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Sacred Theories of Earth:
Matters of Spirit in *The Soul of Things*

Geology, so we've been told, wrested the earth away from God. It wasn't an easy task. The Comte de Buffon's departure from biblical history, in his 1749 *Histoire Naturelle*, was declared "reprehensible"; for suggesting that Earth was formed out of space debris, rather than emerging from the hand of God, he nearly lost his appointment at the Sorbonne (Roger 1997, 187–88). Similar attacks were launched a few decades later against the work of James Hutton, the Scottish scientist whose articulation of what would come to be known as "deep time" was denounced by fellow scientists as a "wild and unnatural notion . . . [leading] first to skepticism, and at last to outright infidelity and atheism" (Williams 1789, lix). Hutton countered by arguing that theories of the earth should be precisely that: "the philosophy or physical knowledge of *this* world" (Hutton 1795, 270, emphasis added). The accounts developed by thinkers like his biblically guided seventeenth-century predecessor, Thomas Burnet, author of *Telluris Theoria Sacra* (*The Sacred Theory of the Earth*), did not count as knowledge but merely "dream[s], formed upon . . . poetic fiction[s]" (271).

For many latter-day historians of the science, Hutton's intervention marked geology's awakening from Burnet's sacred dream, its ascension to the status of a modern, and therefore a secular, field of knowledge. The modernization of geology involved two secularizing shifts: one temporal, from Creationist to deep-time frames, and one methodological, from "sacred theory" to empirical observation, the latter nicely summed up in the contrast between Hutton's 1795 title—*Theory of the Earth with Proofs and Illustrations*—and Burnet's. The new geological empiricism demanded an engagement with the material world instead

of sacred text—or rather, it took the material world *as* its sacred text. In doing so, it constituted itself as a properly historical science, with its own mode of lithic exegesis: stratigraphic correlation, or “reading the rock record.”¹ Stratigraphic reading ignored biblical chronology, remapping the history of the world according to geological epochs. Yet it was not, as Noah Heringman (2004) has argued, without moral implications. Geological positivism identified the earth’s history with improvement, with progress toward a superior state, and rock reading, as the process of interpreting that narrative, was aligned with other categories of secular reading—history reading, even novel reading—that could be engaged as vehicles for moral education. The intellectual challenge of stratigraphy itself was held to “improve” the rock reader, even as the rock record testified to geohistory as a progress narrative.

The move from biblical to secular history as source of moral education points us toward the fate of the figure of Man in this struggle. Many historians of geology have framed its modernization as an essentially anthropocentric revolution, one that placed man, rather than God, at the center of the field by virtue of his capacity for intellectual mastery and self-improvement. As one late twentieth-century history of the field puts it, the story of nineteenth-century geology reads as a tale of “those who subdued the planet through curiosity” (Wood 1985, 3). The familiar identification of the post-Huttonian decades, the period in which scientists killed off the “fabulous” theories spawned by biblical fidelity and established its empirical and historical foundations, as the “Heroic Age” of geology (a term coined in an 1839 speech by William Whewell) adds distinctly manly overtones to this anthropocentric story. But paleontologist and cultural critic Stephen Jay Gould (1987, 1–3) suggests, conversely, that the species that supposedly “subdued” the planet was, rather, chastened by it. In the very gesture of wresting the earth from God, the theorization of what would come to be known as “deep time,” Gould asserts, we learned the unimportance of man in relation to the earth, since the sheer immensity of geological time mocks any human claim to triumphalism. This effect, he proposes, earns deep time a place on the list of scientific discoveries—heliocentrism, evolution, and the unconscious—that Freud identified as modernity’s great assaults on Man’s naive self-love.

It might appear paradoxical that the very mode of knowledge that enabled human authority to rise above God’s served to undermine human narcissism. Yet this paradox, as Michel Foucault (1994) sug-

gests, characterizes the modern age of Man: selfhood as a drama of mastery predicated on that which it cannot in the end contain. Scholars of secularism influenced by Foucault, from Talal Asad to John Modern, have outlined what Asad calls “secular self-fashioning” as a mode of subjection through which “the modern self attempts to secure its elusive foundation” (Asad 2003, 112, 120; Modern 2011). Secularism, in this sense, names not the absence of religion as such but a structure encompassing both religious and nonreligious epistemologies and sensibilities, whose promise and pleasures devolve on an anxious anthropocentrism. Although ostensibly concerned with prehuman history, geology, as we have seen, both modeled and catalyzed the human capacity for self-improvement. Hence it too, as Modern (2011, 28) notes, operated as a “technology of secularism.”

If this understanding of modernity helps us comprehend the ambivalent anthropocentrism provoked by geological discoveries at the end of the eighteenth century, it may also illuminate the ambivalence to be found in recent critical engagements with geology by Wai Chee Dimock and Thomas Allen. Guided in part by Gould’s reading of the inhuman force of geological time, these critics have turned to deep time as an impetus for antihumanist critique—a means of cracking open ossified political and philosophical forms. Dimock sets the deep “planetary” perspective that geology unleashes against nation/period literary divides, while Allen positions the geological as potentially unsettling the “voluntaristic model[s] of human agency . . . fundamental to the normative American construction of liberal democracy” (Dimock 2008; Allen 2008, 185). But as Allen acknowledges, it mostly didn’t happen that way. While Transcendentalists and their descendants engaged geology as a means of thinking beyond the human, for many others, geology worked admirably as a means of human self-extension. Thinkers like Edward Hitchcock (1851) cast Uniformitarian theory as capturing the spirit of Christianity, providing evidence of a God who proved His wisdom and devotion by slowly, patiently readying the earth for occupation by Man, for whom he had created it. Others developed this narrative biopolitically, drawing on the science as a guarantor of white supremacy, arguing that geology detailed the slow, steady “preparation of the Earth for the Intellectual Races” (Winslow 1854). And while geology may have conceptually exploded the idea of nations, as Dimock contends, in practice it was central to the process of US westward expansion, conquest, and settlement; indeed, until

