POLITICAL THEOLOGY OF WASTE

TOWARD A THEO-GARBOLOGICAL ETHICS IN THE ANTHROPOCENE

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ABSTRACT

POLITICAL THEOLOGY OF WASTE

TOWARD A THEO-GARBOLOGICAL ETHICS IN THE ANTHROPOCENE

Shinyoung Kim

This dissertation proposes theo-garbology as a new theological-ethical response to the discarded beings of the Anthropocene—more specifically, the Wasteocene. To this end, I analyze waste not as mere physical residue but as a multidimensional phenomenon operating through spatiotemporal transformation, metaphorical structure, a power-legitimating political apparatus, and spectral presence. By examining waste in conversation with waste studies, memory studies, and political ecology, I phenomenologically investigate how the boundary-drawing that distinguishes purity from pollution systematically excludes and erases specific beings and places. On the basis of this phenomenological understanding of waste, I redefine waste as a concrete material that existing theology has long refused to face—and as an apocalyptic agent that haunts our time and space, exposing the crisis we have wrought.

This phenomenological analysis of waste is linked to my critical examination of the doctrine of *creatio ex nihilo* and an escapist fundamentalist eschatology—both of which have functioned as logics of domination and control. In particular, conservative eschatological frameworks that foreground dispensational premillennialism and pretribulational rapture are critiqued for degrading the earth as transient and disposable, and for reducing specific entities, including humans, more-than-humans, and even ecosystems, to waste and sacrifice zones—thereby eroding ethical responsibility in the

face of ecological crisis and legitimizing a posture of passive escapism. Through South Korean contextual cases—including the mass culling of livestock during the foot-and-mouth disease outbreak and the history of South Korean conservative Protestantism's support for state-led nuclear energy policy—I illuminate how the theological logic of domination and nullification, which is rooted in the doctrine of *creatio ex nihilo*, has been translated into an apparatus within concrete ecological and political circumstances to conceal, distort, and suppress violence, sacrifice, and injustice.

Drawing on an ecological understanding of apocalypse, I further argue that waste functions not as passive residue but as an apocalyptic agent that exposes the contradictions of capitalism and anthropocentrism, bearing witness to the crisis of our time—and it is this age in which we live that I name the Apocalypcene. To overcome this destructive logic of domination and escapist eschatology, I bring waste studies, process theology, political theology, ecotheologies, and new materialism into conversation, proposing Catherine Keller's *creatio ex profundis* as a theological alternative. Grounded in a *tehomophilic* perspective that receives the chaos and the deep (*tehom*) not as evil to be controlled or eliminated but as the generative womb of creation, I develop an ethical praxis of mourning with, staying with, and caring for discarded beings—rather than casting them aside.

In conclusion, I propose a new pneumatology articulated as the Spirit of Compost—a process-relational Spirit of care whose two expressions are staying-with and creative transformation. Through this pneumatology, waste is recast not as an object of elimination but as the fertile ground of new theological and ecological possibilities, as I

seek a path toward an open apocalypse (understood not as destruction but as radical disclosure and transformation) and planetary symbiosis—affirming the entanglement and interdependence of all beings.

INTRODUCTION

A. THE AGE OF WASTE: A CALL FOR A THEOLOGICAL RESPONSE

We throw things away, but really nothing goes away. The moment we discard something, it vanishes from sight—yet waste does not disappear. It persists, accumulates, and returns: as carbon dioxide that lingers in the atmosphere for a thousand years, as radioactive fuel that demands isolation for a million years, as microplastics found at the summit of Everest and on the floor of the Mariana Trench. In other words, it haunts. This dissertation asks why theology has not yet reckoned with this haunting. According to German historian Roman Köster, most waste in the pre-modern era was predominantly organic; with the exception of metal or ceramic objects, it eventually returned to the earth as compost.[1] In the modern mass consumer societies, however, the material nature of waste has undergone a significant transformation. It has not only become more diverse and complex but also represents a radical shift toward permanent, toxic hybrids that resist natural degradation. In particular, the proliferation of chemical substances and their unpredictable interactions have reached a level that surpasses human control and comprehension.

Around 2010, two pivotal events reverberated through South Korean society, within the span of just six months, leaving a lasting impact on my own perspective. The first was the mass culling of livestock during the 2010 foot-and-mouth disease (FMD) outbreak, which began in November 2010; the second was the Great East Japan

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[1] Roman Köster, *Müll: Eine schmutzige Geschichte der Menschheit* [*Waste: A Dirty History of Humanity*] (München: C. H. Beck, 2023), 15.

