

# Proxemic Integration

*Edward T. Hall's Proxemics as Spatial Grammar for the  
Pattern Discovery Toolkit*

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# Proxemic Integration — The Hidden Dimension of Place-Based Learning

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## Edward T. Hall's Proxemics as Spatial Grammar for the Pattern Discovery Toolkit

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Erdpuls Müllrose — Living Laboratory & Makerspace Garden

**Version:** 1.2

**Date:** February 2026

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## Changelog

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Version	Date	Changes
1.2	February 2026	BNE compliance update: Pedagogical Framework and BNE Orientation section added (Areas 1–4 coverage, 4A-Pathway in proxemic context); Facilitator Qualification note added to Part Three (Areas 6.1.1/6.1.2 — minimum requirements); BNE Quality Framework Alignment section added before Further Reading (criterion-by-criterion mapping for criteria directly addressed by this document)
1.1	February 2026	Institution name updated; license footer added; version updated for OER publication
1.0	October 2025	Initial release

## About This Document

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This document weaves Edward T. Hall's proxemics — the study of how humans use space as a culturally elaborated system of communication — into every layer of the Pattern Discovery Toolkit. It serves three audiences simultaneously:

**For the theorist:** Part One revises the toolkit's theoretical foundations, demonstrating how Hall's spatial grammar complements Christopher Alexander's environmental grammar and produces a more complete account of why place-based learning works.

**For the facilitator of any specific workshop:** Part Two provides proxemic supplements for each of the 20 living experience guides — concrete facilitation notes, spatial design guidance, and enrichment activities organized by appendix and target group.

**For any facilitator, working with any workshop format:** Part Three is a standalone Proxemic Facilitator's Guide with five principles, practical tools, a diagnostic audit template, campus zone design guidance, and a troubleshooting section. It can be used independently of the rest of the document.

## Pedagogical Framework and BNE Orientation

This document is part of the Erdpuls OER Collection and is designed to support full compliance with the *Qualitätskatalog für außerschulische Anbieterinnen und Anbieter von Bildung für nachhaltige Entwicklung (BNE) im Land Brandenburg* (MLUK Brandenburg, April 2023). It is a theoretical supplement and facilitator preparation resource for the Pattern Discovery Toolkit, not a standalone educational programme. It directly addresses the Angebotsqualität criteria for which spatial design and proxemic facilitation is the relevant evidence.

### BNE Quality Areas Addressed

Area	Title	Status
1	Goals and Target Groups	All criteria met - all five target groups are explicitly addressed with differentiated proxemic facilitation notes (Sections A.1-A.5, B.1-B.5, C.1-C.5, D.1-D.5)
2	Approach	All criteria met - cross-cultural and cross-border proxemic dimensions addressed; all four sustainability dimensions and DE/PL Perspektivenvielfalt reflected
3	Methods	Minimum requirements met; 3.1 (action-oriented, experiential, reflective, participatory) fully addressed through proxemic design principles; 3.2 (theoretical grounding) fully met; 3.3 (supporting preparation) addressed via Proxemic Audit and troubleshooting guide
4	Gestaltungskompetenz	Key sub-competencies explicitly addressed (4.1.1, 4.2.1, 4.3.3); proxemic quality enrichments to D.1-D.5 support all 12 sub-competencies indirectly
5	Quality Development	Minimum requirements met; Proxemic Audit is a 5.2.1 continuous practice reflection tool; D.4 proxemic evaluation methodology contributes to 5.2.2

Area	Title	Status
6	Facilitator Qualification	Minimum requirements met; Part Three constitutes structured facilitator preparation (6.2.1) and an experiential qualification pathway (6.1.2)
7	Organisational Conditions	Addressed at programme level; campus zone proxemic design guidance (Zones A-E) supports 7.4 (infrastructure)

The complete criterion-by-criterion mapping for criteria directly addressed by this document is in the *BNE Quality Framework Alignment* section at the end of this document. For the full programme-level alignment across all 57 criteria, see the *BNE-Qualitätsbewertung und Leitbild* (February 2026).

### The 4A-Pathway in Proxemic Context

Every educational sequence at Erdpuls follows the 4A-Pathway. Proxemics maps onto this pathway as both a diagnostic lens and a design tool:

Stage	Proxemic Expression	Where This Document Addresses It
<b>Awareness</b>	Intimate/personal proxemic encounter with soil, materials, or place - all sensory channels active; Ring 0 body calibration	Revision 3 (Ring 0 proxemic note); Sections A.1-A.5 (soil protocol per target group)
<b>Acknowledgment</b>	Group synthesis at personal/social distance - recognising that distributed sensory observations form a coherent spatial pattern	Part Three Principle 2 (transition scaffolding); Proxemic Audit (group synthesis phase)
<b>Attitude</b>	Deliberative phases in sociopetal arrangements - values reflection on spatial arrangement, cross-cultural proxemic norms, and economic space	Sections B.1-B.5 (token economy); D.1-D.5 (quality evaluation as proxemic act); Troubleshooting section
<b>Action</b>	Proxemic Audit implementation; campus zone redesign; token card station relocation; cross-border pair assignment	Part Three (Five Principles + Practical Tools); Campus Zone Design guidance

# PART ONE: Revised Theoretical Foundations

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## Revisions to the Main Pattern Discovery Toolkit

The following sections replace or supplement existing sections of the Pattern Discovery Toolkit. They weave Edward T. Hall's proxemics into the framework alongside Alexander, Goethe, Merleau-Ponty, and the other intellectual traditions.

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### Revision 1: New Section 1.5 — Proxemics as Spatial Grammar

*Insert after Section 1.4 (The Concentric Ring Structure) and before Part 2 (The Method in Detail).*

#### 1.5 Proxemics as Spatial Grammar

Christopher Alexander gives us a grammar for patterns at environmental scale — how a window relates to a wall, how a settlement relates to its watershed. But between the body (Ring 0) and the building (Ring 1), between the building and the community (Ring 3), another spatial grammar operates: the grammar of human proximity, sensory reach, and culturally patterned distance.

Edward T. Hall, the cultural anthropologist who coined the term "proxemics" in 1963, defined it as "the interrelated observations and theories of humans' use of space as a specialized elaboration of culture." In *The Hidden Dimension* (1966), Hall demonstrated that the distances humans maintain from one another are not arbitrary but structured into zones, each with a distinct sensory profile and communicative significance.

Hall's four distance zones — intimate (0–45 cm), personal (45 cm–1.2 m), social (1.2–3.7 m), and public (3.7 m+) — are not merely spatial measurements. Each zone activates a different configuration of sensory channels:

Zone	Distance	Sensory Channels Active
<b>Intimate</b>	0–45 cm	Touch, smell, body heat, whispered voice, fine visual detail
<b>Personal</b>	45 cm–1.2 m	Soft voice, moderate detail, some thermal, selective touch
<b>Social</b>	1.2–3.7 m	Normal voice, full-body vision, no thermal or olfactory
<b>Public</b>	3.7 m+	Loud voice or amplification, panoramic vision only

**Why this matters for the toolkit:** The concentric rings of the pattern-discovery process are not only spatial scales — they are *sensory regimes*. As participants move outward from Ring 0 (the body) to Ring 4 (the bioregion), sensory channels progressively close. At Ring 0, all channels are open: you can touch, smell, taste, hear, and see the soil in your hand. At Ring 4, only vision remains: you cannot smell a watershed boundary, but you can see it from a hilltop. This progressive closure is a proxemic phenomenon with direct pedagogical implications.

When engagement drops during a workshop — when participants who were absorbed during the soil protocol become restless during the bioregion mapping — the cause is often proxemic: they have moved from an intimate/personal sensory regime (all channels active, high engagement) to a public one (vision-only, lower embodied engagement) without the transition being scaffolded. Facilitators who understand the sensory gradient can intervene: bring something to touch at Ring 3 (a building material, a heritage artifact); bring something to smell at Ring 4 (soil from the proposed bioregion boundary). Each sensory reactivation restores proxemic intimacy within a larger spatial frame.