1879, geological surveys sponsored by the Federal government fell under the purview of the War Department. Although the new geological theories offered space for a radical rethinking of the place of the human in the order of nature, they seemed more often to shore up extant human institutions and to extend human agency. These alternations recall the type of mixed-results criticism that Eve Kosofsky Sedgwick (1993, 15) famously glossed, two decades ago, as “kinda subversive, kinda hegemonic.” Indeed, this impasse seems as inherent to antihumanist critique as to the humanism it takes as its object—endemic, perhaps, to the conception of the human that emerges in the Age of Man, to a mode of self-mastery based on the quest to secure an ever-elusive foundation. The critical decentering or deconstruction of the “human” must, in effect, repeat the same ambivalent gesture that perpetually (un)finds it.

If both human-centered celebrations of geology and antihumanist deployments of it as a deconstructive tool encounter the same impasse, it remains to be seen whether the turn to geology within new materialism, object-oriented philosophy, and ecotheory—part of the set of recent critical developments that has come to be called the *nonhuman turn*—can manage to surpass it. In this body of work, geological processes instantiate the nonhuman agency we are called upon to recognize and respect (De Landa 2000; McGurl 2011). Thinking through what it means to recognize humanity’s geological agency—the epochal shift that geologists and activists are beginning to call the Anthropocene—scholars are demanding deep disciplinary reorientations: Dipesh Chakrabarty (2009, 201), for instance, observes that the measurable human impact on climate demands a radical reorientation of historical practice, one that jettisons humanist historiography’s traditional distinction between human and geological or natural history. Beyond the recognition of geology as conveyor of grim truths, it is also increasingly cited as a source of new ways of thinking, a reparative force and an impetus to the creation of alternative futures. Elizabeth Ellsworth and Jamie Kruse, in the introduction to their recent collection *Making the Geologic Now*, see an “increasingly widespread turn toward the geologic as source of explanation, motivation, and inspiration for cultural and aesthetic responses to conditions of the present moment” (2013, 6). If humans have become geological, it is argued, we might do well to think, and perhaps even to feel, geologically. Along these lines, new materialist philosopher Jane Bennett appeals to geology in an attempt

to theorize a liveliness or vibrancy common to all matter, including us. Bennett (2010, 11) views this “geoaffect or material vitality” as the impetus for an “expanded political ecology,” superior to conventional environmentalism insofar as it involves “liv[ing] as earth,” rather than simply living on it.

Those historians who celebrated the secularization of geology after Hutton might be surprised by the quasi-mystical buzz that surrounds some of these thought experiments. Bennett, identifying her appeal to vibrant matter as a postsecular or anti-disenchanted materialism, closes her book with a vital materialist’s Nicene Creed. This recitation joins numerous other appeals to magic, divinity, wonder, and the miraculous within new materialist and object-oriented thought, a movement that has been characterized, by one key proponent, as driven by an “intellectual love of God” (Bryant 2012).² The mystical cast of much new materialist and object-oriented thought seems appropriate, since, as ecotheorist Timothy Morton points out, “mysticisms contain reserves of unthought zones of materiality” (Morton 2010, 280).³ The mystical, that is, is not an attempt to transcend the material in pursuit of the spiritual, but an effort to meet materiality otherwise, on strange, unknown, and potentially spiritual terrain. Affirming the porosity of the human body, its own status as vibrant material, the new critical modes of interfacing with (nonhuman) matter exemplify, for Morton and others, the queer potential of the nonhuman turn in its quest for intimacy with the world beyond the human. Morton (2010, 84) understands matter itself as a “sprawling, tangled, queer mesh” and insists therefore that any ecological reckoning with matter (including Bennett’s geoaffect) is always already queer; Jeffrey J. Cohen (2015) theorizes, under the sign of “geophilia,” “matter’s queer, inconstant and promiscuous desire to affiliate with other forms of matter, regardless of organic composition or resemblance to human vitality.” Reading likewise becomes a form of porosity or intimacy—an embodied alternative to the intellectualized distance of “reading the rock record.” Bennett (2010, xiv) argues for a “cultivated, patient, sensory attentiveness to nonhuman forces”; Cohen (2013, 153) describes this attentiveness as an opening to “the world’s queerness.”

