



Confessing Anthropocene

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Abstract What is the best way to communicate with far future human (and/or posthuman) societies? This sounds like a question for science fiction, but I ask it in the context of a pressing issue in environmental ethics: the (very) long-term disposal of high-level spent radioactive fuel. To date, the moral justification for burying the waste underground has hinged on the technical possibilities of communicating a message of warning to people living ten thousand years in the future. I argue that the problem with this approach is not only that it insufficiently acknowledges the inevitable failure of the message (though I also consider this); additionally, it serves to mask deeper ethical reflection on the legacy of human life to the deep future. To remedy this, I consider what it would mean to think about deep-future communication as an act of confession. What are the advantages of this category, ethically and politically, over that of warning or instruction? I draw upon the classic theological and philosophical exploration of the confession in that of Saint Augustine and subsequently in Derrida's mimicking of him, in the light of which I consider the ethics of confession and witness as being haunted by the legacy of one's actions into deep time. Notwithstanding its critical reception among certain philosophers, a confessing tone may become increasingly pertinent to activists, artists, and faith communities making sense of humanity's ethical commitments in deep time.

Keywords deep time, nuclear waste, confession, Saint Augustine, Derrida

Introduction

“For the last time, (Man) assigns himself the main role, even if it's to accuse himself of having trashed everything—the seas and the skies, the ground and what's underground—even if it's to confess his guilt for the unprecedented extinction of plant and animal species.”

—Invisible Committee, “To Our Friends”

The objective of this article is to suggest a novel framework for conceiving ethical, social, and political responses to high-level radioactive waste storage. But it is not really *about* this rather technical problem. Rather, I use this problem to demonstrate how, as human societies are increasingly forced to reckon with the longevity of their

Environmental Humanities 10:1 (May 2018)

DOI 10.1215/22011919-4385589 © 2018 Duke University Press

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waste (forced to deal with their own shit, to paraphrase Lacan¹), the encounter with deep time—and, in particular for this case, the deep future—becomes more than ever before a question for social and political reflection. And this reality demands new thinking about how the deep future *matters* to us.

Of course, debates about whether we can and ought to bury, eject, reuse, hide, guard, or try to forget about spent nuclear fuel are not new. They are as old as the first production of high-level, reprocessed fuel from the Manhattan bomb project during the Second World War.² But only relatively recently has it been discussed by literary, social, and cultural theorists. This discussion has certainly been buoyed by its association with the Anthropocene epoch, which for many can definitively be said to have begun with that first atomic detonation in 1945.³ A further reason for focusing on high-level radioactive waste (I will use the term *radwaste* hereafter) at this moment is that public debate about deep geologic repositories is, I predict, set to increase in the coming decade. The majority of repository projects are at the consultation, drilling, or construction phases (Wikipedia claims that fourteen sites around the world fell under these categories in 2017). Many face significant political, financial, and physical challenges ahead. But at least some of these will presumably come to fruition in the near future. Meanwhile radwaste, so far stored only above ground, continues to accumulate. So far, the only operational site is the Waste Isolation Pilot Project (WIPP) in Carlsbad, New Mexico. This is the best-known project, a repository commissioned and designed by the US Department of Energy to isolate transuranic waste 655 meters below ground for at least ten thousand years. WIPP is, at the time of writing, scheduled to receive its first shipments in April 2017, since its operations were suspended in 2014 due to an accident. A new facility currently under construction in Finland, called Onkalo—the subject of the documentary *Into Eternity* (2010)—anticipates receiving its high-level spent fuel around 2020. Both facilities have come under critical scrutiny for their often alarmingly ambitious claims about safeguarding the sites from intrusion for tens of thousands of years. A new generation of many such projects will, in the decades to come, follow suit. Western governments are, without much public clamor, preparing to turn the world into a planetary tomb for creations that they know will outlive human life by the longest stretch imaginable. Which discourses, practices, and politics will we favor in response to such creations?

Dangerous Memory

Ethical discussions about how to safeguard future generations from radwaste begin with a fairly obvious observation that good inductive grounds for such a project are lacking. In 1993, the ethicist Kristin Shrader-Frechette argued strongly against geologic burial (the “status quo” in policy discussions then and now) on the basis that there was

1. Morton, *Hyperobjects*, 140.
2. Macfarlane and Ewing, *Uncertainty Underground*, 1.
3. Davies, *Birth of the Anthropocene*.

no historical evidence that present technology could protect future generations from leaks, accidents, and penetration of the repository for even one century given our experience of global nuclear accidents in that length of time alone.⁴ Furthermore, there could be no inductive grounds for assuming that far future generations will have sufficient knowledge, management structures, or political stability to continue to safeguard themselves. Her study begins with a now familiar juxtaposition of time horizons:

Italians have not been able to protect Renaissance art treasures for even as long as *one* thousand years. Egyptians have not been able to protect the tombs of the Pharaohs for even as long as *four* thousand years, and some of the graves were looted within centuries. Yet, we in this generation have an obligation to protect our nuclear wastes for more than *ten* thousand years—a period longer than recorded history. . . . We in the United States have been a nation for only about 200 years, yet we face the task of storing technetium-99 having a half-life of 200,000 years. Given the short span of our experience in handling these materials, how can we deal adequately with long-lived radioactive waste?⁵

This implies a much more conceptual problem than that dealing with long-lived waste will be a tall order. It means that our present deliberations for ensuring that future generations will behave responsibly around technetium-99 require us to imagine that something even vaguely similar to the institutional judicial framework contained in our notion of “nation,” will continue to around one thousand times its current age. The US Department of Environment’s commissioned Human Interference Task Force (HITF), tasked in the 1980s with designing a system of messages and symbols by which a clear warning mark could seal the filled repositories, came to roughly the same conclusions about the impossibility of writing pan-cultural and universal signs able to endure those timescales.⁶ Examples include the mega-sized skull and crossbones, a landscape of spikes/thorns signifying physical threat, and a “black hole” whose physical properties would communicate physical foreboding (by emanating heat, for example).