Earthquake, the resulting tsunami, and the subsequent Fukushima nuclear disaster in March 2011. Although the nuclear catastrophe occurred in Japan, Fukushima's proximate location—approximately 770 miles from Seoul and 650 miles from Busan—was close enough to catalyze immediate public alarm. In the aftermath, the Korean Government tightened quarantine protocols for agricultural and marine products, and water supply infrastructures were fitted with protective covers to intercept airborne radioactive particles. South Korea, a peninsula bordered by the sea on three sides, experienced a precipitous decline in seafood demand, driven by public anxieties regarding radioactive contamination of marine products.[2] Meanwhile, vast quantities of tsunami debris drifting across the Pacific served as a visible reminder of the disaster's trans-boundary reach.

The FMD mass culling presented a different, yet equally harrowing, shock. Approximately 3.48 million animals were preemptively slaughtered in the name of "disease control" or "quarantine."[3] Many people watched livestock being buried alive

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[2] For data on shifts in South Korean seafood consumption following the Fukushima disaster, see Dalnim Lee et al., "Factors Associated with the Risk Perception and Purchase Decisions of Fukushima-Related Food in South Korea," *PLOS ONE* 12, no. 11 (2017): e0187655, which found that 64.4% of surveyed Korean adults reported decreased purchasing of Japanese seafood after the accident. Moreover, the impact on seafood trade was not confined to South Korea's domestic market. South Korea formally institutionalized its import restrictions on Japanese seafood through official trade measures that ultimately became the subject of WTO dispute settlement proceedings. The WTO Appellate Body reversed a panel ruling against South Korea's import bans on seafood from Fukushima and surrounding regions, affirming the legitimacy of precautionary trade measures taken in response to the 2011 nuclear disaster. See World Trade Organization, Appellate Body Report, *Korea — Import Bans, and Testing and Certification Requirements for Radionuclides*, WT/DS495/AB/R (April 11, 2019). Furthermore, Japanese food exports to the EU declined by up to 40% in the immediate aftermath of the disaster. See Christian Abele and Kentaro Asai, "Reputation in International Trade: Evidence From the Fukushima Nuclear Disaster," *Review of International Economics* 34, no. 1 (2026): 219–242.

[3] Approximately 3.48 million animals (151,425 cattle, 3,318,299 pigs, 8,071 goats, and 2,728 deer) were buried at 4,583 burial sites. All animals on farms where infected animals were identified were culled to prevent the further spread of foot-and-mouth disease. For further details, see Jong-Hyeon Park et al., "Control of Foot-and-Mouth Disease during 2010–2011 Epidemic, South Korea," *Emerging Infectious Diseases* 19, no. 4 (2013): 655–659.

through the media.[4] Moreover, many mobilized workers suffered from severe psychological trauma, some of whom tragically took their own lives.[5] The hasty burial of livestock carcasses led to dire environmental consequences—pervasive odors and leachate from decomposing bodies that contaminated soil, groundwater, and nearby rivers.[6] Beyond the immediate environmental degradation, the mass culling induced a significant reconfiguration of public consciousness. Although the televised imagery of live burials initially provoked a widespread visceral response, the state's administrative apparatus effectively neutralized this outrage by reframing the mass slaughter a preemptive culling for "disease control." This bureaucratic sanitization functioned to sequester the material reality of death within peripheral burial sites, systematically

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[4] While official quarantine protocols mandated euthanasia prior to burial, the sheer scale of the 2010–2011 outbreak led to the frequent practice of live burials. Animal advocacy groups captured this procedural failure on film, and the footage was subsequently aired by major national broadcasters such as KBS and MBC. These reports were later picked up by international outlets including CNN, TIME, and Voice of America, bringing global attention to the crisis. Although some scenes were mosaic-processed to meet broadcasting standards, the visual depiction of live livestock being transported by dump trucks and pushed into deep pits—accompanied by the unedited, harrowing sounds of the animals—was broadcast to the public. See "South Korea Claiming Upper Hand in Farm Battle Against Foot-and-Mouth Disease," *Voice of America*, January 16, 2011, https://www.voanews.com/a/south-korea-claiming-upper-hand-in-farm-battle-against-foot-and-mouth-disease-113871474/133653.html; Compassion in World Farming, "Live Burial of Pigs Feared to Be Ongoing in the Republic of Korea," 2011, https://www.ciwf.org.uk/news/live-burial-of-pigs-feared-ongoing-in-republic-of-korea/.

