

Seeing Environmental Violence in Deep Time

Perspectives from Contemporary Mongolian Literature and Music

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Abstract What does it mean to do violence in deep time? How is deep time evoked in our understanding of environmental harm? Environmental transformations have figured prominently in the recent history of Mongolia. Shifts in land use have been associated with severe pasture degradation, and the precarity of herding livelihoods has been a factor accelerating urbanization. Most recently, the intensification of mining activity has been a particular source of social and economic change. These contexts have led to a political and religious reevaluation of human relationships with the land. This article focuses on literary and musical interventions (particularly rap music in the first part of the article and the literary work of *G*. Mend-Ooyo in the later part) that draw attention to this changing relationship with the environment, which the article portrays as a potential rupture. We explore how these works domesticate deep time, nesting personal histories within the temporal depth of the landscape and crosshatching biographical, mythological, and geologic understandings of time. Yet we then see how this domestication comes to be threatened by developments that sever the relationship between people and land, leading to the disturbing prospect of being left stranded in the face of an inhospitable deep time.

Keywords Mongolia, landscape, time, aridification, lake shrinkage, dust, rap

Inhospitable Times

W hat is the span of a human life in relation to deep time—that is, in relation to the timespan of the geologic processes that shape and reshape the terrain under our feet? The term *deep time* itself seems to have been coined by the journalist John McPhee in his book *Basin and Range*, which narrates the experience of field geologists encountering the vastness of time made manifest in the rock formations they encounter. "Numbers do not seem to work well with regard to deep time. Any number above a couple of thousand years—fifty thousand, fifty million—will with nearly equal effect awe the

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imagination."¹ In seeking to comprehend the processes at work in planetary history, we are reaching toward quantities of time that stretch beyond human experience; that seem to defy comprehension.

Seen this way, the incommensurability of biographical time and deep time presents itself as a problem of scale. How can we measure the time of human life against something so vast that it seems to obliterate it? "In the perspective of millions of years, the duration of our lived experience, of 'our time', appears utterly inconsequential."² The provocation of such temporal disparities leads Jeffrey Jerome Cohen to write of the *inhumanity* of the geologic, remarking that that the love of stone "is often unrequited" in the face of deep time's "vast duration, slow movement, and inhuman scale."³ Our life stories seemingly move out of step with the stories of the landforms under our feet.

My interest here is in a key anthropological topic: time and the relationship between temporality and social life. The classic anthropological debates in this area, as reviewed by Alfred Gell and Nancy D. Munn,⁴ respectively, focused on a set of interrelated fundamental themes: the source of the rhythms around which social life is organized; how people reckon time; and the extent to which time concepts can be understood as socially determined. What, if anything, is the worth of thinking about deep time in relation to such debates? Indeed, Gell in particular was determined to concentrate "on the action frame of reference and the shallow time of everyday life," confessing that "[t]his may result from a personal characteristic of mine, i.e. a present-focused, huntergathererish mind-set, coupled with a certain indifference towards the past and the future."⁵ Yet what I am foregrounding here, by contrast, is the significance of time-depth for our understanding of everyday life and "the action frame of reference."

Reprising the topic of time in *Art and Agency*, Gell argues that anthropology's depth of focus is biographical. "Anthropology therefore tends to focus on the 'act' in the context of the 'life'—or more precisely the 'stage of life'—of the agent. The fundamental periodicity of anthropology is the life cycle."⁶ Yet the life cycle is never readable on its own—it exists in relationship with other biographies. Human stories of life, of production and reproduction, are not only situated within wider genealogies that expand the life history in time through kinship but on an active, constitutive relationship with the resources on which we depend, whose formation stretches over time-spans that appear to dwarf that of a human life and yet are necessarily present—either recognized or unrecognized—in our own economic and social activity. Seen this way, the time-depth of a biography is intimately connected with that of what archaeologist Barbara Bender describes as the "landscapes on the move" that we inhabit.⁷

1. McPhee, Basin and Range, 21.

2. Ingold, Evolution and Social Life, 129-30.

3. Cohen, Stone, 27.

4. Gell, Anthropology of Time; Munn, "Cultural Anthropology of Time."

5. Gell, Anthropology of Time, 314.

6. Gell, Art and Agency, 10.

7. Bender, "Landscapes on-the-Move."

Here, I want to explore the ways in which people encounter deep time in the course of their own biographies,⁸ listening in particular to voices that announce the violent impacts of ecological degradation in contemporary Mongolia. More specifically, I argue that the harm of ecological degradation is understood as a threat of temporal rupture: the looming possibility of the violent removal of biographical time from the temporality of the landscape that enables that biography to make sense.

