10 Lithic Space-Time in Lyric

Narrating the Poetic Anthropocene

Brian J. McAllister

This essay has two beginnings: the first aesthetic, the second ecological. The first beginning: Viktor Shklovsky's essay "Art as Technique" (1916), which distinguishes art's purpose, "to impart the sensation of things as they are perceived and not as they are known," from its technique, "to increase the difficulty and length of perception" (16). For Shklovsky, this difficulty and length reinforces "the artfulness of an object; the object is not important" (16). His example is lithic: art makes "the stone stony." Its defamiliarizing conditions render objects as sites of contemplation and invigoration. In stone, defamiliarization renders bedrock as a thing in the world. The second beginning is September 2016, when the Anthropocene Working Group, part of the International Commission on Stratigraphy, proposed formal acknowledgement of a new geological epoch and set its measurable beginning in the mid-twentieth century, when human activity began to "leave a permanent record in the Earth's strata," ending the Holocene's 12,000 years of climatic stability ("Media Note" n. pag.). This proposal identifies humans as a geological force while also acknowledging our incapacity to control effects of that transformation, which are "geologically long-lasting" and "effectively irreversible" ("Media Note" n. pag.).

These two beginnings, a century apart, emphasize relationships between aesthetics and geology—the way that the Anthropocene and its radical ecological changes defamiliarize our sense of space and time while also asking that we turn to aesthetics to grasp our position in geological history. Understanding the Anthropocene and our situation in it transforms relationships between subject and object, human and nonhuman, figure and ground. Aesthetic renderings of human-lithic disjunctions can be found in the lyric spaces of landscape poetry, specifically poetry focused on the geological, using James Phelan's sense of lyric as a rhetorical mode involving "somebody telling somebody else ... on some occasion and for some purpose that something is," a definition he distinguishes from narrative, a mode focused on something that "happened" (22).¹ In their lyric modes, these poems engage scales of time and space that complicate ontological boundaries between human and nonhuman. Three poems, with roughly forty years between each publication, negotiate these disparate scales of

space-time through their attention to the lithic. Hugh MacDiarmid's "On A Raised Beach" (1934) overwhelms human space-time by confronting its feebleness on lithic scales and foregrounds lithic space-time in order to reflect on artistic ephemerality. Robert Smithson's lyric-narrative hybrid, "Strata: A Geophotographic Fiction" (1970), shifts its emphasis to human spatiotemporality as site for the production of problematic lithic narratives. Lastly, Brenda Hillman's "A Geology" (2001), prioritizes neither human nor lithic, instead working to balance spatiotemporal scales. In her work, we see the clearest instance of lyric struggling to link geologic and human while rendering its incapacity at the level of form. Each poem models spatiotemporal flexibility, negotiating engagements between seemingly disparate scales of space and time.

In David Herman's sense, these works produce polychronic frameworks that "root themselves in more than one place in time" ("Limits" 75). But, rather than focusing solely on multiple temporalities, these poems present interconnections of space *and* time within these frames. They explore the "aeonic insistence" of stone that, for Jeffrey Cohen, "thickens time into multiple, densely sedimented, and combustively coincident temporalities" (78). By engaging with radically different scales of space and time, these poetic structures articulate the complexities of climate change, establishing perspectives in which ecological transformation becomes more seeable and speakable.

This critical method builds on Jesse Matz's sense of "time-work" that sees narratives as phenomenological sites for temporal transformation, what he calls "forms of imagination necessary to rethink the singularities of time today and to subject its totalities to the diversity of narrative's provisional designs" (281–82). But, whereas Matz focuses on time, the Anthropocene demands attention to the interrelationship between time and space. The poems in this study engage those questions directly, offering sites for rethinking the totalities of space-time through scalar engagements between human and lithic spatiotemporality. In other words, they tentatively imagine structures of space and time in which disparate scales interact to produce provisional Anthropocenic narratives, whether they are narratives about the conditions of living in the Anthropocene or narratives that situate the Anthropocene in larger planetary histories.²

Space-Time and Landscape Poetry

For many, the Anthropocene and climate change have reframed our relationship with time.³ In Andreas Malm's terms,

There is no synchronicity in climate change. Now more than ever, we inhabit the diachronic, the discordant, the inchoate: the fossil fuels hundreds of millions of years old, the mass combustion developed over the past two centuries, the extreme weather this has already generated,

the journey towards the future that will be infinitely more extreme—unless something is done *now*—the tail of present emissions stretching into the distance ... history has sprung alive, through a nature that has done likewise.

