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# The Carrier Bag of Geostories: Transformative Pedagogy for Human-Lithic Enmeshment

Moritz Ingwersen

TUD University of Technology Dresden, Germany

Sophie Lindner

Visual Artist

**Abstract** This article presents the conceptual framing and course design of a literary and cultural studies seminar that brings arts- and place-based methodologies into dialogue with elemental ecocriticism, feminist materialisms, speculative geology, geopoetics, and inhuman geography. Introducing a process-oriented assignment titled 'The Carrier Bag of Geostories', we reflect on the course as an occasion for transformative learning and advocate pedagogical strategies of generative estrangement and the cultivation of familiarity with the inhuman to foster eco-systemic literacy and expand students' capacities for environmental affect and agency.

**Keywords** Elemental ecocriticism. Environmental affect. Transformative learning. Geological turn. Planetary sensing. Place-based education. Artistic research. Aesthetic practice.

**Summary** 1 Geostories: A Concept for Environmental Humanities Pedagogy. – 2 Read Your Stone. – 3 Emplaced Geostories. – 4 The Stone That Carries You. – 5 The Carrier Bag of Geostories.





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How can we live without or against the four elements, without thinking like them, without turning toward them, into them, through them, for them, with them?

(Michel Serres, *Biogea*, 2012)

A stone is a thought that the earth develops over inhuman time. (Louise Erdrich, "The Stone", 2019)

There was a word inside a stone.

I tried to ply it clear,
mallet and chisel, pick and gad,
until the stone was dropping blood,
but still I could not hear
the word the stone had said.
I threw it down beside the road
among a thousand stones
and as I turned away it cried
the word aloud within my ear
and the marrow of my bones
heard, and replied.
(Ursula K. Le Guin, "The Marrow", 1981)

# 1 Geostories: A Concept for Environmental Humanities Pedagogy

Since Sheryll Glotfelty's foundational framing of ecocriticism as "an earth-centered approach to literary studies" (1996, xviii), the environmental humanities have unfolded through a compounding number of ways to translate the scalar derangements of the planetary into situated apprehensions of earthly entanglement. Reflecting on the reconceptualization of agency in response to the paradigmatic proclamation of the Anthropocene. Bruno Latour calls for a shift from history to "our common geostory" (2014, 17), a concept taken up by Donna Haraway in Staying with the Trouble (2016, 40-1), where she moves away from the grand category of the planet to immerse the human in lowercase-earth: "human beings are with and of the earth, and the biotic and abiotic powers of this earth are the main story" (55). Literalizing Latour - who explains that "[t]he prefix 'geo' in geostory" stands for "the return of object and subject back to the ground" (2014, 17) - Haraway foregrounds narratives of "earthly worlding and unworlding" and programmatically declares: "we inhabit the humusities, not humanities" (2016, 97).

In this article, we present the conceptual framing and multimodal course design of a literary and cultural studies seminar that mobilized the concept of 'geostories' as a flexible learning tool for cultivating a critically embodied and emplaced engagement with eco-systemic enmeshment and geologic materiality, in ways that build on and expand current directions in ecocriticism and environmental theory. Co-taught by the authors at TUD University of Technology Dresden in

the fall of 2024 under the title Geostories: Literature and Earth, the seminar was structured around a motile understanding of 'geostories' as a layered metaphor for exploring more-than-human narratives and poetic articulations of geomorphic becoming, transformation, and entanglement. Framed by what material ecocritics call "storied matter" (Iovino, Oppermann 2014, 1), we encouraged our students to experiment with different conceptions of geostories through the interplay of language and materiality, e.g. as the poetics articulated in specific rock formations or as human-geologic relations explored through art and narrative. As the second installment of an ongoing seminar series titled Literature and the Elements. Geostories was inspired by the elemental turn. and focused on cultural circulations and implications of geologic matter. Drawing on a combination of place-based, speculative, analytical, and creative methodologies, our aim was to activate critical, situated, and embodied understandings of socio-environmental interdependencies, while decentering the affective grammars and epistemological molds of anthropocentrism. Taught in the borderlands of Germany, Czechia and Poland, Geostories stood in conversation with the geologic identities of a region shaped by iconic rock formations and a long, layered mining history - from tin and copper, to coal, uranium, and lithium. We wanted this course to speak to and expand our students' own storied landscape imaginaries and embodied histories of place, particularly with the awareness that many of them will stay in the region to become high school teachers and thus agents of socio-ecological change and earthly worlding themselves. In co-designing this course as an experiment in multimodal teaching, we brought together our respective backgrounds in artistic practice and literary/cultural studies. One of us is a conceptual artist born in the region, and her ongoing projects on speculative figures of thought - such as Planetary Nurses and Die Spirituelle Astronautin - employ feminist methodologies to explore eco-systemic worldmaking and cosmologies beyond extractivism. Her work combines local experiences of post-socialist disruption with performative settings for encountering planetary grief in times of the climate crisis.<sup>2</sup> The other is a university teacher of North American literature and culture specializing in critical futures at the intersection of the environmental humanities and speculative fiction studies, with previous work on elemental ecocriticism, global weirding, petrocultures, and critical pedagogy.3 Together, we wanted to curate transformative learning experiences anchored in

<sup>1</sup> See, for instance, Cohen, Duckert 215; Peters 2015; Starosielski 2019; Jue, Ruiz 2021.