#### The rings as proxemic zones of place-relationship:

Toolkit Ring	Alexander's Grammar (What to Observe)	Hall's Grammar (How We Observe)	Sensory Profile
<b>Ring 0 (Body)</b>	The observer as instrument	Intimate zone — with oneself and with the ground	All 5 channels: touch, smell, thermal, sound, sight
<b>Ring 1 (Site)</b>	Patterns of built environment	Personal zone — with walls, materials, micro-climate	4 channels: touch, detailed vision, thermal, some olfactory
<b>Ring 2 (Garden/ Near Landscape)</b>	Patterns of cultivation and ecology	Transitional — personal to social	4–5 channels: touch (soil, plants), smell (garden), sound (insects, wind), sight
<b>Ring 3 (Settlement)</b>	Patterns of community and heritage	Social zone — with neighbors, community spaces	2–3 channels: normal voice, full vision, gestural communication
<b>Ring 4 (Sub-Bioregion)</b>	Patterns of watershed and geology	Public zone — with landscape and horizon	1–2 channels: vision dominant; sound of wind, water at distance

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Alexander shows us *what* to observe at each scale. Hall shows us *how* we observe at each scale — which senses are available, which fade, and how the quality of attention shifts. Together, they provide a complete spatial theory: from the body's relationship with the ground to the community's relationship with its bioregion.

**The cultural dimension:** Hall's deepest insight is that proxemic behavior is culturally patterned. The distances at which people feel comfortable, the sensory signals they attend to, the meaning they assign to spatial arrangements — all vary across cultures. Research on interpersonal distance preferences across countries shows significant variation: Central Europeans (including Germans) tend toward larger interpersonal distances in formal settings (120+ cm) than Slavic Europeans (including Poles), who often operate at somewhat closer distances.

This is directly relevant to the toolkit's cross-border and multicultural applications. When German and Polish participants kneel side by side during a soil observation — shoulders 30 cm apart, hands in the same earth — they have entered each other's personal proxemic zone across a cultural boundary. The soil mediates this crossing. That mediation is one of the most powerful pedagogical mechanisms the toolkit deploys, and proxemics gives us the vocabulary to understand why it works.

**Sociofugal and sociopetal space:** Hall and Robert Sommer (*Personal Space*, 1969) distinguished between *sociopetal* space (which draws people together — circular seating, shared worktables, campfire layouts) and *sociofugal* space (which pushes people apart — rows facing forward, individual workstations, corridors). Every workshop space, every zone on the campus, every arrangement of chairs and tables is either gathering people or dispersing them. The facilitator who understands this distinction can design spatial arrangements that serve the pedagogical purpose of each phase: sociopetal circles for the Wisdom Circle and the boundary deliberation; sociofugal dispersal for the solo observation phase of Ring 0; and the transition between them as a deliberate proxemic choreography.

**Vertical proxemics:** Hall noted that vertical distance communicates power. Looking down on someone asserts dominance; being at the same level communicates equality. This has immediate implications for facilitation across target groups: kneeling with children during soil observation; bringing samples to a seated elder at comfortable height; ensuring that intergenerational pairings have the elder seated (above) while the younger participant does physical ground work (below) — inverting the usual age-power dynamic in which youth tower over elders. The spatial arrangement communicates respect without words.

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## Revision 2: Expanded Part 5 — Theoretical Roots and Further Reading

*Replaces the existing Part 5 in full.*

## Part 5: Theoretical Roots and Further Reading

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This toolkit stands at the intersection of several intellectual traditions. None is treated as dogma; each contributes a particular quality of attention. Together, they form a layered spatial theory — from the body's intimacy with the ground to the community's relationship with its bioregion — that grounds sustainability education in embodied, place-based, culturally aware practice.

**Christopher Alexander** — *A Pattern Language* (1977) and *The Nature of Order* (2002–2005). The concept of patterns as recurring resolutions of tensions; the idea that environments possess a quality of "life" or "wholeness" that can be perceived and cultivated. Alexander provides the *grammar of environmental pattern* at every scale, from a window's relationship to its wall to a town's relationship to its watershed. His concentric, scale-linking structure — where patterns at one scale create the context for patterns at the next — directly inspires the toolkit's ring structure.

**Proxemics (Edward T. Hall)** — *The Hidden Dimension* (1966) and *The Silent Language* (1959). The study of human use of space as a culturally elaborated communication system. Hall's four distance zones (intimate, personal, social, public) and their associated sensory profiles (haptic, thermal, olfactory, visual, vocal) provide the *grammar of interpersonal and sensory space* that complements Alexander's environmental grammar. Where Alexander shows what to observe at each scale, Hall shows how we observe — which senses are available, which fade, and how cultural patterns shape spatial behavior. The toolkit draws on Hall's work in three specific ways: (1) the concentric rings are understood as sensory regimes, not merely spatial scales; (2) cross-cultural encounters (especially in the DE/PL cross-border context) are recognized as proxemic events shaped by culturally different spatial norms; and (3) facilitation design — seating arrangements, vertical relationships, sociopetal vs. sociofugal space — is treated as pedagogically significant spatial choreography. See also: Robert Sommer (*Personal Space*, 1969) on sociofugal/sociopetal space; Larry Busbea (*Proxemics and the Architecture of Social Interaction*, 2020) on the architectural implications.

**Goethean Science** — Johann Wolfgang von Goethe's approach to natural observation, developed in *The Metamorphosis of Plants* (1790) and *Theory of Colours* (1810). The discipline of attentive, sequential observation before analysis. The idea that the observer is part of the phenomenon. Elaborated in the 20th century by Henri Bortoft (*The Wholeness of Nature*, 1996). The toolkit's insistence on sensation before interpretation, and its Ring 0 body-calibration practice, are direct applications of Goethe's *zarte Empirie* (delicate empiricism). In proxemic terms, Goethean observation requires that the observer remain in the intimate or personal zone with the phenomenon — close enough for all sensory channels to be active — long enough for the phenomenon to reveal its own structure. Goethean method sometimes requires solitude because another person's proxemic presence (their sounds, warmth, movement) introduces sensory information competing with the phenomenon under observation.

**Phenomenology** — Edmund Husserl, Maurice Merleau-Ponty (*Phenomenology of Perception*, 1945), and more recently David Seamon (environmental phenomenology, "place-ballet"). The insistence that knowledge begins with pre-theoretical description of lived experience. Merleau-Ponty's radical claim —

that the body is not an object in the world but the subject *through which* there is a world — grounds the toolkit's treatment of the body as a sensing instrument of equal dignity to electronic sensors. Hall's proxemics operationalizes Merleau-Ponty's insight: the body's sensory reach defines the boundaries of lived space, and these boundaries are culturally elaborated.

**Bioregionalism** — Peter Berg and Raymond Dasmann (the original bioregion concept, 1970s); Kirkpatrick Sale (*Dwellers in the Land*, 1985); Robert Thayer (*LifePlace*, 2003). The proposition that ecological and cultural regions — not administrative units — are the meaningful scale for sustainable inhabitation. In proxemic terms, the bioregion represents the *public zone of place-relationship*: the scale at which only vision operates, where the territory can be seen but not touched, where belonging is cognitive rather than sensory. The challenge of bioregional education is to create felt connection at a scale that exceeds the body's sensory reach — a challenge the toolkit addresses through walking transects (bringing the body into proxemic contact with distant landscapes) and through the elder memory transect (where intimate sensory memories extend the proxemic field across decades).

**Sense of Place / Genius Loci** — Christian Norberg-Schulz (*Genius Loci: Towards a Phenomenology of Architecture*, 1979); Edward Relph (*Place and Placelessness*, 1976); Yi-Fu Tuan (*Space and Place*, 1977). The theoretical grounding of place as a fundamental dimension of human existence, not a mere backdrop. Tuan's distinction between "space" (abstract, geometric, indifferent) and "place" (experienced, valued, known) maps onto the proxemic gradient: space becomes place when it moves from the public zone into the personal and intimate — when it is not merely seen but touched, smelled, inhabited. The pattern-discovery process is, in this reading, a systematic practice of converting space into place by progressively engaging all proxemic sensory channels.

**Citizen Science** — Alan Irwin (*Citizen Science*, 1995); the contemporary platform ecology (iNaturalist, Zooniverse, senseBox/openSenseMap). The democratization of environmental monitoring and the epistemological implications of lay participation in knowledge production. The "sensor dialogue" central to this toolkit — placing human embodied perception alongside instrumental data — is a proxemic practice: the human senses a phenomenon at intimate distance while the sensor measures it from a fixed point. The conversation between these two forms of perception is a conversation between two proxemic positions.

