

Supplementary Material — Appendices

Accompanying: “Valleys to Peaks: Co-Creating Temporal Emotional Landscape Maps for Ugly Feelings across Participatory Trajectories”

This document contains the three appendices referred to in the manuscript. Appendix 1 elaborates the cartographic and literary traditions cited in Section 2.2. Appendix 2 sets out the geomorphological lexicon introduced in Section 3.1 (Step 4), together with guidance for adapting it and an account of how it emerged. Appendix 3 documents the Phase-2 coding scheme, a worked analytical example, and the empirical materials drawn on in each case.

Case identifiers, actor initials, and location conventions follow the manuscript. Quotations translated from Turkish are given in English; original-language wording is retained where the specific term is analytically relevant. Full bibliographic details for works cited here appear in the manuscript reference list and are repeated at the end of this document.

Appendix 1. Emotional cartography, atlases, and imaginary geographies: conceptual inspirations

This appendix elaborates the cartographic and literary traditions referenced in Section 2.2 as conceptual inspirations for TELM. These works are not methods for analysing ugly feelings, nor empirical studies of participatory design; they are cited because they model a particular way of thinking about maps — as narrative itineraries in which meaning accumulates over time — that informs TELM’s decision to read emotional trajectories as landscapes.

Three touchstones shaped this framing. Manguel and Guadalupi’s dictionary of imaginary places (Manguel & Guadalupi, 2000) demonstrates that places which exist only in narrative can nonetheless be catalogued, compared, and navigated: fictional geographies acquire a shared, consultable structure once they are named and described consistently. This licenses TELM’s move of treating emotional terrain — which likewise has no physical coordinates — as something that can be given a stable, comparable vocabulary without claiming spatial existence. Bruno’s work on the intersections of film, emotion, and cartography (Bruno, 2002) reframes the map as a record of motion and affect rather than of territory: her account of early affective cartography, including the seventeenth-century *Carte de Tendre*, shows maps functioning as emotional journeys, in which the traveller moves through named regions of feeling over time. TELM inherits the idea that a “map” can chart how feeling changes along a journey rather than where things are. Schalansky’s atlas of remote islands (Schalansky, 2010) demonstrates a third move: attaching condensed narrative and affective meaning to standardised cartographic entries, so that formally identical panels can be read side by side while each retains its singular story. TELM’s small-multiples logic (Section 3.1, Step 5) borrows this combination of formal comparability and narrative specificity.

Within participatory practice, Nold’s emotional cartography experiments (Nold, 2009) and related community mapping work (Deitz et al., 2018) bring these sensibilities into empirical settings, inviting participants to annotate spaces with feeling. TELM departs from these precedents in two ways: it maps time rather than space, and it foregrounds the accumulation and transformation of difficult

feelings (Ngai, 2005) across whole project trajectories rather than affective snapshots of places. The term “map” in TELM should therefore be read in this lineage — metaphorical, temporal, and narrative — as clarified in Section 1.2.

Appendix 2. The geomorphological lexicon

A2.1 Six archetypal features

The six features below recur across the five cases. They are working definitions rather than a fixed typology: features are named within cases through dialogue with participants and compared across cases only afterwards (Section 3.1, Step 5). Indicative signatures are guides to recognition, not thresholds; scoring is interpretive throughout (Section 3.1, Step 3).

Feature	Working definition	Indicative signature	Case example
Peak	Sharp rise into high valence, often marking a public or collective achievement	Valence high (7–9); volatility variable	Case 1 construction; Case 3 editing summit
Valley	Dip associated with crisis, conflict, or demanding learning	Valence low (2–4); volatility often elevated	Case 1 co-design (design work described as “painful”, sancılı)
Flatscape / bog	Extended low-movement stretch; either a stabilising plateau or a “thickening bog” of blocked potential	Volatility low (1–3); valence distinguishes plateau (5–7) from bog (2–4)	Case 2 waiting; Case 4 later phases
Stable foundation	Modestly positive, low-volatility segment grounded in reliable relationships or infrastructure	Valence 5–7; volatility 1–3	Case 1 pre-project (“a strong start”)
Flux zone	Heightened volatility around mixed or uncertain valence; may be generative or exhausting	Volatility elevated; valence mixed (4–7)	Case 4 early coalition (“always chaos... then generative”)
Resilient infrastructure	Negative episode buffered by structures preventing collapse into a deep canyon or bog	Valence dips but recovers; volatility contained	Case 1 buffered turbulence

A2.2 Emergent subtypes

Four case-specific subtypes were named during the trajectories reported in Section 5. Each is tied to the case and phase in which it arose.