<sup>2</sup> See https://sophie-lindner.de.

<sup>3</sup> See Ingwersen 2019; Ingwersen 2020; Ingwersen, Müller 2022; Ingwersen, Raschke 2025.

generative estrangements of habitual modes of sensing, narrating, and inhabiting the self in relation to geophysical environments. Our aims were threefold; i) to probe the relations between cultural and environmental modes of worldmaking, using human-lithic relations as a conceptual nodal point; ii) to build up analytical competencies and foster flexibility and creativity in adapting to a present of eco-systemic precarity, through conversations between literary-artistic case studies, environmental humanities theory, and practice-based experiments; iii) to expand existing concepts of knowledge production and critical practice by offering aesthetic-artistic settings in which environmental learning is embodied and situated outside the university classroom.

Over the course of three months, the seminar alternated between a series of special events, and in-class focus sessions that were organized around various encounters with geologic matter.4 We assigned readings and discussed literary-artistic examples on themes and fields that included extractivism, 5 feminist ecocriticism, 6 geological media, inhuman agency, geopoetics, and Indigenous petroglyphs and land-based epistemologies. 10 The special events took the students beyond the classroom and included a day-long field trip to a nearby volcanic mountain, Lausche, led by a geologist from the Senckenberg Museum of Natural History in Görlitz; a cinema screening of the experimental 2024 documentary film *Architecton* (dir. Victor Kossakovsky); the artistic research workshop The Stone That Carries You conducted by Sophie Lindner in Dresden's city park Großer Garten: a conversation with geography and architecture students around an ongoing student-led exhibition on former uranium mining sites; and a public symposium on regional petrocultures with guests from the UK, Poland, and the Czech Republic. As a way to curate student engagement and produce concrete results, we designed a process-oriented course assignment through which students cultivated dynamic archives of thought, experience, observation, and creation to trace their own enmeshment in interlocking geostories. Drawing on Ursula K. Le Guin's 1986 essay The Carrier Bag Theory of Fiction, we called this assignment 'The Carrier Bag of Geostories'.

<sup>4</sup> In designing this course we drew inspiration from artist and poet Kathy Wu's brilliant syllabus and teaching concept on 'Geopoetics' (https://kaaathy.com/geopoetics/; https://syllabusproject.org/geopoetics/).

<sup>5</sup> See Gómez-Barris 2017; Yusoff 2018.

<sup>6</sup> See Merchant 1989; Plumwood 2007; Iovino, Oppermann 2014.

<sup>7</sup> See Twaithes 2010; YoHa 2010; Goldsworthy 2011; Parikka 2015; Jahn 2019.

See Doyle 1928; Yusoff 2013; Cohen 2015; Mieville 2015; Bakke 2016.

<sup>9</sup> See Hillmann 2001; Russo, Reed 2018; Leeuw, Magrane 2019; Abel 2024.

<sup>10</sup> See Simpson 2015; Armstrong 2017; Williams 2018.

In thinking with the paradigm of the elements - specifically under the rubric of the geologic 11 - the students embraced what Jeffrey Jerome Cohen calls "human-lithic enmeshment" (2015, 6). They recognized that "[w]e constantly morph and are being morphed by our surroundings" (Lilian Kalenderian) and raised guestions such as the following:

[If] I, too, am composed of the same chemical elements as the soil and stones around me, so how am I different from them, except in form? (Paulina Ludziak)12

In the environmental humanities, thinking-with the elements as inhuman materialities that subtend, sustain, and suffuse human subjectivity has emerged as a productive mode of dissolving categorical distinctions between inside and outside, body and environment, and of re-embedding the study of ecological entanglement in a long history of animating matter as a bearer of affect, meaning, and agency. As Cohen and Duckert put it,

[t]he elements might be described as metaphor magnets, but their ability to bond materiality and narrative is deeper than mere impress or gravitational trajectory. Through their action metaphor becomes *matterphor*, a tropic-material coil, word and substance together transported: of language but not reducible to linguistic terms, agentic and thick. (2015, 10-11; emphasis in the original)

For literary and cultural studies pedagogy, the elements invite consideration of the myriad ways in which human cultures have invested 'natural' environments with meaning through narrative and metaphor, while also revealing how human subjectivity and its techno-social extensions are shaped by the planetary circulation of substances, exposure to ambient forces, and more-than-human constellations of distributed agency. Imaginations of the lithic, especially, recall a long history of invoking stone as animated matter in art and science - from alchemy to romanticist poetry in the Western tradition, or the role of teaching stones, petroglyphs, and sacred rock formations in many Indigenous knowledge cultures across the world.13

<sup>11</sup> See Yusoff 2013; Cohen 2015; Bakke 2016; Harris 2021.