These are rightly defined as “responses” rather than “solutions.”⁷ Despite the confident tone of those 1990s consultations, analysts note that deep-future scenarios are based on an imaginative leap that undermines the timescales normally involved in risk management. Instead, engineers proceed on the basis of constructing safeguards that relate to a number of generations in the future, in the hope that those generations will adjust their own method of transmissions to the future. A recent piece of field research, involving engineers at a recently proposed repository site in France, showed how engineers responded to this problem of constructing a memory of future social

4. Shrader-Frechette, *Burying Uncertainty*, 3–4.

5. *Ibid.*, 1.

6. Van Wyck, *Signs of Danger*, 51.

7. Poirot-Delpech and Raineau, “Nuclear Waste.”

scenarios. The workers—who were mostly geologically trained and therefore “comfortable” with the descriptions of deep time—distinguished in their minds the “manageable” memory of continuing life aboveground and the “blind spot,” or unrepresentable horizon, of far futures. The latter could not be translated and required some extra conceptual move. One must therefore assume a leap over the very traditions of communicability that link our generations together—that is, “discontinuous time.”⁸

I mention these reflections on the engineering paradox of radwaste burial sites to show how in some sense failure (of the message) is assumed from the outset. Peter C. Van Wyck’s insightful study of WIPP fleshes out precisely this notion of a blind spot in the representation of futures.⁹ It can be useful to think about this in terms of a social, collective experience of trauma, in which the very anticipation of the (far future) legacy of one’s actions, whether from accidents, leakages, or other disasters performs a kind of social haunting. We could say that the trauma of the nuclear accident, understood as a “wound” that societies pathologically disavow—that is, the origin of which is hidden from view—is written into the very premise of WIPP’s design. The disavowal is manifest in the paradoxical attempt to divert attention (“do not come here!”) through building the monument (“look at this!”). The ostensible function of a “permanent” warning would be to communicate to a future discoverer that *they* should not be there: “These monuments are haunted by their own failure,” writes Van Wyck, “even in advance of their construction. As *ideas*, they carry the human into the realm from which they are to be excluded. Humans are parasitically present within the very gesture that would seek to guarantee their absence.”¹⁰ Van Wyck describes this impossibility with reference to the incursion of the Lacanian “real,” that which declares itself at the point at which meaning, signification, and symbolization break down or are unassimilable. This is the point about ecological disasters caused by climate change. Even though extreme weather events are increasingly visible and experienced, climate change “itself” does not appear to us in a straightforwardly sensible way (becomes symbolically meaningful, as in, the weather is changing or Gaia is taking “revenge” on us) even though it conditions our very existence. This is more or less what Timothy Morton means by “hyperobjects.” Indeed, one of his examples of these things “massively distributed in time and space relative to humans” is “the sum total of all the nuclear materials on earth.”¹¹ The longevity, magnitude, and destructive capability of radwaste condition our very understanding of what “accident” and “disaster” mean, and yet they seem unable to assimilate as objects or events in the normal sense of those words. Certainly, radwaste is a very large problem, but the magnitude of the problem, in terms of temporality, somehow does not “scale up” so much as leave us blinking in disbelief or reaching for science fictional

8. *Ibid.*, 1826.

9. Van Wyck, *Signs of Danger*.

10. *Ibid.*, xix.

11. Morton, *Hyperobjects*, 1.

parallels. As Morton puts it, radwaste is not infinite, but it seems like it may as well be, because it transports us to a consideration of time that we find inconceivable: “Nuclear materials may present us with a very large finitude, but they are not an infinitude. They explode what we mean by finitude.”¹²

Where does this leave our critique of communicating with deep futures? Van Wyck’s accusation is that most of the attempts to make signs that endure across millennia, “organising this meaning through time,” exemplify the temptation to tame the trauma of the real by making disaster an “object of knowledge.”¹³ But to return to my original question, what *would* be the appropriate form of relation to this hyperobject, this traumatic real, of the deep future? What would constitute an act that could face its reality without a supreme act of disavowal? The most immediate consideration would have to be whether any sort of monument or marker is warranted. The normative justification for the monument is its communicability: it must be shown to relay its information in order to be justified. But this very communication jeopardizes its success (through the possibility that it will be misunderstood). So why not simply conceal the burial ground altogether and *really* try to forget about it, hoping that no one will accidentally excavate it? This was a serious proposal for the HITF and clearly presented the most financially and technologically favorable option (it requires doing nothing). But as Van Wyck suggests, to do so would “make invisible the very gesture of internment” and thus erase the visible link between the ethical gesture stated above (it is this generation’s responsibility to clear up its own waste) and the imagined future discoverers. Thus a key element to the ethical constitution of the monument is a concealment of ethical responsibility, not a declaration as such. The function of the sign is to communicate something not of our present (why we need this waste) but of a far future fact that it will still be there and what to do about *that*. Van Wyck writes that the site is not designed to “convey anything that might convey the basic truth that, were we to reflect on it, we could only feel a profound shame and sorrow with respect to a toxified present *and* future. What remains at a distance from all of this is that a disaster is not in the future; it has already happened. . . . The monument can only feign its prophylaxis; feign the impartiality of a description when perhaps something more in the shape of a confession is called for.”¹⁴

I want to take seriously the question of what exactly the shape of a confession might look like. But my first step is to show that the seeds of a confessing, reflexive tone might already be latent within the thinking behind radwaste repositories and within their tacit acknowledgment that the very building and anticipation of such sites are somehow haunted by the “ghosts” of their future inhabitants or victims. The 2010 Michael Madsen documentary *Into Eternity* appears to explore this very sentiment in its

12. *Ibid.*, 122.