**Ubuntu Philosophy** — The Southern African ethical principle of "I am because we are" (*umuntu ngumuntu ngabantu*). The recognition that selfhood is constituted through relationship — extended in this toolkit to the relationship between humans and their ecological context. Ubuntu and proxemics share a fundamental insight: the self is not bounded at the skin. Hall demonstrated that the space surrounding a person is psychologically part of them — an extension of their being. Ubuntu extends this further: the community, the landscape, the soil are extensions of the self. The reciprocal token economy (Appendix B) is a structural expression of this principle.

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**Education for Sustainable Development (BNE)** — The UNESCO framework and its national implementations (in Germany: Transfer 21, the BNE quality catalogs). The twelve sub-competencies of *Gestaltungskompetenz* provide a useful evaluative framework for the skills this toolkit develops. Proxemic awareness — the capacity to read spatial arrangements, understand cultural differences in spatial behavior, and design socio-petal environments for collaborative learning — is not listed among the twelve competencies but underlies many of them, particularly 4.1.1 (openness to new perspectives), 4.2.1 (collaborative planning and action), and 4.3.3 (empathy, which Hall's work reveals to be fundamentally a proxemic capacity — you cannot empathize with what you cannot sense, and you cannot sense what is beyond your proxemic reach).

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### Revision 3: Enrichment to Ring 0 Methodology

*Insert as a facilitator note within Section 2.1 (Ring 0 — The Body).*

#### Proxemic Note for Ring 0:

Ring 0 operates entirely within the intimate and personal proxemic zones. Participants are attending to their own body (intimate distance with the self) and to the immediate ground, air, and sensory environment (personal distance with the site). All sensory channels are active: haptic (ground texture underfoot, air on skin), thermal (warmth, coolness, sheltered vs. exposed), olfactory (earth, vegetation, moisture, exhaust), auditory (near sounds, far sounds, the sonic horizon), and visual (deliberately last, to avoid its habitual dominance over the other senses).

The sequential sensory calibration in Ring 0 — touch/temperature first, then sound, then smell, then sight — follows a proxemic logic: it begins with the channels that operate only at intimate distance (touch, thermal) and moves toward the channel that extends to public distance (sight). This sequence progressively *expands* the proxemic field from the body outward, preparing participants for the movement through Rings 1–4 that will follow.

When introducing the sensor dialogue at the end of Ring 0, the facilitator is staging a proxemic encounter between the participant's body and the electronic sensor: "Your skin says 'cool but sheltered.' The thermometer says 11°C. These are two perceptions from different proxemic positions — your body at intimate distance, the sensor at its fixed point. Neither is more true. The gap between them is where learning begins."

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## PART TWO: Proxemic Supplements for All Twenty Living Experience Guides

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### The Proxemic Layer — Facilitation Notes and Enrichments

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This supplement provides proxemic facilitation notes, spatial design guidance, and enrichment activities for each of the 20 living experience guides across the four appendices. It is organized by appendix and target group, and should be read alongside the corresponding guide.

Each supplement follows a consistent structure: a framing note on the proxemic character of the appendix as a whole, then specific notes for each of the five target groups — Children/Youth, Adults/Families, Elders/Intergenerational, Artists/Researchers, and Cross-Border DE/PL.

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### A. Questions to the Soil — Proxemic Supplements

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#### The Proxemic Character of the Soil Protocol

The Questions to the Soil protocol is the most proxemically rich activity in the entire toolkit. It systematically moves participants into *intimate proxemic distance with a non-human entity* — the soil. This is extraordinary: in daily life, intimate distance is reserved for lovers, children, and close family. The soil protocol asks participants to kneel, handle, smell, press, warm, and listen to earth — sensory engagement that activates every one of Hall's proxemic codes (haptic, thermal, olfactory, visual, vocal/auditory). No other educational activity in the toolkit operates this deeply in the intimate zone.

The protocol's fourteen questions (thirteen original plus the auditory enrichment at Question 8b) follow a proxemic arc: they begin with channels operating only at intimate distance (touch, thermal, smell) and progressively widen toward channels extending to personal and social distance (sight, relational context, ethical reflection). This arc is a microcosm of the full ring structure — Ring 0 to Ring 4 compressed into a single hour at a single patch of ground.

#### A.1 — Children and Youth (Erdreich-Entdecker)

**Vertical distance:** When children are on the ground (kneeling, digging, doing the Life Count), the facilitator should kneel or squat to the same level. Standing over a kneeling child introduces a vertical proxemic dominance that undermines the participatory intention. The exception is safety supervision, where a brief standing scan of the group is appropriate — but teaching and prompting should happen at child height.

**The Life Count as proxemic peak:** The two-minute timed organism search requires children to bring their faces to within 10–20 cm of the soil surface — deep intimate distance. For some children, this is thrilling (the excitement of close-up discovery). For others, it triggers discomfort (soil near the face, unknown creatures at intimate distance). The facilitator should normalize both responses: "Some of you will want to put your nose right in the soil. Some of you will want to stay a bit further back. Both are fine. Use the hand lens to bring things close without having to get your face close."

**Sound as missing channel — the auditory enrichment:** Add a 60-second "soil listening" exercise between existing questions: "Put your ear close to the ground. What can you hear? Insects? Roots? Water? Wind above you? The difference between what you hear at ear-to-ground distance and what you hear standing up is the difference between intimate and public sound."

**Age-differentiated proxemic comfort:** Ages 8–10 generally have fewer proxemic inhibitions — they will readily touch, smell, and taste-test (remind them not to). Ages 13–16 often have heightened proxemic self-consciousness (especially around peers) — the soil protocol may initially feel "embarrassing." Frame it: "Scientists study soil this way. This is how a geologist works. This is professional, not childish." The professional frame gives older adolescents proxemic permission.

## A.2 — Adults and Families (Boden-Begegnung)

**The adult proxemic barrier:** Adults have the most rigid proxemic boundaries. Asking a 45-year-old to kneel on the ground, press their face toward soil, and describe what they smell requires crossing a proxemic threshold they may not have crossed since childhood. The facilitator's key move: model it first, naturally, without commentary. Kneel, handle the soil, smell it, describe what you perceive. Adults follow modeled behavior more readily than verbal instruction when proxemic boundaries are involved.

**The smell question as proxemic breakthrough:** Question 5 (Smell) consistently produces the most powerful responses from adults because it requires them to bring the soil to their nose — an intimate proxemic act with a non-human substance. The facilitator should prepare for this moment: "Smell is processed by the oldest part of the brain. It bypasses analysis and connects directly to memory. When you smell this soil, you may remember things you didn't know you remembered."

**Families as proxemic units:** When families participate together, the parent-child proxemic relationship changes the dynamic. Children who might be shy alone are emboldened by a parent's presence. Parents who might resist kneeling in the dirt do it because their child is doing it. The family proxemic unit — which has its own intimate distance, its own habitual spatial patterns — becomes the primary learning unit. Frame accordingly: "Work together. Let your child's hands guide yours."

**The Repair Café conceptual bridge:** When the guide connects soil observation to the Repair Café ("Can this soil be repaired?"), the proxemic parallel is: in both cases, participants enter intimate distance with a material (a broken toaster, a degraded soil) and use all senses to diagnose and heal it. This connection — intimate proxemic engagement as the foundation of both ecological observation and circular economy practice — could be made explicit.

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### A.3 — Elders and Intergenerational (Boden-Gedächtnis)

**Physical accessibility as proxemic accommodation:** Not all elders can kneel. The standard response — bring the soil to them — is a proxemic translation: instead of moving the person into intimate distance with the ground, move the ground into intimate distance with the person. Use wide bowls or trays at table height. Ensure lighting is adequate (visual proxemic channel degrades with age). Speak clearly and face the person (auditory proxemic channel degrades with age).

**The vertical inversion:** 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 inversion communicates respect through spatial arrangement — a proxemic signal that reinforces the guide's core principle (elders as knowledge-holders, not recipients).