<sup>12</sup> Throughout this essay we cite directly from some of our students' Carrier Bag submissions. All students cited have granted permission to include their work and names.

<sup>13</sup> For influential meditations on stone through the intersecting lenses of anthropology, phenomenology, and environmental philosophy, see, for instance, Caillois 1985; Bachelard 2002; De La Cadena 2015; Ingold 2022; Raffles 2022; Luisetti 2023.

Kathryn Yusoff associates the Anthropocene with a "new understanding of being as geological", extending "the temporal and material imagination of the capacities of the human [...] into the contemplation of the social as composed through the geologic" (2013, 780; emphasis in the original). As we had hoped, our students would go on to produce their own variation of this ontological reckoning by the end of the seminar: "I realised how much more geological materials are part of my life than I originally thought [...]. We are stones and stones are us, we are each other's present and past" (Christina Chatzara).

Building on Cohen, who invokes the category of the "inhuman" as a signifier of "both difference ('in-' as negative prefix) and intimacy ('in-' as indicator of estranged interiority)" (2015, 10), our course aimed at fostering a transformative understanding of both the human as geologic and of earthly materials such as rocks, soil, and sediment as agentic, intimate companions in the collective articulation of geostories - defamiliarize to refamiliarize. Once customary perspectives had shifted, students realized that "there are geostories everywhere, no exceptions" (Ruby Bellmann). Becoming attuned to these stories involved not only gathering evidence about the specific geophysical histories of our students' places of origin, but also expanding our affective sensibilities as we interrogated the uneven distribution of dust in our nostrils, the pebbles in our pockets, and the minerals in our phones, blood streams, and dietary supplements.

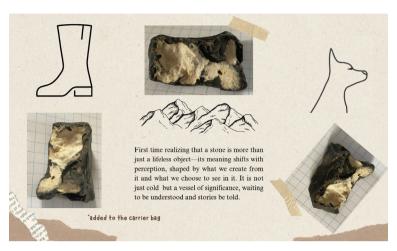
When we envision the learning experiences of this project as "transformative", we build on the environmental humanities' commitment to "intervention and change (cognitive as well as worldly)" (Cohen, Foote 2021, 2), and draw on conceptions of transformative pedagogy. Jack Mezirow's theory of transformative learning, in particular, has become a recurring reference point in reflections on sustainability education and environmental humanities teaching (see Siperstein, Hall, LeMenager 2017; Singer-Brodowski 2023). Defined as "the process of effecting change in a frame of reference", transformative learning begins with a disorientation of "habitual ways of thinking, feeling and acting" (Mezirow 1997, 5-6; emphasis in original). Mobilized in response to the difficult emotions, cognitive dissonances, and phenomenological estrangements of living in an age of compounding environmental crises, such selfreflexive dishabituations can foster a recalibrated understanding of the self and the environment, supporting the learner's activation of "response-ability" in more-than-human worldmaking for change (Haraway 2016, 12). In the context of our course, it was thrilling to see our students perceive this process as one of "shifting perspectives, of learning to look differently" (Nathalie E. Jöhren). By moving from the guintessential image of stone as the natural world externalized

into resource toward conceptions of geologic life, confronting the lithic in a literary studies classroom is well-suited for producing generative irritations of reference frames. As student Nina Heller notes about her geostories: "They remind me that the Earth is not just a silent backdrop but a living, breathing system in which every rock, every trace, and every discovery is part of a greater cycle of transformation, memory, and renewal".

#### 2 **Read Your Stone**

Upon entering the classroom for the very first session, the students were asked to blindly select a stone from a bag containing rocks that one of us had collected on the Baltic coast. Encouraged to take their time, students let their haptic sense guide them in choosing (or being chosen by) their companion - their "oddkin" (Haraway 2016, 2). Once everyone was settled, they received a single prompt, with no further instructions: Read your stone. After an initial moment of hesitation, curiosity took over and the students began to examine their specimen - tracing its veins, fissures, and edges with their fingertips and writing utensils, observing subtle shifts in coloration and composition. There was knocking, sniffing, even licking. Estrangement turned into an encounter: an opening into multisensory activation, lithic animation, epistemic disorientation, and material semiosis in practice [fig. 1].

This exercise set the stage for a conversation with three texts that were programmatic for this course: the prologue of Jan Zalasiewicz's The Planet in a Pebble (2010), Louise Erdrich's short story "The Stone" (2019), and Val Plumwood's auto-ethnographic eco-theory essay "Journey to the Heart of Stone" (2007). Zalasiewicz's popular science book - like many of his writings shaped by his role as a geologist and long-time head of the Anthropocene Working Group - offers a poetic journey into Earth's deep history and opens with an appeal to our sense of wonder in recognizing "just an ordinary pebble" as a deceptively sized "capsule of stories": "These stories are gigantic, and reach realms well beyond human experience, even beyond human imagination. They extend back to the Earth's formation - and then yet farther back, to the births and deaths of ancient stars" (Zalasiewicz 2010, xii).