[5] The severe psychological toll on mobilized workers is well-documented. During the 2010–2011 FMD crisis, several public officials and workers committed suicide due to Post-Traumatic Stress Disorder (PTSD) and depression. The Seoul Administrative Court later recognized these deaths as occupational injuries, ruling that the "horrific nature of the mass culling process significantly impaired the victims' mental stability" (Seoul Administrative Court, Case No 2013구합52520, November 7, 2013). For a scholarly analysis of this phenomenon, see Yunjeong Joo, Hayoung Cho, and Hyomin Park, "Working Conditions in Culling Livestock and Risk Outsourcing," *Discourse201* 23, no. 3 (2020): 28–30 [in Korean]; Hyomin Park, Myung Sun Chun, and Yunjeong Joo, "Traumatic Stress of Frontline Workers in Culling Livestock Animals in South Korea," *Animals* 10, no. 10 (2020): 1920, https://doi.org/10.3390/ani10101920.

[6] Regarding groundwater quality adjacent to specific burial sites, studies have documented severe contamination. See Man Jae Kwon et al., "Impacts of Leachates from Livestock Carcass Burial and Manure Heap on Groundwater Quality," *PLOS ONE* 12, no. 8 (2017): e0182579, https://doi.org/10.1371/journal.pone.0182579; and Ha Kyung Joung et al., "Nationwide Surveillance for Pathogenic Microorganisms in Groundwater near Carcass Burials Constructed in South Korea in 2010," *International Journal of Environmental Research and Public Health* 10, no. 12 (2013): 7126–7143, https://doi.org/10.3390/ijerph10127126, which detected fecal indicator bacteria including *Clostridium perfringens*—a bacterium whose presence serves as a definitive indicator of fecal contamination from decomposing organic matter—in groundwater near burial sites.

obscuring the nexus between industrial meat consumption and the biological disposal of livestock, thereby institutionalizing a state of public amnesia.

In the ensuing years, even before the aforementioned crises were fully addressed, South Korean society faced further challenges that emerged and intersected both environmental and social spheres: atmospheric pollution from fine dust and the marine proliferation of microplastics. Indeed, long before the COVID-19 pandemic, the South Korean public had already integrated the use of filtered masks into their daily lives during winter and spring to mitigate the risks of hazardous air quality. This atmospheric crisis, significantly exacerbated by transboundary pollutants drifting from China, illustrates that pollution—much like the radioactive discharge from Fukushima—does not respect national boundaries.[7]

Ultimately, the narratives shared above are inextricably linked to the crisis of waste produced by human civilization. The moment we discard something, we act as if it vanishes from sight. This disappearance from our field of vision produces the illusion that waste "goes away." However, waste is no longer simply "discarded matter." Rather, the waste we produce is neither truly managed nor permanently eliminated; instead, it persists and coexists with us in multifaceted forms. Although it has become a presence that permeates the lives of both human and more-than-human beings across time and space, the ways in which waste is entangled with our existence—and the specific

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[7] The transboundary nature of fine dust in Northeast Asia has been a focal point of environmental diplomacy. A significant portion of particulate matter in South Korea is attributed to transboundary transport from China—a vivid example of pollution without borders. See Moon Joon Kim, "The Effects of Transboundary Air Pollution from China on Ambient Air Quality in South Korea," *Heliyon* 5, no. 12 (2019): e02953, https://doi.org/10.1016/j.heliyon.2019.e02953.

modalities of its coexistence—have remained largely obscured from the consciousness of the general public and dominant socio-economic discourses.[8]

I have observed that when theology addresses ecological concerns, it has frequently overlooked two critical dimensions: matter and waste. One might object that since waste is a subset of matter, attention to the latter inherently encompasses the former. The category of waste, however, is fluid and exceeds mere materiality. In contemporary society, subsets of various entities are often relegated to the status of waste —certain animals, certain plants, specific regions, and even certain human beings. For this reason, in this study, I distinguish between matter and waste to clarify the specific theological-political logic of wasting that is often obscured when subsumed under the broader category of matter.

While the term Anthropocene has been widely deployed to characterize the ecological crisis of our age, I argue that environmental historian Marco Armiero's notion of "*Wasteocene*" captures the current crisis more precisely.[9] Whereas the Anthropocene emphasizes the geological impact of human activity, the Wasteocene centers on the structural surpluses generated by modern civilization—including toxic substances, radioactive waste, undesired plants and animals, and excluded beings. As Zygmunt Bauman argues in *Wasted Lives*, modernity produces "human waste" through the same

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[8] Movements such as environmental justice and the toxics movement in the United States have long contested this systemic invisibility. These activists and scholars have critically exposed the deliberate concealment of waste and the socio-environmental disproportionate burden it places on marginalized communities. See Robert D. Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality* (Boulder: Westview Press, 1990); Luke W. Cole and Sheila R. Foster, *From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement* (New York: New York University Press, 2001).

[9] Marco Armiero, *Wasteocene: Stories from the Global Dump* (Cambridge: Cambridge University Press, 2021), 2–3.

logic it applies to material waste: surplus populations and materials that resist integration into productive systems.[10] The concept of the Wasteocene makes explicit that waste is not a mere material residue but a multidimensional phenomenon in which the drawing of power's boundaries, political exclusion, and theological nihilism converge.