13. Van Wyck, *Signs of Danger*, 113.

14. *Ibid.*, 78–79.

poetic commentary on the Onkalo site in Finland. The film uses an intentionally ghostly aesthetic, with overlapping, disjunctive temporal sequences of the workers in slow motion, to juxtapose the ephemeral and fleeting human activity against the deep time-scales of rock strata, nuclear half-life, and tunnels that must be buried and forgotten forever. Madsen's narration—a disembodied message to the future, to some discoverer of Onkalo—ponders the importance of self-understanding contained within the “gesture of internment” discussed above. That is, he considers why it is important that people in the future know what we intended, feared, and were ashamed of in its very creation. The narrative takes words directly from the Markers Panel, a team of experts tasked with design of the monument at WIPP in 1990. The panel's recommendation of a graded design of messages (from simple to complex) led to the following text. It stands at the “simple” end of the gradation, conveying the most essential feature of the message (that which must be contained in the immediate form, shape, and evident intention behind the monument itself):

This place is not a place of honor.
 No highly esteemed deed is commemorated here.
 Nothing valued is here.
 This place is a message and part of a system of messages.
 Pay attention to it!
 Sending this message was important to us.
 We considered ourselves to be a powerful culture.¹⁵

The simplicity and open-endedness of the text raises a series of interrelated questions for our consideration. Is there some conscience searching contained in this text? Does it “do” more than its purported task of ensuring a deterrence? Is there also an imperative to tell the truth of what has happened? How are the two related (ethics and truth telling)? What if its function is as much about confessing one's acts to some unknown future recipient? The question of who is the “we” speaking here is important. Does Madsen speak on behalf of all humanity when he evokes the mythic language of “our” discovery of this fire and our decision to bury it? Or is there a moral judgment implied by the confessor's reference to what was “known” at the time—that is, the societies for whose benefit and comfort the danger was generated in the first place, the wars that were waged, the energy that was consumed? Finally, the question I consider next: what might be the continuing value in exploiting the role of a confessing tone for a nuclear generation?

15. WIPP, Excerpts from *Expert Judgment on Markers to Deter Inadvertent Human Intrusion into the Waste Isolation Pilot Plant*, Sandia National Laboratories report, SAND92-1382/UC-721, p. F-49, www.wipp.energy.gov/picsprog/articles/wipp%20exhibit%20message%20to%2012,000%20a_d.htm (accessed March 24, 2017).

Confession time

A confession about my use of confessions. I am seeing what happens when we link this concept to the discursive phenomena under consideration—instructions, warnings, rituals, and performances facilitated by the monument, marker, and “priesthood” of deep-future waste. Clearly, then, I am interested in the possibility of speaking about collective confession (while also raising the critical question of its *selectivity*, of course—on whose behalf would a confession be made? To whom would it be addressed?). This does not seem to sit easily with the more common association of confessional practice as the quintessential expression of the modern individual. Critical histories of the confession usually pivot themselves around Michel Foucault’s seminal study in the first volume of *History of Sexuality*, whose target is the modern production of the self as a truth-telling creature. It was a movement inward, from public to private space, in relation to the Catholic sacrament itself, of course, but simultaneously outward in terms of the confessional’s dissemination in a host of nondiscursive practices. Confessional texts, even going as far back as the most famous, that of Saint Augustine, are thus viewed as the turning point from the medieval to modern practice of the exploration of the self, the “move inward” that becomes so central to secular modernity. Since its “codification” in the sacrament of penance in 1215, wrote Foucault,

the confession became one of the West’s most highly valued techniques for the production of truth. We have since become a singularly confessing society. . . . It plays a part in justice, medicine, education, family relationships, and love relations . . . one confesses one’s crimes, one’s sins, one’s thoughts and desires, one’s illnesses and troubles; one goes about telling, with the greatest precision, whatever is most difficult to tell.¹⁶

Confessing is thus tainted with both the “narcissistic” connotations of modern subjectivity¹⁷ and the institutionalization of pastoral power in clinical, economic, political, and legal institutions. Is this judgment still appropriate for the context at hand? Are we “confessing animals” in our dealings with deep time, and is there a sense in which this could make sense of our being haunted by the deep future? How much would we be permitted to stretch the concept for our questions about monuments, markers, and instructions to the far future?

In literary studies, as Susannah Radstone has argued,¹⁸ there is an assumption that an obsession with confessional texts (novels and autobiographies, for instance) is a feature of modernity, whereas the turn to memory and nostalgia is the domain of postmodernity. And it is true that the politics and ethics of the Anthropocene and perhaps of nuclear semiotics too have favored this more postmodern fascination with memory and the archive, nostalgia and trauma. However, like Radstone, I think this division is

16. Foucault, *Introduction*, 59.

17. Radstone, *Sexual Politics of Time*, 47.

18. *Ibid.*

overstated. Furthermore, I think there are some important parallels between the critique of confessing practices as an “ethics of the self,” and the construction of memory through the monument. The classic critique of the confession does seem to have an important function for our context. In the Foucauldian analysis, the power of confession—which lies with the *listener*—operates on the confessant as a desire to be known, laid bare. But it might equally be seen as the desire to be remembered, for a certain “version” of the truth of the self to endure. Viewing monuments critically as confessions might focus on this act of either telling or concealing the “truth” behind the event of the radwaste repository. Admittedly, this would be a strange sort of analogy, especially if we thought of the confessant as the person ten thousand years in the future who “reads” us (although, as Chloe Taylor points out, the structure of a confession does not require the second party to be physically present and may be “virtual” and thus anticipated or imagined, so presumably also temporally dislocated¹⁹). Nevertheless, it might not seem so far-fetched if we see it in the context of broader attempts of environmental activists to encounter and engage with far futures.