(11)

Malm goes so far as to state that climate change shifts conditions of time and space from Fredric Jameson's postmodernity, in which space dominates time, to a "condition of time and nature conquering ever more space" (11). For Malm, climate change thrusts time back into postmodernity's constant presence. Our inability to think beyond the near future creates the illusion "that the future now in the balance is a relatively short one," when in fact the consequences of climate change will last for thousands of years (8). The Anthropocene collapses two incongruent timescales: a human scale of days, months, years, or centuries and a lithic scale of thousands, millions, or tens of millions of years. At the planetary level, the lithic is the most alien temporality possible, if we understand temporality in Monika Fludernik's terms as "the choice of significant episodes that establish a configuration and meaning for [narrative]" (608). And yet, as Dipesh Chakrabarty explains, understanding climate change and the transformations of the Anthropocene requires moving "back and forth between thinking on these different scales at once" (9).

Still, I would not go as far as Malm to say that climate change reasserts time's dominance over space. Instead of shifting one dominant to another, climate change and the Anthropocene resist the conceptual separation of time and space. In the geologic narrative, they become more difficult to untether, unlike their easier conceptual separation at human scales. Of course, even at human scales, space and time can only be *conceptually* separated. Their actual fusion at any scale has long been acknowledged, whether in Albert Einstein's special theory of relativity, Hermann Minkowski's geometrical space-time, Joseph Frank's spatial form, Gaston Bachelard's phenomenological space, Henri Lefebvre's dialectical lived space, or the "spatial turn" in narrative theory (e.g., in the work of Marie-Laure Ryan). Similarly, M. M. Bakhtin's chronotope emphasizes "the intrinsic connectedness of temporal and spatial relationships that are artistically expressed in literature" (84). In the Anthropocene, intrinsic connectedness becomes extrinsic.

This inseparability and co-presence of human and geologic scales of space-time presents a narrative problem: human narratives exist within the lithic's nonhuman spatiotemporal frames. Studies of the nonhuman, like William Nelles's or David Herman's work on animal narratives, often discuss instances in which human and nonhuman space-times exist on relatively equivalent scales (see Herman, "Modernist"). Even narratives beyond human scales, such as Italo Calvino's interstellar narrator in *Cosmicomics* (1965), understand nonhuman narrators through human cognitive structures. This move from nonhuman to human makes sense; readers

engage narratives through anthropocentric frames. But the Anthropocene requires a stranger move, ejecting us from a position that sees geological history as stable ground for dynamic, human temporality. Rather than understanding geological history through a human lens, human space-time must also be understood on a geological scale, in Timothy Morton's sense, "thinking of beings on a number of different scales, none of which has priority over the other" (22). Having joined the exclusive club of geological forces—or, more accurately, having recognized our membership—humans must negotiate these two scales of space and time in order to tell our unified story, if such a unified story is even possible. This negotiation transforms phenomenological experience of space-time and challenges core aesthetic concepts by which we engage these spatiotemporal dimensions. In Shklovsky's sense, it defamiliarizes the way we understand and represent the relationship between culture and nature or between humans and the planet on which they reside.

As Stephen S. Sawyer describes, the Anthropocene requires

not simply a reconsideration of the role of man in climate change and the relationship between the natural and the cultural, but a somewhat mind-bending reorientation of the temporal scales that make up a sophisticated historical method. Indeed, in the Anthropocene, just as culture no longer sits upon a natural context or backdrop, the short term does not sit upon the long term, but quite the opposite: it is the short term that governs the long. This could have important consequences for how we construct historical and literary narrative.

(8)

The landscape poems examined in this essay offer this "mind-bending reorientation" through interactions between lithic and human space-times: landscape articulating and negotiating congruence between disparate, disorienting scales. Rather than scalable systems of spatiotemporality, these lyric texts notice and negotiate complicated, interacting, and dynamic spatiotemporal registers. That is, lyric can teach spatiotemporal flexibility, moving readers back and forth between a sense of the planet at human and vastly nonhuman scales of space and time.

Despite their attention to the land, Hillman, Smithson, and MacDiarmid's poems are not conventional examples of landscape poetry, i.e., pastoral reflections of "nature" disconnected from humanity. They are better situated with poets like Basil Bunting, Lorine Niedecker, Ian Hamilton Finlay, Geraldine Monk, Maggie O'Sullivan, and Thomas A. Clark. Harriet Tarlo labels these authors "radical landscape poets," who interrogate gaps between language and world in landscape representations (7). They resist oversimplification by challenging boundaries between ecology and society, defying pastoral sentimentality, and refusing harmonious depictions of the rural, instead representing ecology in flux and dependent on the interaction

between human and nonhuman. This flux imagines transformed relationships between human and lithic space-time.

This attention to lithic spatiotemporality is different from work by scholars like Wai Chee Dimock, who situate literary history in deep time through expansive historiographic narratives.⁴ Instead, defamiliarizing techniques within these poems negotiate this vast spatiotemporality and are more attuned to Mark McGurl's "posthuman comedy," critical fictions that "draw together a number of modern literary works in which scientific knowledge of the spatiotemporal vastness and numerousness of the nonhuman world becomes visible as a formal, representational, and finally existential problem" ("Posthuman" 537). For McGurl, literature is a scaling device that defamiliarizes by moving through scales of perception. The posthuman comedy, however, tests this process by scaling to extents that undermine accessibility. Ultimately, these works cannot succeed; scaling breaks down. And while failure points to the limitations of human imagination, enacting that failure allows us "to know and feel our presence in the world as something in particular. Although the opposite is equally true, it's only in the failure of imagination that we find a reason to live" (McGurl, "Posthuman" 542).