Subtype	Working definition	Origin
Necessary valley of learning	Temporary dip retrospectively recognised as enabling later ownership, skill, or pride	Case 1, Phase-2 co-reading
Descending bog of delay	Slow erosion of hope during extended institutional delay; low volatility masks accumulating cynicism	Case 2 — Phase 1 (“a really, really long flat”) plus Phase-2 steepening (“a cynical skepticism... would probably also grow”)
Canyon of structural witnessing	Sustained ethical strain from direct encounter with injustice or exclusion; in Case 3 re-timed in co-reading to the project’s founding trigger	Case 3, Phases 1 and 2

Subtype	Working definition	Origin
Suspended-sediment estuary	End state of heightened, unresolved awareness rather than closure; surface calm, sediments carried forward	Case 3, Phase 2

A2.3 Guidance for adaptation

Three principles govern how the lexicon should travel. First, name within cases before comparing across them: features are proposed and negotiated with participants in each case (for example, “this part is more like a swamp than a valley”), and only afterwards aligned across cases (Section 3.1, Step 5). Second, participants’ terms take precedence: where a participant’s own metaphor conflicts with the lexicon, the participant’s term is retained and logged, and the lexicon adjusts rather than the testimony. Third, simplify freely: teams working with children, in translation, or under time constraints may reduce the vocabulary to a minimal set, or replace geomorphology with locally resonant imagery, provided the underlying dynamics — steep plunges, slow erosions, buffered shocks — remain expressible. The geomorphology pamphlet (Section 3.1, Step 4) offers a participant-facing translation; no feature is inherently “good” or “bad”.

A2.4 Provenance of the lexicon

The lexicon emerged in two movements.

In Phase-1 interviews and participant materials, landscape talk surfaced spontaneously: the Case 2 facilitator described the post-workshop year as “a really, really long flat... because nothing is happening”; the Case 4 facilitator narrated the whole trajectory as “a hill and then a plateau... and then a small hill again”; and children’s weekly written reflections in Case 1 oscillated between pride (“I felt like an architect”) and discouragement (“I was stressed, because in the end time was limited”), grounding the volatility axis in participants’ own mixed registers.

In Phase-2 co-readings, interviewees then contested, refined, and coined. The Case 1 facilitator ratified the mid-project dip as inherent to design work (“we already know the design process is painful; the same happens with architecture students”) while insisting on “a strong start”, elevating a previously unmarked shoulder plateau. The Case 2 facilitator steepened a waiting phase the researchers had drafted as flat (“a small increase in that discontent... a cynical skepticism, it would probably also grow”), confirming the redrawn descent as “more correct”. The Case 3 interviewee singled out the modest peak as “maybe the more ideal... a sustainable peak” and distinguished surface calm from carried sediments, refining the suspended-sediment estuary. The Case 4 review — conducted by the organisation’s director at organisational distance — challenged any equation of stability with success (“stable is also... we are very stable in our climate change in the world, but that’s not very good”), anticipating Section 6.1.

Richer case-bound coinages from these sessions (sunlit tundra, ecotone, fen, constraint saddle, plateau with hidden aquifer) were deliberately kept within their cases and consolidated into the shared archetypes only where they recurred, following the protocol’s rule that cross-case labels come after within-case naming.

Appendix 3. Coding and analysis

A3.1 Phase-2 coding scheme

Phase-2 co-reading transcripts were coded per trajectory segment into three categories:

RECOGNITION — explicit confirmation of the drafted segment (for example, “yes, it felt right”).

SOFT RECOGNITION WITH NUANCE — map accepted as broadly correct while flagging limits of recall or intensity.

DIVERGENCE / ADJUSTMENT — contested timing, shape, or naming: a starting point re-rated higher, a drafted rupture reduced to a slope, a flat redrawn as a descent, an origin re-timed.

Ugly feelings were coded as a separate dimension, always as diagnostics of conditions rather than of persons. Role-based asymmetry formed a further dimension applied across all segments. Score adjustments were made only where the interviewee’s reading clearly supported them; all divergences were logged, whether or not they resulted in a redrawn line.

Corrections ran in more than one direction. Within Case 2 alone, one segment was softened (a drafted “cliff” renegotiated as a slope) and another steepened (a drafted flat redrawn as a gentle descent) in the same session — see A3.2 below and Section 6.1.