**Smell and memory — the proxemic-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 during the protocol, the olfactory-mnemonic link often produces extraordinary responses ("My grandmother's potato field smelled exactly like this"). The facilitator should allow extended time for these responses. They are not digressions — they are the elder guide's primary data source, activated by proxemic intimacy with the soil.

**Kaffee und Kuchen as proxemic design:** The mid-session break is 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. The Kaffee und Kuchen break is not a rest from the workshop — it is a proxemically designed space where informal knowledge exchange occurs that formal curriculum cannot force.

### A.4 — Artists and Researchers (Boden-Tiefe)

**The Three Morning Questions as proxemic ritual:** The daily return to the same soil patch at the same time creates a proxemic relationship with a specific piece of ground that deepens over weeks. The resident enters intimate distance with the same 1 m<sup>2</sup> of earth daily. Over time, the proxemic encounter shifts: Day 1 is novel (the unfamiliar ground); Day 7 is recognized (the ground begins to "know" the observer, and the observer begins to "know" the ground); Day 21 is intimate in the full relational sense (the observer can detect changes by feel, smell, moisture on the hands — the soil has entered the personal proxemic field). This progression — from stranger to intimate — mirrors the human proxemic trajectory of relationship.

**Solitary observation as proxemic autonomy:** The guide notes that some residents 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. The

facilitator should respect this. The Goethean method sometimes requires solitude precisely because another person's proxemic presence (their sounds, their warmth, their movement) introduces sensory information that competes with the phenomenon under observation.

### A.5 — Cross-Border DE/PL (Boden-Brücke)

**The cross-cultural proxemic encounter:** German and Polish participants inhabit different proxemic cultures. Research indicates that Central Europeans (including Germans) tend toward slightly larger interpersonal distances in formal settings than Slavic Europeans (including Poles). When a German and a Polish participant kneel side by side for the soil protocol — shoulders 25–35 cm apart, hands in the same earth — they have entered each other's personal proxemic zone across a cultural boundary. The soil is the mediating object that makes this crossing possible without social awkwardness. This is one of the workshop's deepest pedagogical mechanisms.

**Translation as proxemic bridge:** When the bilingual facilitator reads each question in three languages (DE/PL/EN), the vocal proxemic channel expands to include all participants. When a Polish participant describes a pattern in Polish and a German participant translates, the translation act is itself a proxemic crossing — a movement from the private linguistic space of one language into the shared space of another. The proxemic significance: linguistic translation creates communicative intimacy between people who would otherwise remain at social or public proxemic distance.

**The shared meal — proxemic peak of the cross-border day:** Shared food from both sides of the border, prepared together if possible, consumed seated in close proximity. This is the most powerful sociopetal intervention available for cross-border work. Hall's research and subsequent studies consistently show that shared meals reduce interpersonal distance, activate all sensory channels (taste, smell, temperature, texture, sight), and create conditions for the kind of informal exchange that formal programs cannot engineer. The facilitator should understand: the meal is not a break from the workshop. It is the proxemic center of the cross-border experience.

## B. Token Economy — Proxemic Supplements

### The Proxemic Character of Economic Exchange

The token economy workshops are fundamentally about *social* proxemic space — how humans relate to each other in economic exchange. The proxemic layer reveals that different economic models produce different spatial behaviors: reciprocal exchange is a personal-distance activity (face to face, hand to hand, all sensory channels active); market transaction is a public-distance or virtual-distance activity (counter, screen, sensory channels closed). The loss when everything becomes a transaction is not merely sentimental — it is a loss of information. Reciprocal exchanges at personal distance carry information about quality, need, skill, relationship, and context that market transactions at public distance cannot.

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## B.1 — Children and Youth (Das Garten-Wirtschaftsspiel)

### Proxemic design for Round 1 vs. Round 2:

*Round 1 (Extractive Economy):* The Market stands behind a table. Participants approach one at a time. The spatial arrangement is sociofugal: a barrier (the table) separates Market from participant; a queue creates linear distance between participants; no team-to-team contact is permitted. This is the proxemic architecture of extraction — the counter, the transaction window, the separation of buyer and seller.

*Round 2 (Reciprocal Economy):* No fixed Market, no table barrier. Participants move freely, approaching each other, forming spontaneous clusters, working side by side. The spatial arrangement is sociopetal: circles form naturally around collaborative tasks; personal distance decreases as cooperation intensifies; physical contact increases (passing tools, holding objects together, high-fives when a task is completed).

The facilitator should notice and name this shift: "Look at how you're standing now versus Round 1. In Round 1, you stood in a line facing The Market. Now you're in clusters, facing each other. The economy changed — and so did your bodies."

## B.2 — Adults and Families (Sehen, was wir schon tauschen)

### Proxemic reading of the Exchange Mapping Exercise:

Ask participants to notice the proxemic distance at which their mapped exchanges typically occur: "Most of your reciprocal exchanges — the neighbor who watches the cat, the friend who shares garden surplus — happen at personal or intimate distance. Face to face, hand to hand, often in a kitchen or a garden. Now think about your transactional exchanges — buying at a store, paying a bill online. What proxemic distance are those? Social? Public? Virtual (no physical distance at all)? The reciprocal economy is a personal-distance economy. The market economy is a public-distance economy. What does that tell us about what gets lost when everything becomes a transaction?"

**The Repair Café as proxemic laboratory:** The repair interaction places two people at personal-to-intimate distance around a shared object, using all sensory channels (inspecting the toaster's mechanism visually, smelling the burnt component, feeling for loose connections, listening for the click of a properly seated part). This multi-sensory, close-distance, collaborative diagnostic process is the proxemic signature of the reciprocal economy — and it contrasts sharply with the social/public-distance, visual-only, individual experience of buying a replacement at a store.

## B.3 — Elders and Intergenerational (Der Erinnerungsmarkt)

### Proxemic design for the Object Memory Circle:

When an elder holds a hand-forged tool and tells its story, the object circulates — passed hand to hand around the circle. Each passing is a proxemic event: the giver briefly enters the receiver's personal space; the object carries warmth and texture from the previous hands; the momentary shared grip on the tool

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creates an instant of intimate proxemic contact mediated by the artifact. This is not accidental — it is the proxemic mechanism by which memory transfers between generations. The facilitator should ensure that objects are physically passed, not displayed from a distance.

**Token card placement:** The elder Memory Market Ledger — where exchanges are recorded — should sit at the center of the circle, not on a side table. When an elder leans forward to write an entry, the physical movement into the circle's center is a proxemic enactment of contribution to the commons. The ledger itself becomes a mediating object, like the shared meal.

#### B.4 — Artists and Researchers (*Wert jenseits des Preises*)

##### Proxemic critique of value metrics:

Add to the critical dialogue: "Hall showed that as proxemic distance increases, emotional engagement decreases — the close-up is tragic, the long shot is comic. Citation counts, impact factors, and market prices are all *public-distance* metrics. They measure value from the farthest possible remove. What would an *intimate-distance* metric look like? One that could only be assessed by someone who had touched the work, spent time with it, been changed by it? The token economy's four elements might be such a metric — each requires proximity, embodied participation, and relationship to assess."

#### B.5 — Cross-Border (*Eine Wirtschaft, Zwei Sprachen*)

##### Proxemic reading of cross-border economic space:

"The border is a proxemic barrier. On the German side, you can walk up to a neighbor, stand at personal distance, and negotiate an exchange in your own language. Cross the border, and the same action requires social or public distance — a formal arrangement, a translation, an institutional mediation. The cross-border token economy is, in proxemic terms, an attempt to create personal-distance economic relationships across a public-distance political boundary. The workshop itself — by bringing people into physical proximity, shared meals, shared tasks — is the proxemic infrastructure that makes this possible."

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### C. Bioregion Mapping — Proxemic Supplements

#### The Proxemic Challenge of Bioregional Scale

Bioregion mapping presents the toolkit's greatest proxemic challenge: it asks participants to develop felt connection to a territory that exceeds the body's sensory reach. The bioregion is experienced at public proxemic distance — it can be seen from a hilltop but not touched, smelled, or heard as a whole. The walking transect is the proxemic solution: it carries the body *through* the territory at intimate/personal distance, creating a chain of sensory encounters that accumulate into a felt sense of the whole.

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### C.1 — Children and Youth (Wo hört unser Ort auf?)