Environmental transformations have figured prominently in the recent history of Mongolia. The shift away from communism toward privatized forms of ownership has been dramatic—a process that prompts Caroline Humphrey and David Sneath to ask whether we have seen "the end of Nomadism."⁹ Shifts in land use and, in particular, the loss of mobility have been associated with severe pasture degradation¹⁰ and, consequently, the loss of herds. This has been a factor accelerating urbanization: the population of the capital has doubled since 1989, with many new arrivals living in semipermanent nomadic dwellings on the edge of the city.¹¹ In addition, the emergence of mining as Mongolia's largest economic sector¹² has brought economic growth at a national level while at the same time generating widespread concern (as discussed below) not only about the ecological impacts of such activity but also about the loss of resources to other national interests, leading to a "populist" narrative of mining as harm to the land and harm to the nation. This is the historical context within which expressions of desire and concern regarding the Mongolian environment should be heard.

This article explores lyrical expressions of concern that such transitions are leading to a rupture in the lived relationship with the environment. Given the understanding that personal histories are connected to the histories of kin, of nation, and of the land itself through the lived experience of that environment, this is also understood as a potential rupture in time.

Exploring the way in which landscape mediates the relationship between biographical time and deep time, I take as my source material Mongolian literature and contemporary music (in particular rap music, which, as we shall see, can take direct inspiration from Mongolian literary forms). I argue that the relationship between identity and landscape leads to a *nesting* of biographical time in kinship and, through kinship, in the *nutag* (homeland), through which people connect their own histories with the longer histories of the nation and the landscape on which that nation depends. In this sense, the temporality of the landscape is domesticated. It is made intimate in each life as a home. Yet this domestication is threatened by developments that sever the relationship between people and land, leaving the individual stranded in the face of an inhospitable deep time.

^{8.} See Irvine, "Deep Time."

^{9.} Humphry and Sneath, End of Nomadism?

^{10.} Sneath, "State Policy and Pasture Degradation"; Sternberg, "Environmental Challenges."

^{11.} Byambadorj, Amati, and Ruming, "Twenty-First Century Nomadic City."

^{12.} Bulag, "Mongolia in 2008"; Jackson, "Imagining the Mineral Nation."

A Man without Destiny

I'm the owner of this land Left to me by my parents and ancestors At least I didn't lose that to others.

These are the first words the Mongolian rapper Gee spits out in his 2011 video "Leave Me My Homeland" (*Minii nutgiig nadad üldee*).¹³ The sound of the horsehead fiddle¹⁴ rising over the looped bassline comes as no surprise given the frequent incorporation of traditional motifs and musical styles into contemporary Mongolian pop music.¹⁵ Neither is there anything surprising about an urban rapper's being filmed out in the countryside— Mongolian rap frequently offers praise to the homeland, and images of life in the Mongolian countryside—often including horse riding and herding animals—are commonplace in the pop music videos that are played on bus and taxi rides. In fact, given the ubiquity of such bucolic scenes, it is the *kind* of countryside that shocks: in the video, we see Gee stumble through a future vision of land (*gazar shoroo*) that is dust (toos shoroo).

Gregory Delaplace argues that authenticity is a central concern of Mongolian rap: exploring what it means to be a "real" Mongol.¹⁶ He suggests that the central question posed by much Mongolian rap is "how to be Mongolian today," or rather "what is preventing us from being Mongolian nowadays?" Nationalistic themes are prominent, as is the invocation of national history and, in particular, the figure of Chinggis Khan (c.1162– 1227), unifier of the Mongolian people and builder of empire.¹⁷ The countryside (*huduu*), as the site of "authentic" life, is central to this identity even as (or perhaps especially as) the percentage of the population living in the capital city increases.¹⁸ Gee, born in the countryside but raised in Ulaanbaatar's *ger* district, reflecting Mongolia's increasing movement to the city, grounds his identity as an urban rapper in the sprawl that surrounds the capital city, yet at the same time he looks beyond the city for his national identity. So the glorification of the natural environment is a key theme; the 2013 rap

13. For the video of "Leave Me My Homeland," see "Gee vs Jonon feat Bayaraa—Minii nutgiig nadad uldee" (YouTube video), published by MongolMusicChanel, March 13, 2012, www.youtube.com/watch?v=Zi0H1 -Hvvlk (Gee lyrics hereafter cited in the text).

