



About a Stone

Some Notes on Geologic Conviviality

HUGO REINERT

School of Humanities, Tallinn University, Estonia

Abstract Can a stone be a critter? Placing multispecies studies in conversation with the geological turn, this article examines the place of a particular sacrifice stone in the ambit of a coastal mining development in northern Norway. The argument develops a reading of resource capitalism as ontological project—using the stone as a lens to explore imaginaries of relational personhood, the distribution of harm, and the limits of vulnerability. In closing, the article relates the “life” of the stone to ongoing discussions about the Anthropocene and how to develop novel, more inclusive research imaginaries—specifically, research imaginaries that address (and subvert) a modern “geontology” that renders the inorganic as passive, inert, and freely available for exploitation.

Keywords stone, mining, harm, capitalism, conviviality, multispecies, geontology

Stone, they say, is “good to think with”: ready to hand, natural symbol of permanence, solidity, and duration¹—evoking the immense spans of geological time, abyssal eternities beyond (and before) life itself.² A number of recent interventions have foregrounded this temporal affordance³—to reimagine human life through a mutually constitutive infiltration of *bios* and *geos*, for example.⁴ There is often a satisfying mutuality to these operations: the hard stone comes alive, soft flesh reveals its geological strata. My concern here, however, is less with anthropocenic reimaginings of the human subject than with the scope of existing relational imaginaries—and with the possible role of stone-human relations in the ontological politics of a present moment defined, increasingly, by catastrophic violence and the unfolding collapse of planetary ecosystems. I situate this question between two research imaginaries: one, the multispecies

1. Douglas, *Natural Symbols*; Cohen, *Stone*.
2. Irvine, “Deep Time”; Rossi, *Dark Abyss of Time*.
3. Raffles, “Writing Culture.”
4. Yusoff, “Geologic Life.”

Environmental Humanities 8:1 (May 2016)

DOI 10.1215/22011919-3527740 © 2016 Hugo Reinert

This is an open access article distributed under the terms of a Creative Commons license (CC BY-NC-ND 3.0).

world of critters and lovable (or unlovable) beings;⁵ and two, more implicitly, the disconcerting new vistas opened by the geological turn.⁶ As a third pole, triangulating the imaginal horizon of this essay, I put both in conversation with the work of Ursula K. Le Guin—on the tacit understanding that speculative fiction is a discipline of the otherwise-possible and, thus, a cognate to anthropology.⁷ What kind of critter might a stone be? Does it have a life, or something like it? What modes of passionate immersion⁸—or love, or intimacy—could a stone afford?

In the context of this special issue, my argument addresses itself specifically to the divide between living and nonliving, between life and nonlife (rather than death). The multispecies qualifier operates through powerful conceptual and affective investments in the idea of life. While easy to sympathize with, claims about the nature of life as a superordinate domain also warrant hesitation—particularly where they define life preferentially, through an a priori differentiation from other domains.⁹ Claims of this sort risk cutting the world as they assemble it, like a knife—and it is worth keeping in mind that the binary ontologies of modernity are anything but an innocent construct.¹⁰ The material I explore here forms part of a larger project, to read the ongoing dynamics of Northern resource extraction and capitalist modernization through the figure of sacrifice.¹¹ If extractive resource capitalism is a sort of ontological machine¹²—an engine that continuously remakes the world and its entities as already-given, in ways that facilitate surplus value extraction—then it is all the more vital to question the paradigms that subtend it and produce not just nonhuman life but also *nonlife* as domains of control, use, modification, and productive investment.¹³

Naturally, this critical orientation also shapes my approach to the multispecies concept, raising issues that I return to in the conclusion—but before I get to that, there is some ground to cover. The argument over the next few sections unfolds as follows. First I introduce a particular stone I encountered during fieldwork. I then situate that stone within some of its spatial contexts and explore some of the economies of harm¹⁴ that are in play around it. The argument treats harm as matter for an exploratory

5. Rose and van Dooren, “Unloved Others”; Haraway, *When Species Meet*; Kirksey and Helmreich, “Emergence of Multispecies Ethnography.”

6. Negarestani, *Cyclonopedia*.

7. See Haraway, “SF.”

8. Tsing, “Arts of Inclusion.”

9. For example, while I find the work of Anna Tsing an ongoing inspiration, I also hesitate when she draws the lines like this: “The yet-to-come is part of the way living things react; we offer our living designs in regard to potential futures. This is not the case with rocks or other non-vital things” (“More-than-Human Socialities,” 28).

10. Latour, *We Have Never Been Modern*.

11. Estonian Research Council personal research grant PUT30, “Life in the Sacrifice Zone” (2013–17); Reinert, “Sacrifice”; Reinert, “On the Shore”; Hugo Reinert, “Notes from a Projected Sacrifice Zone,” unpublished manuscript, www.academia.edu/19532921/Notes_from_a_Projected_Sacrifice_Zone.

12. Reinert, “On the Shore.”

13. Povinelli, “Social Projects of Late Liberalism.”

14. Reinert, “Disposable Surplus.”

ontological determination: what beings exist, such that they can be harmed? The domain of life does not necessarily coincide with, or exhaust, the domain of vulnerability. This takes me to cosmopolitics and the question of method, the *how* of multispecies research, and prompts an experimental digression that segues into the conclusion, where I return to the issues I have marked out here. The argument thus explores stone relations across three spheres: first, in relational landscape practices; second, through an ontological parsing of harm that tunes description to the question of what entities exist, such that they can be harmed; and third, at the level of method, in the pragmatic question of how nonhumans might be brought into research imaginaries—and given space—in ways that do justice to their modes of existence, both actual and potential.

A Stone

At Stallogargo—half an hour or so south of Hammerfest, in the northern Norwegian county of Finnmark—there is a stone. It leans out across the waters of Repparfjord, a fjord that cuts through the municipality of Kvalsund for about fourteen kilometers. The stone has been there for a long, long time. Written records note its local importance at least as early as the eighteenth century,¹⁵ and it has since been noted (and described) by a range of travelers, ethnologists, and local chroniclers.¹⁶ Locally the stone goes by the name of Stallo, or Stállu, a term borrowed from the indigenous Sámi language of the region, where it denotes a dark or threatening stranger.¹⁷ In northern Sámi the stone is known as Áhkkanjárstábba (*kjerringnesstabben* in Norwegian, literally “the stone of crone cape”). The stone, people say, is a *sieidi*—a Sámi sacrifice stone, part of a threatened but persistent indigenous landscape that predates the centuries of colonization that have washed over the region.¹⁸ There are many such stones across Sápmi, the indigenous territories of northern Scandinavia and northwestern Russia: some are lost, or forgotten, but many of them are still known. Often what marks them is some striking feature: an unusual shape, an isolated location, or an odd color that renders them distinctive—“natural landmarks” in their surrounding landscape.¹⁹

In their time, *sieidi* stones were recognized as powerful entities—capable not just of transacting with humans but of forming bonds and entering relations, gifting petitioners with luck and material benefits in return for appropriate offerings. *Sieidi* transactions with humans could range from the exceptional—the sorcerous *noaide* who sacrificed a child to a stone to secure power in a forthcoming battle²⁰—to the mundane: a cordial greeting, a few coins offered in passing. Some humans entered into lifelong relations with particular stones, as servants or allies. Under the auspices of the Christian

15. Leem, *Beskrivelse over Finnmarkens Lapper*.

16. Qvigstad, “Lappische Opfersteine”; A. Sveen, *En Stein til Gudenes Ære*; Schanche, “Samiske kulturminner.”

17. Jernsletten, “Hidden Children of Eve.”

18. Manker, *Lapparnas heliga ställen*; S. B. Sveen, “Reinen, reineieren og reinbeitelandet,” 54–87.

19. Kuokkanen, “Lahi and Attaldat,” 25.

20. Turi, *Account of the Sami*, 83.

colonization—and its continuation into the Norwegian nation-building project, from the nineteenth century onward—relations with *sieidi* stones were suppressed and persecuted as a form of idolatry.²¹ Some infer from this that the sacrificial stones themselves belong to a pre-Christian era—but with the Stallogargo stone, as with other *sieidi* in Finnmark, there are signs of sacrificial activity through the twentieth century and beyond. In the 1940s, for example, local children reported finding old silver coins, fish heads, bones, and antlers at the Stallogargo stone.²² People from the area have told me of sacrifice practices continuing to the present day; I return to some of these below.