#### Proxemic Enrichment: The Sensory Closure Map

Add a layer to the Expedition Record Sheet:

"At each stop, record which senses are still working:" - Can I TOUCH something specific to this place? (soil, bark, stone, water) [ ] - Can I SMELL something specific to this place? [ ] - Can I HEAR something specific to this place? [ ] - Can I FEEL temperature or wind specific to this place? [ ] - Can I SEE something specific to this place? [ ]

As children fill this in at each transect stop, a pattern emerges: close to the campus, all five boxes are checked (intimate proxemic relationship with the place). As they move outward, boxes start to go unchecked (smell fades, distinctive touch surfaces disappear, sounds become generic). The distance at which the last non-visual channel closes is a proxemically defined boundary — and it may correspond to a genuine bioregional transition.

"The point where you can no longer smell, hear, or touch anything unique to this place — where only your eyes connect you to it — might be where 'here' ends and 'somewhere else' begins."

### C.2 — Adults and Families (Die Karte unter der Karte)

#### Proxemic Enrichment: The Turnaround Moment

At the transect turnaround point, the "Landscape Letter" exercise can be enriched:

"Before you write, do a proxemic inventory. Right now, at this distance from the campus — what can you still sense? Can you smell anything from Müllrose? Can you hear anything from it? Can you feel anything in the ground that connects to where you started? Or are you connected now only by sight and memory?

This is the proxemic edge of your bioregion — the distance at which your body's non-visual connection to your place of origin fades. Everything beyond this point, you know intellectually but not sensorially. The challenge of bioregional thinking is to extend care to places beyond your sensory reach."

### C.3 — Elders and Intergenerational (Die Landschaft erinnert sich)

#### Proxemic Enrichment: Memory Extends the Senses

"Hall's proxemic zones describe the body's *present* sensory reach. But memory extends the proxemic field across time. When an elder remembers the smell of a field that no longer exists, they are in intimate proxemic relationship with a place that is physically absent. This temporal extension of the proxemic field is the elder guide's unique contribution to bioregion mapping: the elder's memory carries touch, smell, sound, and thermal sensation across decades. The Memory Map is a *temporal proxemic map* — it records the sensory signatures of places as they were, not just as they are."

Add to the facilitation of Phase 2 (Thematic Memory Layers):

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"When you remember the sound of a place — the frogs in the pond that was drained, the factory whistle that stopped in 1990, the dialect spoken by people who have moved away — you are holding that place at intimate proxemic distance in your memory, even though it no longer exists in the present. Your memory is a proxemic archive. Today, we open it."

## C.4 — Artists and Researchers (*Kartografien der Zugehörigkeit*)

### Proxemic Enrichment: The Cartographic Question as Proxemic Experiment

When helping residents formulate their cartographic question, offer the proxemic lens:

"Every map is made from a specific proxemic position. A satellite image is made from public-beyond-public distance — orbital distance. A soil sample is analyzed at intimate distance. Your transect walks operate at personal-to-social distance. What would a map made from intimate distance look like? What would a map made only from smell look like? From touch? From sound? Each of Hall's sensory codes could generate a different cartography of the same territory."

Possible proxemically-framed cartographic questions: - "At what distance from the campus does each sensory channel close? Can I map the bioregion's *haptic boundary, olfactory boundary, acoustic boundary, and visual boundary* as separate, non-coincident lines?" - "How does my proxemic relationship with this landscape change over three weeks of daily walking? Does the territory feel more intimate on Day 21 than Day 1? What has changed — the territory, or my sensorium?" - "If I map the bioregion using only the information available at each of Hall's four distance zones, do I get four different bioregions? How do they nest?"

## C.5 — Cross-Border (Eine Landschaft, Zwei Länder)

### Proxemic Enrichment: The Border as Proxemic Rupture

"A political border is, in proxemic terms, a rupture in the sensory field. On one side, you read the signs, understand the language, recognize the building style, know the social codes — you are at personal proxemic distance with the landscape. The moment you cross, everything shifts: the signs are foreign, the language is opaque, the building style is unfamiliar, the social codes are uncertain — you have been pushed to social or public proxemic distance with the same landscape. The geology hasn't changed. The soil hasn't changed. But your proxemic relationship to the place has changed profoundly.

The cross-border transect is an exercise in proxemic recovery: walking through the Polish landscape long enough that unfamiliarity fades, that the sounds and smells and textures begin to register as recognizable, that the proxemic distance closes from public back toward personal. This recovery — from stranger to acquaintance to something like belonging — is the bioregional insight in proxemic form: the landscape invites intimacy, regardless of which side of the border you're on."

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## D. BNE Quality Framework — Proxemic Supplements

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### The Proxemic Character of Quality Evaluation

Quality evaluation is itself a proxemic act, and the distance at which evaluation occurs determines the quality of the evaluation data. A written survey is evaluation at public distance — generic, impersonal, one-size-fits-all. The toolkit's approach to quality (participatory, experiential, co-designed) is evaluation at personal distance — face-to-face, contextual, relational. Proxemics reveals why the latter produces better data: more sensory channels are active, non-verbal cues are readable, and the evaluation happens *within* the learning space rather than removed from it.

#### D.1 — Children and Youth (Habe ich etwas Echtes gelernt?)

##### Proxemic Enrichment: Adding a Sixth Star Point

Add to the Quality Star:

**Point 6 — "Was I close to it?"** (Proxemic quality dimension — new) *Did the workshop bring me into physical contact with what I was learning about? Did I touch, smell, hear, and feel — or only look and listen? Was I at intimate distance with the soil, the material, the tool — or was I kept at public distance?*

This sixth point captures a quality dimension no institutional framework measures: the proxemic depth of the learning experience. A workshop that scores 5/5 on "Was I close to it?" engaged all sensory channels at intimate/personal distance. One that scores 1/5 kept participants at public distance (lecture, screen, passive observation). Over time, this metric generates data about which workshop designs produce the deepest engagement — and the answer, consistently, will be: those that bring participants into intimate proxemic encounter with the subject matter.

#### D.2 — Adults and Families (Was macht es wert, wiederzukommen?)

##### Proxemic Enrichment: The Quality Compass Expansion

Add to the Quality Compass worksheet:

**PROXIMITY — Was the learning embodied?** "Think about the workshops you've attended here. When did you feel most engaged — and how close were you to the thing you were learning about? When you repaired the toaster, you were holding it in your hands. When you measured the soil, your nose was inches from the earth. When you listened to the elder's story, you were in a circle close enough to see their expressions. Were there moments when you felt distant — when the content was abstract, projected on a screen, or described rather than experienced? Those moments of closeness and distance are quality indicators. The closer the learning, the deeper it goes."

#### D.3 — Elders and Intergenerational (Was ist es wert, weitergegeben zu werden?)

##### Proxemic Enrichment: The Elder Proxemic Criterion

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From the Wisdom Circle, a proxemic elder quality criterion is likely to emerge organically — something like: "You learn best from someone who is right next to you, doing it with you, not from someone standing at the front of the room talking." This is a proxemic quality statement of considerable power. If it emerges, name it: "You've just described what Edward Hall called the difference between personal-distance teaching and public-distance teaching. The first changes people. The second is forgotten by Tuesday."

If the principle does not emerge spontaneously, the facilitator can prompt it: "Think about the most important thing anyone ever taught you. Were they near or far? Were they doing it alongside you, or explaining it from a distance?" The answers will almost universally describe intimate or personal-distance teaching — a proxemic quality insight that enriches the Wisdom Circle's collective criteria.

#### **D.4 — Artists and Researchers (Messen, was zählt)**

##### **Proxemic Enrichment: Proxemics as Evaluation Method**

Propose proxemic analysis as one of the supplementary evaluation methods:

"Measure the proxemic profile of each workshop: how much time do participants spend at each of Hall's four distance zones? A workshop that keeps participants at social/public distance for 90% of the time (seated, listening, watching) has a fundamentally different proxemic profile from one where participants spend 60% of the time at intimate/personal distance (handling materials, kneeling in soil, working side by side). Hypothesis: proxemic depth correlates with reported learning depth, emotional engagement, and return rate. Test this during your residency."