The embrace of geology in the context of a contemporary postsecular, queer, and affective criticism calls our attention to an alternate history of nonsecular engagements with the science, a history outside the modernizing narrative that aligns the development of the science with

secularization, although it runs contemporaneously with it. I do not mean, here, the nineteenth-century reconciliation of deep geohistory with Christianity through claims about first causes, or what is now termed “intelligent design.” I have in mind, rather, self-consciously geological manifestations of the kind of mysticism Morton describes, in which the science allies itself with, even provides access to, “unthought zones of materiality” that hold the potential to animate thought otherwise, to access alternative presents and actualize other futures. I wish, in other words, to plot out a post-Huttonian history of “geoaffect,” to locate earlier examples of a transformative geologic now. In this essay, I look closely at one such manifestation: the collaboration between the geologist and Spiritualist lecturer and writer William Denton and his wife, the psychometric medium Elizabeth Foote Denton. William Denton, a lifelong opponent of established Christianity, published numerous books and pamphlets challenging Church tenets and advocating Spiritualist and progressive beliefs. Even as he drew upon geology in his lifelong battle with Christianity, he also attended to its spiritual implications, most extensively in a three-volume study coauthored with Elizabeth titled *The Soul of Things; or, Psychometric Researches and Discoveries*, published between 1863 and 1874. *The Soul of Things* sought to extend the capacity for empirical geological research across time by means of psychometry, the practice of reading sedimented traces of sensation, which the Dentons argued were emitted by all objects, both organic and inorganic. The Dentons’ psychometric geology suspends itself between materialism and vitalism in an effort to develop a theory, at once practical and ethical, of interobjectivity. A certain attunement, at once intellectual and intuitive, to the geological past would, according to the Dentons, lay the foundations for a vitalized and egalitarian orientation to the world. Although the Dentons’ writings are not, and should not be counted as, a direct antecedent to contemporary appeals to the enchantment of the geological, this nineteenth-century example of a nonsecular materialism, with similarly transformative aspirations, may serve to counterpoint certain assumptions about the progressive possibilities that emerge from reckoning with inspirited matter.

Sensory Geology

The Soul of Things is a singular document, yet as cases go, that of the Dentons is not atypical; the synthesis of geology, left Utopianism, and

Spiritualism that marks their work was more than a century old by the time they began. Geology helped shape the Modern Spiritualist movement from its outset. Emmanuel Swedenborg, the eighteenth-century Swedish philosopher and mystic who inspired much Anglo-American Spiritualist thought, began his career as a geologist, and that knowledge filtered down through the writing of the “Poughkeepsie seer” Andrew Jackson Davis, widely recognized as the father of Modern Spiritualism. For Davis, the history of the earth served to illustrate that “matter contains within itself an eternal Law of progressive activity” corresponding to the development of the human spirit. Geology held a distinctive place in the scientific unfolding of this spiritual truth:

So useful have been the discoveries in the geological department, that they have contributed to promote liberal views and speculations, and have greatly dispersed the darkness that has so long concealed the origin and primitive history of our earth. Besides, geology has led to many useful classifications, both in the mineralogical and zoological developments, insomuch that the true basis of the latter sciences appear to have been discovered. And until these classifications were made, and the connection between one science and the other was discovered, the mind could not observe the adaptation of one composition to another, nor could it see the relation harmoniously existing between the elements of all sciences and of the world. (Davis 1847, 223)

Geology stood, in effect, at the foundation of Harmonialist knowledge, at once illustrating and making possible the progression of knowledge about the material world to which humanity’s spiritual progression would correspond.

William Denton was likewise invested in geology’s capacity to “disperse the darkness,” not least as a lever for displacing the oppressive weight of Christian tradition. Born in the north of England and largely self-educated, William Denton emigrated to the United States in 1848, after his habit of delivering lectures fiercely critical of the established Church and his interest in unorthodox fields of investigation, like mesmerism, made it impossible for him to retain employment in his native land. He settled in Ohio, where he began following the writing of Joseph Buchanan, the inventor of psychometry, and discovered that his sister, Annie Denton Cridge, seemed to possess strong psychometric ability. His work at the Cincinnati-based phonetic newspaper,

The Type of the Times, brought him into contact with Elizabeth M. Foote, a freethinking feminist who was employed there as a typesetter. The two married and moved to Massachusetts, where William set up shop as a lecturer and publisher and Elizabeth explored her own developing psychometric abilities, which she used to assist her husband in his research (see Powell 1870). While many of his lectures, books, and pamphlets treated questions of religious orthodoxy, Spiritualist belief, and progressive politics, William (referred to within the movement as Professor Denton) maintained both a public identity and a research practice as a geologist; when he died in 1883, he was employed as such on an Australian exploratory voyage to New Guinea. Three of his five children—his sons Sherman and Willie and daughter Carrie—followed him into this profession. Sherman, who was said to have inherited his mother’s psychometric abilities, also joined the family collaboration in *The Soul of Things* beginning with the second volume.

Like Davis, William Denton insisted on the social and spiritual significance of natural law, on the unity of matter and spirit. “Progress,” he declared in his geological lecture series, *Our Planet, Its Past and Future*, “is the law of our globe, as geology abundantly testifies” (Denton 1869, 296). He maintained that the material universe is self-regulating—not the result of intelligent design, but of an intelligence intrinsic to matter as such. His engagement with geology was emphatically non-Christian; disinclined to the Judeo-Christian God (whom he described in an 1872 lecture as lying, ignorant, and untrustworthy), he had no patience for those who sought to reconcile biblical time frames with new geological discoveries. He insisted, rather, that the science revealed the fallibility, partiality, and human authorship of the Bible (Denton 1872, 1874a). Instead of trying to Christianize the geological past, William Denton used that past, detailed in *Our Planet*, to speculate on the deep future. Reading the rock record, he foresaw the evolution of a golden age, facilitated by the disappearance of such troubles as earthquakes and mosquitoes (which the planet would eventually outgrow), by the human invention of environmentally safe artificial climates enabling more effective agriculture and better dispersal of the population, and by the cosmic healing of the lasting scars left by the practices of slavery and idolatry. *Our Planet* positions the material world as both a model for and a source of the predicted perfection of the human; though the self-regenerating spirit of Man set him apart from the material, Man’s eventual triumph depends on a recognition and facilitation of ecological interdependence.