Anna Tsing recognizes scalar expansion as transformative to both form and content, cautioning against what she calls "precision nesting:" expansion placing smaller scales within identically structured larger scales. Such a system can change scales without changing the frame in which it exists. Colonial plantations, global distribution, and contemporary business models all adhere to this idea of precision nesting. In contrast, Tsing identifies "nonscalable" systems, like foraging markets or peasant woodlands, in which movement from one scale to another cannot happen without transforming the frame of engagement. While her use of these terms attends to capitalism and global distribution, "nonscalability" is useful here, as well. Just as Tsing remains "alert to the awkward, fuzzy translations and disjunctures inherent in global supply chains" (522), so too does aesthetic expansion from human to lithic space-time involve disjunctions that can't be understood through precision nesting. When dealing with such disparate states of being, the boundary between difference of scale (i.e., the idea that lithic space-time is simply an extended, scalable form of human space-time) and difference of kind (i.e., the idea that lithic space-time offers a completely different planetary vision from human space-time) is fraught. And yet, those variances are just what the works in this study confront.

All Is Lithogenesis: MacDiarmid's "On a Raised Beach"

The title for Hugh MacDiarmid's "On a Raised Beach" seems simple enough and in line with the expectation of lyrical, landscape poetry: a work reflecting upon a natural setting and using that setting to engage larger questions about nature. While beach setting serves as a site for the poem's planetary visions,

the text moves quickly beyond that locale to signify unbridgeable gaps between human and lithic space-time. It imagines human existence through supra-human aesthetics: "We must reconcile ourselves to the stones, / Not the stones to us" (428). Rather than T. S. Eliot's fragmented modernity, MacDiarmid's lithic form, published 12 years later in 1934, builds from bedrock. Our "frenzied and chaotic age" is but "a growth of weeds on the site of a demolished building" (429). Grasping the lithic lets us "exercise the loneliness, the independence of stones" (431).

MacDiarmid frames this examination through an overwhelming use of geological and rhetorical jargon. The opening stanza is awash in scientific terminology: "carpolite fruit," "cathoyant pieces," "cyathiform," "foveoles," "slickensides, truité, rugas, foveoles" (146). Readers will surely need a glossary, and in that glossary, they will find two primary scientific fields: geology and biology. This terminological glut serves both formal means and thematic ends. The poem establishes universal opposition between "all" being either "lithogenesis," the formation of stone, or "lochia," afterbirth's discharge, pivoting between lithic and human ontologies. Later in this opening stanza, the speaker asks the beach stones, "What eburnation augments you with men's bones, every energumen an Endymion yet?" In eburnation—or hardening of bone—we see MacDiarmid's reifying project: to think of humans at the scale of the lithic, one must dehumanize—or, to return to Shklovsky, one must defamiliarize—experience: make the human stony, so to speak. MacDiarmid's opening move carves the rhetorical space for nonhuman lyricity.

The poem's conclusion overwhelms in similar ways, though here it does so through rhetorical, rather than scientific, terminology:

Diallage of the world's debate, end of the long auxesis,
Although no ébrillade of Pegasus can here avail,
I prefer your enchorial characters—the futhorc of the future—
To the hieroglyphics of all the other forms of Nature.
Song, your apprentice encrinite, seems to sweep
The heavens with a last entrochal movement;
And, with the same word that began it, closes
Earth's vast epanadiplosis. (156)

The diallage, a form that employs multiple arguments for a single point, becomes a geological structure, as does the hyperbolic growth in "auxesis." Rhetorical and ontological structures merge—structure becomes both linguistic and material. Enclosing the poem within these disorienting technical registers highlights a paradox in ecopoetics: language is both blockade and means by which we experience nature. Terminological specificity, whether scientific or rhetorical, offers conceptual precision while estranging the thing itself—the stoniness of the stones at the center of the poem. In this way, MacDiarmid's text calls for fusion of lithic and human

in art, reflects upon the impossibility of that fusion, and then enacts that project's failure at the level of form.

"On a Raised Beach" merges rhetorical and ontological, human and lithic. Rather than just revivifying rocks, MacDiarmid lithomorphizes human experience—or, he reanimates modernity's stony "ground" and renders its subject (the human) as one of many actants. By shifting to the nonhuman, "On a Raised Beach" models what Mark McGurl calls "exomodernism," which positions culture "in a time-frame large enough to crack open the carapace of human self-concern, exposing it to the idea, and maybe even the fact, of its external ontological preconditions, its ground" ("New" 380). Beyond T.S. Eliot's fragmented wasteland, MacDiarmid declares "This is no heap of broken images" (150). Whereas Eliot's cultural fragments become epistemological buttresses, MacDiarmid renders the human invisible against larger scales of space and time. MacDiarmid's solution in the face of impotence is aesthetic (and ethical) rigor: for the poet to extend their influence to lithic scales, they must become "more concentrated and determined, / Truer to themselves and with more to be true to, / Than these stones, and as inerrable as they are" (150). If MacDiarmid moves outside Eliot's human scale, he returns through this fusion of art and ethics, which he sees modeled in stone. Escape is not to linguistic origins but to stones, and in them are the means for human transcendence.