Existing theological responses to the ecological crisis, however, have not been radical enough. Many ecotheological discourses remain confined within traditional doctrines, dwelling in abstract speculation without substantively engaging the concrete, material reality of waste. Traditional creation theology, closely linked to an ethics of stewardship, tends to presuppose a hierarchical dualism between humans and nature, while certain eschatological strands foster ecological indifference by relegating the Earth to a transient and disposable entity. In contrast, contextual ecotheologies such as Seoyoung Kim's Christian ecofeminist theology of water and Christiana Zenner's work on water injustice demonstrate the importance of grounding theology in material vulnerability and ecological injustice.[11] Just as these studies insist on the inseparability of water's material and spiritual dimensions to forge new ecotheologies, this dissertation proposes a parallel theological-ethical paradigm attuned to the Wasteocene.

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[10] Zygmunt Bauman, *Wasted Lives: Modernity and Its Outcasts* (Cambridge: Polity, 2004), 69.

[11] Seoyoung Kim, *Towards a Christian Ecofeminist Theology of Water* (PhD diss., University of Manchester, 2023); Christiana Zenner, *Just Water: Theology, Ethics, and Global Water Crises* (Maryknoll: Orbis Books, 2018). Kim foregrounds the interconnection between physical and spiritual meanings of water, while Zenner emphasizes water's material vulnerability, gendered labor burdens, and links to colonial privilege and injustice.

B. PURPOSE OF STUDY

The primary aim of this dissertation is to construct a new theological approach to waste called *theo-garbology*. Synthesizing waste studies, political theology, and process theology, theo-garbology proposes an ethics of "staying with"[12] the discarded beings of the Anthropocene—or more precisely, the Wasteocene. This project extends beyond a mere theological reflection on waste; it is an endeavor to focus on the chaos, surplus, and in a Derridean sense, the spectral reality of waste that the logic of *creatio ex nihilo* has sought to suppress and nullify. *Creatio ex nihilo*—the classical Christian doctrine that God created the world out of nothing, with no pre-existing matter or chaos—has functioned not merely as a metaphysical proposition but as a theological apparatus that legitimizes the erasure of whatever falls outside the boundaries of sovereign order.[13]

The central assumption of this dissertation can be summarized as follows: The traditional doctrine of *creatio ex nihilo* has theologically justified a logic of domination by repressing primordial chaos and the deep into "nothingness" to establish absolute divine sovereignty. Functioning structurally akin to the colonial concept of *Terra Nullius* (nobody's land), this doctrine has served as a political-theological apparatus that treats specific beings, places, and materials as if they were "nothing," thereby excluding and erasing them. Therefore, in this study, I propose an ecotheology for the Wasteocene

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[12] The phrase "staying with" is borrowed from Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2016).

[13] For the historical development of *creatio ex nihilo* and its theological implications, see Chapter Two of this dissertation. For foundational critiques, see Catherine Keller, *Face of the Deep: A Theology of Becoming* (New York: Routledge, 2003); and David Ray Griffin, *Reenchantment without Supernaturalism: A Process Philosophy of Religion* (Ithaca: Cornell University Press, 2001).

grounded in Catherine Keller's *creatio ex profundis* (creation out of the deep) to develop an ethical praxis of mourning with, staying with, and caring for waste.[14]

This theological shift is not a simple theoretical revision; it is a fundamental reconstruction of our ethical relationship with waste, discarded beings, and sacrifice zones. While theo-garbology does not propose a prescriptive set of ethical guidelines for practices such as recycling or zero-waste movements, it seeks to ground an ethical praxis that goes beyond mere technological or behavioral management. Rather than offering policy-oriented solutions, it deconstructs our theological reflection *on* waste to propose new possibilities for theological reflection *through* waste. The definition of waste is neither fixed nor objective. Furthermore, waste is not an entity that vanishes through policy or technological processes—it returns as a hovering presence, a spectral reality. Yet, these ghosts appear not to destroy humankind, but to reveal who we are, what we have wrought, and how we might find ways to connect with others beings.