Neither psychometry nor Spiritualism is directly referenced in *Our Planet*, though the latter is briefly hinted at near its end. Both systems, however, are extensively detailed in the first volume of *The Soul of Things*, published six years prior to *Our Planet*.⁴ Psychometry is based on a belief that physical residues of past experience, thought, and sensation accrue on objects over time, congealing by means of what the Dentons term *radiant force*, an energy that suffuses and connects all matter. Mediums sensitive to these residues—*psychometers*, meaning mind- or soul-measurers—can “read” them and report their content. The “soul” invoked in *The Soul of Things* (whose title is drawn from Wordsworth) is hence not an aspect of mind, spirit, or character, but an energetic sedimentation of human as well as nonhuman sensation—visual, sonic, and affective data etching histories of experience across deep time.⁵ The Dentons’ belief that psychometry would play a part in the perfection of humanity was based on the way this capacity turned the material world into a mass-surveillance system: the ability to access the “record” written in radiant force uncovered a planetary panopticism continually demanding human self-regulation and consequent improvement. Thanks to psychometry, the whole world really *is* watching.

The surveillance effect of radiant force was predicted in Joseph Buchanan’s early writings on the subject, which Denton first encountered in *Buchanan’s Journal of Man*. Buchanan conducted a series of experiments with “impressible persons,” asserting that they could detect the register of human character upon inanimate objects touched by the original subject. In Buchanan’s thinking, it was only human thought and emotion that left psychometric residues, though the ability to access a deep history of such residues, he contended, would place psychology and geology on equal footing; the two fields would walk “hand in hand” as they unfolded the history of the earth and its inhabitants for the purpose of human “moral and intellectual growth” (Buchanan 1885, 73, 88).⁶

The Dentons, however, erased Buchanan’s distinction between human and nonhuman feeling. Instead, they proposed a pansensory understanding of all objects, even “what we call insensible matter” (1863, 50). Matter, they suggested, possessed not only a certain intrinsic intelligence, but also a certain sensibility, which could be accessed as a form of geological evidence, a sensual extension of the “rock record.” The process of psychometric channeling differed from Spiritualist mediumship in two ways. While Spiritualists accessed only human spirits, usually those of the dead, which continued to exist in the

present, psychometers brought past experience, human and nonhuman, back to life, as it were. Second, psychometers were said to remain in conscious control during their contact with the residuum of past experience. Elizabeth explains this as a difference between “active” and “passive” channeling, the latter being the mode employed by spirit or trance mediums, who (as the latter name suggests) were usually unconscious during channeling, wholly overtaken by the consciousness of the channeled spirit. In both cases, mediumship was considered a feminine capacity, though it was not reserved for female bodies alone.⁷ The ability to receive transmissions from other realms, whether those conveyed the subsensible records etched in radiant force or voices from the spirit world, implied a deeply receptive physical and emotional composition—a receptivity modeled on the “impressible” sentimental subject. The sentimental subject, typically white and educated, was already deeply attuned to the emotional transmissions of others, situated outside the partition of the sensible of a mercantile, hyper-rationalist world. Such transmissions, sentimentalists argued, were all the more valuable for their capacity to convey deeper moral truths. Spirit mediums and psychometers simply intensified this capacity, expanding the realms from which such subsensible truths were experienced, by virtue of an amplified physical predisposition to affective and sensory porosity. (Indeed, Buchanan [1885, 19] specifies that those most likely to develop psychometric sensitivity are those possessing “mental cultivation and refinement, acute sensibility, delicacy of constitution, a nervo-sanguineous temperament, and a general predominance of the moral and intellectual organs.”) The valuation of feminine sensibility as a regulatory and reparative force pointed to a gendered division in the form of the human: apart from (and alongside) the bounded Cartesian figure of Man—against which most antihumanist critique launches itself—a porous, typically white, feminized figure emerged as the model for and archivist of the emotional sensitivity that humanized the human.⁸

Importantly, though, the whiteness of the feminized sentimental subject was not merely a representational bias in middle-class sentimental culture. Rather, as Kyla Schuller (2012) emphasizes, it was understood as a material quality, an aspect of the physical body. White feminine bodies, seen as more refined, were held to be more sensitive, inclined to what Buchanan (1885, 70) termed the “sympathetic perception of character,” which enhanced the psychometer’s perception past that of “simple clairvoyance” (70) and believed, as well, to be more capable of a prop-

erly selective porosity, balanced by the “cultivation and refinement” that Buchanan he also stresses (19). In this sense, psychometric self-improvement played a part in the recovery of information designed to improve all humanity. Rather than being overtaken by transmissions from another realm, psychometers could learn to regulate their impressibility, to produce more accurate and nuanced “readings.”

Most of the readings presented in *The Soul of Things* are given as physically and affectively distanced descriptions of scenes etched in the object’s memory—they are seen, that is, but not deeply felt. Each case study hews to the empirical method of stratigraphy: first closely descriptive, and then carefully correlative. Handed a piece of anthracite coal from Pennsylvania, Elizabeth reports:

“I see a shallow stream of water that looks like a kind of bayou. A dense vapour hangs over it, that is difficult to penetrate. I seem to be in a boggy place, where there is a great deal of vegetable matter beneath me, not floating on the water, but the water is all through it, so that it is soft and spongy. I should think there are two or three hundred feet of vegetable matter beneath my feet.” (Denton and Denton 1863, 126)

The coal example corresponds to the form followed by all the experiments contained in the study. The nature of the specimen, unknown to the psychometer, is identified in writing; her verbal account of the psychometric encounter is recorded directly; finally, William contextualizes and interprets the report, explaining how it corresponds to known and, in some cases, not-yet-known geological facts. In this instance, William comments, “such examinations have given me a more vivid and, at the same time, what seems to be a more correct idea of the Carboniferous era than I ever had, before investigating the subject psychometrically” (126).