**Figure 1** Nina Heller, *Read your Stone*. 2025. Screenshot. Excerpt from Carrier Bag *The Stone that Carries Me*. Student work submitted in the seminar *Geostories*,

TUD University of Technology Dresden. Used with permission

For the Anishinaabe writer Louise Erdrich, a "stone is, in its own way, a living thing, not a biological being but one with a history far beyond our capacity to understand or even imagine" (Erdrich 2019). Her story enfolds cosmic temporalities and millennia of human history into the lived companionship between a woman and a found stone, chronicling their shared intimacy across a single human lifetime. It ends with a vision of human-lithic enmeshment which projects the cyclicality of becoming-earth into ecological deep time: "Molecules that had existed in her body would be joined with the stone's molecules, over and over in age after age. Flesh would become stone and stone become flesh, and someday they would meet in the mouth of a bird". Following Erdrich, geostories are materialized not only through inhuman kinship but as a matter of reciprocal composition and incorporation: earth becomes flesh becomes earth. Meditating on the embodied resonance with their own stone companion - named Joe - one of our students similarly "wondered if how I felt could somehow be absorbed by Joe, or if the frequency my body puts out into the world somehow interacted with his frequency" (Lilian Kalenderian).

This type of exploration of stone vibrancy and the inhuman transfer of affect also lies at the heart of Val Plumwood's essay, framed by her experience of building a home from foundstones. A key figure in critical ecofeminism, she argues against the "instrumental reductionism" that underpins Euro-Western constructions of the nonhuman as primarily resource and, at the same time, cautions against the pitfalls of a long-rehearsed Romantic mode that casts Nature as Other through aesthetic mystification (2007, 22). Grounding

this critique in a transformative awareness of stone agency, she explains:

The central question is: can we write stone teaching, stone acting, stone speaking, stone guiding, without being trapped in the familiar 'New Age' or gothic-romantic repertoire of the dualistic. the irrational and the romantic discourses that instrumental culture has set aside for us - the permitted realm of exceptionality and intentionality allocated for superstition, the haunted, or the supernatural, the eerily inexplicable? Can we write stone as much from SCIENCE as from ART, from philosophy as from poetry, from reason as from emotion? Can we write nature as active, responsive partner for everyday stone and daily experience, not just for the occasional impressive or exceptional place? (33-4)

Framing engagements with the geologic as fundamentally a task of writing - the core of "a decentering program" that "cultivates more self-reflection" and widens "our sensibilities beyond the conventional boundaries of the human-like, towards inhuman elements of the world" (20) - Plumwood's questions centrally reflect how we envisioned the multimodal production, examination, collection, and interpretation of geostories in this course.

#### 3 **Emplaced Geostories**

Aside from the Latourian geologization of history and the designation of earthly narratives, the term 'geostories' gestures toward a physical layering. In German, this resonance is sharpened by the word 'Geschichten' (stories, tales), which contains 'Schichten' (layers), a term also used for geological strata. Reminiscent of the way in which land artist Robert Smithson speaks of the mind as being in "a constant state of erosion", where "ideas decompose into stones of unknowing, and conceptual crystallizations break apart into deposits of gritty reason" (1996, 100), one student's response to the dynamics of geostoried stratification became an evocative reflection on the interplay between world, words, and embodied experience:

Underneath my utterances, under the words I say and in the way I say them lie experiences, coming to the surface one at a time to re-sink and be changed and mix and reform at various times. The surface is the words I'm writing, and on the surface is geology, erosion happens. It is constantly being eroded by wind, heat and water. Here it will be eroded by time, by me again, changing. (Rosa Preißler)

This layering of language and geology came alive during our field trip to Lausche, the highest peak of the Upper Lusatian Mountain range, where the rock face is elementally textured by both volcanic activity and the marine sedimentation of sandstone. As we read aloud from the opening pages of Jordan Abel's intensely geopoetic *Empty Spaces* (2024) –

A deep, narrow chasm. Black rocks. The river lies still on those black rocks. A mile above, there is a tumbling; there is a moment. [...] A deep hollow. No shape. No consistency. No breaking some hundred feet in the air. Some places are softer than others. (3)

- our geologist guide Dr. Jörg Büchner had no hesitations about invoking the rocks as storied, stratified as 'Geschichten;' as, that is to say, geostories. One student perceptively seized upon his description of the mountain's volcanic geogenesis as "geo-fantasy" - "no one knows what was really there" - and crafted a poem giving voice to the geo-epistemic uncertainty of deep-time worlding [fig. 2].