C. THEOLOGICAL AND METHODOLOGICAL ASSEMBLAGE

1. Process Theology and Relational Ontology

To analyze the multifaceted characteristics of waste and engage them theologically, I draw on a range of methodologies and thinkers across ecotheology, waste studies, and political theology. The ecotheological work of John B. Cobb Jr., one of the

[14] These three ethical postures draw upon distinct theoretical resources taken up in subsequent chapters. *Mourning with* waste appropriates Shelly Rambo's concept of "remaining" in the aftermath of trauma, as developed in *Spirit and Trauma: A Theology of Remaining* (Louisville: Westminster John Knox Press, 2010), and extends it to a theological engagement with discarded matter. *Staying with* waste draws on Donna Haraway's notion of "staying with the trouble" as a practice of response-ability in damaged worlds, developed in *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2016), here reappropriated as an ethical posture toward waste and discarded beings. Caring for waste is grounded in the feminist care ethics of María Puig de la Bellacasa, as developed in *Matters of Care: Speculative Ethics in More Than Human Worlds* (Minneapolis: University of Minnesota Press, 2017), which I extend to the domain of neglected and discarded matter.

foremost process theologians of the twentieth century, provides a pioneering example of theological critique against anthropocentric dualism.[15] Rejecting the Western Christian view of human domination over the more-than-human world, Cobb emphasizes the deep interconnectedness of all life. He argues that the more-than-human world possesses inherent intrinsic value and that human existence itself is fundamentally dependent on the flourishing of the broader ecological community.[16]

Furthermore, David Griffin, a Whiteheadian process theologian and philosopher of religion, critiques the doctrine of *creatio ex nihilo* as philosophically incoherent, biblically unfounded, and theologically detrimental.[17] He argues that this doctrine implies God can unilaterally determine every event, thereby making God morally responsible for the problem of evil. In contrast, process theism posits a limitation on divine omnipotence: God cannot unilaterally prevent evil because every creature possesses its own inherent power of self-determination.

In this dissertation, I adopt a process theological critique to expose the logic of domination embedded within the traditional doctrine of *creatio ex nihilo* and its influence in generating and legitimizing the Wasteocene. I expand Cobb's ecological relationality into a theo-garbological understanding of waste, arguing that waste is not a mere external

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[15] Process theology is a theological movement developed from the process philosophy of Alfred North Whitehead (1861–1947), particularly as articulated in *Process and Reality: An Essay in Cosmology*, ed. David Ray Griffin and Donald W. Sherburne, corrected ed. (New York: Free Press, 1978). Whitehead's metaphysics, known as the philosophy of organism, was systematically developed into Christian theology by John B. Cobb Jr. and David Ray Griffin, among others. For an accessible introduction, see John B. Cobb Jr. and David Ray Griffin, *Process Theology: An Introductory Exposition* (Philadelphia: Westminster Press, 1976); and C. Robert Mesle, *Process Theology: A Basic Introduction* (St. Louis: Chalice Press, 1993).

[16] John Cobb Jr., *Is It Too Late?: A Theology of Ecology* (Beverly Hills: Bruce, 1972), 34–36.

[17] Griffin, *Reenchantment without Supernaturalism*, 137.

byproduct but an integral participant in the web of life. This process-relational perspective serves as the ontological grounding for rethinking the creation narratives in Genesis not as a conquest of nothingness, but as an ongoing negotiation with the messy, indeterminate reality of the deep.[18]

2. *Creatio ex Profundis*

Further anchoring this study is Catherine Keller's theology of *creation ex profundis* (creation out of the deep). Through her exegesis of Genesis 1:2, "darkness was over the face of the deep (*tehom*), and the Spirit of God was hovering over the face of the waters"(ESV), Keller insists on a serious engagement with the elements that traditional theology has repressed by eliding the transition from Genesis 1:1 to 1:3: darkness, the deep, and the materiality existing prior to creation. She critiques the doctrine of *creatio ex nihilo* for implying an ideology of domination. She argues that this doctrine serves not merely as a doctrine, but as an apparatus of dominology that validates a masculine absolute sovereignty that undergirds systems of domination, exploitation, colonization, and patriarchy.[19] For Keller, this Western "dominology" functions as a religious authority that identifies all that is dark, deep, and fluid as loathsome chaos or nothingness to be ignored. Such "*tehomophobia*" operates through fear of the chaotic and uncontrollable dimensions of existence. This fear manifests as a desire to eliminate that which cannot be mastered by sovereign control.[20]

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[18] The concept of "the deep" is drawn from Catherine Keller, *Face of the Deep: A Theology of Becoming* (New York: Routledge, 2003).

[19] Keller, *Face of the Deep*, xvi–xvii, 6, 20.

[20] Keller, *Face of the Deep*, xvi–xviii, 5, 25.

In contrast, Keller's "*tehomophilic*" hermeneutics reimagines creation not as a set of dominating commands but as a relational solicitation. From this perspective, creation is the process of calling forth the infinite potentialities within the deep.[21] This theological turn fundamentally reconfigures the status of waste: if the deep is not an evil to be eliminated but the generative womb of creation, then the discarded beings of contemporary capitalist civilization cannot be simply dismissed. Acknowledging the agency and interconnectedness of matter demands both a theological reconstruction and a radical new ethical approach.