To take an isolated example, consider a blog post from an environmental activist and researcher, titled “An Open Letter to the Future” and addressed to citizens of the year 5000. It is a highly personal, public declaration, part confession, part vindication. It opens with the words, “It’s 2012, and nobody is thinking about you.” And it ends with “I imagine what you must think of us, of this horrible thoughtless period of history I am part of. But . . . not everyone ignored the problem. A few of us dedicated our lives to combating denial . . . I was one of them.”²⁰ Such an expression opens important questions as to the function of confessing. Is the letter sent in the knowledge that the message comes too late and thus appeals to forgiveness on behalf of someone? Of whom, exactly? Or does it come too early, aimed at motivating those of us in the present who might be included among those who *do* care about the future? Is a confession a cathartic release or a seeking of greater complexity, greater soul-searching? To explore some of these contours and to move beyond the individualist sense of the confessing act, I turn to two of philosophy’s arch confessors, speaking from either side of secular modernity.

From Augustine to Derrida: The Impossibility of Witness

The critique of the modern self as the “confessing animal” is *partly* relevant to us. We can see that the attempt of select humans to communicate “our” toxic legacy to the future could be viewed in terms parallel with the hubris of confessional truth-telling, self-disciplining, and seeking some sort of historical “absolution” (Taylor notes that this is the key feature of Hegel’s dialectical endorsement of confessional practice²¹). The confident proclamations of what the future might look like by the expert

19. Taylor, *Culture of Confession*, 20.

20. Naughten, “Open Letter.”

21. Taylor, *Culture of Confession*.

semioticians in charge of the WIPP monument in New Mexico are an example of this. On the other hand, confessing in the Christian tradition has meant a double movement of soul-searching and public declaration. The expression this most vividly recalls is of course Saint Augustine's proto-existentialist lament in *The Confessions*: "I have become a problem to myself."²² With this statement we are paradoxically at the "edge of modern times"²³ insofar as Augustine's quest is a journey *inward* to recover the unity of the self. But Augustine is relevant to us also precisely because he is outside the secular modern understanding of the atomistic, self-sufficient individual. An important consequence of this, according to Radstone, is that Augustine's inward journey is taken on behalf of all humanity. His confession is also the desire that the human community might also find peace through confession. This peculiar and novel aspect of confession as a mode of interpellation clearly exceeds an ethics of reciprocity and (Hegelian) dialectical fulfillment. Augustine's approach is that the act, and not the resolution, of confessing is what is required to bring one closer to God.

Hence the central question of *The Confessions*: what is the point of my writing? Confessing is both necessary and futile, in two senses. First, though one feels moved to give account, how *could* one write the truth of the self given the elusive and impermanent nature of human identity from one moment to the next? Second, the being to whom one ought to confess has no need of it, being outside time and omniscient: "Why do I lay this lengthy record before you? Certainly it is not through me that you first hear of these things. But by setting them down I fire my own heart and the hearts of my readers with love of you."²⁴ Confessing is not to inform God but to bring ourselves, and others, to the contemplation of Him. The point of confessing is to produce a "penitent heart which lives the life of faith."²⁵ So for Augustine, surveying the wonders of the self is an act of worship and awe. But it is also a form of lament. Confessions are elegiac, since a complete accounting for the "truth" of what we have done—for that for which we ask pardon—would always be frustrated, incomplete, and errant. There is always doubt hovering over one's own accounting for the truth.

The value of this way of thinking is that it allows us to see a confessing tone as a radical encounter—indeed, a radically ethical encounter—with temporality and finitude. It might thus help orient ethical thought toward everyday encounters with deep time. For there is clearly a temptation to view such encounters as expressions of some transcendence of humanity's finitude. If, as I have claimed above, the hubris of radwaste monuments is to confer knowledge and instruction for an indefinitely far future—for what might seem to us like an *infinity*—then the chastening critique of that practice would be to see all acts of confessing as reminders of our mortal condition. This is the same concern from which humanities scholars have asked what the Anthropocene

22. Augustine, *Confessions*, 239.

23. Radstone, *Sexual Politics of Time*, 23.

24. Augustine, *Confessions*, 253.

25. *Ibid.*, 45.

epoch does to our concepts of immortality and infinity.²⁶ In relation to its indexing of mass extinction and acceleration (of population, urbanization, global warming), the Anthropocene is a signifier for fragility and finitude. But in its projections of the legacy of humanity (including nuclear waste) into deep time, the concept confers the image of immortality. Despite its ghostly aesthetic representation, there would seem to be something triumphal in this version of deep time encounters, inasmuch as it would promise the eternal memory of the human.²⁷ In light of this, we might read Augustine's *Confessions* as a much-needed critical commentary on memory as the reminder of our mortal, finite condition. Our very capacity to experience things in time and retrieve them through memory, Augustine says, are testament to our transience, our experience of things as passing and perishing from the future to the past. Confessing also recalls the tragedy of finitude and a reckoning with finite time. With the radwaste monument, the question of communicating that legacy is a reckoning with the perishing of memory over time and the likelihood of its misapprehension, conferring a tragic dimension to our encounters with deep time. Confessing in speech and writing is as much about forgetting as it is about remembering.

The paradox of confession as a failing act of truth-telling is the essence of Derrida's mimicking of Augustine's *Confessions*. A further benefit of introducing Derrida is that he makes explicit the sense in which confessing is related to haunting and hauntology. When Derrida, in invoking Augustine,²⁸ draws attention to the parallels that exist between our fallen condition of forgetfulness and the ambiguous nature of words as signs, their proneness to errant interpretation (hence the interest in Augustine as a protopostmodern).²⁹ In *Archive Fever*, Derrida contrasted the archival version of "telling the truth," the return to absolute origins, with Augustine's *Confessions*, which purport to "make the truth."³⁰ Two years previously, Derrida had engaged directly with Augustine in "Circumfession," a pseudo-autobiographical essay written as marginal notes below a separate text, by Geoffrey Bennington, that attempts to summarize and systematize Derridean thought. The book is an experiment and wager between the two thinkers on whether Derrida can evade capture by Bennington above him. It is thus an inquiry into whether a form of writing is capable of escaping the archive.³¹ The result is that Derrida

26. Such concerns were considered at Im/mortality and In/finity in the Anthropocene: Perspectives from the Environmental Humanities, December 2–4, 2014, Royal Institute of Technology, Stockholm, a conference organized by Thom van Dooren and Michelle Bastian.