Johan Turi, the Sámi scribe, noted that there are several types of *sieidi*: fishing, hunting, trapping, reindeer.²³ Each grants luck in certain kinds of endeavor, in return for a sacrifice in kind. A fishing *sieidi*, for example, might ask for half of a fishing catch in tribute from its petitioners—in return for which, Turi said, the stone would “drive into the net as many fish as they could gut.”²⁴ The Stallogargo stone is known, traditionally, as a stone of this latter type: a fishing *sieidi*.²⁵ A typical story of its powers runs as follows: A man was out on the fjord, fishing with his friends, when he looked over to the stone on the shore. Addressing it, he said, “Now you must make sure we get halibut. Then I will give you halibut bones and halibut heads.” The next day, collecting the nets, the men found a bountiful catch. Laughing, the man dismissed the stone: “Surely you have received enough heads already? You have received for this, and for this.” The stone was never repaid. Later that day a storm broke, blocking the way to Hammerfest, and the catch was spoiled before the men could sell it. As the saying goes, “The sacrifice stone gives, but the sacrifice stone takes back if you break your word.”²⁶

Many stories of this sort are contemporary: one boy sacrificed some chewing gum for luck in fishing, another for luck in a forthcoming sports game.²⁷ A few years ago, a football trainer from the area insulted a Sámi referee at a game and was (reportedly) cursed. To this day, the story of how he tried to lift the curse by fishing herring to sacrifice at the Kvalsund stone echoes in the popular press²⁸—index, perhaps, of the complex and ambiguous modernity of “the north” in national imaginaries. One particularly striking recent story concerns the construction of the new road to Hammerfest, at the end of the 1950s.²⁹ The chief engineer on the project intended to blow up the stone to make way for the new road. Before the plan could be executed, however, the man died in a brutal car accident. Later, in a dream, his successor met the stone—who told him that

21. A. Sveen, *En Stein til Gudenes Ære*, 10; Rydving, *End of Drum-Time*.

22. As reported to me by local informants; also noted by chroniclers, for example, A. Sveen, *En Stein til Gudenes Ære*, 15.

23. Turi, *Account of the Sami*, 83.

24. *Ibid.*

25. Although it is also reported to assist travelers; see below.

26. Larsen and Larsen, *Hodeløse menn og ihjelfrosne haikere*, 33–34.

27. Schanche, “Samiske kulturminner,” 97–98.

28. Steffensen, “Fotballen full av overtro.”

29. Schanche, “Samiske kulturminner,” 97–98; A. Sveen, *En Stein til Gudenes Ære*, 18.

“whoever blows me up will lose his head.” The exact phrasing varies: in some versions the warning comes not in a dream but from a passing Sámi reindeer herder who pronounced that “if you blow up the stone, Hammerfest will burn.”³⁰ Whatever the engineer heard, however, the story is that he refused the task—and that the road was placed inland from the stone, leaving it in peace.

Stories like this narrate the powers of the *sieidi*, its ability to grant luck and punish transgressors. They also codify the particular moral stance of the stone—it upholds transactional standards, ensuring that promises are kept and obligations fulfilled³¹—just as they confirm and reproduce its presence in the landscape, as a relational entity engaged not only ritually but also in the context of pragmatic everyday encounters. Nils Oskal, a reindeer herder and philosopher, draws a relevant distinction between *sieidi* worship and common politeness: “Common courtesy indicates that you should greet it and wish it well in your thoughts when passing by. It is unheard of to argue with a *sieidi* or enter into conflict with it. It is best to wish it peace and leave it alone.”³²

Accounts of everyday interactions thus parse the *sieidi* less as “supernatural” entities than as a kind of nonhuman neighbor: geological beings, enmeshed in the same networks of transit, contact, interaction, and exchange as humans—networks of relation that constitute the tundra itself as a more-than-human polity, a shared or convivial space defined by an ethos of pragmatic coexistence. A few years ago, during a car ride across the tundra, Oskal summarized this ethos to me as a kind of cosmopolitical imperative—not so different, he said, from the radical principle of Christian charity: an obligation to “extend politeness to all beings that cross your path,” whether they be wolf, plant, reindeer, human, or stone.³³ In a recent presentation, Britt Kramvig and Helen Verran interpret the *sieidi* as an institution of moral governance: nonhuman entities that regulate human behavior, inculcating protocols of fairness, politeness, honesty, and respect that fashion appropriately relational human subjects.³⁴ Equally, the stones might be thought of as a kind of “earth being”—kin to the great mountains and volcanoes of the Andes, whose geological existence weaves into and intersects with the lives of their human denizens in complex ways, irreducible to a geological understanding of stone.³⁵ Like these mountains, the *sieidi* occupy both human and nonhuman time scales: echoing a time before Christianity and colonization, foreshadowing (perhaps) remote futures beyond the human—but capable also of acting, then as today, within the

30. “Syklende Pensjonister” (“Biking Pensioners”), syklendepensjonister.wordpress.com/2014/07/22/i-og-rundt-verdens-nordligste-by-hammerfest/ (accessed March 15, 2016).

31. Reflecting on the Stallogargo stone, one informant described it as “a being that does not live or think, but which nonetheless responds morally. Words fall short, really.”

32. Oskal, “On Nature and Reindeer Luck.”

33. See also Reinert, “Entanglements.”

34. Kramvig and Verran, “Stones as Entities.” The program for the conference is available at www.sv.uio.no/sai/forskning/aktuelt/arrangementer/arctic-domestication-in-the-era-of-the-anthropocen.html (accessed March 15, 2016).

35. de la Cadena, *Earth Beings*.

span of individual human lives. Unlike the Andean mountains, however, the northern *sieidi* have played little role on the political stage—at least, so far.

Landscapes

Once, and still to some, the *sieidi* presided over a landscape in which their power was to offer boons and protection: masters of fish, guardians of reindeer—powers in the land, but also neighbors, lively, convivial, and interactive. With the shifting times, the stones have also come to exercise a range of other functions. One is territorial, linked to the field of heritage. As markers of an archaic human presence, the stones designate and sustain a range of territorial rights and protections rooted in “ancient use.”³⁶ Like the many cairns, graves, campsites, and monuments dispersed across the indigenous north, the *sieidi* function as signposts that anchor present rights in a tangible past. Equally, still within the field of heritage, the *sieidi* are also framed to attract monetizable interest: tourism is a regional growth industry, and ancient landmarks are central to its remapped topography. In the 1990s the Stallogargo stone was included in the “Fotefar mot Nord” project, a mapping and guidance project in which some hundred or so districts in the Norwegian north each spotlighted one key heritage site within their geographic area.³⁷ Pamphlets were published, signs set up, tourists herded toward attractive sites. Today the stone is the designated patron to an annual cultural festival in Kvalsund, the Stallo Days, which features handicrafts, storytelling, and cultural events. New-age shamans commodify vision quests in which participants visualize the stone and take pebbles from the area for power and inspiration. A signpost near the stone describes it as “gazing” out across the sound; the municipal website reports that the stone was in use as a sacrifice site “by the Sámi people up to the 1800s”³⁸—evoking indigeneity as a past presence—and that it has “watched over travellers through Kvalsund”³⁹ since time immemorial.

Despite the potency of these new framings, however, the *sieidi* also remain more than markers of ancestral use or commodifiable heritage. The heydays of sacrificial practice may have passed, but the stones still command respect. One informant from the Kvalsund area told me how her mother had taught her to attend to the stone at Stallogargo, as she in turn had learned to do before the bridge was built, when the journey across the sound to Hammerfest still required a ferry crossing. The stone was for travel, she told me: in return for an offering of coins, it would protect the traveler. Since

36. As one report puts it, “Sacrificial sites and *sieidi* are some of the very strongest sources for the documentation of Sámi usage areas” (Norges Offentlige Utredninger, *Samiske sedvaner og rettsopfatninger*, 295).