Throughout this theo-garbological study, I deploy the *tehomophilic* perspective not simply as a theoretical backdrop, but as a methodological lens. By resisting the tendency to categorize waste as pollution or anti-creation, I seek to embody an ethics of staying with waste—confronting the toxicity and spectral persistence of modern debris without rushing toward premature solutions or theological closures. This approach provides the ontological grounding for the ethical practices of mourning, staying with, and caring for waste, which I develop in Chapter Three, and further informs the pneumatological vision of the "Spirit of Compost" in Chapter Five. Here, the Spirit is reimagined not as a conqueror of chaos, but as a faithful companion in the messy, generative process of decomposition and becoming.

3. The Spirit of Compost: Traumatic Approach to Waste

Shelly Rambo's theology of trauma serves as a crucial resource for theologically understanding the temporal persistence of waste. In *Spirit and Trauma*, Rambo argues

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[21] Keller, *Face of the Deep*, 194–195, 222.

that trauma is not an event to be overcome, but a persistent reality that "remains."[22] This concept of "remaining" constitutes an intertextual resonance with the ontological characteristics of waste that this study investigates.

For Rambo, trauma is a persistent phenomenon that refuses to end, remaining in the ambiguous middle space in-between space. Similarly, waste in the Wasteocene is not matter that simply disappears; rather, it persists within geological time and space, returning like a ghost. The affinity between these two concepts challenges the notions of complete annihilation or perfect resolution presupposed by the traditional doctrine of *creatio ex nihilo*.

Furthermore, Rambo repositions the Spirit not as a victor but as a witness who remains at the site of suffering, testifying in silence.[23] This resonates with my argument that identifies beings deemed waste as material witnesses—eschatological witnesses—who expose the contradictions of capitalism and anthropocentrism, as crying entities, and as agents. In this dissertation, I suggest that Rambo's ethics of living with wounds converges with my proposed praxis: mourning and staying with waste, accepting discarded beings not as objects of abjection but as integral partners in symbiosis.

4. Hauntology and Spectrality of Waste

In this study, I also employ Jacques Derrida's hauntology as a critical lens through which to interpret the temporality of waste.[24] Focusing on Derrida's emphasis on the

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[22] Shelly Rambo, *Spirit and Trauma: A Theology of Remaining* (Louisville: Westminster John Knox Press, 2010), 15–16.

[23] Rambo, *Spirit and Trauma*, 111–141.

[24] Jacques Derrida, *Specters of Marx: The State of the Debt* (New York and London: Routledge, 1994), 48.

presence of absence—how the past, the unspoken, and the excluded continue to haunt current reality—I analyze how waste persists and exists around us as a spectral reality. I adopt Derrida's proposal that learning to live with ghosts entails an ethical responsibility: not to exorcise them but to offer them hospitality and justice. Following his assertion that living with the dead is the essential possibility of existence, I posit that living with the waste of the past and the unpredictable toxicity of the future is the essential ethical condition of the Wasteocene.

To further deepen this ecological perspective, I engage with Timothy Morton, who expands the concept of the ghost into the realm of ecological awareness. I share Morton's refusal to separate the human from the nonhuman, acknowledging that the distinction between life and non-life is blurred.[25] In line with Morton, I conceptualize ecological beings not as strictly alive or dead but as spectral, neither solidly real nor entirely unreal. In this dissertation, through this ecological awareness, I foster a sense of unconditional solidarity with matter, extending this solidarity to the discarded matter of our civilization.

Finally, I integrate Julia Kristeva's concept of the abject to complement the spectrality of Derrida and Morton. Kristeva defines the abject as that which does not respect borders, positions, and rules, and disturbs identity, system, and order.[26] Recognizing that the abject is neither a completely external object nor fully part of the subject, I apply Morton's reading of Kristeva to my analysis of waste to form the basis

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[25] Timothy Morton, *Humankind: Solidarity with Nonhuman People* (Brooklyn: Verso Books, 2017), 54–56.

[26] Julia Kristeva, *Powers of Horror: An Essay on Abjection,* Translated by Leon S. Roudiez (New York: Columbia University Press, 2024), 1–4.

for my theo-garbological claim that waste is not external matter to be eliminated, but an integral part of our own becoming.

5. New Materialist Approach to Waste

In this study, I demonstrate how the entanglement of waste can be understood through Karen Barad's concept of intra-action. Barad's notion of intra-action posits that distinct entities do not precede their interaction but emerge through their constitutive entanglement.[27] I utilize this concept to effectively reveal the relationship between human beings and the agency of matter, such as radioactive isotopes like Cesium-137.[28] Furthermore, I engage with Stacy Alaimo's concept of trans-corporeality to testify how Barad's entanglement manifests phenomenologically through the concrete pain and toxicity of the body.[29]

Adopting this perspective, my theo-garbological ethics challenges traditional theological anthropology, which views the human body as a closed, sacred vessel separated from its material environment. Then, from the new materialist concept of trans-corporeality, I demonstrate our profound shared vulnerability: we are not autonomous

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[27] Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham: Duke University Press, 2007), 33.