27. Skrimshire, "Anthropocene Fever."

28. Derrida, "Composing Circumfession."

29. Schildgen, "Augustine's Answer," 388.

30. Derrida, *Mal d'Archive*, 95.

31. The "theologic program" of Saint Augustine (abbreviated in Derrida's texts as SA, which also signifies "savoir absolu") in his references to the eternal and unchanging word of God is related to the writing of Bennington, whose text stands *above* Derrida's and attempts to know both his past (early Derrida) and his future (what can be known about the philosopher to come). The latter he calls the "geologic program" (playing on *geo* as in Geoff and in reference to Derrida's mother, Georgette). Vessey, "Reading like Angels," 198.

claims a confession can never be reportage, a passive revelation or statement of the truth. Confession, he says, has nothing to do with the truth: "It's not a matter of making the other know what happened, but a matter of changing oneself, of transforming oneself."³² To account "in truth" for one's errors would require access to the future as well as to the past contexts of our actions. Of course, the traditional economy of the Christian confession is structured around the expectation of reconciliation/absolution from God³³ in a sense that includes the eschatological. But Derrida plays with this more existential (and at this point very anti-Augustinian) idea of confession that knows its own impossibility. As a form of writing, this attempt to write the truth of ourselves—to make the truth—always evades capture by some future absolution.

This is the association that I think offers a way to think critically about the deep-future monument. In Augustine's own self-questioning, a mode in which doubt always hovers over one's own accounting for the truth, there is a form of premonition of that which postmodernism makes explicit: the danger inherent to truth telling, to its claim to a form of absolute knowing that could only be reserved for God's perspective. Derrida talks about absolute knowledge (which he tries to escape) as "geologic" confession, and perhaps he means by this the kind of knowledge that we think can be written in stone for eternity, buried, undisturbed, deep in the earth. In the encounter with deep time through the nuclear monument, this temptation is writ largest of all, and it calls forth Derrida's warning most appositely. For the "truth" of what was done (the production of something dangerous and threatening) cannot be hidden or disavowed. At the same time, we humans cannot presume to be the guardians of its truth and so to control its future apprehension. Claire Colebrook says something similar in critiquing the hubristic appeal of Anthropocene discourse, which, she says—with an almost Augustinian flourish, critiquing *libido dominandi*, mastery, disavowal of finitude—appeals to some fantasy of the human "trace" being somehow legible for millennia to come: "We are not masters of ourselves, we are invaded by dead voices; we manufacture more and more detritus to send into the future, but there is no guarantee those messages or monuments will not lie dormant and unread as so much waste."³⁴

How might we apply the postmodern confessing tone to our encounter with deep time? Van Wyck compares the desert monument to the tradition of time capsules sent into deep space (and deep time), such as the one designed for the Voyager spacecraft in 1977.³⁵ Both are supreme acts of hubris as transmitters of a pure signifier. Creators of deep future monuments/markers have thought they could write *the* definitive message that encapsulates the message that will be a past memory sent into the future.³⁶ This

32. Derrida, "Composing Circumfession," 23.

33. Sands, "Post-writing," 47.

34. Colebrook, "Archiviolothic," 36.

35. Van Wyck, *Signs of Danger*, 33.

36. *Ibid.*, 38.

ignores the fundamental insecurity and instability of the message. For in one sense, the monument is like all archives. While aiming at preservation through memory, archives prefigure a loss of control over that memory. They represent a “space of anxiety . . . about the anticipation of the loss of history.”³⁷

Confessing What? On Behalf of Whom? A Supplement to Hauntology

As Taylor points out, Foucault’s version of confession is different from a testimony and thus from the tradition of political confession (for state crimes, e.g.). The former is about divulging a secret of the self, whereas the latter is about *both* personal *and* social transformation.³⁸ Derrida, as Taylor notes, approved of some instances of political confession, urging (for example) the then French president Jacques Chirac to apologize on behalf of France for the nation’s collaboration with Nazism during the war. This in spite of, but also perhaps *because* of, the strategic and theatrical nature of confessions for something that has already occurred in the past. There is a connection here with his interpretation of Augustine as “making the truth.” Not in the sense of fabrication. Rather, the ethics of confession “on behalf of” produces what is lacking: it explicitly communicates a desire for contrition—to correct behavior, to lament what has happened. It is thus a “sign toward a perfectibility.”³⁹

How does witnessing become an ethical demand? Derrida’s references to Maurice Blanchot are useful here. For Blanchot—who writes about the writing of or bearing witness to atrocities such as Auschwitz—such testimony simultaneously is *required* by humanity and can never succeed. One cannot bring others to *know* the experience of Auschwitz, and yet one *must* nevertheless bear witness. Hence one bears witness to the impossibility of bearing witness.⁴⁰ This is the impossible ethical demand for which both Emmanuel Levinas and Blanchot are such important influences on Derrida⁴¹: “You do something when you bear witness to the fact that you cannot bear witness. You don’t do nothing.”⁴² This approach to collective, political confession would also seem appropriate to our context. While deep-future monuments call for attention, because of their peculiar status as creations doomed to fail in the sense I have outlined they play on the very ambiguity about who is author and who is addressee. The message becomes something other than what was intended, but it is *sent* nevertheless. In fact, on Derrida’s

37. Boulter, *Melancholy and the Archive*, 4.

38. Taylor, *Culture of Confession*, 217.

39. Derrida, quoted in Taylor, *Culture of Confession*, 212.

40. Derrida, “Composing Circumfession,” 22.

41. This is taken up fully by Joanna Zylińska. Despite what she finds as “shortcomings” in his humanist foundations, she writes nevertheless that “Levinas’ ethics . . . can be seen as a par excellence ethical framework for the Anthropocene because it makes me face up to the question of extinction across different scales” (*Minimal Ethics for the Anthropocene*, 63).