## 4.3. Geo-fantasies A tremor shakes where shadows string. Earth sighs deeply, breaths align: Forces mingle. shivers tingle, shaking up through ancient spine. A fleeting flick, a spectral trail, a solid shell, a core so frail tears in stone as blood flows bare -I couldn't know: I was not there. A remnant of a phantom's blow? We are never close to know. Lost so long, lost long ago, lost to time, and lost to stone, echoes carved in beds of bone. We walk in darkness, roots erased of cosmic-carbon-stardust-waste, the surface scarred her past aggressions, but down below, in silence, deep, the fires stir though movements sleep. Faithfully, but never true, like phantom pains, faith healers' do, a dream, a ghost, a moment rare -I couldn't know; I wasn't there.

### Figure 2

Nathalie Jöhren, Geo-Fantasies. 2025. Screenshot. Excerpt from Carrier Bag Mai Sola. Student work submitted in the seminar Geostories, TUD University of Technology Dresden. Used with permission Starting this semester surrounded by rocks and forest grounded our collection of geostories not only in the strangeness of the ordinary, but also in embodied perception and our student's emplaced memories. For the hike, we brought along selected entries from Linda Russo and Marthe Reed's book Counter-Desecration: A Glossary for Writing in the Anthropocene (2018), which we hoped would help on the way. These included "Akiw8gon", "Reciproesis", "Ecoherence", "Everyhere", "Geohaptics", "Ecopoethos", "Geopathy", "Terrotic", "Walking", "Way-dwelling", and "Polychronography". Whenever an opportunity presented itself, some of these short entries were read out collectively, while others remained as silent provocations, stored away for future reflection. Additionally, the students received a series of exercises designed to foster a self-reflexive, situated perspective on their presence in the landscape and to attune their senses to encounters with the inhuman worlds around them. For example, they were invited to experiment with pareidolia [fig. 3] - discovering themselves in the geologic features of the place - or to trace materializations of poetry (or poeisis) in the landscape, whether through sight, smell, taste, or touch. We also asked them to reflect on the stakes of their own presence in this place [fig. 4], and to gather evidence - material or otherwise - of geostories told through the site's shifting scales, compositions, and temporalities.



Figure 3 Lilian Kalenderian, Experimenting with Pareidolia. 2025. Screenshot composite.

Excerpt from Carrier Bag Symbiosis & Metamorphosis | Encounter and Interconnect.

Student work submitted in the seminar Geostories,

TUD University of Technology Dresden. Used with permission

In preparing for our excursion, we aimed to sensitize the students to modes of environmental encounter grounded in relationality and reciprocity, and to resist the logic of accumulation, instrumentalism, and extraction in gathering their impressions. "We all have been conditioned to embody the extractive gaze in one [way] or another", as one student perceptively noted; "it is unconsciously embedded within

us, in our cultures and our language" (Acsah Kulasingham). To train our senses for a different gaze - perhaps a more reciprocal approach to the inhuman world - Sophie Lindner developed an experiential assignment that also laid the groundwork for her workshop The Stone That Carries You, conducted in Week 4:

In preparation for the field trip, find yourself a carrier bag, a container - whether a box, a basket, a pot, a woven net, or anything else that comes to mind. Do you have a stone lying around at home. from a collection, a hike, a trip, or just because? If not, ask a friend or acquaintance for one. Let them share its story with you. Place this stone in your carrier bag and bring it with you on the excursion. On site, you will exchange your stone for another one from Lausche, Look for it, but also allow yourself to be found. You will carry this new stone home in your carrier bag, leaving the one you brought behind. [...] Now carry the stone with you. [...] Where is it taking you? What is it allowing you to experience? Emotions are forces - how do you feel? Your carrier bag now becomes a vessel for this emotion, embodying it.

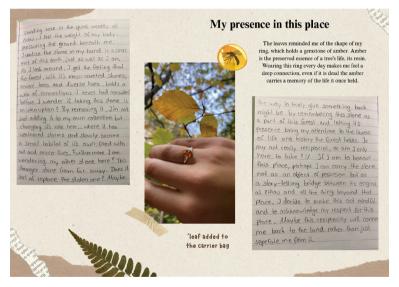


Figure 4 Nina Heller, My Presence in this Place. 2025. Screenshot. Excerpt from Carrier Bag The Stone that Carries Me. Student work submitted in the seminar Geostories. TUD University of Technology Dresden. Used with permission

Aided by this assignment and our prompts, many students perceived the field trip as a transformative experience. Noticing "the weight of my body, pressuring the ground beneath me", one student was moved to recognize an affinity - "a web of connections [...] never considered

before" - between herself, the stone in her hand, and the planet (Nina Heller) [fig. 4]. Coupled with thoughtful meditations on the ethics of their stone exchange and on their presence in this place, many students reported an expansion of their eco-systemic self-awareness.