The psychometric version of “reading the rock record” is no less laden with moral implications than ordinary empiricist geology: it, too, is devoted toward “improvement,” not only of the reader-interpreter but of the species as a whole. This clarity of purpose wavers, however, as the mode of reading varies in intensity and closeness over the course of the text. The Dentons point out that psychometric data can be gathered both visually and corporeally, via “sensing” as well as “seeing”; though some psychometers possess only one or the other capacity, most psychometric contact, they affirm, involves a degree of both.

Sensing involves an intuitive capacity that enables the psychometer to read past surfaces, penetrating the depths of a scene, so that when presented with a piece of wood taken from a table in the House of Representatives, Elizabeth exclaims at the hypocrisy of the men gathered around it. At the same time, the object read sensorily effectively penetrates the body of the psychometer, which mingles with the object and its sensations. This mingling can escalate to the point that William describes as the “complete identification . . . of the psychometer with the thing psychometrized, or the animal with whose influence it is imbued” (Denton and Denton 1863, 55).⁹ In a section dubbed “The Autobiography of a Boulder,” for instance, Elizabeth narrates, in first person, the sensations of a rock, beginning with its surfacing: “‘Mercy! What a whirl things are in! . . . This is the strangest feeling I ever had . . . I am sent up whirling in a torrent of water, mud and rocks; not sent out, but it is puff, puff, whirl, whirl, all of us flying round together’” (115). The account progresses through the boulder’s eventual glacier-borne drift across the globe, during which she remarks on the disorienting, uneven slowness of the movement and, shivering, draws her seat up to the stove; it finally comes to rest on the side of a mountain—at which point, Elizabeth is physically too exhausted to continue, and breaks off contact. William, according to form, uses the boulder’s autobiography to explicate the geological history of Wisconsin, where the rock specimen is from, and goes on to explain how Elizabeth’s account gives credence to a pet theory he is forming about the development of lead in the region.

This version of being as earth complicates the orderly work of correlation by emphasizing the waywardness of sensation in an interconnected material world. The transfer of sedimented sensation is not something limited to contact between objects and human sensitives; nonhuman objects transpose sensations to one another as well. The boulder, after becoming frozen into a vast sheet of ice, reports, “my connection with the ice seems to give me a connection with all the country round, so that now I can see for many miles” (Denton and Denton 1863, 117). Transsubjectal exchanges also bridge time and space, as evidenced in the conflicted testimony given by Elizabeth in response to another meteorite fragment. Initially, she states, “I am a very large—a monstrous beast . . . My proportions are huge,” before reverting to the expected experience of being “a great rock . . . flying, going, going” (75). William deduces that the mixed report is the result

of specimen miscegenation: the piece of meteorite Elizabeth held had previously been wrapped up in a bag along with a mastodon tooth, and “had apparently imbibed considerable of its influence” (76). The ability of objects to “influence” one another complicates the understanding of the material world put forth in William’s introduction to *The Soul of Things*. Each object in William’s theory possesses its own sensory history, inscribed by radiant force and sedimented in linear time. Objects, that is, are understood as individuals, like the human spirits cherished and perpetuated in Spiritualism’s hyperindividualist theology, and radiant force builds upon itself like geological strata. But objects that influence one another are more difficult to put in place; their conglomerated layers of sensation tell a different story. The messiness, or mesh-iness, of the cases in which the discrete identity of objects slides into the sensory networking of matter results in a picture of the material world as weirdly and unpredictably imbricated. Elizabeth’s intimacy with the boulder narrates the uncomfortable experience of the human subject as it becomes aware of this intermeshing. Her contact with the boulder’s sense memory is both exhaustive (condensing millions of years into the experience of an hour or so) and exhausting, as being-boulder wears her out.

William’s description of sensory psychometry as complete identification does not quite match the psychometers’ narratives; the accounts they produce from such experiences outline something closer to an affective and sensory mingling or embodied duality. Elizabeth speaks, mostly, as the rock, living its sensations and movements, even as she retains a degree of physical control, managing to pull her chair closer to the fire to counter the glacial cold; she affirms her conscious presence throughout the encounter, translating lithic sensation into human language and correlating its perceptions with her own experience (she observes of the miles-wide glacier, “‘How insignificant a tree or a house would be in its pathway!’” [Denton and Denton 1863, 117]). Nevertheless, it remains difficult to know precisely where the rock ends and Elizabeth begins—whether, for instance, the “strange feeling of passiveness” (116) she describes is the rock’s or her own. One might deduce that to the rock, this “feeling of passiveness” is *not* strange: then again, the experience of surfacing is as singular to the rock as it is to Elizabeth, so perhaps it is.