The Piling up of Debris: Robert Smithson's "Strata: A Geophotographic History"

If MacDiarmid leaps from the human to the more permanent scales of stone, so too might lyric render very different scalar movement from lithic to human. One such movement emerges in Robert Smithson's "Strata," published thirty-six years after MacDiarmid's poem in 1970. Originally part of *Aspen* no. 8, the "Multimedia Magazine in a Box"—edited by Dan Graham and designed by George Maciunas—"Strata" appeared on a sheet of 33¾ x 10¾-inch paper, folded in fourths. The piece subdivides into ten sections, each affiliated with a geologic epoch or era, beginning in the Cretaceous and ending in the Pre-Cambrian. Moving down the page moves backwards in time, digging deeper into geological history. These subdivisions are separated by cut-out images of fossilized strata spanning the page's width, serving as horizontal barriers separating one geological moment from the next. The page resembles the stratigraphy it renders. Nonetheless, the content of the section troubles smooth movement into the deep past.

Take, for instance, the final, Pre-Cambrian segment, representing the planet's earliest moments (reproduced in all-caps, as it appears in the original pamphlet):

MEMORY AT THE CHTHONIC LEVEL. FLOATING ON SOFT
MUDS NEAR THE BLIND RIVER. PINK FOSSILS. OBSCURE

TRACES OF LIFE. HALF TONE PICTURES OF STRATIFIED ROCKS. RECONSTRUCTIONS OF SANDSTONES IN SQUARE GLASS CASES. HOT WATER. RIDDLE OF THE SEDIMENTS. LOST IN THE ENCYCLOPEDIA BRITANNICA. BEACHED. BOILING, BUBBLING CONTINENTS. PHOTOGRAPH OF BANDED RED CHERT OR JASPER IN THE SOUDAN MINNESOTA (MINNESOTA GEOLOGICAL SURVEY). A GRAFT SHOWING THE CORRELATION OF THE SUCCESSIONS OF ROCK UNITS IN SEVERAL DISTRICTS. *IGNEOUS* MEANING FIRE. *WE LIVE AMID THE WRECK OF FORMER WORLDS* (JEROME WYCHOFF, **OUR CHANGING EARTH THROUGH THE AGES**—FULLY ILLUSTRATED WITH PHOTOGRAPHS AND PAINTINGS). THIS PERIOD IS LOSING ITSELF IN SAND AND PAGES. THE REGION BEGINS TO DISSIPATE. AN AERIAL PHOTO SHOWING THE DRIFT OF LAVA. SOME THOUGHTS ARE SINKING INTO THE CONGLOMERATE. LOGAN PASS IN GLACIER NATIONAL PARK IS MADE OF CRUSTAL BLOCKS. THE AGE OF POTASSIUM-ARGON. GEOLOGICAL GHOSTS ON THE PAGES OF A BOOK ON VIRUSES. ANIMALS WITHOUT BACKBONES TURN INTO STONE. *IF ONLY THE GEOLOGISTS WOULD LET ME ALONE, I COULD DO VERY WELL, BUT THOSE DREADFUL HAMMERS* (JOHN RUSKIN). GRAPHITE (A CRYSTALLINE TYPE OF CARBON). SLIMY DAYS. STEAMING GEYSER BASINS (NOBODY'S YELLOWSTONE). COUNTERFEIT ALGAE IN THE MUSEUM. BURROWS IN A MOUNTAIN OF CORRUPTION ... *THE QUEER FLOATING BASKET-LIKE VARIETY* ... (CHARLES R. KNIGHT). HEAPS OF CARBONATE LIME. POURING TONS OF MINERAL MATTER INTO A LAKE. IMITATION GRANITE. LAYERS OF OUTDATED MAPS. XENUSION. PETRIFIED SCUM ON DISPLAY. MAP OF THE MISSING SEA. EXTINCT SPONGE-LIKE THINGS. STEAM. CHARTS SHOWING CLAY FORMATIONS. THE PILING UP OF DEBRIS ... *FUTILE AND STUPID STAGNATION* ... (HENRY ADAMS). STALE TIME. ONE-CELLED NOTHINGS. ABSENCE OF OXYGEN.