## 4 The Stone That Carries You

This section is written by Sophie Lindner alone and presents a reflection of her artistic workshop *The Stone That Carries You*, in which the stones and the students entered a cycle of narrative metamorphosis through elemental dialogue and personal bonding. Students were given an opportunity to articulate the affective dimension of their increasing consciousness of human-lithic enmeshment.

The workshop took place beneath the open sky in Dresden's central park Großer Garten, where the heavens hung a dull silver and the air held a chilly embrace. Students had received prior instructions: to seek a stone from home, carry it to Lausche, and, once on site, exchange it for a different stone, a stranger. Roles were assigned to the stones: an exchange stone and a found stone, destined to journey across landscapes. The exchange stone manifests a memory, a bond: Where was it found? Who gave it to me? Countless 'hidden' collections of stones dwell unseen, nestled on bookshelves, atop cupboards. within drawers. The students just had to dive into the hidden spots of 'home'. Students also received the motif of the 'carrier bag', with the instruction to find a container or a pouch for the stone, to cradle it and enable its passage. The found stone was not meant to be an artifact, but a meeting. Students were to be found by a stone in Lausche, to stumble, to listen, to be stirred. The exchange stone took the place of the found stone; the carrier bag was the site of the transfer. For four weeks, the found stone remained with the students, silently 'playing its part' in their daily lives. To let the stone play, to gently roll it into one's own tapestry of being? To weave memory scrolls with the stone? Something that stands silent, unmoving, without buttons or functions. Something that only carries, is carried, has been spirited away, something utterly foreign. Two planetary time-figures converge, their dawn and their endurance divided by astronomical vastness. Who narrates their tale, and to whom? Can the stone, through the might of its own timelessness, carry the person, instead of the person carrying the stone? How do they forge an alliance in these times of urgent decarbonization, of dismantling the grip of extraction? To share time. To carry time, to bear it. What qualities must the person acquire to carry time with the stone? Is relationship a woven basket? Students were invited to become a Carrier Bag of Geostories - with the stone. After the transfer in Lausche, the found stones were bathed in water, untouched by soap or sponge. The used water was held

within a sealed vessel. The stone's hidden symbioses, the tiny worlds upon its skin, were gently parted, and new unions were coaxed into being. For the workshop, students brought their stone water and the stones cradled in their carrier bags; four weeks had passed since their first encounter.

In the park, I gathered everyone at a long pasting table. The table was set with stones, utilities, and various objects of lithic estrangement and association. It was to be a dialogical place, an environment where shapes would emerge and dissolve through giving and taking. A place of accidental and forced symbioses. A place of aesthetic ambivalences, like the silver bread made of aluminum perched at one end of the table. Or a miniature moon - aglow - a stand-in for the greatest stone we are entwined with on a daily basis. Glass stones, artificial stones chemically produced, images of minting processes, a monk lost in meditation on a mountain peak, Cardboard circles in stone colors, peeled at the edges. I placed two camping stoves on the table, as well as tin pots of varying sizes, a wooden spoon, and a pair of tongs. As a prelude, we began with a slow walk. Students were invited to let their senses drift between the planet's mass and warmth, and their own bodies. We made ourselves aware of the place, calibrating our bodies and minds to the presence of the stone that carries us - The Stone That Carries You.

Once gathered around the table, students told the stories of their exchange stones and found stones. They named their stones, described shared everyday experiences, recounted their biographical entanglements, and shared the moment of passage in Lausche. What does it mean to collectively inhabit a planet? We live on the planet, but do we inhabit it? Learning symbiotically. No planetarity without reflexive, subjective, and situated knowledge. Humans accelerate stones; stones decelerate humans. Is that an approximation? In the climate crisis, the pace of planetary change is beginning to approach the temporal scale of a human life. After our stone stories had begun to reverberate through the moisture-laden air and earth, we poured the stone water from each participant into the camping pots. Something mingled, the microorganisms of all stones interwove and embraced as sisters. We mimicked deep time, not slowly, but rapidly. Symbioses. I lit the camping stoves; the stone water was heating up, accelerating the process. Steam. Elemental evaporation. We dressed the table with our stones and carrier bags, arranging, expanding. The table became fuller, the water nearly at a boil. Students were invited to add, to remove, to stack, to shift. A description, perhaps, of symbiogenesis. The scent of stones in the mist. Clouds bearing fungi and microbial life. Gently, the students lowered their stones into the hot water. The stones now shared a cave, a house, a tent. They spoke to one another. The scent of stones evaporating. Some students felt discomfort and nervousness. They worried about their

stone. It might suffer harm in the heat of the simmering water. Is the rising steam our shared figure of time? We retrieved the stones from the pots with the tongs. They were rubbed dry with kitchen towels, then nestled into open hands. Each stone held its own essence. Some scalding hot, others merely warm. The slow, soft warmth within the stone offered solace.