The disorientation and estrangement that marks this account recurs in numerous other cases of sensory reading. After contact with the

mastodon tooth, Elizabeth reports with satisfaction on the sweet succulence of a plant she is eating; yet when asked if the taste is savory in human terms, she makes a face and pronounces it “‘sickish’” and unpleasant. Upon contact with a piece of whalebone, she finds herself convulsed by the “‘slimy’” feel of its/her mouth. Nor does the disorientation that results from these moments of sensory estrangement dissipate immediately after contact with the object is broken off. Traveling with a glacier leaves Elizabeth tired out and shivering. Her response to the flowing lava enlivened by contact with a volcanic fragment is so strong that, as William remarks, “the feeling of terror, produced by the sight, did not entirely pass off for an hour” (Denton and Denton 1863, 38–39). A similar panic is produced by a fragment of brick from a building destroyed by fire; she describes the burning around her and exclaims “‘I feel like jumping down.’” (Here again, it isn’t clear whose feelings are being presented, the object’s or the psychometer’s; the lava would not be terrified by fieriness, but the brick might well.) Annie Denton Cridge is likewise “‘terribly’” affected, after contact with a piece of a meteorite, by the sensation of traveling headlong toward a moon, and breaks off in a panic prior to impact (74).

The intensified responses of the psychometers in these cases index a certain recalcitrance on the part of the object residuum, something in excess of its empirical instrumentalization: a shift similar to the distinction Heidegger invokes between an *object* and a *thing*, where the former lends itself to human intentions whereas the latter pushes back, or, as Robin Bernstein (2009, 69) explains, “asserts itself within a field of matter.” If we return to the comparison Heringman makes between stratigraphic correlation and moral education, we might deem these cases moral failures—improperly distanced readings in which immersion in sensation defeats the ideal of orderly explication. In this sense, they recollect Bennett’s anti-instrumentalist exhortation to a sensory attentiveness to things.¹⁰ Yet the difficulty of the sensory cases in *The Soul of Things* points us toward the question of where such “reading” takes place. The experience Bennett frames as “living as earth” seeks to move beyond the framework of imaginative identification toward an ontological intervention in the status of the perceiving body. What is striking about the examples in *The Soul of Things* is their resemblance to the cognitive and corporeal (though not the affective) parameters of Bennett’s speculations on onto-attentiveness. In sensory psychometry, a certain pushback takes place in the medium’s body, so that even as

psychometric geology instrumentalizes its specimens, the process of doing so also briefly *things* the human body, making it conscious of sensations that cannot be easily reagggregated into what it means to be a subject, a person, or even alive.

Now I am not, to be clear, suggesting that thing channeling makes the body into the things channeled: Elizabeth, as the boulder, is not actually turning to stone. Yet in channeling the record of the rock's experience, she is confronted with the experience of being rock-like, of being radically other than human. Experiencing this difference within her body foregrounds what she has in common with the object: their mutual status as sensory matter. In effect, she too becomes conscious of her body as a thing. This sort of "thinging" is distinct from the "thingification" that Aimé Césaire (2001, 42) equates with colonization, since there is no change in legal or economic condition; Elizabeth's body is not turned into a commodity as it pulls away from the human. Nor does it quite approximate the carnal body, the body reduced to the fleshly or animal sensations often associated with "mere" bodily existence, insofar as the carnal tends to find itself again via familiar (even if debased) understandings of human or mammalian sexuality. In *The Soul of Things*, though, nothing familiar offers itself to orient the experience of physically coinciding with inanimate matter and extinct creatures. Hence as the channeled thing, in its radical difference, asserts itself psychometrically, the medium's body is forced on some level to recognize itself as that "field of matter," to become aware of what it has in common with the thing, as material object. That the inanimate or postanimate objects being channeled are enlivened or inspirited does not seem to quell the disturbing effect of becoming conscious of the body's status as matter.

From the perspective of the empirical inquiry in which the Den-ton's are involved, this subset of sensory accounts operates as noise, an excess that can't be contained within the circuits of communication and analysis that the study has mapped out. The smooth progress from observation and description to correlation in most of the case studies is disrupted by the overcloseness of sensory reading, as rituals of description fail to keep the object at a sufficient distance. (Questions of belief and veracity are, therefore, not central concerns here: whether the psychometers experience, hallucinate, imagine, or fake the sensations they narrate, these descriptions of channeling work to generate the sort of experience they describe; there does not need to have been an

actual glacier-borne boulder, or even an actual Elizabeth, to be able to read the thinging of a human body out of these accounts.) In this sense, these intimate object encounters approach Timothy Morton's model of queer ecology. For Morton (2010, 278), the task of queer ecology is to unwork organicist models of nature and their pretense that interconnectedness equals "fitting"—a fantasy that serves to hide the gaps within the "sprawling, tangled, queer mesh" of sensate matter. The grand narrative that William Denton uses geology to build—the story of slow, steady, and irrevocable progress toward a materially and spiritually perfected world—reflects the fantasy of "fitting" as it envisions the natural world as a self-regulating, harmonious whole, corresponding to the condition of the human spirit. But the overclose cases in *The Soul of Things* don't fit the fitting fantasy; they interrupt, without quite negating, the relentless drive toward human perfection to dramatize the periodic difficulty of human persistence, of persisting as human.

If there is anything queer about such encounters, then, it is not their transgressive or forbidden character, but their intensity and their defamiliarizing effect. Such intensities are usually imagined, in recent queer and eco-theory, in an affectively and erotically positive register. Although Bennett recollects the violence and explosiveness of the geological, and Morton (2010, 180) notes that queer ecology must also visualize "the unbeautiful, the uncold, the 'lame,' the unpleasant," their greater emphases on "shimmering" and "enchantment," on "pleasure" and "enjoyment" index an inclination to privilege desire and delight in depictions that highlight the "common materiality of all that is" (Bennett 2010, 122). Those emphases correspond to a common queer-theoretical emphasis on pleasure as a world-making technology, following Foucault's (1997, 137) insistence on cultivating our "susceptibility to pleasure" as a means of developing "a manner of being that is still improbable."