A resident could operationalize this by photographing workshop activities at regular intervals and coding the photographs for interpersonal distance and human-material distance — creating a "proxemic time-series" that reveals the spatial choreography of each workshop format. This would be, as far as we know, a novel evaluation methodology — and the data would contribute directly to BNE Area 5 (quality development through evidence-based practice).

#### **D.5 — Cross-Border (Qualität ohne Grenzen)**

##### **Proxemic Enrichment: The Missing Row in the Framework Comparison Matrix**

In the Framework Comparison Matrix, the three blank rows at the bottom (Cross-Cultural Exchange, Multilingual Accessibility, Cross-Border Ecological Literacy) can be joined by a fourth:

**Proxemic Depth of Learning** - Brandenburg (DE): Not addressed. - Poland (PL): Not addressed. - EU GreenComp: Not addressed. - UNESCO ESD 2030: Not addressed. - Cross-Border Criterion: "The learning experience brings participants into intimate/personal proxemic distance with the subject matter, with each other, and with the shared landscape, across the cultural boundary."

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This criterion captures something no national framework recognizes: that cross-border learning succeeds when people are physically close enough to share sensory experience across a cultural divide. The soil under their hands, the food on their shared table, the map they lean over together — these are the proxemic mediators of cross-border understanding.

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## PART THREE: The Proxemic Facilitator's Guide — A Standalone Reference

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*This guide can be used independently by any facilitator working with the Pattern Discovery Toolkit or any place-based educational program. It provides a concise introduction to proxemic principles as they apply to sustainability education, and a set of practical tools.*

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### Facilitator Qualification and This Guide

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(BNE Areas 6.1 and 6.2)

Part Three of this document constitutes a structured professional preparation resource for facilitators working with the Pattern Discovery Toolkit or any place-based BNE programme. Its use satisfies the following Brandenburg BNE quality criteria:

- **(6.1.2 Persönliche Qualifikation):** A facilitator who has worked through the Five Proxemic Principles, completed a Proxemic Audit for at least one workshop, and applied one proxemic intervention from the Troubleshooting section demonstrates documented professional experience with place-based, embodied BNE facilitation. This constitutes evidence of personal qualification appropriate to the programme context.
- **(6.2.1 Vorbereitende Fort-/Weiterbildung):** This Part Three guide, read and applied before delivering any toolkit session, satisfies the minimum requirement for preparatory continuing education. Facilitators new to the programme should read it alongside the Facilitator's Implementation Handbook (which addresses Areas 6.1, 6.2, 5.2, 5.3 in full operational detail).
- **(6.2.2 Laufende Fort-/Weiterbildung):** The Proxemic Audit, when completed after each workshop and reviewed annually (see Facilitator's Implementation Handbook, Quality Report Standards), constitutes an ongoing practice-reflection mechanism that contributes toward the 24-hour annual continuing education minimum.

**Minimum requirements (6.1.2 or 6.1.1, plus 6.2.1 and 6.2.2):** Met via this guide in combination with the Facilitator's Implementation Handbook.

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## Why This Guide Exists

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You have been facilitating workshops where participants observe soil, repair objects, map landscapes, exchange knowledge, and evaluate quality. You have noticed that some moments in these workshops produce extraordinary engagement — participants become absorbed, time seems to stop, the conversation deepens — while other moments feel flat, restless, disconnected. You may have attributed this to the content ("the soil observation is more engaging than the mapping synthesis") or to the participants ("this group is more motivated than the last").

Proxemics suggests a different explanation: engagement correlates with sensory proximity. The absorbed moments are those where participants are at intimate or personal distance with the subject matter — touching, smelling, handling, close. The flat moments are those where participants have been pushed to social or public distance — listening, watching, receiving.

This guide gives you the vocabulary and tools to diagnose and design the proxemic quality of your workshops.

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## The Five Proxemic Principles for Facilitators

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### **Principle 1: Sensory channels close with distance.**

At intimate distance (0–45 cm), five sensory channels are active: touch, smell, thermal, sound, and sight. At public distance (3.7 m+), only sight and amplified sound remain. Every meter you add between the participant and the subject matter closes a channel. Every channel you close reduces engagement.

*Practical tool:* Before each workshop phase, ask yourself: "How many sensory channels will participants have active right now?" If the answer is one (visual) or two (visual + auditory), redesign the phase to bring participants closer, or bring material to them.

### **Principle 2: The transition between zones must be scaffolded.**

Moving from intimate to public proxemic distance (Ring 0 to Ring 4, soil observation to bioregion mapping) requires transition. If participants jump from kneeling in soil to staring at a projected GIS map, the proxemic shift is jarring and engagement drops. Scaffold the transition: at the mapping table, have soil samples from the transect available to handle. At the GIS screen, pause to pass around a rock from the geological layer being discussed. Each sensory reactivation bridges the proxemic gap.

*Practical tool:* For every phase conducted at social or public distance, prepare one object that participants can touch — an anchor that maintains intimate/personal proxemic connection within a larger spatial frame.

### **Principle 3: Sociopetal arrangements draw people in; sociofugal arrangements push them apart.**

Circles, shared tables, campfire layouts, and shared meals are sociopetal — they gather people into closer proximity and facilitate exchange. Rows, individual workstations, stages, and screens are sociofugal — they orient people away from each other and toward a focal point.

*Practical tool:* Match the spatial arrangement to the pedagogical purpose. For collaborative phases (boundary deliberation, pattern synthesis, exchange mapping), arrange sociopetally. For individual reflection (Ring 0 calibration, portfolio writing, turnaround landscape letter), arrange sociofugally. The transition between the two — "Now come into a circle" or "Now find your own quiet spot" — is itself a proxemic instruction that the facilitator should deliver deliberately.

### **Principle 4: Vertical distance communicates power.**

Standing over a seated or kneeling participant asserts authority. Being at the same level communicates equality. Sitting below a standing participant conveys deference.

*Practical tool:* During soil observation (participants kneeling): kneel with them. During the elder Wisdom Circle (elders seated): sit at the same height. During intergenerational pairing (elder seated, youth on the ground): notice and appreciate the vertical inversion — the elder is above, directing; the youth is below, working. This spatial arrangement communicates respect without words.

### **Principle 5: Cross-cultural proxemic encounters require mediating objects.**

When people from different cultures meet, their proxemic norms may conflict — one person stands closer than the other is comfortable with, or further than the other expects. A shared object (soil, food, a map, a tool) mediates this tension by giving both parties a reason to be at a specific distance: the distance required to work with the object together. The object negotiates the proxemic distance so the humans don't have to.

*Practical tool:* In cross-cultural and intergenerational settings, always have a shared object at the center of every interaction. The soil sample, the repair project, the map, the meal — these are not just content. They are proxemic mediators.

## **The Proxemic Audit**

Before each workshop, walk through the planned activities and complete this table:

Phase	Proxemic Zone	Channels Active	SocioPETAL or SOCIOFUGAL?	Vertical Arrangement	Sensory Anchor Object	Cross-Cultural Mediation?
Phase name	Intimate / Personal / Social / Public	T=touch, S=smell, Th=thermal, A=auditory, V=visual	SocioPETAL / SOCIOFUGAL / Mixed	Level / Facilitator above / Participant above	What can participants touch?	Yes / No

**Example audit (soil workshop -> mapping synthesis):**

Phase	Zone	Channels	Arrangement	Vertical	Anchor	Mediation?
Ring 0 calibration	Intimate	T, Th, A, V	SOCIOFUGAL (individual)	Level (all kneeling/standing)	Own body, ground	No
Soil protocol	Intimate–Personal	T, S, Th, A, V	Mixed (pairs/ small groups)	Level (all kneeling)	Soil	If mixed group: soil mediates
Group synthesis	Personal–Social	A, V	SOCIOPETAL (circle)	Level (all seated)	Soil samples from protocol	No
GIS exploration	Public	V, A	SOCIOFUGAL (facing screen)	Standing/ seated	[!] None prepared	Bring a tactile object
Boundary deliberation	Social	V, A, gesture	SOCIOPETAL (around table)	Level (standing at table)	Map, yarn	Map as mediator
Shared meal	Personal–Intimate	T, S, Th, A, V	Strongly sociopetal	Level (all seated)	Food	Food as mediator

**Diagnostic checks:**

[ ] Are there 3+ consecutive phases at Social/Public distance with ≤2 channels? -> **Insert a hands-on phase between them.** The workshop will lose engagement otherwise.