42. Derrida, “Composing Circumfession,” 22.

reading, the essence of the ethics of confession is that I never confess for my “self” in that modernist sense, but always I confess the other *in me*:

If I am certain that this confession is mine, that I am the one who not only did this but is responsible for repenting and improving, than (sic) there is nothing. It’s over; that’s the end. What is terrible in confession is that I’m not sure that I am the one who can claim mastery of or responsibility for what has been done, and I am not the one who can claim to be improving and to be good enough to repent . . . when one confesses, one always confesses the other.⁴³

So a confessing tone is the evidence of the ethical demand because it is the other’s desire for forgiveness operating in me. Looked at in this way, it would be the opposite of the Foucauldian technology of the self. Confessing would be an act that does the opposite of the work of self-knowledge and of an economy of absolution. It would be the sign of an ethical demand that always comes from outside but in which we implicate and involve ourselves in the act of confessing, and so it moves us outward, toward the other. This is also the site at which the imperative to confess begins to look more like being *haunted* than being *absolved* by the other. Spectrality/hauntology in Derrida is of course concerned with the inheritance and nonteleological appearance of the ghosts of the past to which we become hosts,⁴⁴ but it also concerns those of the future to come. Thus just as we are host to specters of the past, we ourselves become specters to our future hosts—in our *becoming pasts* to our future selves. Thus we haunt the (deep) future.⁴⁵ Whereas conjuring ghosts has normally implied—in writing and in politics (in reference to the ghost of Marxism in *Specters of Marx*, for instance)—summoning them in order to banish them,⁴⁶ the challenge is to live with one’s ghosts, and that would mean living with ourselves as future ghosts. Can an ethical demand issue from this sense of being haunted by our pasts and of haunting our own futures?

The closest example I have found of this ethics of confession—in the context of the toxic legacy of nuclear waste is Van Wyck’s story of the Dene people in *The Highway of the Atom*.⁴⁷ It takes place near the site of Eldorado mine at Great Bear Lake, Northern Canada. This is the site where the majority of uranium ore was excavated and used for the Manhattan bomb project during the Second World War, and many of the local inhabitants were hired as laborers to extract and transport the ore. Upon discovering

43. *Ibid.*, 25.

44. Derrida, *Specters of Marx*.

45. Anderson, *Derrida*, 104.

46. Davis, *Haunted Subjects*, 88.

47. Van Wyck, *Highway of the Atom*. I am grateful to Erin Despard for suggesting this connection to me. There are, of course, other examples that could be appropriately applied. I am also grateful, for instance, to one of the reviewers for pointing me to the case in 2011 of the public apology to the United Nations by Yvonne Margarulis, of the Mirrar people, North Western Australia, on whose land the uranium used in the Fukushima nuclear plant was mined—an act that was done without the Mirrar people’s consent.

that they had unknowingly become implicated in the mass destruction of thousands of innocent lives at the end of the war, the Dene decided to take the journey to Hiroshima to apologize—to *seek pardon*—for their involvement. The very act of confession in this case seems all the more potent—in its production of an ethical demand—for its engagement with precisely that sense of ambiguity that Derrida expresses above. Clearly, the Dene could not “claim mastery of or responsibility for what has been done.”⁴⁸ Nor could their testimony possibly atone for or comprehend the experience suffered by the victims of the bomb. What is truly remarkable about their story is that the Dene themselves suffered terribly from the mining activity, in the form of generations of cancer and contamination of their homes and natural habitat. They were double victims of a war machine whose purpose was concealed from them. Van Wyck, while respectfully not presuming to *know why* the Dene went to Japan, wonders whether the action they took was a particular form of ethical imperative in which one behaves toward the other *as if* one were responsible for their misfortune.⁴⁹ In Derrida’s terms, this affirms an ethics of confession that renders it strictly “meaningless” if, he writes, one thinks about confession “in order to reach some reconciliation, some redemption, to improve myself . . . just an economy, just a therapy.”⁵⁰ Likewise, the Dene, thinks Van Wyck, did not travel to Japan to undergo a therapy, a working-through. And yet their gesture *does* seem to speak to the power of the tradition of political confession in the interests of furthering social and cultural critique. The confession moves one toward the other, allows one to be haunted by them. And it does so in a way that is peculiar to the encounter with deep time through long-lasting waste. An encounter with deep futures—being haunted by the intended and unintended far future consequences of one’s actions—does not allow us to seek responsibility, blame, and reconciliation in the normal temporal sequences that we expect.