37. See “Hva er Fotefar mot nord?,” www.fotefar.no/bakgrunn/ (accessed March 15, 2016).

38. See “Kvalsund,” Velkommen til Kvalsund Kommune, kvalsund.kommune.no/index.php?id=4502506 (accessed March 15, 2016).

39. See photograph captioned “Stalloen i Kvalsundet har vaktet over de reisende gjennom Kvalsund” (“The Kvalsund Stallo has guarded travelers through the sound”), www.kvalsund.kommune.no/viewimage2.php?folder=12308&no=7 (accessed March 15, 2016).

childhood my informant had left offerings when on her way from Hammerfest. Even after the new tunnel was built and the road moved to bypass the stone entirely, her family still sometimes takes the old road so as to drive past the stone—so that her children also have the opportunity to learn the practice of sacrifice. “We usually wave to the stone from the bridge,” she said, “so we know it is not forgotten.”

Here is sacrifice in one of its elemental modalities: as a gesture that makes relation, instituting a bond between sacrificant and recipient.⁴⁰ My informant and her family are certainly not in the majority. Most people in the area would not subscribe (or admit) to such practices—but to some, at least, the stone is still part of a living landscape: half lost or forgotten perhaps but infused, still, with a subterranean presence; sustained in memory, and tales, and observance. Occasionally, across the north, this landscape surfaces. In August 2014, for example, representatives from the Sámi Parliament spent the night on the site for a planned new administrative building, to observe the ancient practice of asking for permission from the “underworlders” before disturbing a place with new construction. “It is important to honor this tradition,” said the director of the Sámi Parliament then. “There is much we don’t know.”⁴¹

Three coordinates or framings, then, each marking out a different topography and relational context for the stone: land rights, heritage tourism, surviving observance. In each of these the stone is present (and active) in particular ways. In the first two, the stone seems to function in similar ways—as a marker of ancient use, standing in a passive indexical relation to the past⁴²—but with the third, the landscape of observance, things are different. Here I am tempted to say the stone exists on different terms, irreducible to the first two: not just in different ways, or differently interpreted, but as a different kind of entity. Following Elizabeth Povinelli, this landscape might be taken as a local “geontology” of its own:⁴³ a differential imaginary of what earth, land, stone, and living beings are or can be to each other, of what kinds of relation they enter into, of the various ways in which they may shape, influence, and form part of each other. In this landscape the stone is a very different kind of “thing” from what it is in the heritage brochures or in meetings of the planning committee. Taken seriously, it exists in a manner that destabilizes many assumptions about what a landscape is and what it can contain.

Harm

Let me bring this back to the idea of multispecies. For a few years now, a resource boom has been under way across the Scandinavian north, and Norway is an enthusiastic participant. According to many of its leading storytellers, the nation is embarked on an epic

40. Hubert and Mauss, *Sacrifice*.

41. Larsson and Idivuoma, “Sov på tomte til nybygget.”

42. This is a simplification, of course. A closer study of the stone—informed, say, by ongoing ethnographic work in the fields of heritage, tourism, material culture, and science and technology studies—would certainly reveal it as a complex, multiple, potentially even agentive entity also in these contexts.

43. Povinelli, *Empire of Love*; see also Povinelli, “Geontologies of the Otherwise.”

(re)conquest of the north, a magical adventure of wealth and riches to rival that of the oil finds. At trade shows and conferences, in editorials, interviews, and televised debates, politicians, magnates, developers, and entrepreneurs conjure the north as a vast frontier, a repository of unrealized wealth—a landscape replete with rare earth and precious minerals, awaiting only the transformative labor of human enterprise to yield its hidden riches. Recently, this national growth and enterprise project has brought attention to Repparfjord, to the neighborhood of the Stallogargo *sieidi*. For a few years, a private project has been in the pipeline to reactivate (and expand) an old copper-mining facility near Kvalsund.⁴⁴ To ensure profit margins against high operating costs, the company behind the project proposes to use submarine tailings disposal (STD)—a controversial practice, currently used only in a small handful of countries around the world,⁴⁵ by which waste from mining projects is deposited at sea rather than in contained landfills. Marine disposal is significantly cheaper than land-based alternatives, and to its proponents there are obvious further advantages: as the saying goes, the waste will be “out of sight, out of mind” (*ute av øye, ute av sinn*). Of the few countries that permit STD, Norway is the only one presently planning new disposal sites of this kind and also the only one to allow deposits in relatively shallow coastal waters. Despite the contested status of the practice, Norwegian politicians are currently lobbying for increased international acceptance of marine tailings disposal.⁴⁶

Locally and nationally, controversies over the project have focused on the environmental consequences of such disposal—for marine life, locally and in the wider Barents region, but also for the multiple (human) livelihoods that depend in some way on the marine environment. In Kvalsund this encompasses fisheries and tourism in particular but also pastoralism and a range of other locally important subsistence and recreational practices. Where submarine deposits lie close to the surface, as they will in Kvalsund, the sheer mass of deposits can effect brute structural changes to the hydrologic environment of the fjord—disrupting nutrient flows, modifying current systems and fish migratory cycles, potentially even blocking transit for surface vessels. More subtle effects occur through the dispersal of complex, synthetic, and often proprietary chemicals utilized by mining companies; the sudden proliferation of naturally occurring toxic or radioactive materials (copper, isotopes) in excessive quantities; and the poorly understood biophysical effects of normally nontoxic materials when ground into nanoscale “floating dust” (*svevestøv*) and released into a complex, turbulent fluid environment. Projections of harm in this context are probabilistic—a matter of guesswork, of scientific

44. Reinert, “On the Shore.”

45. As of 2014, the four principal countries to use the method are Indonesia, Papua New Guinea, the Philippines, and Norway. Of these, Norway and the Philippines have both signed the 1996 London Protocol, which regulates marine pollution. Chile and Turkey each have one active STD operation. Dodd, “Submarine Tailings Disposal.”

46. “Kjemper aktivt for sjødeponi” (“Actively Fighting for Marine Disposal”), *Bergens Tidende*, www.bt.no/nyheter/lokalt/Kjemper-aktivt-for-sjodeponi-3417454.html (accessed March 15, 2016).

modeling and estimation, and of where the lines are drawn—but still, there are some certainties (or near certainties). Even the most conservative reports indicate extensive damage and loss of life in the areas affected by the deposit. As is often the case, the political question hangs on a calibration of what stands to be lost against what stands to be gained—but what stands to be lost is not a straightforward determination.

Invariably, corporate impact projections posit that the nonhuman life destroyed through marine disposal will “bounce back” within a certain time frame after cessation of disposal activities. Such projections are interesting for a number of reasons—not least for how they render the destruction of *present* populations as morally insignificant; nonhuman life is figured as process rather than individual body, as a kind of background environmental function disrupted only temporarily by human destruction. Only permanent eradication registers as significant; temporary population losses—that is, a sort of “temporary” killing—are acceptable. Harm to nonhumans is understood primarily as a moral externality, relevant only where it leads (in documentable ways) to certain (limited) kinds of harm to humans: economic, physiological. The negative social, psychological, and emotional consequences of destructive environmental interventions—the various syndromes of environmental distress that Glenn Albrecht and colleagues refer to as “solastalgia”⁴⁷—are notable by their absence in the calculus of “social benefits” that underpins government support for the project.⁴⁸

What are the harms that register as significant, and to whom? Against the brutal externalizations of the dominant development paradigm, critical interventions represent the fjord and its environs as a mesh of life and interwoven systems, affected in massive and largely unpredicted ways by the projected disposal and by the possibility (or certainty, rather) of toxic effects. There are the migratory cycles of cod and salmon; the unseen life of seaweed, mollusks, plankton, and deep-water organisms that sustains the surface; the fish that feed on the invertebrates, the birds that feed on the fish, the humans that feed on the fish and the birds and the bird eggs; the reindeer that descend from the inlands to the shore in the summer, to cleanse their throats with salt water; the herders that depend on the reindeer. . . . Imaginaries of multispecies enmeshment are already at work here, tactically drawing out dependencies and effects that are externalized (or ignored) in the dominant political discourse: bioaccumulating toxins, livelihood disruptions, transboundary effects such as the mass introduction of nanoparticulate matter into the Barents Sea food chain. This work of imagination—of extending the mesh, of internalizing the externalities and populating spaces construed as empty—extends beyond a synchronic focus on species interdependence: activists speak of accountabilities to the dead and to unborn generations, to the sea, to life, to Earth itself. Debates flow rapidly, and stances shift. At a protest rally in Oslo in early 2015, a prominent national politician from the center-right takes the stage and articulates—much to

47. Albrecht et al., “Solastalgia.”

48. Reinert, “On the Shore”; Reinert, “Sacrifice.”

my surprise—a *libertarian* argument against mining projects like Kvalsund: that the devastations they bring will limit the choices available to future generations, impinging on their freedom and economic growth.