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[ ] Does every Social/Public phase have a Sensory Anchor Object prepared? -> **If not, prepare one.** A soil sample, a rock, a tool, a plant, a piece of bread — anything participants can touch that maintains proxemic connection to the subject matter.

[ ] Is there at least one strongly sociopetal phase? -> **The workshop needs a gathering moment.** If every phase is sociofugal, participants will feel isolated.

[ ] Is the facilitator at the same height as participants during intimate/personal phases? -> **If not, adjust.** Standing over kneeling participants introduces a power dynamic that undermines participatory learning.

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## Proxemic Design of the Erdpuls Campus Zones

Each of the five campus zones has a proxemic character that shapes what kinds of learning happen naturally within it. Understanding this character allows facilitators to choose the right zone for each activity and to intervene when the spatial arrangement works against the pedagogical intention.

### Zone A — Circular Economy Workshop (Repair Café, Precious Plastic, Textile)

**Proxemic character:** Strongly sociopetal. The shared worktable is the center of gravity — participants gather around it, pass tools and materials hand-to-hand, diagnose problems collaboratively. The Repair Café table is the toolkit's primary site of personal-distance economic exchange.

**Design guidance:** Central large table (minimum 1.2 × 2.4 m) at standing-work height (90–95 cm), participants around all four sides — no "front" or "back." Tools on open pegboard (visual access from any position). Avoid enclosed individual workstations. Token card station at the activity, not at a desk — filling in the card *at the moment of exchange* maintains proxemic connection between activity and recognition.

**Proxemic profile:** Intimate (hands-on repair) to Personal (collaborative diagnosis). All sensory channels active.

### Zone B — Bio-Materials Garden Laboratory

**Proxemic character:** Mixed. Individual garden beds are sociofugal (each person faces their own row). Communal areas — the washing station, the Boden-Labor outdoor stations, the central gathering circle — are sociopetal.

**Design guidance:** Permanent soil observation stations (3–4 across the garden) marked with posts. A central gathering area (gravel circle, bench ring, or cleared space) for group briefings — the sociopetal anchor of Zone B. Boden-Koffer storage at the garden edge, accessible during workshops. Garden paths should pass through micro-transitions (cultivated -> wild -> wet -> dry -> shaded -> open) — these are Ring 2 training transitions.

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**Proxemic profile:** Intimate (soil handling, plant contact) to Social (garden overview). Full sensory spectrum near the ground; vision-dominant when standing and surveying.

### Zone C — IoT & Electronics Workshop

**Proxemic character:** Tends sociofugal. Individual workbenches with solder stations and screens create isolated attention bubbles.

**Design guidance:** At least one large central table for collaborative sensor-building. The sensor dashboard display should be visible from this shared table, enabling the "sensor dialogue" in sociopetal arrangement. Component bins on open shelving rather than closed drawers.

**Proxemic profile:** Personal (soldering, close-up work) to Social (screen display, group discussion). Visual and haptic channels dominant.

### Zone D — Digital Fabrication

**Proxemic character:** Machine-centered, tends sociofugal. Each machine demands individual attention.

**Design guidance:** Separate the design phase (collaborative, sociopetal — shared CAD review table or projection) from the fabrication phase (individual, sociofugal — machine operation). Display finished objects from past workshops prominently as touchable artifacts. Material samples (recycled filament, bio-materials from Zone B) on a handling table — participants touch, bend, smell materials before designing with them.

**Proxemic profile:** Personal (machine operation) to Social (design review). Visual-dominant during fabrication; multi-sensory when handling materials.

### Zone E — Heritage & Community Hub

**Proxemic character:** Strongly sociopetal. This is the Erzählcafé, the Wisdom Circle, the shared meal, the Memory Market. Every spatial arrangement should draw people inward.

**Design guidance:** Primary arrangement: circle of chairs (no table barrier) for storytelling, reflection, and deliberation. Circle diameter 3–4 m — large enough for 16 people, small enough for soft-voice conversation. Secondary: long table for shared meals, narrow enough (70–80 cm) that people across from each other are within personal proxemic distance. Display walls for the accumulated artifacts (pattern cards, Memory Maps, Quality Star posters, Memory Market Ledger). Good lighting, comfortable temperature, acoustic management (reduce echo, eliminate background noise) — all for elder accessibility. The Steinfeuergrube (fire pit), when available, is the ultimate sociopetal center: warmth, light, smell, crackle, flickering visual — all channels active, the most ancient form of human gathering space.

**Proxemic profile:** Personal (circle, shared meal) to Intimate (fire, storytelling, object passing). All channels active. This zone should feel like the heart of the campus.

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## Proxemic Troubleshooting

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### **Challenge: Engagement drops during mapping synthesis.**

*Proxemic diagnosis:* Participants moved from intimate/personal distance (the transect walk) to social/public distance (standing around a projected map) without transition. Three sensory channels closed at once.

*Solution:* Bring transect artifacts into the mapping room — soil samples from transition points, rocks from geological boundaries, plants from vegetation edges. Place them on the map at their geographic locations. Now the map has things to touch and smell, and participants are back in personal proxemic relationship with the territory.

### **Challenge: Teenagers are embarrassed by the soil protocol.**

*Proxemic diagnosis:* The protocol requires intimate proxemic behavior (kneeling, smelling, handling earth) in front of peers — a high-vulnerability zone for adolescents.

*Solution:* Frame it professionally ("this is how geologists work"). Pair participants so they share the vulnerability. Demonstrate first without commentary. Reduce group observation moments (don't make anyone smell soil in front of 25 peers). The embarrassment usually dissolves within 10 minutes if the facilitator is matter-of-fact.

### **Challenge: The elder Wisdom Circle is dominated by one or two voices.**

*Proxemic diagnosis:* Sociopetal space invites participation but doesn't distribute it. Dominant voices fill the social proxemic field.

*Solution:* Use a talking object (a stone, a tool, an artifact) passed hand to hand. Only the person holding it speaks. The object is a proxemic mediator: its physical weight and warmth create an intimate proxemic relationship between the speaker and the circle's attention. The passing itself redistributes the proxemic center of the group.

### **Challenge: Cross-border participants cluster by nationality.**

*Proxemic diagnosis:* People default to cultural proxemic norms, which align with language. German speakers cluster with German speakers at familiar German proxemic distances; Polish speakers do the same.

*Solution:* Assign cross-national pairs from the start. Give each pair a shared physical task (dig soil together, walk a transect together, prepare food together). The shared task is the proxemic mediator that overrides the cultural default. By the shared meal, the clustering has usually dissolved.

**Challenge: The GIS exploration feels disconnected from the rest of the day.**

*Proxemic diagnosis:* The GIS screen creates a sociofugal, public-distance, vision-only environment — the most proxemically impoverished phase of any workshop.

*Solution:* Never run GIS for more than 20 minutes without a proxemic intervention. Toggle a layer, then pass around a physical sample from that layer. Show a watershed boundary, then pour water on a tilted tray and watch it flow. Display the Sensory Closure Map data as a GIS layer — "here's where you couldn't smell anything anymore" — reconnecting the abstract map to embodied experience. The GIS is powerful for synthesis but lethal for engagement if it monopolizes the sensory field.

**Challenge: The token card process feels bureaucratic.**

*Proxemic diagnosis:* The card station is at a desk removed from the activity — public distance, visual-only, transactional.

*Solution:* Move the token card station to the activity site. Fill in cards while hands are still dirty from the soil, while the repaired toaster is still warm, while the shared meal plates are still on the table. The card becomes a proxemic extension of the activity rather than an administrative afterthought.

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**The Proxemic Structure of the Pattern Language Itself**

A final note for facilitators who work with the full Pattern Discovery Toolkit across a year.

The pattern language that the program produces — the accumulated pattern cards, the wall display, the narrative synthesis — has its own proxemic architecture. Patterns at Ring 0 operate at intimate distance (body sensations, soil contact). Patterns at Ring 4 operate at public distance (watershed boundaries, geological formations visible only from hilltops). The language as a whole moves from intimate to public — from touch to sight, from particular to panoramic.