The Dentons, however, confront us with a set of sensations rather less pleasurable, and a series of responses rather less utopian. The version of becoming-geological presented in *The Soul of Things* has little in common with the pleasurablely generative creativity linked to reparative or world-making responses. Yet neither does the abjectness of the inhuman interval become a mode of queerly transformative unpleasure leading to self-dissolution, a geoaffective transposition of antisocial theory. The awkward intervals that result when a body becomes (partly) unmoored from the human are insecure and undirected, very

little like world making—queer, geological, or otherwise. In marked contrast to the largely positive inflection of transmateriality, or “liv[ing] as earth,” in contemporary criticism (Bennett 2010, 111), the unpleasantness arising from psychometric overcloseness to the nonhuman in *The Soul of Things* has an opposite effect: when objects come too close, when the “mesh” of matter feels too messy, the psychometers expend considerable energy trying to get back to a model of humanity marked by cognition and boundedness. Even amid their immersions in nonhuman sensation, they struggle to interpret, not simply to describe, the experiences, speculating, for instance, that the fragments causing otherworldly sensations “must be meteoric” (Denton and Denton 1863, 77). Establishing themselves as thinking, rather than merely sensing, beings, Elizabeth and the other psychometers emphasize the “cultivation” said to be the mediumistic ideal. The biopolitics of cultivation are underscored as well, as the mediums’ investment in maintaining a sense of themselves becomes structured specifically around racial difference. In the first volume of *The Soul of Things*, Elizabeth is given a fragment of ancient pottery found on Starved Rock in Illinois, so named, William reports, because of “a legend which states that the remnant of an Indian tribe was starved to death upon it, being surrounded by their enemies” (114). She proceeds to channel a human consciousness that seems, at first, likely to be a member of that legendary tribe, and who is hiding from a band of “shout[ing] and whoop[ing]” Indians; after they pass away, though, she remarks: “I have come to the conclusion that they were not after me [the person whose consciousness she is channeling]. I seem to have too much calm, steady thought for an Indian” (114). (William then speculates that the unknown consciousness must have been that of a pioneering white “explorer,” implicitly allying it to the psychometric investigators.) Elizabeth’s casual demotion of the Indian to subhuman status—like the rocks and fossils she channels, “Indians” are said to be capable of sensation but not sensibility—underscores the alignment of cultivation with whiteness.¹¹

By emphasizing these examples, I may risk stalling consideration of the Dentons’ enchanted geology at that familiar point of ambivalence: kinda subversive/kinda hegemonic, or in the latter case, we might say, kinda queer/kinda racist. That accounting only qualifies as ambivalent, though, if we assume a parallel opposition between the terms—assume, that is, that “queer” is by definition non- or anti-hegemonic. From that perspective, we might decide that the cases in *The Soul of*

Things failed at the project of geoqueerness—when faced with the opportunity to queer their relation to the (non)human world, the investigators fled back into the security of a rationalist and racially hierarchized anthropo-normativity. Yet such an exceptionalist understanding of queerness as always on the side of resistance, subversion, or undoing overlooks the conditions that produce any given configuration thereof. In this case, the “queer” capacity possessed by the mediums—their radically intensified and expansive sensitivity—is itself not inherently incompatible with white supremacy, insofar as the hyper-receptivity or porousness that permits such queer comminglings is, as we have seen, understood to be predicated on embodied whiteness. The updating in the contemporary context of such corporeal porosity under the sign of neurodiversity, or chemical sensitivity, or elemental sympathy, could be taken as a sign that we’ve moved beyond the clumsiness of racialized biology in thinking human porosity—though since so many of these conditions are persistently figured in and through white bodies, there may remain cause to wonder.

The surfacing, in *The Soul of Things*, of an imbrication of receptivity, femininity, and whiteness as a means of accessing the nonhuman is relevant here partly because the matter of whiteness has faded into the background of contemporary geological critical optics even though geology has also served, historically, as a technology supporting the production of racial hierarchy. Yet the example also underscores the necessity of considering historically specific understandings of materiality, including the materiality of bodily qualities, as part of the work of the nonhuman turn. To say this is not simply to warn against the risk of reproducing false ideas about race and gender from the past. Rather, the point of historicizing materiality, and the range of responses thereto, would ultimately be to question our own assumptions about what qualities count as “material,” what the purpose of transmateriality or transobjectivity might be, why we have come to equate vibrancy and activity with agency, and what we might do when things don’t work out that way.¹²

The emphasis in *The Soul of Things* on the awkwardness, even nausea, of the necessity of encountering the self otherwise from time to time emphasizes the contingency of contemporary critical embraces of pleasure, love, and sympathy as reparative or transformative principles—ideals that seem to falter whenever the positivity of

the affective channels they rely on is disrupted. Affirmative accounts of transmateriality may, from this perspective, be a false lure, insofar as what Bennett (2012a, 258) describes as “inorganic sympathy,” the ability to respond to the “call of things” (242), may not be enough to overcome certain kinds of bodily or psychic habituation, the desire for sameness or categorical undisruptedness. Instead, it may be in finding new ways to animate the inertness, even the deadness, of the human that the ethical potential of the nonhuman turn will ultimately lie.