The final step was the farewell to the found stone. Students were to remember and to release – to become aware of the wandering cycle of stones as Earth's living skeleton (see Plumwood 2007, 20). Meanwhile, the stone water – this stony sisterhood – cooled. With a ladle, I gave each student a portion of the stone water, pouring it into the vessels they had brought. Though students left their stones behind, they carried with them a piece of a new symbiosis. They were free to decide where the sisterhood stone water would journey. The workshop closed with a reading of the passage from Val Plumwood's "Journey to the Heart of Stone" cited above.



Figure 5 Sophie Lindner, The Stone that Carries You. 2025.
Workshop at Großer Garten, Dresden.
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## 5 The Carrier Bag of Geostories

The motif of the carrier bag served as a throughline for this course, centrally activated in Sophie Lindner's workshop. Celebrated as an inspiration in much of Donna Haraway's recent work (Haraway 2016; 2020), the carrier bag is borrowed from Ursula K. Le Guin, who envisions it as a feminist counter-metaphor to disrupt the spear-wielding hero narratives of progress, exploration, and adventure (Le Guin [1986] 2019). For Le Guin, the carrier bag is a cradle, receptacle, and medium of "life stories",

full of wimps and klutzes, and tiny grains of things smaller than a mustard seed, and intricately woven nets which when laboriously unknotted are seen to contain one blue pebble, an imperturbably functioning chronometer telling the time on another world, and a mouse's skull; full of beginnings without ends, of initiations, of losses, of transformations and translations, and far more tricks than conflicts, far fewer triumphs than snares and delusions; full of space ships that get stuck, missions that fail, and people who don't understand. (Le Guin [1986] 2019, 35-6)

We adopted Le Guin's carrier bag for a series of nested assignments that asked students to reflect on and work through the materials. ideas, texts, and experiences of the course by curating their own fluctuating and expanding collection of geostories: The Carrier Bag of Geostories. Countering a merely accumulative, if not extractive, approach to environmental experience and knowledge production, the Carrier Bag of Geostories centers attention and care. As a transmedial archive of inhuman familiars and shifting memories. it holds stories from the deep past as well as the embodied present, weaving and projecting continuities between subjectivities and more-than-human landscapes into the future. The process of its curation sharpens an awareness of narrative contingencies, affective investments, epistemic multimodality, and the fundamental ways in which language, imagination, and materiality are intertwined. Our introduction to this semester task read as follows:

Your Carrier Bag is a multi-modal collection and creative work-in-progress documentation of your engagement with geostories. Think of it as a sketchbook or a box that might contain poems, drawings, reading reflections, thoughts, traces, essays, short stories, videos, artifacts, photographs, physical samples - or any combination of these, or whatever else you can imagine. Following each seminar session, you will add elements to your Carrier Bag of Geostories.

Think of your Carrier Bag in terms of geological strata: each new layer, amendment, or connection opens up impurities, bifurcations, fault lines, folds, tunnels, or bubbles in already existing formations. Embrace these imperfections, material traces, and polytemporalities as you would in marvelling at a geologic artifact like a rock or a blue pebble found on a beach, a mountain, in your grandparents' backyard, or gifted to you by a friend or stranger in a moment of vulnerability or kindness. Every new addition, every step you take carrying your bag, reshuffles its contents and creates new affinities, new constellations, new orders, and new contingencies.

The stones gifted in the opening session were the first elements to be added to the Carrier Bags; the first set of assignments was organized around our field trip to Lausche at the end of the same week. Each subsequent classroom session concluded with a prompt for an addition to the Carrier Bag, which, building on that week's readings and themes, encouraged students to experiment with different media, methods, and approaches as they reflected on and expanded their evolving geostories:

Material Ecocriticism: Add short expositions for four stories about geologic life: a) in which your stone is the protagonist; b) in which your stone is the narrator but not the focalizer; c) in which your stone is the setting; d) in which you are the setting.

**Geopoetics:** Do some research on the geographic/geologic features and histories of the place where you are from. Relate the geo-features to your own biography. Write a poem of no more than ten lines about this geostory of your place. How does your poem pick up geology/geography on the level of form?

**Geomedia:** Select a piece of technology that you have used to work on your Carrier Bag and do some research on the minerals it is composed of. Focus on the origins of one of these minerals and give a brief account of how it has reached your Carrier Bag.

Systems of Extraction and Entanglement: Formulate a research question or statement that indicates which systemic relations you are interested in exploring through your geostories. What are your geostories evidence of?

**Teaching Rocks:** What are your geostories teaching you (or others)?

To be submitted by the end of the semester (adapted into an appropriate digital format), the final Carrier Bags were to respond to a guiding question that, in all its vagueness, was designed to turn this task into an occasion for self-reflection on situatedness and implication:

How am I a geostory and which geostorical strata of local, global, planetary or cosmic more-than-human-lithic enmeshment does my own geostory intersect with?