Conflicts over the future of the region, and Kvalsund in particular, articulate a complex range of narratives, time frames, and domains of ethical concern.⁴⁹ These can be sorted, roughly but usefully, into two camps: “only-human” narratives that focus on progress, wealth, and modernization through the extraction of “surplus value” while externalizing and minimizing the relevance of nonhuman effects; and a range of “more-than-human” narratives that bring into view issues such as interdependence, cascade effects, biological fragility, and cumulative disruption—but also much more complex imaginaries of life, accountability, and possible damage. One key distinction here is the location of the limit: the question of exactly what costs, harms, and effects are externalized, placed outside view and calculation, and why. Does the suffering and destruction of a local fish population *matter*? How, and to whom? The arguments range back and forth, but they also share common ground; the multispecies imaginaries create their own externalities.

Consider the Stallogargo stone, in its capacity to enter relations and transact. Where the inorganic figures in critical accounts as an object of moral concern, it is usually either through the invocation of a planetary totality—say, an accountability to “the earth,” usually understood as a living system—or in terms of ensuring its continued capacity to support and enable life. There is very little space, even within the critical narratives, to accommodate the inorganic as anything other than a material substrate that supports organic life. Can a stone be harmed? To many the obvious answer is no—but the stories say the Stallogargo stone can act in self-defense, to protect itself from threats. Some historical sources say the *sieidi* are mortal, that they can be killed, rolled into lakes if they start causing problems.⁵⁰ Impact reports for the Kvalsund mine describe, dutifully, the presence of several *sieidi* in the affected areas,⁵¹ naming their “cultural” and “historical” significance. Their mode of existence, here, is easily described: markers of the past, protected by human codifications of right and tradition. Parallel to this, however, the stones also possess other, submerged modes of existence—among which is the one I have described here, which operates through specific, individual accountabilities (and relations) across kingdoms, between biological and geological beings. Is there a space for these relations to emerge—for the stone to play a part, to enter politics as something like a vulnerable subject? The answer to this is bound up in the complex web of colonial erasures that constitute the present moment of Sápmi, with the specific modalities of suppression, stigma, and control that “modernizing” Scandinavian states have deployed, over the centuries, to establish their territorial hold.

49. Reinert, “On the Shore.”

50. Toivo Itkonen, *Suomen lappalaiset vuoteen 1945 (The Lapps of Finland until 1945)*, cited in Lahelma, *Touch of Red*, 63.

51. Sweco, *Reguleringsplan med konsekvensutredning*, 77.

Speaking in general terms, the logic of resource capitalism functions within the coordinates of a modern, Cartesian geontology: matter is inherently inert, transformable; resources exist for the use and profit of human subjects; a stone is “just” a stone. Equally, Euroamerican vocabularies of harm and ethical reflection tend to circle within a space of concern that is delimited by the inorganic as its outer limit.⁵² In both frames, the inorganic presents itself as a kind of *terra nullius*—an empty space, a beyond from which no voice can come, no legitimate demand issue.⁵³ This emptiness gives pause, however. Empty for whom, of what?⁵⁴ Twenty years ago, discussing the status of Aboriginal ontologies within the late liberal Australian state, Povinelli observed that “reconciliation with multiculturalism ends where a conceptual accommodation to a multieconomism would begin.”⁵⁵ I am not equipped, disciplinarily, to pass verdict on the Stallogargo stone, to collapse its multiple realities into singular truth. What I am equipped to do, however, is to dwell on its persistent presence—and to slow down, to question, to frame and explore the possibilities this presence offers for an *otherwise*, for alternatives to the present order. To insist that the stone stay in the picture in unreduced fullness—obdurate but not impervious, thorn in the side of reductive framings—is a step toward decentering this supposed emptiness of the inorganic, and perhaps toward repopulating it. Taking the stone seriously in this way helps shift the question of harm, refocusing it from the sacrificial politics of modern statecraft—the ongoing calibration of human harm against the supposed necessities of growth and the profit imperative—toward a broader, exploratory determination: of what might be said to exist, on what terms, and of what such existence entails. Who are the beings? How can they be harmed?⁵⁶ What do they require to endure?⁵⁷ Riches are promised, growth, modernity, development—the eagerness of capital, the multiple amnesias of development—and yet: some fish bones by the side of the road, an old coin or two; a child, waving to a stone from the back of a car.

An Experiment

I have narrated the Stallogargo stone here as a kind of obdurate relational existent, a “boundary object”⁵⁸ in multiple overlapping landscapes, present and active (in different

52. Manuel DeLanda calls this “organic chauvinism” (*Thousand Years of Nonlinear History*, 103). See also Mitchell, “Thinking without the ‘Circle.’”

53. See Zaffaroni, *Pachamama y el Humano*.

54. In Sweden, this question has given rise to a broad-based mining protest movement, aimed precisely at challenging the representation of prospective mining landscapes as desolate and empty—and therefore available for resource extraction—through the stories of people who live in them; see the “What Local People” website (www.whatlocalpeople.se).

55. Povinelli, “Do Rocks Listen?” 506. Her argument here foreshadows Latour’s more recent observation that the system of capitalism has somehow rendered itself more absolute—“more solid, less transitory, less perishable”—than the world itself (Latour, “On Some of the Affects”).

56. Reinert, “Disposable Surplus.”

57. Povinelli, *Economies of Abandonment*.

58. Star and Griesemer, “Institutional Ecology.”

ways) within each. I have also argued that in parsing these multiple landscapes as distinct geontologies, the continuing presence of the stone helps rephrase the question of harm ontologically: as a question of who—and what—is taken to exist and of how certain modes of existence are (and are not) made to count. This question echoes both a central concern of cosmopolitics⁵⁹—who will be counted in the more-than-human polity, and how?—and the methodological *how* of multispecies research: how to bring non-human entities into the research process, not merely as the artifacts of human practice and narration but also, somehow, hopefully, in ways that do justice to other modes of being, to an independent richness of existence. With living beings, even with organic life in general, the leap is not so great: human and nonhuman organisms share a range of basic affinities, affordances, and constraints. They interact with their environments, grow and starve, thrive and suffer; ultimately, they die. Plants communicate threats, slime molds solve problems, crows make tools. Some form of empathy is not so hard to establish, rooted in a shared experience of embodied life: death, pain, joy, even hope are accessible. Valuable as they are, such empathies remain within the confines of what Povinelli calls a “carbon imaginary”—a preanalytical orientation that parses the world through the lens of organic life.⁶⁰ To move between the animal and mineral kingdoms is quite another matter.

This brings me to the point of method. Research methods choreograph reality in important ways⁶¹—predetermining the scope of what can exist, dictating what can be discovered and how, and enlisting researchers in the reproduction of certain dominant ontological coordinates. Take the interview: formalized as a sustained verbal exchange between two human persons, one of whom asks questions while the other answers, its basic protocol already encodes a range of assumptions as well as a concept of truth rooted in the (documented) verbal formulations of an “other.” As a technique of truth—not unrelated to the confessional—the epistemology of the interview determines, in advance, not just the range and scope of possible “findings” but also the reality that these findings will eventually describe. The sphere of words is produced as the space in which human truths are articulated—but also, the sphere in which these truths can be *subjectivized* and reduced to beliefs, to ideas, to “culture.”⁶² Ideologies travel—and replicate—not just as content but as form: in tropes and protocols, templates, methods, patterns, and structured aporias. Multispecies imaginaries work against such orthodoxies at the level of method, often quite explicitly: experimenting with novel assemblages of form, bodies, and technique to generate new forms of knowledge.⁶³ Deliberately rethinking method in this way lends research a certain insurrectionary potential—to unsettle the given, to challenge orthodoxy and direct attention to the enactment of the otherwise-

59. Stengers, “Cosmopolitical Proposal.”

60. Coleman and Yusoff, “Interview with Elizabeth Povinelli.”

61. Law, *After Method*.

62. Povinelli, “Do Rocks Listen?”

63. Kirksey, *Multispecies Salon*.

possible. At the same time, in the very gesture of experimentally expanding the methodological repertoire, other orthodoxies may be reproduced.