14. The *morin huur*, usually known in English as the horsehead fiddle, is a two-stringed instrument played with a bow. It is recognized as an expression of Mongolia's national identity and in 2003 was added to UNES-CO's register of Masterpieces of the Oral and Intangible Heritage of Humanity.

15. Dovchin, "Performing Identity through Language."

16. Delaplace, "The Ethics and Esthetics of Mongolian Hip-Hop."

17. Chinggis Khan's heroic status has been especially central to Mongolian nationalism since the democratic revolution of 1990; see Kaplonski, *Truth, History, and Politics in Mongolia*.

18. In 1989, 26.8 percent of Mongolia's population lived in Ulaanbaatar; by 2006 that number had risen to 38.1 percent; and by the 2010 census, 45 percent of Mongolia's population lived in the capital; see Byambadorj, Amati, and Ruming, "Twenty-First Century Nomadic City."

"Peaceful Countryside" (Amgalan huduu), by Panz and Gee, for example, extolls the many virtues of the countryside and nomadic living, complete with sounds of birds, insects, and livestock in the background. However, in parallel with this glorification of nature, rappers frequently turn to condemnation of the moral failure of this generation as custodians of that nature.

"Let's Make History" ("Tuuhee buteey"), the 2009 rap by Gennie,¹⁹ another rapper from Ulaanbaatar, begins with praise for the Mongolian landscape:

The beautiful nature of the Khangai, the Gobi, and the steppe combines The four seasons pass, the climate is good, Richest of all is what is beneath us.

But this song of praise is cut short as she pivots toward anger about the nation's social problems. "I want to sing of my remarkable motherland, but / There is a gap between rich and poor."

Greed is everywhere; corruption is widespread; people stumble around drunk. She *wants* to sing the praises of the beautiful country, but the state of the Mongolian people holds her back from being able to. She sets up a striking parallel between human greed as a cause of social harm and as a cause of harm to the environment. People are being "parasitic" (*shimegchilin*); "Corruption is everywhere, the land becomes a desert / The rich sit over the poor and exploit them to get rich."

The rhyming of the verbs tsöljij (desertifying) and *möljij* (becoming wealthy) is potent. A small number are accused of becoming rich at the expense of the nation (both the people and the land), and thus exploitation is a common thread linking human degradation and the degradation of nature. This is a history that has gone wrong. The destruction of the land that is the source of Mongolian identity is implicated in a wider loss of values, and so in the chorus Gennie calls on the once-proud "children of Mongolia blessed by the spot"²⁰ to rediscover their destiny; to make their history.

Returning to Gee's "Leave Me My Homeland," this sense of how degradation marks time is explicit. "I fear that we see the future where Mongolia will be called a desert"; the chorus calls from this imagined future to the ancestors (that is, contemporary Mongolians), urging them: "Don't live only for yourselves." The damage that is described is harm done to Mongolia's natural history as well as its national history, and again this is portrayed as a moral failure.

19. For the video of "Let's Make History," see Gennie "Tuuhee buteey, T_{YY}x₃ _{δyT3}e" (YouTube video), Published by murun71827, on January 4, 2009, www.youtube.com/watch?v=VoDMaOwxtOs (Gennie lyrics hereafter cited in the text).

20. This is a reference to the Mongolian spot, or "blue spot" (*höh tolbo*), a congenital birthmark found on a high number of Mongolian infants and routinely associated in Mongolia with one's Mongolian ancestry and inheritance. As such, it features in Mongolian literature and music as a symbol of nationalism and of national "chosenness"; see Billé, *Sinophobia*, 100–105.

Real wealth isn't what's under you . . . Real wealth comes with the growing plants Gold, silver, people can't eat money It seems we don't know that herds eat grass, people eat the herds.