(77; bold, italics, and ellipses in original)

Scientific language mixes with etymological, philosophical, and psychological quotations; titles from classical and early-modern treatises; descriptions of museum exhibitions, charts, illustrations; poetic imagery, etc. Yet only a few intertextual instances are sourced. Most readers must search, or, more likely (even for the cited sources), accept these passages as is, without accessing contextual clarification. In Smithson's words, "THE PILING UP OF DEBRIS" becomes both subject and practice. Smithson's lyrical vision of the Pre-Cambrian is product of human knowledge, whether scientific, religious, philosophical, pedagogical, or otherwise, inaccessible

through any sense of materiality. Answers to the nature of space and time in the Pre-Cambrian, “MEMORY AT THE CHTHONIC LEVEL,” are not found anywhere “outside,” in nature. Instead, they are “LOST IN THE ENCYCLOPEDIA BRITANNICA.”

Anthropocentric lyricality is in tension with narrativity here. Geological periods become lyrical segments stacked into a stratigraphic narrative moving backwards in time and down the page. Despite its prosaic appearance, “Strata” uses poetic form to construct this idiosyncratic structure. Clarifying the text’s dependence on poetic form despite prosaic appearance requires distinguishing poetic form from lyric mode. Whereas lyricality is best understood in Phelan’s terms as a rhetorical mode focused on states of being, poeticity, in Brian McHale’s sense, is a formal characteristic dependent on segmentation (14). While lyric is trans-formal, appearing in prose, poetry, music, etc., poetry is trans-modal, capable of lyric, narrative, portrait, and other rhetorical modes. Building on the work of Rachel Blau DuPlessis, McHale distinguishes poetry from other forms through this emphasis on spacing: “segmentivity is the *dominant* of poetry, in something like Jakobson’s sense, just as narrativity is the dominant of narrative, and performativity of performance” (14). Poetry prioritizes spacing (e.g., line breaks, stanzas, sequential sections, or even individual words) and focuses meaning making in negotiation of gaps. Poetic segmentations interact and play off one another to construct constellations of meaning. This interplay between various segmentations countermeasures one level against another. One segmentation creates a particular meaning; another creates a conflicting meaning. But the two coexist and interact, structuring the poem and our sense of it.

Poetic sensibility in “Strata” depends upon its segmentation—reinforced by images of stratigraphic barriers—and exploits gappiness to render geologic spatiotemporality. While its prosaic appearance seems to undermine this gappiness, capitalized text and prosaic form melt together intertextual instances, blurring boundaries between sources to render poetic images of each geological moment. In McHale’s sense, the text “semanticizes” prose spacing; its formatting is conspicuous, rather than invisible (15). In this form, sections juxtapose disparate sources to render lyrical representations of geological moments, which are then stacked in a reading of the progression of time implied by ordered layers of rock, creating tension between each section’s lyricality and their collective narrativity. Textual collage becomes stabilized event, connected to one another through implied narrative form. Segmentivity constitutes geologic record as product of human-scale space-time, curating a faulty, fragmented, and ultimately incomplete humanist epistemology. Even if we consider the “geophotographic” attention of the title and consider the text as captions to the photographic barriers, text and photograph render each geological period lyrically. That is, rather than each period represented as a multi-million-year history of transformation and change, they are stabilized and rendered lyrically through textual

collage and accompanying image. Change and narrativity occur only in the movement from one period to the next and are indicated only in the movement between segments. In that sense, our reading of the text flickers back and forth between a lyrical engagement with the individual segments and a narrative engagement with their arrangement on the page. If these texts are captions, they are captions representing each geological period (and its stratigraphic image) as a lyrical segment, connected to one another through spatial, narrativized ordering of Earth history on the page (i.e., movement backward in time and down the page).

At the same time, the text ironizes and critiques humanist epistemology. For instance, the quote from John Ruskin—“*IF ONLY THE GEOLOGISTS WOULD LET ME ALONE, I COULD DO VERY WELL, BUT THOSE DREADFUL HAMMERS*”—comes from his lamentation about scientific knowledge and its challenge to his religious worldview. The full quotation, taken from an 1851 letter to Henry Acland, is as follows:

You speak of the Flimsiness of your own faith. Mine, which was never strong, is being beaten into mere gold leaf, and flutters in weak rags from the letter of its old forms; but the only letters it can hold by at all are the old Evangelical formulae. If only the Geologists would let me alone, I could do very well, but those dreadful Hammers! I hear the clink of them at the end of every cadence of the Bible verses.

(36.115)

The original quote metaphorizes the challenge that scientific knowledge brings to religious belief through pounding hammers, which beat his faith to the thinness of gold leaf. But, in the collage, this metaphor is removed, and the religious context is transformed: the “me” that laments the pounding of hammers might even be the strata subject to their geological investigation. We flicker back and forth between the two: Ruskin’s epistemological crisis and the personified, lithic space from which that crisis arises.