I take it as granted that one can meaningfully communicate with a cat, or a chimpanzee, or a dolphin—but what about that bridge to the inorganic? Taking advantage of the postdisciplinary space this issue sets up, I want to engage in a brief experiment. Consider the Stallogargo stone. Even at a first pass, the lore I outlined earlier presents three modes of access, three ways in which I might engage and come to know the *seiidi*, even from a position of initial exteriority. The stone might speak to me in dreams, as it did to the engineer. I might make an offering to the stone, an act of sacrifice as an initial move, establishing a relation where there was none before. Following that, I might also deploy a particular modality of interpretation, as a way of reading time and causality through the thread of a hidden agency, connecting the otherwise unconnected. All three are techniques of relation, involved in gaining particular knowledge, not so much of the stone as *with* it. As such, they are also techniques of research—albeit external, at least for the moment, to the parametric institutional space of disciplinary inquiry. Taking them seriously here is an experiment, but also a purposive move within the shifting political economies of knowledge and the academy: an attempt to heed Anna Tsing’s call for novel “collaborations with researchers”⁶⁴ in ways that intentionally problematize the idea of research as a disciplinary or institutional prerogative.

As it happens, a year or two before I first set foot in Kvalsund, I did meet a stone being in a dream. In hindsight, its profile bore a striking resemblance to the Stallogargo stone—but leaving aside the ontological status of informants encountered in dreams,⁶⁵ the being in question said nothing of particular relevance here; I note the incident only in passing. A year or two after the dream, however, I arrived in Kvalsund—intent on better understanding the emerging sacrificial dynamics of the northern Norwegian resource frontier. As soon as people learned of my interests, the first thing they did was tell me about the Stallogargo stone: “Did you know there is an old sacrifice stone here, just across the bridge?” This convergence of the literal and figurative⁶⁶ was unexpected, so on my second day I went to see the stone and introduce myself. As Oskal noted earlier, it is only sensible to treat the powers of the land with respect. I walked across the Kvalsund bridge and found the stone. While at the site, I introduced myself and made a simple offering: a few coins, some tobacco that I had purchased for the occasion. I have discussed this offering elsewhere:⁶⁷ the exact terms are not so important here⁶⁸—except that the sacrifice established the situation in certain ways that were intelligible if not exactly familiar.⁶⁹

64. Tsing, “More-than-Human Socialities.”

65. See Heonik Kwon’s beautiful work on *Ghosts of War in Vietnam*.

66. Reinert, “Pertinence of Sacrifice.”

67. Reinert, “Notes from a Projected Sacrifice Zone.”

68. Although for the record, I asked for nothing in particular. The offering was intended as a gift, and I certainly did not wish to attract the ire of the stone by forgetting to repay any incurred debts.

69. Or comfortable—I was raised to be a proper modern subject, after all, faithful to the modern constitution and its ontological commitments.

A year or two pass, after that first visit, and I find myself on the coast of Denmark, entrusted (unexpectedly) with an old property: an ample garden, a house in need of restoration. The work required is enormous. There are floors to take up, foundations to excavate and reinforce, literal mountains of earth and stone to move and remove and fill in. The work is strenuous, and protracted. The digging continues for months, as the land grows my body in the task: making it leaner, adding scars and new muscle. There are new skills, new textures, new machines: jackhammers and scarifiers, mulch and gravel and clay, wet earth and dry earth and roots, metamorphic clay, the radiant heft of setting concrete. There are injuries, trips to the hospital, stitches. As time and the work progress, the land reveals itself to me in new ways: the ground under my feet shifts as I walk it—from planar surface to vertical depth, unseen strata of mulch and roots and glacial sediments. Progressively I become enmeshed in its upper strata. I feed the birds and hedgehogs, water the trees, pay attention to root systems and earthworms and to the time it takes for things to grow, to seasonal shifts and patterns of rain, to water flows as they articulate with the topography of dips and trenches and heights. The wildlife I find crushed by the side of the road becomes something else to me: I recognize them, they walked through my garden, I fed them. I start researching habitat requirements and dietary preferences, relevant predators, seasonal cycles of breeding and hibernation.

Slowly, I begin to think of the property as a sort of experimental space in its own right, a geontological assemblage that is operating *on me*, transforming not just my body but my understanding. Bios and geos churn, mapping into novel reassemblage. In the evenings, classic works on stone and geology reveal new details, transposed in the light of unfamiliar experience. When the property next door is sold, midway through the project, the new neighbors raze the lot to the bare ground. In the space of an afternoon, helpless, I watch a hundred years of trees, plants, hedgehog habitats, and bird nests destroyed. Standing there, stricken with grief, I recollect an informant from Kvalsund: “All this will be destroyed,” she said, gazing out across the waters where the tailing deposit was planned; “it breaks my heart.” Right there, watching the tall trees buckle and crack in the roar of the machines, I hear something else in what she said—something I did not hear at the time.

Spring turns to summer, summer turns to fall: I work and take notes and as I work, my mind keeps going back to Kvalsund and the Stallogargo stone—and I wonder. In a certain sense the garden has become an experimental space: a parametric environment within which certain phenomena can be made to reveal themselves, so as to be better understood. To date, my own identity and practices have primarily taken the form of a kind of privileged nomadism, enabled by birth, citizenship, and occupation: always the option to move somewhere else, to deterritorialize. Here, the terms of my physical involvement with the land disable this privilege; the pleasures of nascent attachment fold into the vivid horror of watching the habitats next door destroyed without resort

to escape. I register that the process has begun to assemble in me something like a new basis for understanding some of the griefs and attachments associated with land, that it has changed my own understanding of land, rendered the mutual enmeshment of soil and self and beings experiential. This is one sense of *experiment* that I want to isolate here: as the establishment of a kind of controlled parametric space, separate from “the field,” that enables certain phenomena to emerge and be studied through the personal. The personal is the prime heuristic of ethnography but often it is left inchoate, as a given rather than an object of intentional, disciplined modification. Conversely, I wonder if its intentional modification—say, in the deliberate pursuit or construction of experiences that broaden the empathic lens—might be formalized into something like an ethnographic analogue to the scientific experiment.

The other sense of *experiment* I want to draw out is more oblique; it arises in the question of how it is possible, and reasonable, to write. Back then I made an offering. Could it be, by some logic of hidden agency, that I invited all this—that in the gesture of offering I opened myself to the stone as an influence that is now turning my life to the geo(nton)ological? Could the stone itself be at work, manifest through some causal intimacy that expressed itself only in the subtle arrangement of events—a footprint in time, a presence as a trail of events, discernible only in the actions of others and in mundane textures of coincidence? There have been remarkable serendipities: people turning up with uncanny timing, events unfolding in chains of dreamlike logic. . . . The thought is possible, even justified, in the current of induced serendipity that runs through and alongside the history of the stone—but it also seems dangerous, an opening on some pareidolic derangement of the modern constitution:⁷⁰ a world in which stones act on human lives in ways that hide in plain sight, where action and reaction may be ruled by protocols irreducible to the paradigm of human sentience.

Umberto Eco once warned against the “excess of wonder”⁷¹—but again, I wonder. In May 2013 the Mauna Loa observatory reported concentrations of atmospheric carbon in excess of 400 parts per million for the first time.⁷² By 2015, that figure had become a global average.⁷³ I write this on a heating planet, marked—scorched—in the triumphant elevation of capitalism from a system of production to a system of reality: a framework of givenness, of “business as usual.” Is the problem of wonder, here and now, really one of excess? Is it not rather one of deficit, a crisis of imagination that preempts the otherwise-possible?⁷⁴ Perhaps the times have changed. I cannot *know*, of course, but I wonder—and in that wonder, an opening already constitutes itself. Methods choreograph reality, and writing is a method. Its scope is not just to describe but to transform,

70. Latour, *We Have Never Been Modern*.

71. Eco, *Interpretation and Overinterpretation*, 167.

72. Freedman, “Last Time CO₂ Was This High.”

73. Kahn, “Global Milestone.”

74. As Fredric Jameson famously put it, in his essay “Future City,” “Someone once said that it is easier to imagine the end of the world than to imagine the end of capitalism.”

to open up possibilities that refract the present diagnostically—distilling its conditions of possibility, exposing (and manifesting) its latent potentials. The risks and pitfalls are obvious—fallacies, appropriation, mysticism—but so, increasingly, are the limits of the dominant ontology that renders such experimentations invalid. What is ethnography, after all, if not an instrument for the sustained effort to think otherwise—to chart other possibilities of existence, beyond the dismal cartographies of the present?