These lyrics draw together a number of environmental anxieties. The most prominent is pastureland degradation: "In the future one blade of grass is more valuable than gold." Transformation to a market economy coupled with limited state assistance for herders since 1990 has decreased rural water supplies, reduced mobility, and increased overgrazing;²¹ increasing aridity and decreased vegetation cover threaten not only herder livelihoods²² but also the sustainability of the ecology of the steppe, and the question of how to "manage" grazing in such circumstances is a source of controversy. An exacerbating factor here is, of course, the impact of climate change, with herders observing severity of dust storms and reduced rainfall,²³ which many attribute to global warming (*delhiin dulaaral*). The environmental discourse around global anthropogenic climate change is therefore rendered salient by its impact on herding livelihoods, not only because of the connection between conditions for herding and the well-being of herding families themselves but also due to a strong sense of the cultural significance of herding for the Mongolian national identity.²⁴

In addition, when Gee calls out from the future to the ancestors that "Real wealth isn't what's under you," he also points an accusing finger at mining activity. Mining has become Mongolia's largest economic sector, and during the start of the 2010s mineral extraction fueled rapid rise in the GDP growth rate, which reached an all-time high of 17.3 percent in 2011 (though it has since slowed sharply, falling back to a growth rate of 2.3 percent in 2015). Yet the rap taps into a widespread ambivalence toward the emergence of this "Mine-golia."²⁵ While large-scale mining is not a novel development in Mongolia, with the copper mine in Erdenet in particular having played a crucial role in the economy of the twentieth-century socialist state, the rapidity and extent of new mining activity, its threat to ecology and the pastoral way of life, have generated a great deal of public resentment. In particular, mining is seen to contribute to pasture-land degradation, particularly through its demand for scarce water resources.²⁶ Yet as de la Cadena has argued in the context of indigenous environmental activism in the Peruvian Andes,²⁷ where mining activity is resisted on the grounds that it angers the

- 22. Murphy, "Ecology of Rule."
- 23. Marin, "Riders under Storms."
- 24. Bulag, Nationalism and Hybridity in Mongolia.
- 25. Bulag, "Mongolia in 2008"; Jackson, "Imagining the Mineral Nation."
- 26. Suzuki, "Conflict between Mining Development and Nomadism."
- 27. de la Cadena, "Indigenous Cosmopolitics in the Andes."

^{21.} Sneath, "State Policy and Pasture Degradation"; Sternberg, "Environmental Challenges."

mountains which are themselves earth-beings, the politics surrounding mineral extraction cannot be fully understood if we treat geologic entities only as resources—that is, things to be mined—rather than as relational beings. And indeed, in the Mongolian context, given the recognition that such interference can disturb the spiritual beings who are "lord of the land" (*gazaran ezed*),²⁸ pulling up wealth from the ground can be understood as both ecologically and morally polluting.²⁹

Such fears take on an expressly nationalist flavor given the concern that land in the nation was being bought and sold by *foreign hands* who would degrade it; given Chinese ownership of coal mines in particular, this frequently opens up into expressions of Sinophobia.³⁰ These concerns that land is being sold to outsiders—and to Chinese in particular—are present in both Gennie's and Gee's raps.³¹ The integrity of the land is, after all, the integrity of the nation.

What we see, then, is a depiction of what Rob Nixon has termed slow violence harm whose full extent is displaced in time, manifesting itself at temporal scales that fan out well beyond the time frame in which the action took place: "By slow violence I mean a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all."³² Gee's "Homeland" video shows Mongolians of the future left wandering through a barren geology trying to piece together a history from what they find buried in the dust: a portrait of Chinggis Khan; a sign pointing the way to a mine; a photograph of trees by a lake; a dribble of water in a plastic bottle.

The rap looks back and forward in time by way of genealogy: back to the ancestors (in whose number it includes those alive today); forward to descendants. But this capacity to see generations through time is dependent on ecology, and the disquiet of a future time of dust is that the destruction of the land's fertility is the destruction of a people's fertility. "I've seen our offspring traded for money." Gee weaves a thread of descent through Mongolian history, invoking the figure of Chinggis; calling to mind those who fought for the motherland. But this descent can only be traced and sustained in the presence of the fertile land:

28. On the presence of these "lords" or "masters of the land" within Mongolian topography, see Humphrey, "Chiefly and Shamanist Landscapes in Mongolia."

29. See High, "Polluted Money, Polluted Wealth."

30. See Billé, Sinophobia.

- 31. In the 2008 rap "Wrong Place Right Time," as part of the rap collective Click Click Boom, Gee raps: This place is filled with prints of crooked slippers
 - Lord Chinngis' pride disappears in ruins

While we watch ourselves becoming Chinese citizens.

This is discussed in Delaplace, "The Ethics and Esthetics of Mongolian Hip-Hop." The same motif of the presence of Chinese slippers is present in Gennie's "Let's Make History."

32. Nixon, Slow Violence, 2.

Can we live without rivers and streams? What will our descendants depend on after my time? The future will curse us.