Smithson thus posits an artificial ground for this “natural” narrative and then troubles that ground through collage. That we can articulate history at the geological scale becomes the target of Smithson’s critique here, and he works to problematize that possibility through its very construction. Smithson has claimed that “Strata” dealt with geological history as “fiction” (Bear and Sharp 248). But perhaps Smithson’s better comparison is to “a jumbled museum:”

Embedded in the sediment is a text that contains limits and boundaries which evade the rational order, and social structures which confine art. In order to read the rocks we must become conscious of geologic time, and of the layers of prehistoric material that is entombed in the Earth’s crust. When one scans the ruined sites of pre-history one sees a heap of wrecked maps that upsets our present art historical limits.

A rubble of logic confronts the viewer as he looks into the levels of the sedimentations. The abstract grids containing the raw matter are observed as something incomplete, broken and shattered.

(Smithson, "Sedimentation" 110)

"Strata" renders this jumbled museum on the page through stratigraphic narrativity and collage. A construct of human knowledge that never fully accesses the scale of lithic space-time, the museum (and the poem) can only be "incomplete, broken, and shattered." In that sense, form in "Strata" is both the thing—the stratigraphic narrative of geological history—and the means by which we access the thing, via fragmentation and approximation.

Jonathan Skinner identifies this poetics as "entropological" and "engaged at the level of material and processes, where entropy, transformation and decay are part of the creative work" (128). He distinguishes it from what he calls "topological" and "tropological" poetics: the first concerned with poetry's referential function to an "outside" nature; the second interested in poems as ecosystems in and of themselves. Skinner borrows his entropic terminology from Smithson, who explicitly connects poetic instabilities to similar instabilities of landscape:

Words and rocks contain a language that follows a syntax of splits and ruptures. Look at any word long enough and you will see it open up into a series of faults, into a terrain of particles each containing its own void. This discomforting language of fragmentation offers no easy gestalt solution; the certainties of didactic discourse are hurled into the erosion of the poetic principle. Poetry being forever lost must submit to its own vacuity; it is somehow a product of exhaustion rather than creation. Poetry is always a dying language but never a dead language.

(Smithson, "Sedimentation" 107)

Smithson recognizes ontological instability in scalar collisions rendered at the level of form, whether poetic or lithic. "Strata" negotiates this collision, representing its effects, imagines its reconciliation, and then represents its impossibility.

Set Down in Strata: Brenda Hillman's "A Geology"

Page space and stratigraphic form tackle far more disorienting and unstable spatiotemporal structures in Brenda Hillman's "A Geology," published thirty-one years after Smithson's piece and connecting California's geological history to addiction and recovery, transforming humans from subject to object, acted upon by addiction and compared to pressures that transform the landscape. Disjointed juxtaposition troubles the reader's stable engagement with either scale. For instance, the poetic voice compares the Coast Range to "pushing a pile of wet / papers from the left:" a relatively

simple metaphor that uses the human-scale vehicle of wet paper to describe the shape of a mountain range (7). Yet that comparison breaks down as the line continues: “and finally / they were just in love with each other.” Who is the “they” that are in love: two unnamed people or the colliding plates that produced the Coast Range? Soon after, the poem asks readers to “Consider the faultline” and then moves immediately to a moment when the “you” of the poem tried “to quit the drug and broke / in half.” The break of the faultline and the breaking of an individual under the pressures of addiction are equated here. But the balance between tenor and vehicle is fraught yet again, as the line continues: “you said ... // And you had to trust it (that is, needing it).” Do the ellipses imply the end of the phrase, or something else? What of the space before the parenthetical phrase? What is the “it” that needed to be trusted? Again, unclear antecedents and ambiguous phrasing disrupt any clear metaphorical movement between human and lithic scales. This unstable relationship between human and geologic scales is reinforced at the end of this opening page:

A geology breaks in half to grow. A person whose drug like
a locust jumps across someone’s foot, singing—;
we disagree with D, who hates similes.

The break that compels growth would seem to reinforce the metaphorical relationship above, establishing the break at the human scale as a site for potential growth or development—a move away from and beyond the stultifying conditions of addiction. But complications arise throughout these lines. Who is D? And how does the locust simile relate to earlier comparisons between rock and human? Is the geologic faultline the vehicle for addiction’s tenor? Or is addiction the vehicle for the geologic tenor of Californian landscape?

The poem upsets interpretive stability, keeping open relationships between different scales of being (human, stone, insect). This instability is explicit later, when the text declares, “a poem is // composed of all readings of it” (10). Its openness and instability, its unwillingness to settle metaphorical relationships, its disorienting engagement of scales of being: each frustrating formal aspect of the text positions readers between lithic and human, settled in neither and present in both. The experience of addiction becomes the means for this unsettled co-presence of scales. California is “like the skin of a person about to sit / down” (7); addiction is like “A bunch of fiery / islands [that] floated over and sutured themselves to us // a hundred million years ago” (9). In their similarity to skin, the moving plates leap to the scale of the human, and an addict’s experience of time shifts to the lithic scale. Yet, the poem prioritizes neither human nor lithic registers, and readers confront the text as a simultaneous engagement with geological and human space-time.

