regeneration

The token economy has a particular significance for elder participants: it formally recognizes their knowledge as a *contribution*, not a pastime. The token represents the community's acknowledgment that memory is labor, knowledge is value, and sharing is an act worthy of reciprocal recognition.

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 gerontology, oral history, adult or community education, environmental education, or social work, or (6.1.2) demonstrated personal qualification: minimum experience facilitating intergenerational or elder-focused community programmes, plus Erdpuls facilitator induction and personal practice of the full protocol. Specific required competencies: oral history interview facilitation skills (including ethical practice around consent and sensitive material); capacity to hold space for emotionally charged content (displacement, loss, wartime memories); physical accessibility planning. A co-facilitator is strongly recommended, particularly one who can provide physical support and accompany elders on off-campus site visits.

Pre-Workshop Participant Preparation (Area 3.3.1): Contact elder participants personally — by phone wherever possible, not just email — at least one week before the workshop. Explain what will happen in accessible language: "We'll be outside in the garden for about an hour, then inside for coffee and a discussion. You can sit the whole time. We'll be asking what you remember about the land around Müllrose." Ask them: "Can you think of a place in or around Müllrose where the soil or landscape has changed during your lifetime?" Their answers may suggest comparison sites and prime their memory for the observation. Inform accompanying teachers, social workers, or family members about the format, duration, accessibility provisions, and the emotional-content dimension (soil memories can connect to difficult history).

Post-Workshop Follow-Up Resources (Area 3.3.3): Provide to all participants after the workshop: (a) a printed transcript of their contributed oral history narrative (sent to elder participants by post within 3 weeks, with a copy to the archive if consent was given); (b) an annotated copy of the Müllrose memory map with each pair's marked locations; (c) an invitation to a follow-up "Soil Memory Reading Evening" — an informal community event where selected narratives are read aloud (planned for winter, see Cross-Guide Reference below); (d) the Erdpuls Soil Memory archive link, where participants can see their contribution alongside others; (e) younger participants receive: the full transcribed record from their elder partner, with a suggested follow-up exercise — "Find one place your partner mentioned and visit it. Write three sentences about what you observe."

Pacing: This guide runs slower than the others. Elders may need more time to settle into the sensory exercises, and their stories — once started — should not be truncated. Build in generous buffer time. If the full 13 Questions cannot be completed, that is acceptable; the quality of the intergenerational dialogue matters more than protocol completeness.

Physical accessibility: Not all elders can kneel or dig. Provide seating, offer to hold soil samples at a comfortable height, and ensure the younger partner does the physical work while the elder directs and interprets. The protocol works perfectly well with the elder seated beside the observation patch.

Emotional content: Soil memories can be emotionally charged — connected to war, displacement, loss, hunger, or joy. The facilitator should be prepared for strong feelings and hold space without redirecting. A story about the garden that fed a family during wartime is both a soil observation and a human testimony.

Language: Many elder participants in the Oder-Spree region may have limited formal education but profound practical knowledge. Avoid academic terminology. The language of the questions is already accessible; the elder memory prompts should be even more so. "Tell me about the soil when you were young" is better than "Describe the pedological changes you've observed over your lifetime."

Consent for recording: Always ask. Some elders will be delighted to be recorded; others will prefer that their stories stay in the room. Both choices are respected.

Proxemic Design Notes

Physical accessibility as proxemic accommodation: Not all elders can kneel. The response — bringing soil to them in wide bowls or trays at table height — is a proxemic translation: instead of moving the person into intimate distance with the ground, move the ground into intimate distance with the person. Ensure adequate lighting (visual channel degrades with age) and speak clearly while facing the person (auditory channel degrades with age). The protocol's proxemic richness is fully preserved when the soil is at hand height in a comfortable chair — what changes is the body's position, not the sensory engagement.

The closing map exercise as proxemic expansion: The workshop moves from intimate distance (soil in hands, soil at nose) to social/public distance (leaning over a map of Müllrose, placing memory-points across a territory). This is the Ring 0 → Ring 3 expansion compressed into a single session. The map table should be low enough and large enough that all participants can lean over it, reach it, and touch it — maintaining personal-distance engagement with the territory-as-representation. If participants are seated in rows facing a projected map, the exercise will lose the haptic proxemic quality that makes it powerful.

Pacing and proxemic tempo: This guide runs at a slower proxemic tempo than the others. The transitions between zones (intimate soil encounter → social Kaffee und Kuchen → personal map exercise) should be gradual. Abrupt shifts jar elderly participants who need time to adjust — physically and attentionally — to a new proxemic arrangement. Allow transition time: "Let's put the soil aside now and move inside for coffee" is better than immediate relocation.

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