The device of speaking from a future of dust makes starkly visible the presence of the present generation as a mark in geologic time, and as a mark that leaves what remains of human time in doubt. "I'm an unlucky man, I'm a man without destiny [zayagui]."

The Domestication of Deep Time

In reflecting on the relationship between Mongolian landscape and Mongolian nationhood, the rappers speak from within a particular patriotic literary tradition; indeed, in her "Let's Make History," Gennie directly quotes the famous poem "My Homeland" (*Minii nutag*) by Natsagdorj (1906–37), the foremost patriotic writer of the early socialist era: "This is the land of my birth/ Mongolia's beautiful country," before going on to imply those who recite such words today often live in ways that run contrary to the love they claim for the land.

One of the most prominent heirs to this literary tradition among contemporary Mongolian writers is Mend-Ooyo Gombojav (b. 1952),³³ who in 2015 was conferred the Order of Chinggis Khan, Mongolia's highest state honor. A novelist, poet, and calligrapher, Mend-Ooyo has also written a number of famous pop music lyrics with a strong environmental theme, including "Mother Earth" (*Delhiin eej*) and "Mother's Lullaby of the World" (*Eejiin büüveitei horvoo*). His life story reflects the pull of the two magnetic poles of city and countryside life in contemporary Mongolia. Born into a herding family, he was nevertheless drawn toward Ulaanbaatar, where he studied and developed as a poet; but he writes with longing for the countryside, identifying himself as a herder and thus an embodiment of the true Mongolian national ideal.

The work for which Mend-Ooyo is best known is the 1993 poetic novel Altan Ovoo, a meditative reflection on the geography of his native Dariganga, in Sükhbaatar aimag (province), Eastern Mongolia.³⁴ The title refers to a sacred mountain and popular site of pilgrimage (also known as Dari Ovoo), the existence of which is portrayed not just as a backdrop for life but as an intimate presence within it. At the outset, Mend-Ooyo tell us: "A stone from Altan Ovoo stood in the place of honour to the north of the ger" (8).³⁵ This is the place in the home where guests, or the oldest people present, would be seated as a mark of respect. From the start, then, we are introduced to Altan Ovoo's geology as a so-cial being, spoken to, called on, and interacted with as an honored person: indeed, elsewhere in the book Altan Ovoo is called on specifically as a lord of the land.

34. Here, a readership beyond Mongolia is highly indebted to Simon Wickham-Smith for his remarkable and poetic English-language translation of *Altan Ovoo*, which I use here when providing quotations.

35. A *ger* is a nomadic dwelling.

^{33.} For a comprehensive account of Mend-Ooyo's life, work, and historical context, see Wickham-Smith, *The Interrelationship of Humans and the Mongol Landscape*.

The rock in the ger not only stands for but also contains within itself a greater whole. It is interacted with not just as *part* of, but *as* Altan Ovoo. And in the same way, Altan Ovoo is seen not just as part of, but as a wider world. "The love of my homeland [*nutag*] and of my motherland [*eh* oron] and of the world itself shone forth from this little stone" (86). As Sneath has argued, the development of Mongolian national identity in the twentieth century placed a growing emphasis on the nutag, in which people have their roots, as a constituent feature of the nation-state.³⁶ It is through a locally anchored sense of belonging that a wider sense of national belonging emerges. Mend-Ooyo's treatment of the rock reflects this but takes it to yet another level: "Altan Ovoo is the world on a reduced scale" (8). It is thus the whole world taking the place of the guest of honor in his childhood ger. He recalls his father telling him: "My son, please think about Altan Ovoo. Every hill and body of water is contained within it" (84).

Mend-Ooyo describes vividly the morning his father saddled the horses and took him to Altan Ovoo for the first time-his encounter with it in body and spirit. The encounter with the hill is therefore rooted in the time of his own autobiography. Yet by rooting autobiographical time in the landscape, his own encounter with Altan Ovoo is understood and given meaning through other stories through time. "Will the flame of my ancestors' wisdom not illuminate us as we discuss the landscape?" he asks (8); it is a question that calls to mind Keith Basso and his ethnographic account of how, for the Apache he moves with, "wisdom sits in places," and how they interweave life histories and stories handed down through the generations with current concerns over the course of the journey.³⁷ Yet if stories and relations are manifest within the landscape,³⁸ this does not so much mean that cultural meanings are layered on the terrain—rather, they emerge in relation to it. As Tim Ingold writes, "Stories help us to open up the world, not to cloak it."39 Indeed, as Mend-Ooyo writes of Altan Ovoo, "The thoughts of people have at all times been absorbed into the mountains and water and stones" (85). And so the road to the hill that he traveled with his father is a shared road: "This road is the artery of eternal time which joins me with the universe, tens of thousands of feet are moving, striking out under the pulsing moments of history" (21).