The poem ends by further conflating and confusing boundaries between addiction and California landscape:

In the expiation of nature, we are required to
 experience the dramatic narrative of matter.
 The rocks under California are reigning in their little world.
 This was set down in strata so you could know
 what it felt like to have been earth. (14)

In the first two lines, expiation confronts the conditions of the world in which we live, the “dramatic narrative of matter.” If the poem engages both human and geologic scales of matter simultaneously, expiation means both confronting the consequences of our actions on an interpersonal, human scale *and* situating those actions within geological history. Both our lives and the history of the planet are “set down in strata” in this way.

But “This” at the end of the quotation might also mean “this poem,” this textual object and its unusual form, a human product set down in strata along with all human products of the Anthropocene. Each of its eight pages include four corner words (see Figure 10.1). On most pages, these words also occur within the body text. Jennifer Phelps describes these corners as thematic anchors, securing poem to page, while also troubling that grounding through semantic slippage. So, on the final page, the word “fault,” repeated in three corners, is first found in the sentence “Tempting to pun on the world *fault*.” Here, “pun” connects geological “fault” (tectonic pressures, cracks in the earth, etc.) to human addiction and blame. For Jonathan Culler, puns foreground opposition “between accident or meaningless convergence and substance or meaningful relation,” producing “meaningful coincidence or convergence that affects meaning” (“Call” 16). Transferring “fault” exploits coincidence and convergence to produce ontological slippage that reifies the human experience of addiction, transforming human from subject to object acted upon by addiction. A break (or fault) reduces pressure and strain, whether we are talking about a faultline or the “break” that opens new possibilities for recovery in the addict. Instability also exists between fault as “blame” and fault as “break” in the phrase “The tendency / to fault relieves the strain.” We look unsuccessfully for causality and agency (“fault”) at both scales: who or what is responsible for addiction or for earth’s transformations? By working on both human and tectonic registers, the poem conflates and confuses scales of space-time. Simultaneously, the third corner “fault,” which has no match in the body text, reinforces this instability. For it, we need another sense of “fault,” as flaw or defect in the poem. Just when we have identified a formal rule to cohere this disjointed and disorienting text, this “fault” undermines that rule and reflects on its own failure.

Unstable flickering between human and lithic scales undermines any priority between the two. The final line’s use of present perfect (“to have been earth”) links current experience with the past, implying a past event that has present consequences. Here, metaphor becomes what Timothy Morton calls a “weird loop,” in which “two levels that appear utterly separate flip into one another,” an uncanny effect that exemplifies the emergence of ecological

fault

fault

Phyllites, schists, cherts, marbles. Press #
when you are finished. No one knows why
the arc of minor islands sewed themselves
to us in that way. When I put it
to my mouth I had no ability to stop it.
The sea ate the colors a hundred million years ago.
A geology is not a strategy. When an addict tries to leave
the desire to make himself over shifts from
what it felt like to have been a subject;
L.A. will dwell beside San Francisco eventually.
Tempting to pun on the word *fault*. All right,
say *plot*. All right, *happens*. The tendency
to fault relieves the strain. New islands
were forming to get the gist of it. We wanted
the extraordinary stranger in our veins.
Whether it's better not to have been held by something.
The oldest limestone, prevalent between Big Sur
and Calaveras, is not "better than," say,
any other kind. The suffering wasn't luckier,
it wasn't a question of asking.
In the instead hour, the minutes of not recovering
from the difference of what we loved;
sameness is also true: stone like a spider
sucking the carapace the same color as itself.
In the expiation of nature, we are required to
experience the dramatic narrative of matter.
The rocks under California are reigning in their little world.
This was set down in strata so you could know
what it felt like to have been earth.

fault

prevalent

Figure 10.1 From Brenda Hillman, "A Geology."

awareness (7), or in Hillman's sense, that imagines "what it felt like to have been earth." The ambiguous antecedent for "this" in the final stanza reinforces this co-presence, merging geological and human: expiation requires acknowledgement of and reconciliation with the earth. The poem posits what we might call an Anthropocenic poetics, fusing human to lithic, prioritizing neither while situating the human as collaborator with the geologic landscape.

Conclusion

Each lyric example I've discussed renders an aesthetic model that reconsiders relationships between lithic and human scales of space-time. In MacDiarmid's "On a Raised Beach," the lithic becomes a model for a human-scale ethical and aesthetic project. It provides new opportunities for artistic potential, stripped of humanity and purified through engagement with expansive scales. It reverses the conventional trajectory of the pathetic fallacy, reifying humanness through lithic juxtaposition and disrupting spatiotemporal stability. In Smithson's "Strata," human space-time ironically supersedes the lithic. Collage form and stratigraphic structure transform lithic spatiotemporality into a problematically human product. In Hillman's "A Geology," lithic and human space-times balance, each reflecting the other on mutually beneficial registers that both clarify and destabilize one another. As these differences attest, no strategy provides *the* means for articulating relationships between human and ecological. Rather, each lyrical instance produces its own defamiliarizing effects in which this work occurs. Other poems likely produce different spatiotemporal exercises. The point is not that lyric poems produce accurate renderings of "true" relationships between human and lithic spatiotemporality. Instead, each demands adeptness and flexibility that unfixes stable notions of space and time. Building on Matz's sense of time-work, this scalar diversity sharpens the "space-time-work" of imaginative possibility in the face of planetary transformation.