This means the pattern language can be *experienced* as well as read. A guided tour of the campus and its surroundings, following the ring structure, is a walk *through* the pattern language — and a walk through the proxemic gradient:

Begin at the Warm Wall (intimate: touch the bricks, feel the heat). Move into the garden (personal: handle soil, smell plants). Walk through the settlement (social: read the building facades, hear the town). Climb the nearest rise and look toward the Schlaubetal (public: see the watershed, the forest edge, the glacial terrain).

The tour is the pattern language made spatial. And it is, in proxemic terms, a progressive opening of the sensory field from all-channels-active to vision-dominant — the same proxemic arc that structures every individual workshop, now extended across the landscape.

The pattern language does not merely describe the place. It describes the place *as experienced at every proxemic distance*. That is what makes it a language of place rather than a database about place. And that is what proxemics, as the hidden dimension of the toolkit's design, makes possible.

## BNE Quality Framework Alignment

This section provides the criterion-by-criterion mapping for the Brandenburg BNE Quality Catalog criteria that this document directly addresses. Criteria not listed here are addressed at programme level in the *BNE-Qualitätsbewertung und Leitbild* (February 2026) and in the Pattern Discovery Toolkit (Appendix D).

### Area 1 - Goals and Target Groups

Criterion	How This Document Addresses It	Status
1.1.1 Lebenswelt- und Lebensphasenbezug	All five target groups receive differentiated proxemic facilitation notes grounded in their lived spatial experience: children's intimate-distance curiosity; adult proxemic barriers; elder accessibility and memory-olfactory links; artists' sustained intimate observation; cross-border cultural proxemic differences	Met
1.2.1 Zielgruppen sind konkret beschrieben	Five target groups explicitly named and differentiated across all four appendix sections (A-D)	Met
1.2.2 Bedarf ist ZG-spezifisch beschrieben	Proxemic needs of each group described specifically: vertical distance for children, modelling for adults, physical accessibility for elders, solitude for researchers, cross-cultural mediation for DE/PL	Met
1.2.3 Ziele sind konkret und ZG-spezifisch	Proxemic facilitation goals are stated per target group in each supplement section	Met
1.2.4 Bedarf, Ziele, ZG passen zusammen	Each target group section connects proxemic diagnosis to specific facilitation response - the red thread is visible throughout	Met

### Area 2 - Approach

Criterion	How This Document Addresses It	Status
2.1 Themenvielfalt	Proxemics is applied across all four sustainability dimensions: ecological (soil contact, bioregion sensing), social (cross-cultural distance, token economy), economic (proxemic signature of reciprocal vs. market exchange), institutional/cultural (architectural heritage, DE/PL border)	Met
2.2 Perspektivenvielfalt	Cross-cultural proxemic variation between German and Polish participants is treated as educational content, not a management challenge; intergenerational proxemic inversion (youth below/elder above) is a deliberate perspective-shift mechanism	Met

### Area 3 - Methods

Criterion	How This Document Addresses It	Status
3.1.1 handlungsorientiert	All proxemic principles translate into concrete physical actions: kneeling to child height, preparing sensory anchor objects, arranging chairs in a circle, passing a talking stone	Met
3.1.2 erfahrungsorientiert	The entire document is grounded in sensory experience: the proxemic framework is introduced through what participants can touch, smell, hear, and feel at each distance zone	Met
3.1.3 problembezogen	Proxemic troubleshooting section directly addresses real facilitation problems with proxemic diagnoses and practical solutions	Met
3.1.4 partizipativ	Socio-petal design guidance, the Wisdom Circle, the cross-border pair assignments, and the token card process all operationalise participatory spatial arrangements	Met
3.1.5 reflektiert	The Proxemic Audit template provides a structured pre- and post-workshop reflection mechanism; Part Five connects proxemic practice to its theoretical basis	Met
3.2 passend und fundiert	Theoretical grounding explicit: Hall (1966), Sommer (1969), Merleau-Ponty (1945), Bortoft (1996), Sorokowska et al. (2017); connection to BNE Gestaltungskompetenz framework named in Part Five	Met

Criterion	How This Document Addresses It	Status
3.3.1 Vorbereitung der Teilnehmenden	The Proxemic Audit (pre-workshop phase) and the Five Principles constitute a structured preparation framework enabling facilitators to brief participants on the spatial logic of each phase	Met
3.3.2 Unterstützung durch Experten	The document itself functions as specialist input on proxemics and spatial pedagogy; D.4 (Artists and Researchers) explicitly proposes proxemic analysis as a novel evaluation methodology with potential for expert-assisted research	Met

#### Area 4 - Gestaltungskompetenz

Criterion	How This Document Addresses It	Status
4.1.1 Neue Perspektiven öffnen	Proxemics reframes all five target groups' experience of every workshop: participants learn to read spatial arrangements, notice sensory channel closures, and understand cross-cultural distance as structured, not arbitrary	Met
4.2.1 Gemeinsam planen und handeln	The sociopetal design guidance, cross-cultural pair assignment, and token card proximity protocol all build collective spatial competency - the capacity to design shared space for collaborative action	Met
4.3.3 Empathie und Solidarität	Hall's core insight - that empathy is fundamentally a proxemic capacity (you cannot empathize with what you cannot sense) - is named explicitly in Part Five; the cross-border soil protocol operationalises this insight	Met

#### Area 5 - Quality Development

Criterion	How This Document Addresses It	Status
5.2.1 Kontinuierliche Praxisreflexion	The Proxemic Audit template, designed for completion before and after each workshop, is a dedicated continuous reflection instrument. The troubleshooting section provides a diagnostic framework for in-the-moment reflective practice	Met

Criterion	How This Document Addresses It	Status
5.2.2 Systematische Selbstevaluation	D.4 (Artists and Researchers) proposes proxemic profile analysis (time-series photography coded for interpersonal distance) as a novel systematic self-evaluation methodology, contributing to BNE evidence-based quality development	Partial - methodology proposed; implementation in Year 1 programme

### Area 6 - Facilitator Qualification

Criterion	How This Document Addresses It	Status
6.1.2 Persönliche Qualifikation	Facilitation competency demonstrated through: documented application of the Five Proxemic Principles; completion of a Proxemic Audit; implementation of at least one proxemic intervention. This constitutes an experiential qualification pathway	Met
6.2.1 Vorbereitende Fort-/ Weiterbildung	Part Three constitutes structured preparatory continuing education. Minimum requirement: read and apply before first toolkit session	Met (minimum requirement)
6.2.2 Laufende Fort-/ Weiterbildung	Proxemic Audit annual review, as specified in the Facilitator's Implementation Handbook Quality Report standards, contributes to the 24-hour annual minimum	Met in combination with Facilitator's Implementation Handbook

**Minimum requirements satisfied:** All minimum requirements in Areas 1, 2, 3, 4, 5, and 6 as they apply to this theoretical supplement and facilitator preparation document.

### Further Reading

**Core Texts:** - Hall, Edward T. *The Hidden Dimension*. New York: Doubleday, 1966. - Hall, Edward T. *The Silent Language*. New York: Doubleday, 1959. - Sommer, Robert. *Personal Space: The Behavioral Basis of Design*. Englewood Cliffs: Prentice-Hall, 1969.

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**On Proxemics and Architecture/Education:** - Busbea, Larry. *Proxemics and the Architecture of Social Interaction*. Minneapolis: University of Minnesota Press, 2020. - Lim, Flora Wai-Ling, and Robert Gillies. "The influence of classroom spatial design on student interaction." *Learning Environments Research* 24 (2021).

**On Cultural Proxemics:** - Sorokowska, Agnieszka, et al. "Preferred Interpersonal Distances: A Global Comparison." *Journal of Cross-Cultural Psychology* 48.4 (2017): 577–592.

**Connecting Traditions:** - Seamon, David, and Jacob Sowers. "Place and Placelessness, Edward Relph." In *Key Texts in Human Geography*, eds. P. Hubbard et al. London: SAGE, 2008. - Bortoft, Henri. *The Wholeness of Nature: Goethe's Way Toward a Science of Conscious Participation in Nature*. Hudson: Lindisfarne Press, 1996. - Alexander, Christopher. *A Pattern Language: Towns, Buildings, Construction*. New York: Oxford University Press, 1977.

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