In this sense, Mend-Ooyo's novel can be understood as a series of stories along the road. We walk in the presence of Chinggis Khan, who, we are told, passed this way in life, leaving his mark on the hills; and who also passed this way in death, his embalmed body being carried along the road on a cart that got stuck, up to the hubs of its wheels, and so his soul rested for a while here. We also walk in the path of the soldier of the Second World War who passed this way but never returned. And also in the path of the nineteenth-century folk hero, the bandit Toroi Bandi, who stole the horses of the

- 37. Basso, Wisdom Sits in Places.
- 38. See also Tilley, Phenomenology of Landscape; Munn, "Excluded Spaces."
- 39. Ingold, "The Temporality of the Landscape," 171.

^{36.} Sneath, "Political Mobilization."

Manchurian rulers. And some paths along the road take us yet deeper in time: the path of Otgentenger,⁴⁰ "the youngest son of Heaven," appearing "in the thaw which followed the great ice age which overwhelmed our world" (*Altan Ovoo*, 29); and that of Höhdei the Wise, who rode to the great celestial court, where "it is said that one day and one night is equivalent to 33 aeons on the earth" (39).

What is striking here is the manner in which time is *nested* and the role topography plays in this. Mend-Ooyo's own life history is grounded and given significance through the history of the nutag, recognized in and recalled through the landscape: to speak of the encounter with Altan Ovoo is to speak of one's autobiography but also to locate it within the story of one's family, of one's ancestry, and through this, of the Mongolian people. These are themselves nested in the timespan of the geologic beings on which we are dependent. Yet in spite of the magnitude of geologic time, human life finds a home in the possibility of intimate relationship with that geology.

In this way, what we see is a *domestication* of deep time—not as its denial but as a way of situating humanity within it. Time is, after all, where we live. This domestication, clearly expressed in giving a stone from Altan Ovoo the place of honor within the ger, recurs throughout the novel. For example, in treating the depth of ecological time as a cumulative process—"the intertwining nature of the four seasons is growth, spreading, fading, and withering" (161), as a result of which "thick stacks of corpses watch the time go round" (163)—Mend-Ooyo employs a metaphor from the architecture of the ger for this passage of time. He describes it as "the rope which is securely tied to the roofring [toono] of the world" (161), a metaphor with all the more resonance given the connection between the shape of the toono and the Buddhist wheel of dharma. And again, just after evoking a passage of time that seems to dwarf human history—"throughout a hundred aeons, the time flies by and is gone"—he returns immediately to the ger and the hearth: "the fire is blazing" (164).

Rupture

Mend-Ooyo's writing is infused with references to Mongolian Buddhism.⁴¹ In one story a stone from Altan Ovoo is described as "a Buddha who discovered the sanctified life" (85); elsewhere he writes, "This land is a great Mahayana text, it is the wise and gentle Dharma" (198). It can certainly be claimed that Mongolian Buddhist cosmologies, in common with other religions of Indian origin, encompass deep time. As Uranchimeg Borjigin explains, a complete cycle of cosmic renewal is divided into four "immeasurable

40. Otgentenger is the highest mountain of the Khangai mountain range. The involvement of Otgentenger here seems to reflect the principle expressed in the book that from the summit of one mountain, you can see to the next, and so to the next, and so on until all mountains are in view; but also the wider idea is that the essence of all can be found in the essence of one.

41. Indeed, following the Democratic Revolution in 1990, Mend-Ooyo played a leading part in the reconstruction of the Migjid Janraisig temple at Gandan monastery in Ulaanbaatar, a key symbol of the prominent role of Buddhism in the post-1990 nation-state. aeons": creation; stability; decline and destruction; and chaos or emptiness—each of these lasting for lengths of time described in ways that seem to overwhelm one's sense of duration; for example, "as long as it would take to erode a great mountain by brushing it with a silk cloth every one hundred years."⁴² Yet the relationship between the duration of "everyday life" and such cosmic timescales is by no means straightforward.⁴³ These timescales appear incommensurate with that of a human life and yet at the same time can protrude into it.