Forgiveness and Promise

But then we are left with an important question of how to respond to the new generation of monuments and markers. How (for example) would an ethics of confession inform social action on nuclear weapons, waste, and energy? There is a very obvious danger that all this talk of confessing and divulging sins and doing so in acknowledgment of failure might be seen to somehow let the producers of high-level waste off the hook. It might encourage a quietistic, politically fatalistic relationship with future persons. It might be too quick to forgive, in other words. What, then, would be the relation between confessing and acting *into* the present? It seems relevant to allow Hannah Arendt to have some say in this. Her discussion of the political category of forgiveness in *The Human Condition* is all the more relevant for having been informed by the then

48. Van Wyck, *Highway of the Atom*, 47.

49. *Ibid.*

50. Derrida, “Composing Circumfession,” 25.

recent discovery of nuclear energy. The unleashing of this power, Arendt thought, represented the ultimate realization that our ability to act in the world signified the ability to kick-start processes in nature that humans would never be able to control or predict. With remarkable prescience, she wrote in 1958:

Not even oblivion and confusion, which can cover up so efficiently the origin of and the responsibility for every single deed, are able to undo a deed or prevent its consequences. And this incapacity to undo what has been done is matched by an almost equally complete incapacity to foretell the consequences of any deed or even to have reliable knowledge of its motives.⁵¹

Arendt characterized the category of action in the modern era as irreversibility and unpredictability. We have no mastery over these two elements, and yet, in order to continue the promise of further action, we have a “remedy” in the form of the capacity to forgive, which liberates us from the sins of the past. Arendt’s recognition—that the life of action outlives our own designs and also mortal human life itself—could be described as a political haunting. Her question is, how do we act in the present without becoming paralyzed by the weight of this lingering of ourselves—through our actions—far into the future? The only thing that “saves us,” she argues, from the predicament of irreversibility is the power to forgive. Arendt credits Jesus of Nazareth with bringing the power of forgiveness from heaven to earth—specifically, a capacity between humans that allows them to break an economy of vengeance and allows human action to continue.

Forgiveness is thus a very human “power” (though it is also, in its biblical context as in common parlance, that which is most God-like) that is deemed to “liberate” future ethical action against the acceptance of irreversibly. Would eco-confessing practices seek this kind of forgiveness? Would they lead to a cavalier attitude toward future life on earth or toward conservatism, in the manner of the destroyers of scientific knowledge in *A Canticle for Leibowitz*⁵²? Does forgiving mean forgetting in this radical sense? I do not have time to examine this application of Arendt to deep-future monuments in detail here, though such a study seems warranted. But I mention it in order to highlight one important insight that could inform the notion of confessing that I have developed. It cannot be seen in isolation from the other human power, that of *promise*: “The remedy for unpredictability, for the chaotic uncertainty of the future, is contained in the faculty to make and keep promises.”⁵³ Arendt saw these two principles as the safeguards for action—keeping open the very possibility of ethical action in a world of irreversibility and long-term consequences. And it strikes me that this would also need to accompany the design of monuments, markers, and rituals to the deep future as confessing, since

51. Arendt, *Human Condition*, 233.

52. Miller, *Canticle for Leibowitz*.

53. Arendt, *Human Condition*, 237.

confessing implies the commitment to change. The act would be incapable of either giving or receiving absolution in the sense of a normal economy of confession: in the context of waste, ghosts remain. The burial ground cannot be sealed with a final explanation, guarantee, or safety certificate. But it might invite actions by which successive generations give themselves to the future—act into the future—in the form of promises.

For a New Culture of Eco-confession?

My presumptive starting point was that in the coming decade this topic will become more widely discussed in academic and public discourse than ever before as geologic repositories around the world open (and eventually close) for business and as the backlog of spent fuel grows ever larger aboveground. That generation will be required to reflect on the complex ethical task of how it seals and marks the burial sites; how it educates present and future generations about what has happened; how it curates the sites' visibility in cultural and social life (will the monuments include visitors' centers? Will school trips be arranged? Will governments attempt to conceal the entrances? Will antinuclear protestors seek them out, keeping their memory alive? Which artists and novelists will want to document and narrate these sites?). By "complex" I do not mean the obvious point that the task's moral justification implicates a number of competing interests both living and in the future. I mean that the problem of radwaste is that it struggles to be an ethical dilemma at all, in the traditional sense. The encounter with deep futures of dangerous waste is a psychological and cultural blind spot. It is an ordinary trauma that conditions our existence even though it "exceeds one's capacity to experience and to understand."⁵⁴ That is, it cannot be located or witnessed as a definitive event without transforming it into something more manageable—in Lacanian terms, by making it signify.

The ethical and legal justification for a new generation of desert monuments expertly designed to minimize harm shows the limits of ethics for cultural thought. As Van Wyck's analysis shows, an ethics of risk in this sense serves to transform the trauma of the presence of radwaste into something else, something that we think we can contain, make safe, and justify to our descendants. Beyond the consequentialist analysis of whether waste burial is good for humans lies the psychological question of whether the act of burial is the quintessence of hypocrisy, in Morton's sense: *hypo*, meaning hidden or secret; *krisis*, meaning judgment or discernment.⁵⁵ To conceal the secret. Whereas the real challenge of how to curate the hyperobject of deep-future radwaste would be precisely:

not to make it signify . . . not to render it coherent . . . not to reduce it, to displace it, to contain it, to rename it, to administrate it, or to otherwise capture it into pre-existing categories or concepts of risk. The challenge of the real of ecological threats is precisely

54. Van Wyck, *Signs of Danger*, 103.

55. Morton, *Hyperobjects*, 148.

to discover a mediator that will allow something new to be said, that will perhaps allow a qualitatively new manner of thought and action to inform a time (ours, for instance) in which the productive capacity of threats seem to outstrip any reasonable capacity for reflective (affective) response.⁵⁶

So my proposal is that something like a confessing tone, whose discursive potential I have attempted to retrieve from the standard critiques, might inform this search for a “mediator.” This is not to condemn the institution of aboveground monuments and markers per se. Rather, a confessing tone might serve to “reverse the manner in which the monument is thought . . . [and to] allow us to talk precisely about signs that hurt.”⁵⁷ Further and more broadly, the cultivation of such a tone might help make sense of moral philosophical reflection in the Anthropocene epoch by allowing decisions to be made within the everydayness of our traumatic, dangerous legacy. A new generation of sealed repositories will attempt to bury this legacy beneath us as if it did not condition everyday ethics and politics. Perhaps a confessing tone would function to bring this anxiety back to the surface and thus inform practices that disclose rather than conceal our everyday encounters with deep time—not by marking them with the definitive truth of ourselves, the means by which we are absolved, but as a way to allow social and ethical critique to be haunted by deep-future legacy.