Seventy years separate MacDiarmid's poem from Hillman's, and in those seventy years, knowledge of human impact on climate and the consequences of that impact have only increased. The historical positions of these three poems and the ways by which they engage these human-lithic disjunctions reveals how each embodies certain characteristics of their respective moments. MacDiarmid's poem, published in 1934, offers a typically modernist perspective of this disjunction. Writing well before the crisis entered public debates, his concerns are with humans and their capacity to achieve a kind of lithic permanence and stability in art. Where a modernist like Eliot responds to the conditions of modernity through fragmentation and collage or H.D. embraces mysticism and mythology, MacDiarmid radicalizes this impulse to seek continuity outside of the conditions of modernity by turning to the thoroughly nonhuman conditions of the lithic.

In 1970, Smithson's text appears on the cusp of environmental awareness, when the consequences of human activity on the planet begin to produce political action and popular discussion. Mirroring Margaret Ronda, we might situate his work in a "Great Acceleration poetics" that "replace jeremiads of imminent apocalypse with an uncanny sense of living on amidst accumulating planetary disruption" (6). Human desire and incapacity to render the conditions of lithic space-time ironically critique human practice in light of this vaster scale. Attempts to stabilize and articulate the world only produce its opposite: chaos, wreckage, and "THE PILING UP OF DEBRIS." In light of this budding awareness of ecological crisis, Smithson's observation in "Strata," taken from Jerome Wychoff's *Our Changing Earth through the Ages*, that "WE LIVE AMID THE WRECK OF FORMER WORLDS" includes not only these ancient worlds but also more recent, human pasts.

Where MacDiarmid's action is centered on the human and Smithson undermines action through irony and failure, Hillman's 2001 poem seeks engagement through the structure of metaphor and the play of language. She responds to the crisis directly, but rather than ironize human capacity to render lithic scales of space and time, her work seeks to explore unstable positions that intertwine human and lithic scales. "A Geology" destabilizes the relationship between tenor and vehicle in order to upend any sense of priority, create a disorienting co-presence of lithic and human ontologies. Her work models a twenty-first-century, Anthropocenic poetics, one different from Smithson's irony in that it renders the relationship between humans and the planet in order to opens sites of engagement between the two. In a later work, Hillman asks the question, "We must do something, but what," and, in that question, seems to identify the central concerns of her poem: before we can take action, we must acknowledge that action can be taken (*Practical Water* 84).

The point isn't that any lyric instance reconciles human and lithic spatiotemporalities. Instead, each demands adeptness and flexibility that unfixes stable notions of space and time. They can teach us to live in spatiotemporal diversity, moving more comfortably within and between scales. In each instance, defamiliarizing effects transform engagement with temporal disjunction. These works construct radically open and contingent Anthropocenic spatiotemporalities: dependent on form, yet practically limitless within those affordances. Movements between openness and contingency might confront discrepancies between individual and collective responsibility. These lyrical works, and others like them, engage both scales of space and time. If negotiating planetary and human scales has become a political and even existential imperative, perhaps we can turn for guidance to lyric in order to revitalize spatiotemporal politics in service of this imperative.

Notes

- 1 While Phelan's use of lyric as a rhetorical mode, rather than poetic tradition, offers a lens for considering engagements between different aesthetic forms, it breaks with much scholarship on lyric and poetry. For instance, Jonathan Culler sees lyric as an inherently transhistorical poetic form, dependent upon engagement with a particular poetic tradition of recitation for its rhetorical and aesthetic effect. For Culler, lyric "involves a tension between ritualistic and fictional elements" via poetic form (*Theory* 7).
- 2 For narrative renderings of deep space-time, see Richard McGuire's graphic narrative *Here* (2014), which recounts events in a single room over hundreds of thousands of years. Science-fiction narratives engaged with deep time abound: H. G. Well's *The Time Machine* (1895), Olaf Stapledon's *The Last and First Men* (1930) and *Starmaker* (1937), Arthur C. Clarke's *The City and the Stars* (1956), the six novels in Gregory Benford's Galactic Center Saga (1977–1996), and Stephen Baxter's *Ring* (1994) and *Evolution* (2003). In each, duration is compressed and fragmented, distorting extensive spatiotemporalities into anthropocentric frames.
- 3 See, for instance, Huebener, Szersynski, Davies 15–40, and Bonneuil and Fressoz 3–18.
- 4 See also the 2015 special issue of *Transatlantica*, *Hidden in Plain Sight: Deep Time and American Literature* edited by Cécile Roudeau.

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