The circulation of prophecies that speak of a "time of calamities" (tsovuun tsag)⁴⁴ is one way in which an apparently distant register of time comes close to the lived realities of human life. As Rebecca Empson explains, tsovuun tsag is

viewed as an apocalyptic period of great insecurity and moral decline that will happen sometime in the distant future. Several Mongolian prophecies predict that the world will be thrown into a terrible war and calamities, such as natural disasters, floods, epidemics, and widespread death, will permeate every aspect of people's lives. After this period, the Buddhist god Maitreya will appear on Earth and herald the dawn of a new era or epoch.⁴⁵

What is of interest in the circulation of prophecies and the search for an interpretive match for the concept, argues Empson, is that an apparently distant temporal register is brought close as a way of reading events in the world around. As a way of interpreting the present, reference to the "time of calamities" becomes a means of understanding and interpreting observed changes, while at the same time, as a process within time on a cosmic scale, it is never fully uncoupled from the register of a distant future and so remains a repeatable trope, reproduced in different forms according to the circumstances of the present. Christopher Kaplonski, for example, discusses the way in which the repression of Mongolian Buddhist lam (or monks) was seen as a sign of coming calamity,⁴⁶ while Empson notes the prophecy's use in relation to concerns about privatization of land in the postsocialist era.⁴⁷ One contemporary sign of the coming "time of calamities" is the evidence of climate change and, more generally, the evidence of widespread environmental degradation. Mend-Ooyo directly refers to our living in tsovuun tsaq in this way: "in this time of calamity, because of our complete ignorance, we abuse the sacred places, we pollute the land, we cloud the spring waters of paradise, we kill wild creatures without reason . . . we pay no attention to the lords of earth and sky" (238).

I wrote above of the domestication of deep time, made familiar through a process of nesting by which autobiographical time is located within historical and geologic time

^{42.} Borjigin, "Circulating Prophetic Texts."

^{43.} See Pocock, "Anthropology of Time-Reckoning."

^{44.} See Borjigin, "Circulating Prophetic Texts"; and Empson, "Repetition of Mongolian Prophetic Time."

^{45.} Empson, "Reproducing People and Prophecy in Mongolia," 55.

^{46.} Kaplonski, Lama Question.

^{47.} Empson, "Reproducing People and Prophecy in Mongolia," 56.

through a sense of a relationship with the nutag, and thus the vastness of time is recognized as present within the time of human life rather than radically distant from it. The protrusion of a "time of calamities" into human life is a sign of rupture. This is, I would suggest, what Gee evokes when he raps of homeland becoming dust. Having seen the link between people and land severed, he finds himself "without destiny," without a way of locating himself and his life in time. To know physical geography as nutag is to read autobiography, kinship, and history into the temporal depth of a living environment (and vice versa). Environmental degradation is a rupture that makes this knowledge of time impossible, leaving the individual stranded in the face of an *uninhabitable* deep time.

Each September in recent years, Mend-Ooyo has traveled with a group of scientists, politicians, and artists to his home *sum* (administrative district) of Dariganga to join what has become an annual gathering to raise awareness of the shrinkage of Ganga Lake. As noted above, Dariganga is a place of pilgrimage, particularly for men wishing to climb Altan Ovoo. What has emerged in these past years is, in a way, a new form of pilgrimage, one that calls on the Mongolian people to recognize that the lake, which has ensured human survival for thousands of years, now "calls out to humans for survival."⁴⁸ Partly the gathering serves as a way of generating media attention about environmental degradation in the region, and partly it provides an opportunity for getting people involved in practical remediation work; although during the September 2015 visit there was anger and disappointment that trees and other plants that had been put in place the previous year had been destroyed, apparently by grazing animals.

Ganga Lake, like Altan Ovoo, is part of the landscape of Mend-Ooyo's childhood, occupying a prominent place in his own life history and in the history of his homeland through the stories told to him by his mother and father. In a 2013 essay, "Ganga River, Ganga Lake, Folktales, and Poetry: The Five of Us,"⁴⁹ he tells a story from his childhood of how, when living in the school dormitory in the sum center and badly homesick, he and a friend rode out one day. "I followed the golden shores of the lake until I came across a small spring, flowing into the lake. It was a marvelous scene with water boiling out from the ground and overflowing out to the lake from its tiny rock crater. Geysering out right from below! 'Is it not true that it started from the source of Ganges River and continued to flow underground until it gushes out here?'" That is how a young boy found connection between the Ganges River and the Ganga Lake and brought for his mother a bottle of holy water.⁵⁰ This connection with the River Ganges reflects the story he was told by his parents, that the lake takes its name from a monk who, many

^{48.} Mend-Ooyo, "Ganga nuuren duudlaga" (Ganga Lake's call), post shared on the Ganga nuuraa avrah hödölgöön (Movement to Rescue Ganga Lake) Facebook page, March 22, 2016.