A3.2 Worked example: Case 2 (energy transition)

The table traces four segments of the Case 2 trajectory from coded Phase-1 descriptors, through researcher-drafted valence and volatility scores, to the Phase-2 co-reading and the feature finally negotiated. V = valence; Vol = volatility; both on the interpretive 1–9 range described in Section 3.1 (Step 3).

Segment	Phase-1 material (coded descriptors)	Draft scores (V / Vol)	Phase-2 co-reading	Negotiated feature
First workshop	Frustration over bills, insulation, and housing voiced and validated (“ventilation”); “more hope than frustration”; respectful disagreements	5 / 7	Recognition: early ventilation re-read as a strength — “being open about our doubts... it was a strong point”	Hopeful shoulder / stable foundation
Poster workshop	Excitement and pride in visual creations; “mainly excitement”; individual posters consolidated into one collective poster, printed on the installation as a mural	7 / 8	Recognition with nuance: a real peak, grounded rather than exuberant	Modest peak of collective achievement
Third workshop	“Mainly reflection”; no concrete timeline or location could be given; “it kind of stopped... the lacking of closure”	not separately scored in draft	Divergence on the researcher’s drafted “cliff”: the group was “able and willing to get past... the cynical skepticism”; the rupture was relocated forward into the waiting period and the segment softened	Steep slope into necessary valley (not a sheer cliff)
Post-workshop year	Installation not realised after one year; participants growing detached; “a really, really long flat”	5 / 2	Steepening, reversing the draft: “a small increase in that discontent... a sort of disappointment. And a cynical skepticism, it would probably also grow”; redrawn as a gentle descent; “it feels more correct”	Descending bog of delay

Note. Draft scores are researcher-assigned interpretations of clustered Phase-1 descriptors (Section 4.1); the Phase-2 column shows how co-reading confirmed, nuanced, or contested them. The “cliff” of the third-workshop row is the researcher’s drafting language, not the facilitator’s, and was contested as such. The third and fourth rows record revisions running in opposite directions within a single session. Equivalent tables for Cases 1, 3, and 4 are available from the authors.

A3.3 Empirical materials per case

Case	Context	Phase-1 materials	Phase-2 materials	Other materials
Case 1	Youth playground, Istanbul	3 interviews (architect–facilitator E. and related interviewees); children’s weekly written reports	1 co-reading interview, same facilitator (Turkish)	Workshop documentation

Case	Context	Phase-1 materials	Phase-2 materials	Other materials
Case 2	Energy transition, City A	2 interviews, both with the same design facilitator N.	1 co-reading interview, same facilitator (English)	Individual posters; collective poster; mural on installation
Case 3	Documentary, Istanbul	1 interview, scriptwriter-editor B.	1 co-reading interview, same interviewee (Turkish)	Film; festival record
Case 4	Peri-urban coalition, City B	1 interview, facilitator L. (management team; ran the trajectory day-to-day)	1 review interview, director J. (heads the organisation; involved across its projects but not in this trajectory's day-to-day facilitation)	Declaration of intent; comic book; scenario panels; festival
Case 5	Social housing, City A	1 interview, architect C. (design lead); 1 supplementary doorstep conversation, resident A. (Turkish, machine-transcribed)	None — no Phase-2 co-reading	Project documentation, including records of resident complaints

Note. In Cases 1 and 2, Phase 1 comprised more than one interview; in Case 2 both were with the same narrator. Children's quotations in Case 1 derive from written weekly reports rather than interviews. Case 5's resident material comes from a supplementary doorstep conversation and project documentation rather than an elicited trajectory line, and its map is therefore researcher-constructed with a correspondingly weaker evidentiary status (Sections 5.5 and 6.3). Machine transcription may err; where discrepancies arose, the recording governs.

References cited in the appendices

Full details are as given in the manuscript reference list.

Bruno, G. (2002). *Atlas of emotion: Journeys in art, architecture, and film*. Verso.

Deitz, M., Notley, T., Catanzaro, M., Third, A., & Sandbach, K. (2018). Emotion mapping: Using participatory media to support young people's participation in urban design. *Emotion, Space and Society*, 28, 9–17. <https://doi.org/10.1016/j.emospa.2018.05.009>

Manguel, A., & Guadalupi, G. (2000). *The dictionary of imaginary places*. Bloomsbury.

Ngai, S. (2005). *Ugly feelings*. Harvard University Press.

Nold, C. (Ed.). (2009). *Emotional cartography: Technologies of the self*. Christian Nold.

Schalansky, J. (2010). *Atlas of remote islands: Fifty islands I have not visited and never will*. Penguin.