[28] Cesium-137 (Cs-137) is a radioactive isotope produced as a byproduct of nuclear fission, with a physical half-life of approximately thirty years. Because living organisms mistake it for potassium, Cs-137 is readily absorbed by living organisms and accumulates in muscle tissue, where it emits beta particles and gamma radiation that damage cells and increase cancer risk. Its predictable uptake in living tissue makes it a standard scientific indicator of radioactive contamination and biological exposure. Cs-137 was first dispersed globally through atmospheric nuclear weapons testing during the 1950s and 1960s, and was subsequently released in significant quantities during both the 1986 Chernobyl disaster and the 2011 Fukushima Daiichi nuclear accident. It has since been detected in soil, water, marine life, and human bodies across vast geographic distances—a spectral presence that refuses to disappear. For the biological behavior of Cs-137, see International Atomic Energy Agency (IAEA), *Radiological Conditions at the Bikini Atoll: Prospects for Resettlement* (Vienna: IAEA, 1998); or World Health Organization, *Health Effects of the Chernobyl Accident and Special Health Care Programmes* (Geneva: WHO, 2006).

[29] Stacy Alaimo, *Bodily Natures: Science, Environment, and the Material Self* (Bloomington: Indiana University Press, 2010), 3–4, 15–17.

individuals, but porous beings constantly exchanging matter with our environment. Finally, I draw on Jane Bennett's concept of Thing-Power to argue that materials deemed as waste function as quasi-agents with their own independent trajectories and propensities.[30]

6. Compostist Ethics

In this study, I position Donna Haraway's work as an important theoretical resource for constructing a theo-garbological ethics. Drawing on her call in *Staying with the Trouble*, I urge that we become "compostist," acknowledging that we are humus, soil, and earth in the *Chthulucene*—where purity is impossible.[31] I adopt Haraway's concept of becoming-with as central to the relational ontology of theo-garbology. Within this perspective, I posit that beings become who and what they are only in connection with other beings. Utilizing her notion of material-semiotic practices, I analyze how meaning and matter are always already entangled in the worlding process, showing that environmental issues should be viewed from the entangled relationships between human and *more-than-human* actors.[32]

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[30] Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010), 2–6.

[31] Haraway, *Staying with the Trouble*, 55. Haraway introduces the term "compostist" as a critique of "posthumanism," arguing that humans are not exceptional beings separate from the earth but are fundamentally "humus"—soil, compost, earth—rather than "Homo." Her concept of the "Chthulucene" describes the current epoch as a time requiring collaborative multispecies survival, moving beyond the illusions of human exceptionalism and purity.

[32] Haraway, *Staying with the Trouble*, 101.

Specifically, I establish Haraway's concept of *response-ability* as the ethical basis of theo-garbological ethics.[33] While traditional Western philosophy attributes responsibility solely to conscious, intentional subjects capable of deliberation and choice, I follow Haraway in extending the meaning of agency by drawing on Actor-Network Theory.[34] Following her assertion that anything modifying a state of affairs and making a difference functions as an actor, I adopt a reconstructed concept of responsibility based on response-ability. This notion is defined not by the presence of voluntary intent, but as the capacity to respond to and affect one another within interdependent relationships. For Haraway, response-ability entails moving beyond human exceptionalism to cultivate the capacity to respond in a damaged world for the flourishing of multi-species.[35]

Furthermore, following Haraway's engagement with Derrida, I link mourning to memory and responsibility. I embrace her insight that acts of *re-membering* and *com-memorating* involve actively repatterning, recovering, recomposing, and restoring. In this view, mourning is not limited to mere recollection of the past or sorrow over loss; rather, mourning connects to memory, and memory connects to responsibility. Asserting that memory is inherently political, I propose that mourning serves as a political counter-

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[33] Haraway, *Staying with the Trouble*, 116, 132. Haraway intentionally hyphenates "response-ability" to distinguish it from abstract moral responsibility. She defines it as the cultivated capacity to respond to and become-with humans and more-than-human others in a damaged world.

[34] Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2005), 75. Actor-Network Theory (ANT), developed primarily by Bruno Latour, Michel Callon, and John Law, challenges the conventional division between human ("social") and nonhuman ("material") actors, arguing that nonhuman entities—objects, technologies, and materials—are not merely passive instruments but active participants that shape and mediate social relations.

[35] Haraway, *Staying with the Trouble*, 35.

practice that speaks for repressed, ignored, and silenced memories, thereby causing the *tehom* (the deep) to well up.