“But is it real?” The world is queer, and multiple; it resists binaries. Other questions present themselves, better ones. What happens if I do this? If I follow this lead? In October 2015, just as I am drafting yet another version of this essay—the final one this time, hopefully—an appeal surfaces in my media feed. A Sámi campaign for climate justice has released a protest *yoik*, a traditional Sámi chant, in preparation for the 2015 Climate Conference in Paris.⁷⁵ In northern Sámi, this particular *yoik* is called *Gulahallat Eatnamiin*—which translates as “We speak Earth.” The Sámi artist Sara Marielle Gaup Beaska describes how the *yoik* “came to her” while she reflected on issues of climate change, environmental justice, and indigeneity on a heating planet. “Learn this *yoik*,” she tells her global audience. “Share it. Sing it in the streets of Paris on December 12.” The segment ends with a quote from the Sámi poet Nils-Aslak Valkeapää: “Take a stone in your hand and close your fist around it—until it starts to beat, live, speak and move.”⁷⁶ I blink. The invitation is almost too timely, with its mingled invocation of life and geological being in the name of an “otherwise” that is anything but abstract, anything but folkloric or residual.

Follow the lead. Not a month later I am in Tallinn, teaching an intensive course on “anthropogenic landscapes.” On the first day of the course, coincidentally, a climate manifestation called “Run for Your Life” begins—a continuous, live-streamed, three-week relay race from Kiruna to Paris, with arrival in Paris timed to coincide with the beginning of the Climate Conference. As the first runner descends from the mountain, she faces the camera and presents us with a smooth white stone—and she quotes the poem: “Take a stone in your hand . . .”⁷⁷ From Kiruna the stone will travel to Paris, from hand to hand, runner to runner in a collective feat of performative storytelling: from my hostel room in Tallinn I follow its passage, sleepless, mesmerized by this unexpected intersection of geological and biological being, in mutual animation. Four days later, on the last day of the course, shootings in Paris kill more than 120 people: a group called

75. A *yoik*, in the indigenous Sámi tradition, is a short, partly improvisational pattern of chant or song, usually combining repeating phrases and onomatopoeic vocalizations. Phrases may evoke the sound of skis across snow, the call of a bird, the rhythm of the reindeer herd circling in the corral. Traditional understandings of *yoik* defy easy translation into the conventions of Western music; for example, a *yoik* does not so much represent what it refers to—a person, object, place, something else—as it forms part of it. To *yoik* someone or something is thus in a sense to render them experientially present. See Anderson, “Saami Yoik”; DuBois, *Lyric, Meaning, and Audience*.

76. See “Gulahallat Eatnamiin: We Speak Earth,” October 14, 2015, www.youtube.com/watch?v=H2LhBAi-Q8I.

77. Todd, “Run for Your Life.”

Islamic State claims responsibility. Initially at least, the French state clamps down on security: suddenly the planned climate protests are embroiled in the geopolitics of the Middle East, the fallout from military interventions in Iraq, the refugee crisis, the rise of surveillance states, and the ongoing redefinition of the European project in the name of security and neoliberal fiscal policies. Sheer concatenation has folded the simple poem of the stone not only into the present moment of an emergent, globalizing indigeneity that addresses itself to the planetary—but with that, also into a manifold of war and violence and religion, of tolerance and surveillance, of climate justice and democracy, oil and blood and the raw challenge of coexistence, human and otherwise. “Real,” “not real”; my mood—the only mood, it seems to me, that can sustain these manifolds—is subjunctive.⁷⁸

Conclusion

Let me step back a bit. Even within the horizon of its own ethnography, my argument here barely scratches the surface of the issues it raises. In focusing on the *Stallogargo sieidi* I have left out a whole range of other locally relevant stone relations or geontologies: the relationship of geologists to “their” stones, for example, to “their” deposits and quarries and finds; the reindeer-pastoral landscape, with its shifting patterns of seasonal use, its mountains of crossing and barrier and shelter; and the affective biographical bonds that link the people of Kvalsund to land and geology in generational time, the storied environments of memory, trauma, and war.⁷⁹ The landscapes of Kvalsund overflow with relational imaginaries, each in its own way a challenge to the dominant ontologies that threaten to eclipse them. These imaginaries converge with particular force in the context of human interventions, present and prospective. “This is hell,” one informant observes laconically after an hour’s climb into the mountains over Kvalsund, gazing out across an excavated ravine that serves as a disposal site for North Sea drilling waste. If a stone like the *Stallogargo sieidi* can be a relational “other,” what then of other stones, say the one traveling to Paris as I write this—and of fjords, rivers, mountain ranges?⁸⁰ Even “just” in Kvalsund, doing justice to these issues would require a book; here, rather, my aim has been to open up some space for thinking inorganic relationality otherwise—and to explore some of the ways in which stone-human relations might move across scales (and kingdoms).

The Anthropocene is a complex diagnosis. I am thinking here of how that diagnosis implicates not just us but *me*—collapsing the notional outsides, the barriers that mitigate against my own personal implication in a catastrophe that unfolds on scales so vast as to be practically unintelligible, extending into deep time for thousands of generations, beyond even generational time itself. Patterns of biospheric damage wash across

78. Vannini, “Enlivening Ethnography through the Irrealis Mood.”

79. Palmer, *Bare Kirka Sto Igjen*.

80. Povinelli, “Transgender Creeks.”

the earth in complex, uneven, and differentiated ways—rescaling the personal as planetary agent: *I throw away those plastic lighters that stick in the gullets of hatchlings on remote islands; I purchase groceries and consumer goods from supermarkets, supporting oil-based transport infrastructures, gruesome industrial production machineries, devastating projects of mineral extraction; I travel by combustion engines that churn the atmosphere with ash, turn the seas to acid, drown islands in the Pacific. The cataclysmic violence of the present crystallizes with brutal and intimate urgency—implicating me not just as a person, or a human being, but as a researcher. If the Holocene is over—as it may soon very well be, officially—is it not also long overdue to rethink the imaginaries it fostered and quietly took for granted? Not least of these is the Cartesian geontology of modernity: the endless vista of matter as inert, impersonal, and inanimate, laid out to infinity, freely available for disposal, transformation, and use. To those of us who grew up within the coordinates of that ontology, this is also a personal question: what ancient violences are reproduced, what prejudices implied and complicities assumed, in the proposition that I *already know* what a stone is?*⁸¹

This critical urgency of the present also calls forth its own opposite: a demand to slow down,⁸² to question, to think otherwise and to think *the* otherwise.⁸³ To slow down is to make space—for other questions, other arrangements, other possibilities of existence. In the spirit of this, I close with three questions—not so much critiques as issues I believe worth keeping in mind when engaging a term like *multispecies*; not to reject, but to reflect on what to take forward.

1. What is “species,” really? The concept belongs to a Euroamerican vocabulary of reality and is historically (and genealogically) implicated in some of the very discourses that the idea of multispecies takes aim at—including colonial projects of domination. It also slips easily into a register of objectivity, installing itself as a kind of scientific (or folk-scientific) metalanguage—as if “species” were a given, a building block of reality rather than a shifting, charged, unstable, and contested construct. Language is powerful. In the gesture of “dividing animate life by species,”⁸⁴ might multispecies scholarship risk committing itself to a language, concept, or form that forms part of what it aims to deconstruct?
2. Where does the multispecies concept position itself relative to a capitalist ontology that renders the inanimate and the inorganic as freely available for consumption, transformation, and destruction? With its “softness for life,” might the term unwittingly place itself in the service of powers that

81. See, for example, Graeber, “Radical Alterity.”

82. Stengers, “Cosmopolitical Proposal.”

83. Povinelli, “Geontologies of the Otherwise.”

84. Livingston and Puar, “Interspecies,” 4.

maintain and police the line between “life” and “not-life”⁸⁵—and that in so doing constitute both as domains for control, production, and the extraction of surplus value?