^{49.} This essay was first published as an English translation, although the Mongolian original was published in Mend-Ooyo, *Gol us tungalagshih tsag*.

^{50.} Mend-Ooyo, "Ganga River, Ganga Lake," 154.

years ago, traveled to the Ganges and, upon his return, poured out the water he had brought back. "Twenty years later," Mend-Ooyo tells us, "I had the opportunity to go to India and bring back real Ganges water for my aged mother. Thus I continued my naive childhood belief and fulfilled the dreams of ancestors in the legends."⁵¹

Ganga Lake, then, is known through the stories of family and of ancestors, and its presence within the landscape is a way of connecting oneself with them through time. "The springs feed Lake Ganga, and does not Lake Ganga feed many songs? As though listening to my words, Lake Ganga murmurs indistinctly. But Altan Ovoo, as though observing us, towers in the distance. They say that Lake Ganga is the wife of Altan Ovoo" (Altan Ovoo, 96).

Now Ganga Lake, in common with many lakes in the region, is rapidly shrinking:⁵² a loss that has the character of a rupture in time. Around the occasion of the 2016 gathering, photos circulated of a dried-out, cracked lakebed—a ghostly image, often made more stark by placing it alongside a photo taken in previous years showing Ganga Lake as it is usually depicted: an idyllic haven for wildfowl, especially famous for the thousands of migrating swans who land there in the autumn.⁵³ Accompanying these images was the news that of the twenty-one springs that fed the lake,⁵⁴ all but two had dried up, and as a result the surface area of the lake had shrunk by between 80 percent and 90 percent compared to its extent fifty years prior.⁵⁵ The changes can be attributed to a number of interlinked factors: the effects of mining on the available groundwater; a decrease in the amount of rainfall; the loss of plant life around the lake; shifting sand settling at the bottom of the lake as the surrounding land becomes more arid; and Ganga Lake itself having to support an increased level of livestock as surrounding lakes dry. To say Lake Ganga "feeds many songs" is no mere poetic flight of fancy. Its twenty-one springs were the material conditions of continued existence.

Severance

Central to the treatment of environmental degradation in the raps discussed above is a concern about continuity of descent through time: to quote Gee, "Our fathers never abandoned us / But we have forgotten our own children" ("Homeland"). This is what shocks in the image of a future homeland that has become dust and in the photos of the desiccated floor of Ganga Lake. They confront their audience with a prospect of severance. Having left our imprint on geologic time, the anxiety is that we might find ourselves without landmarks and without company.

51. lbid.

52. See Tao et al., "Rapid Loss of Lakes on the Mongolian Plateau."

53. See Robinson, "Swan Lake."

54. "The lake is fed by twenty-one springs. The numbers also symbolize something special. Mother Tara has twenty-one manifestations" (Mend-Ooyo, "Ganga River, Ganga Lake," 154).

55. Otgol, "Ganga Lake 80-90% Dried Out."

The reflections on landscape that I have taken as my focus in this article are lyrical responses to a nutag that by its very nature is understood and experienced relationally. It is for this very reason that the prospect of degradation poses such a challenge. It points to the disquieting possibility of a future in which such relationality cannot be read into the landscape, in which nutag cannot be traced. What is left is uncertainty: what kind of life is possible when the deep past and future of life and land are obscured? Yet the potency of these expressions of environmental anxiety lies precisely in the fact that, from a perspective in which it is still possible to speak relationally, they point to an unnerving future that is all too possible but—crucially—has not yet happened. A different future might yet be reached. As Mend-Ooyo writes in the final chapter of Altan Ovoo, calling on the lords of the land: "Grant that our lineage not be severed" (239).

The inhumanity of geology, from this perspective, is not an inevitable by-product of the disparity of scale between biographical time and deep time. Rather, it is a product of a rupture in time: the abstraction of humanity from the resources on which it depends, which risks cleaving life from the landscape in which its stories are nested. The violence of ecological harm is a confrontation with the potential of a deep time in which we are no longer at home.

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