This expanded conception of what might count as story was deliberate: subjectivity constituted as story, a narrative of self ceaselessly articulated and dispersed through semiotic-material worlds whose spatial and temporal layerings make up intersecting stories of their own.



**Figure 6** Antonia Hahn, *Physical Carrier Bag*. 2025. Screenshot. Excerpt from Carrier Bag *Awareness/Consciousness*. Student work submitted in the seminar *Geostories*, TUD University of Technology Dresden. Used with permission



**Figure 7** Christina Chatzara, *Police File, Crime Scene Exhibit, The Geostories*. 2025. Screenshot composite.

Excerpt from Carrier Bag *Geonapping*. Student work submitted in the seminar *Geostories*,

TUD University of Technology Dresden. Used with permission

portrays geology as beings with agency, constantly

resisting every attempt to silence and erase them

from planetary existence.



**Figure 8** Acsah Kulasingham, A Postcard of Earth & The land that holds us. 2025. Screenshot Composite. Excerpt from Carrier Bag Systems of Extraction. Student work submitted in the seminar Geostories, TUD University of Technology Dresden. Used with permission

the geologic within us. We live on the land.

But the land lives in us.



**Figure 9** Stef Busch, *Geopoetics in Practice – You too are breakable in this earth.* 2025. Screenshot. Excerpt from unnamed Carrier Bag. Student work submitted in the seminar *Geostories*, TUD University of Technology Dresden. Used with permission

The Carrier Bag submissions we received were expansive, poetic, thoughtful, and deeply moving, metabolizing stone into stories of fragility, kinship, and continuance [figs 6-9]. They included sound recordings, paintings, visual poems, videos, photographs, collages, short stories, and multimodal mind maps in a multiplicity of shapes and sizes, born from physical carrier bags in the form of egg cartons, duffel bags, jewelry boxes, and mason jars. Some of them operated fully within fictional or speculative paradigms, while others focused on analysis and experiments in geopoetic self-writing. One student structured their Carrier Bag as a court file about a case of "geo-napping" - the abduction of stones - to translate their unease about extraction into a discussion of "geopolitical justice from an earthen, a chthonic perspective" (Christina Chatzara) [fig. 7]. For many, the Carrier Bags provided an opportunity to reflect on interconnectedness, transformation, and relationality - a growing consciousness of how "local and global power structures are enmeshed with geologic life" (Antonia Hahn), how "meaning is never something imposed but something that emerges in relation, in movement, in touch" (Nathalie E. Jöhren), and how "matter is never truly dead but always in motion, reshaped by time and perception" (Nina Heller). For others, attending to articulations of the geologic shifted into moments of self-reflexive introspection, sometimes exploring geographically situated childhood memories or incorporated traces of mineral economies. One student "realised that I did search myself in each and every session" (Lilian Kalenderian).

## Dear Diary,

I realized something today. I'm a child of this earth. But my room is a box keeping you out / keeping me in. Like a prison of my own making, I hide from the world withering away. I long for my childhood days. Digging my fingers into the soft soil of our backyard. Burying my soul into the deep earth. Collecting stones to keep me company (was that a selfish act?). Now the only things keeping me company are the ever-present ghosts of technology. Tamed stones. Useful stones. Earth in its most desperate form. I miss you my wild friend. (Stef Busch)

Speculative diary entries, such as the one above, were a recurring mode of examining the complex interplay of geo-affects around melancholia, guilt, love, solace, loss, responsibility, belonging, and empathy. Learning to acknowledge, articulate, curate, and caress the difficult emotions of ecological entanglement amidst planetary systems of injustice and destruction is a crucial dimension of the environmental humanities classroom, and a task that is far from easy. Writing - whether through narrative, poetry, or essayistic forms - is a powerful vehicle for the potential remediation of affect into action,

or at the very least into "an intense and oddly positive existential shiver" (Lilian Kalenderian). The students' contributions demonstrate that linking the learning process to aesthetic practice and embodied experience is highly effective in facilitating the translation and comprehension of difficult theoretical concepts. Moreover, a process-oriented approach to curating situated encounters with the world through narrative - in our case mediated through the motif of Ursula K. Le Guin's carrier bag - opens up profound pathways for the development of self-reflexivity and consciousness around more-than-human implications, systems, and response-abilities. As one student concludes, "this course has reshaped my thinking, to pay attention to matter around me, to explore their agencies, to hold their stories" (Hiruni Hitihamu). Touched by our students' commitment and the thoughtful work produced throughout the semester, we come away with a sense of gratitude and hope that the geostories shared throughout this term will continue to reverberate. Conceived as an invitation and open-ended process, geostories call for "collective" continuance" (Levine 2023, 11-15), a hesitant, affective appeal to action poignantly articulated in the concluding words of Stef Busch's Carrier Bag:

When entering a narrative with non-human agents, there might not be an end to that narrative, just like there is no clear beginning. In a way, I was not meant to tell that story – I was meant to live it. By the end, I breathe. We got this.

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