3. Multispecies studies is not the first project to take aim at the ontology of human exceptionalism. My own sense is that the multispecies concept forms part of a larger movement of ontological deconstruction and that despite the name, its commitment to the species concept is, in a sense, soft—that the term functions as a placeholder, or shorthand, en route to somewhere else. A final question, then, might be this: how does the field of multispecies studies address its own cultural specificity—and contingency—in the encounter with alterity? What is the space for non-speciating ontologies within a multispecies framework? Conceptual reflexivity, here, may well be the measure of a capacity to make allies—to sustain difference without erasure.⁸⁶

In 2014 in Santa Cruz, California, the science fiction author Ursula K. Le Guin gave a striking keynote at the conference “Arts of Living on a Damaged Planet.”⁸⁷ Le Guin—herself the daughter of an anthropologist, Alfred Kroeber—began with a passage from her 1974 short story “The Author of the Acacia Seeds,” which consists of selections from the (fictional) journal of the (fictional) Association for Therolinguistics, a scholarly society dedicated to the study of nonhuman art and languages. In the passage the chairman of the association explores the limits of his field, venturing the possibility that undiscovered arts and languages might lie beyond even the realm of nonhuman animals—in the sphere of plant life, in the slow morphic poetry of lichen or zucchini. In closing, the chairman ventures even further: “May there not come even that bolder adventurer—the first geolinguist, who, ignoring the delicate, transient lyrics of the lichen, will read beneath it the still less communicative, still more passive, wholly atemporal, cold, volcanic poetry of the rocks: each one a word spoken, how long ago, by the earth itself, in the immense solitude, the immenser community, of space.”⁸⁸

85. Povinelli, “Transgender Creeks.”

86. This last point warrants more elaboration than I can offer here. Much is made these days of indigenous knowledge as an untapped reservoir for the advancement of science, say, in fields like Arctic environmental science. Much more could be made of the radical, destabilizing potentials of such knowledges: both as persistent “otherwise” of their own, surviving through centuries of suppression, and as potential points for collaborative departure, in the generation of novel, urgently needed arrangements of existence. I take the idea of multispecies as a move in the right direction—but as indigenous scholar Zoe Todd points out, with regard to the ontological turn in anthropology, the spaces that contemporary Western social theory moves into are not necessarily empty (Todd, “Indigenous Feminist’s Take”).

87. For a video of the keynote, see “Ursula K. Le Guin, Keynote 5/8/14,” uploaded June 4, 2014, vimeo.com/97364872.

88. Le Guin, “Author of the Acacia Seeds,” 14.

Here is geology and the earth itself imagined as language, as an utterance spoken before the birth of life and unfolding still, on time scales so vast they render the human span as the blink of an eye—and yet, perhaps translation is possible. “Gulahallat Eatnamiin,” the yoik says: “We speak Earth.” This takes me back to where I began, to the impulse to rethink the human through geology, bios through geos. Transversally to an image of geology as totality, I have explored here some disaggregations of the geological—in an attempt to think through the relational possibilities of stone as a kind of being, capable perhaps of interacting with human lives in ways that our dominant research imaginaries do not account for (or allow). This is more than a theoretical issue or an idle fantasy on method. Right now, across the earth, vast swathes of organic life are being erased; species disappear at up to a thousand times the background rate. The numbers may be uncertain—but even if “just” a dozen species disappear every day, that is still one every two hours, day and night, continuously. How long did it take you to read this? In Santa Cruz, Le Guin put the matter quite simply: “One way to stop seeing trees and rivers and hills only as natural resources is to class them as fellow beings, kin-folk.” Kin is an idiom of conviviality, but conviviality takes work and—particularly where it is denied, not just absent—it has to start somewhere, with a first move: an opening, a decision, a gesture; an offering. A child, waving to a stone from the back of a car. Animism may be an ontology, or an academic construct⁸⁹—but is it not also a tactic, a method, an instrument of insurrection, a war machine?⁹⁰ “Subjectify the universe,” says Le Guin in her keynote. “Subjectify the universe—because look where objectifying has got us.”

HUGO REINERT is senior researcher in the School of Humanities, Tallinn University. His current research explores the sacrificial logics of resource extraction projects in northern Scandinavia.

Acknowledgments

This article is based on research supported by the Estonian Research Council (grant PUT30, “Life in the Sacrifice Zone,” 2013–17).

References

- Albrecht, Glenn, Gina-Maree Sartore, Linda Connor, Nick Higginbotham, Sonia Freeman, Brian Kelly, Helen Stain, Anne Tonna, and Georgia Pollard. “Solastalgia: The Distress Caused by Environmental Change.” *Australasian Psychiatry* 15, suppl. 1 (2007): 95–98.
- Anderson, Myrdene. “The Saami Yoik: Translating Hum, Chant, or/and Song.” In *Song and Significance: Virtues and Vices of Vocal Translation*, edited by D. Gorfée, 213–34. Amsterdam: Rodopi, 2005.
- Cohen, Jeffrey Jerome. *Stone: An Unnatural History*. Minneapolis: University of Minnesota Press, 2015.
- Coleman, Mat, and Kathryn Yusoff. “Interview with Elizabeth Povinelli.” *Society and Space*, March 2014. societyandspace.com/material/interviews/interview-with-elizabeth-povinelli-by-mat-coleman-and-kathryn-yusoff/.

89. See van Dooren and Rose, this issue.

90. de Castro, *Cannibal Metaphysics*.

- de Castro, Eduardo Viveiros. *Cannibal Metaphysics*. Minneapolis, MN: Univocal, 2015.
- de la Cadena, Marisol. *Earth Beings: Ecologies of Practice across Andean Worlds*. Durham, NC: Duke University Press, 2015.
- DeLanda, Manuel. *A Thousand Years of Nonlinear History*. New York: Zone Books, 1997.
- Dodd, Bernhard. "Submarine Tailings Disposal (STD)—a Review." *Minerals*, no. 4 (2014): 642–66.
- Douglas, Mary. *Natural Symbols*. London: Barrie and Rockliff, 1970.
- DuBois, Thomas. *Lyric, Meaning, and Audience in the Oral Traditions of Northern Europe*. Notre Dame, IN: University of Notre Dame Press, 2006.
- Eco, Umberto. *Interpretation and Overinterpretation*. Cambridge: Cambridge University Press, 1992.
- Freedman, Andrew. "The Last Time CO₂ Was This High, Humans Didn't Exist." *Climate Central*, May 3, 2013. www.climatecentral.org/news/the-last-time-co2-was-this-high-humans-didnt-exist-15938.
- Graeber, David. "Radical Alterity Is Just Another Way of Saying 'Reality.'" *HAU: Journal of Ethnographic Theory* 5, no. 2 (2015): 1–41.
- Haraway, Donna. "SF: Science Fiction, Speculative Fabulation, String Figures, So Far." Pilgrim Award acceptance speech, July 7, 2011. people.ucsc.edu/~haraway/Files/PilgrimAcceptanceHaraway.pdf.
- . *When Species Meet*. Minneapolis: University of Minnesota Press, 2008.
- Hubert, Henri, and Marcel Mauss. *Sacrifice: Its Nature and Functions*. 1898. Chicago: University of Chicago Press, 1964.
- Irvine, Richard. "Deep Time." *Social Anthropology* 22, no. 2 (2014): 157–72.
- Jameson, Fredric. "Future City." *New Left Review*, no. 21 (2003). newleftreview.org/II/21/fredric-jameson-future-city.
- Jernsletten, Kristin. "The Hidden Children of Eve." PhD diss., University of Tromsø, 2011.
- Kahn, Brian. "A Global Milestone: CO₂ Passes Four Hundred PPM." *Climate Central*, May 6, 2015. www.climatecentral.org/news/co2-400-ppm-global-record-18965.
- Kirksey, Eben. *The Multispecies Salon*. Durham, NC: Duke University Press, 2014.
- Kirksey, Eben, and Stefan Helmreich. "The Emergence of Multispecies Ethnography." *Cultural Anthropology* 25, no. 4 (2010): 545–76.
- Kramvig, Britt, and Helen Verran. "Stones as Entities Participating in Ontological Practices." Paper presented at "Arctic Domestication in the Era of the Anthropocene," Norwegian Academy of Science and Letters, Oslo, September 17, 2015.
- Kuokkanen, Rauna. "Lahi and Attaldat: The Philosophy of the Gift and Sámi Education." *Australian Journal of Indigenous Education*, no. 34 (2005): 25–32.
- Kwon, Heonik. *Ghosts of War in Vietnam*. Cambridge: Cambridge University Press, 2008.
- Lahelma, Antti. *A Touch of Red*. Helsinki: Finnish Antiquarian Society, 2008.
- Larsen, Ann-Sylvi, and Roald Larsen. *Hodeløse menn og ihjelfrosne haikere (Headless Men and Frozen Hitchhikers)*. Tromsø: Eureka, 2002.
- Larsson, Carl-Gøran, and Samuel Idivuoma. "Sov på tomta til nybygget" ("Slept on the Lot of the New Build"). *NRK Sápmi*, August 19, 2014. www.nrk.no/sapmi/sov-pa-tomta-til-nybygget-1.11888091.
- Latour, Bruno. "On Some of the Affects of Capitalism." Lecture given at the Royal Academy, Copenhagen, February 26, 2014.
- . *We Have Never Been Modern*. Cambridge, MA: Harvard University Press, 1993.
- Law, John. *After Method*. London: Routledge, 2004.
- Le Guin, Ursula K. "The Author of the Acacia Seeds." In *The Compass Rose*, 3–14. New York: HarperCollins, 2005.
- Leem, Knud. *Beskrivelse over Finnmarkens Lapper (Description of the Lapps of Finnmark)*. Copenhagen, 1767.
- Livingston, Julie, and Jasbir Puar. "Interspecies." *Social Text* 29, no. 1 (2011): 3–14.
- Manker, Ernst. *Lapparnas heliga ställen (Holy Sites of the Lapps)*. Stockholm: Geber, 1957.
- Mitchell, Audra. "Thinking without the 'Circle.'" *Political Geography*, no. 7 (2015): 77–85.