What might these confessing discourses and practices look like? First, there is no reason monuments, either designed for aboveground storage or for burial sites, could not be designed not only to warn/instruct but also to provoke the kind of thinking and reflection I have discussed. Contemporary memorials and museums to historical trauma—I have in mind the open-air Holocaust memorial in Berlin as an obvious example—attempt precisely this. They are not attempts to redeem the past by explaining away its ghosts. Instead, they make visible a social presence of trauma, facilitating mourning. Why could not monuments, museums, and other social spaces do so in relation to the deep future in which they are so implicated? This is not to say that the monument to radwaste would contain *nothing* of its original brief to warn future generations. But whereas the existing commissions have focused almost exclusively on the technical, physical, and design challenges,⁵⁸ artistic and textual responses to the monument would reconnect the design itself with ethical reflection on the past experience that produced the problem in the first place. This would be an expression that would parallel the political confession, with all the complexities and paradoxes—of authorship, representation, otherness—that I have discussed above. Artistic, poetic, and perhaps theatrical responses to such monuments might reenergize present social critique rather than be employed to speculate on new technical problems of permanence/longevity.

56. Van Wyck, *Signs of Danger*, 112.

57. *Ibid.*, 120.

58. *Ibid.*, 119.

Second, perhaps a confessing tone might also reenergise the public role of existing religious traditions in such debate, by developing the links between lament, mourning, and a reconnection of confession with public witness. In the Christian tradition, the term *confessing church* has a specific history: the collective of Protestant German church leadership that opposed Nazism and all that stood alongside it. It thus has very much to do with the political, testimonial aspect of confessing described above and with the sense in which confession implicates our own actions (a confession in the traditional sense) with the public act of witness or testimony *against* someone else. Linking traditional Christian public witness to the context of nuclear monuments might not be as far-fetched as one might think or as far from current practices as one finds. For instance, in the Catholic justice and peace movement in the United States and the United Kingdom, antiwar activists use the Ash Wednesday service to protest nuclear weapons and other weapons of mass destruction, often distributing the blessed ashes at the gates of military bases or on the weapons themselves in acts of civil disobedience.⁵⁹ Here a theology of repentance—which signifies not only one’s personal guilt but that of others and perhaps of all humanity—combines with an act of witness that is very public. It serves to extend a reflection on mortality to that of social and political sin. More broadly and in secular terms, it is a ritual that brings out into public memory that which is concealed, which I have stated ought to be a major consideration for the marking of sites. A role for public religions in more mainstream functions might also serve the same purpose, reflecting sacramentally on the ecological trauma that is now part of creation.⁶⁰

Third, perhaps such ritual devices might also translate into new forms of political activism where the lines between civil resistance (the act of preventing something from happening) and memorialization (lament as a function of keeping a dangerous memory alive) are necessarily blurred. Protesting nuclear waste may of course have a crucial function in opposing future construction of burial sites for years to come, with good moral justification. So far, political lobbying has, alongside scientific testing, played a crucial part in preventing the construction of repositories that would pose a long-term contamination threat to human communities and other ecosystems as well as

59. E.g., see “The Nuclear Resister,” February 22, 2015, nukeresister.org/2012/02/24/ministry-of-defence-hq-in-london-marked-on-ash-wednesday-in-resistance-to-nuclear-weapons/.

60. Sebeok was the semiotician employed by the Human Interference Task Force in 1980 to assess the best method – employing the best evidence of semiotic science – for preserving a message of warning for 10,000 years. His startling conclusion is that a social practice and mythology ought to be instituted, an “atomic priesthood” whose annual rituals would act to set a “false trail” to would be explorers, by using the best symbolic references specific to their generation (this message would need to be ‘re-set’ in the course of the generations). Sebeok’s priesthood would not be priests at all but “knowlegable physicists, experts in radiation sickness, anthropologists, linguists, psychologists, semioticians, and whatever additional expertise may be called for now and in the future.” Sebeok is clear that religious narrative might be necessary “the veiled threat that to ignore the mandate would be tantamount to inviting some sort of supernatural retribution.” Sebeok, *Communication Measures*, 27.

preventing the instituting of a fundamentally undemocratic burden of responsibility on local councils (this is arguably the case with the UK government's desire to bury high-level radwaste in Cumbria). But were those sites to be built, political action might continue to have a role in making present what is (politically) hidden and thus in confessing, in the sense of testifying—making accountable what has been hitherto unaccountable. In the context of radwaste sites, the confessing of threat plays an added role of making visible the temporal traces of the injustice: the fact that the “disappeared” to be made present are those in a future that is inaccessible to our imagination. Environmental groups are already experimenting with these forms, combining acts of witness, memory, and confession to the more active political intentions of resistance, renewal, and social change. Some political theater groups have used the tradition of funeral marches or Day of the Dead tradition to publicly “remember” extinct species—for example, Feral Theatre's Remembrance Day for Lost Species and other processions, mock services, and rituals that appeared in cities throughout the world in 2016. This elegiac trend in environmental consciousness—a renewed attention to the role of mourning in resourcing environmental ethical debate—might also be seen to involve an impulse to confess, though it would need a critical approach to that tradition and might consider some of the nuances that I have discussed here.

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Acknowledgments

I am indebted to the engaging and insightful participants at two seminars where different elements of this paper was tested—as visiting scholar at the Department of Religious Studies at McMaster University in December 2015 and for the Encounters with Deep Time seminar on haunting at Edinburgh University in July 2016. I am also grateful for some very helpful initial feedback from Bron Szerszynski and from my colleagues in theology and religious studies at the University of Leeds.

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