Postscript: On Being in Common

As I noted near the outset of this essay, contemporary critical appeals to geology as a reparative force, and to the ethical necessity of “highlighting the common materiality of all that is” (Bennett 2010, 122), are made at a distinctive historical juncture—a moment of realizing the deep extent and likely catastrophic effects of anthropogenic climate change. In light of the urgency that surrounds what Ellsworth and Cruse term the “geologic *now*,” the point of drawing connections between the Dentons’ work and this later appeal to the nonsecular power of geology may well be unclear. There is, after all, a deep division, ideological as well as historical, between recent critical invocations of geology as a reparative force in the face of climate change and William Denton’s dream of a scientifically ordained golden age. And while Denton did, especially in *Our Planet*, cite geology as a force capable of repairing anthropogenic damage (the scarring left by “slavery and idolatry”) to the planet, it can’t really be said that *The Soul of Things* offers anything like an alternative model of geological being-in-common with the earth, an improved relation that we might adapt in this time of climate crisis. Yet this is precisely my point: there seems to be no necessary connection between experiences of transmateriality and desired social transformation. The unpleasantness of these earlier confrontations with the thingy materiality of the body might instead point us to the limits of a vibrant materialist imaginary in affirming transmateriality as a means of confronting climate crisis, since the latter confrontation isn’t ultimately about “the earth” as a whole but about *us*, about a narcissistic desire to remain human and to remain here, to remain, as Bennett (2012b) names us, human “Earthlings.” Thinking geologically, as Chakrabarty and others argue, is an absolute necessity

if this is what we want, but *feeling* geologically may have little effect. The psychometers' distaste for the feeling of things geological, that is, underscores their, and our, desire to persist not simply as forms of matter but forms of life, of human life—to recollect the finitude that is finally ours not as matter, but as species, to confront.

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Notes

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- 1 See Rudwick (2005) for an account of the relationship between scientific and political developments in this period.
- 2 See also Cohen (2013), Morton (2010, 2013), and Bogost (2012, 113–34). For an analysis of the contradictions of the secular as the assumed foundation of cultural criticism, see Pecora (2006).
- 3 Morton is drawing here on Taussig (1991).
- 4 The first volume, on which this essay chiefly focuses, is the only one to be coauthored by Elizabeth. The second volume, published in 1873, emphasizes archaeological over geological exploration, and it also introduces new methodologies, specifically the practice of psychometric reading without any contact with a specimen; the psychometers collaborating on this volume, especially Sherman, William and Elizabeth's eldest son, are said to be able simply to look at a map or concentrate on a particular location and "travel" in time and space to scenes recorded in that location. In the third volume, published in 1874, the seers detail the surfaces of other planets and the sun using this method.
- 5 The Dentons were divided on the relationship between psychometric channeling and Spiritualist beliefs. Although the everlasting residue of sensations accessed by the former was a feature of this world, a fact of nature, William maintained that such wonders naturally excited curiosity about the spirit realms. Elizabeth, however, observed that she had never had any contact with living spirits in her work, and remained unsure whether direct communication with the dead was possible (though she conceded the question was an interesting one). In his 1877 volume *What Was He? Jesus in the Light of the Nineteenth Century*, William credited Elizabeth with significant research assistance via psychometric investiga-

- tion, yet added, “she is not responsible for any ideas in this volume regarding the spirits of departed human beings,” suggesting that she continued to maintain these doubts (Denton 1877, 3).
- 6 See Zuck (2012) for another account of the geological use of psychometry—in this case, to uncover deposits of crude oil.
 - 7 Ann Braude (1989, 84–115) has argued that the “passivity” of the female trance medium positioned mediumship as a strategic redeployment of the passivity of True Womanhood. The performance of channeling while unconscious served, Braude suggests, to render the audacious public behavior of female trance mediums at least marginally acceptable, while also “freeing” both the mediums and their admirers from the usual conventions governing social interactions between the sexes. Moreover, spirit mediumship was a calling, not a choice; spirit mediums affirmed that the spirits “chose” them for the task, and they could not resist the moral imperative to channel their messages. More recent scholarship, informed by queer theory, has complicated understandings of the sexual politics of mediumship. See especially McGarry (2008) and Tromp (2006).
 - 8 I discuss the form of the human based on affect—specifically, on grief—more extensively in Luciano (2007).
 - 9 Nearly all of these cases occur in the first volume of the study.
 - 10 In a recent exploration of the condition of hoarders, Bennett (2012a) hypothesizes that the condition, currently classed as mental illness, might rather be understood as a corporeal and neurological variation that renders the human subject more sensitive to the “call of things”—an experience that causes the subject to recognize herself as a thing, as matter responding to the ingression of other matter. Hoarding, in this sense, becomes a form of thing channeling.
 - 11 Racial hierarchies of cognition are more explicitly outlined in the second volume of *The Soul of Things*, whose archeological explorations repeatedly emphasize the distance of the (invariably dark-skinned) primitives observed in the study from “modern” customs and mores. The third volume extends these hierarchies across the universe—or, at least, to Mars, whose surface is extensively described by Sherman, Elizabeth, and Annie, who together identify several different races, including two dark-skinned ones that they describe as “inferior” and one highly evolved, electrically charged race living in a socialist-feminist utopia, whose “complexion is of a purer white than is that of the Anglo-Saxon race” (Denton 1874b, 241). The last volume especially underscores what Christine Ferguson (2012) has identified as Spiritualism’s increasing investment in racial eugenicism in the late nineteenth century.
 - 12 Mel Chen (2012) likewise questions the privileging of liveliness in new materialism and the consequent devaluation of deadness.

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