- Negarestani, Reza. *Cyclonopedia: Complicity with Anonymous Materials*. Melbourne: re.press, 2008.
- Norges Offentlige Utredninger. *Samiske sedvaner og rettsoppfatninger (Sámi Customs and Legal Concepts)*. Oslo: Statens Forvaltningstjeneste, 2001.
- Oskal, Nils. "On Nature and Reindeer Luck." *Rangifer* 20, nos. 2–3 (2000): 175–80.
- Palmer, Marion. *Bare Kirka Sto Igjen (Only the Church Was Left Standing)*. Oslo: Spartacus, 2010.
- Povinelli, Elizabeth. "Do Rocks Listen? The Cultural Politics of Apprehending Australian Aboriginal Labour." *American Anthropologist* 97, no. 3 (1995): 505–18.
- . *Economies of Abandonment*. Durham, NC: Duke University Press, 2011.
- . *The Empire of Love*. Durham, NC: Duke University Press, 2006.
- . "Geontologies of the Otherwise." *Cultural Anthropology*, January 13, 2014. www.culanth.org/fieldsights/465-geontologies-of-the-otherwise.
- . "The Social Projects of Late Liberalism." *Dialogues in Human Geography*, no. 3 (2013): 236–39.
- . "Transgender Creeks and the Three Figures of Power in Late Liberalism." *differences* 26, no. 1 (2015): 168–87.
- Qvigstad, Just. "Lappische Opfersteine und heilige Berge in Norwegen" ("Lapp Sacrifice Stones and Holy Mountains in Norway"). *Oslo Etnografiske Museums Skrifter* 1, no. 5 (1926): 331–56.
- Raffles, Hugh. "Writing Culture (or Something like That)." In *Writing Culture and the Life of Anthropology*, edited by Orin Starn, 228–36. Durham, NC: Duke University Press, 2015.
- Reinert, Hugo. "The Disposable Surplus—Notes on Reindeer, Waste, and Biopolitics." *Laboratorium*, no. 3 (2012): 67–83.
- . "Entanglements—Intimacy and Nonhuman Ethics." *Society and Animals* 22, no. 1 (2014): 42–56.
- . "On the Shore: Thinking Water at a Prospective Mining Site in Northern Norway." *Society and Natural Resources* 29, no. 6 (2016): 711–24.
- . "The Pertinence of Sacrifice—Some Notes on Larry the Luckiest Lamb." *Borderlands* 6, no. 3 (2007). www.borderlands.net.au/vol6no3_2007/reinert_larry.htm.
- . "Sacrifice." *Environmental Humanities*, no. 7 (2015): 255–58.
- Rose, Deborah Bird, and Thom van Dooren. "Unloved Others: Death of the Disregarded in the Time of Extinctions." Special issue. *Australian Humanities Review*, no. 50 (2011).
- Rossi, Paolo. *The Dark Abyss of Time*. Chicago: University of Chicago Press, 1984.
- Rydving, Håkan. *The End of Drum-Time: Religious Change among the Lule Saami, 1670's–1740's*. Uppsala: Uppsala University, 2004.
- Schanche, Kjersti. "Samiske kulturminner langs 420kV-ledning Balsfjord-Hammerfest" ("Sámi Cultural Heritage Sights along the 420 kW-Cable Balsfjord-Hammerfest"). Alta: Sámi Parliament, 2014.
- Star, Susan, and James Griesemer. "Institutional Ecology, 'Translations,' and Boundary Objects." *Social Studies of Science* 19, no. 3 (1989): 387–420.
- Steffensen, Marianne. "Fotballen full av overtro" ("Football Full of Superstition"). *Dagbladet Fotball*, May 1, 2005. www.dagbladet.no/sport/2005/05/01/430398.html.
- Stengers, Isabel. "The Cosmopolitical Proposal." In *Making Things Public*, edited by Bruno Latour and Peter Weibel, 993–1003. Cambridge, MA: MIT Press, 2005.
- Sveen, Arild. *En Stein til Gudenes Ære (A Stone to Honor the Gods)*. Vadsø: Finnmark Fylkeskommune, 1997.
- Sveen, Stine Benedicte. "Reinen, reineieren og reinbeitlandet" ("The Reindeer, the Herder, and the Pasture"). Master's diss., University of Tromsø, 2003.
- Sweco. *Reguleringsplan med konsekvensutredning for planlagt gruvedrift i Nussir og Ulveryggen i Kvalsund Kommune (Regulatory Plan with Impact Assessment for Planned Mining in Nussir and Ulveryggen in Kvalsund)*. Alta: Sweco, 2012.
- Todd, Bella. "Run for Your Life: Why 1,000 People Are Racing Down from the Arctic towards the Paris Climate Conference." *Collectively*, November 9, 2015. collectively.org/en/article/run-for-your-life-relay-running-for-paris-climate-conference/.

- Todd, Zoe. "An Indigenous Feminist's Take on the Ontological Turn." *Journal of Historical Sociology* 29, no. 1 (2016): 4–22.
- Tsing, Anna. "Arts of Inclusion, or How to Love a Mushroom." *Australian Humanities Review*, no. 50 (2011): 5–22.
- . "More-than-Human Socialities: A Call for Critical Description." In *Anthropology and Nature*, edited by Kirsten Hastrup, 27–42. New York: Routledge, 2014.
- Turi, Johan. *An Account of the Sami*. Chicago: Nordic Studies, 2011 [1910].
- Vannini, Phillip. "Enlivening Ethnography through the Irrealis Mood." In *Non-representational Methodologies*, edited by Phillip Vannini, 112–29. New York: Routledge, 2015.
- Yusoff, Kathryn. "Geologic Life: Prehistory, Climate, Futures in the Anthropocene." *Environment and Planning D: Society and Space*, no. 31 (2013): 779–95.
- Zaffaroni, Eugenio. *Pachamama y el Humano*. Buenos Aires: Madres de Plaza de Mayo, 2012.