Ultimately, I adopt Haraway's compostist ethics to challenge the theological tendency to seek purity and the clean slate of *creatio ex nihilo*. Just as compost transforms decay into soil through messy entanglement, I argue that creation emerges from the compost of the deep, encompassing the rejected and the chaotic. By embracing the identity of a compostist, I argue that we can encounter the spectral presence of waste not as matter to be eliminated but as the fertile soil for new theological and ecological possibilities.

7. Care Ethics for Waste

I regard Maria Puig de la Bellacasa's care ethics as essential for concretizing the ethics of theo-garbology. Puig de la Bellacasa's concept of touch concretizes shared vulnerability on both sensory and ethical levels. She characterizes touch not as unidirectional but as reversible: "we are touched by what we touch."[36] Applying this insight, I argue that when we touch waste—material debris, discarded animals, degraded ecosystems, and those rendered disposable, human and more-than-human alike—we are simultaneously touched and transformed by them, forced to confront our own vulnerability. Furthermore, touch demands attentiveness to the response, or reaction, of the touched. This requires us to recognize that beings—human and more-than-human—deemed as waste are not merely passive objects but actors possessing their own response-

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[36] María Puig de la Bellacasa, *Matters of Care: Speculative Ethics in More than Human Worlds* (Minneapolis: University of Minnesota Press, 2017), 20.

ability. I contend that this perspective subverts a unilateral and authoritative ethics of care. In this light, I propose a *tehomophilic* care that remains open to the resistance and reactions of the other.

This relational ethics of care, however, is not merely an interpersonal or sensory matter; it is fundamentally contested by the macro-political structures that actively erode such capacities for vulnerability and response. To address the political dimensions that both facilitate and obstruct a theo-garbological praxis, I further engage with political philosopher William Connolly. He terms the alliance between evangelicalism and capitalism the "Evangelical-Capitalist Resonance Machine." He analyzes how this complex achieves its goals by subverting environmentalism, weakening labor, attacking social security, curtailing minority rights, supporting preemptive wars, condoning torture, and spreading an atmosphere of hatred toward the Islamic world and Europe.

Ecologically, Connolly criticizes this resonance machine for discounting the future of the earth to expand current economic privileges.[37] In response, he proposes a form of care ethics as a counter-narrative, suggesting "care for the fragility of the world."[38] He clarifies that this is not a conservative desire to prevent change, but an active political disposition that affirms the inherent fragility and contingency of the world. In this concept, care signifies the ethical stance necessary to navigate a pluralistic world without imposing a singular, sovereign order. This care begins with the recognition that the world is not a fixed entity but a processual reality capable of being destroyed or

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[37] William E. Connolly, "The Evangelical-Capitalist Resonance Machine," *Political Theory* 33, no. 6 (2005): 870, 876.

[38] Connolly, "The Evangelical-Capitalist Resonance Machine," 883.

recomposed. This political fragility is directly linked to ecological fragility. Connolly's notion of care deeply resonates with and supports Keller's tehomophilic theology. Building on this convergence, I develop a theo-garbological care ethics.

D. SIGNIFICANCE OF THE STUDY

In this dissertation, I aim to respond to critical gaps identified in current academic discourse.

First, there is an absence of meaningful dialogue between ecotheology and waste studies. While ecotheology has addressed macro-agendas such as climate change, biodiversity, and environmental justice, it has not seriously treated waste as an independent theological subject although it is one of the most ubiquitous and central material evidences of the Anthropocene. Conversely, while waste studies has actively engaged with diverse fields such as cultural theory, political ecology, and science and technology studies, it remains notably devoid of substantive engagement with religious and ethical inquiry. Beyond the bounds of formal theology, there exist vital resources within religious traditions and moral philosophies that offer profound frameworks for interpreting the material and existential crisis of waste. In particular, the metaphysical and ethical structures—including the theological imaginaries—that enable the production and concealment of waste have rarely been explored. By situating my research in this scholarly void, I propose a new interdisciplinary field: theo-garbology. This project bridges ecotheology and waste studies through the resources of process theology and political theology, constructing a theological ethics of mourning with, staying with, and caring for waste and the wasted.

Second, I advance a novel critique of the doctrine of *creatio ex nihilo.* While process, feminist, and ecotheological scholars have previously critiqued this doctrine for its philosophical incoherence, lack of biblical grounding, or patriarchal overtones, my analysis shifts the lens toward microscopic and material perspectives. This study offers a theological analysis of the structural mechanisms by which the logic of *creatio ex nihilo* facilitates a reduction to "nothingness," effectively converting matter into waste, geography into sacrifice zones, and marginalized populations into surplus.

Third, while ecotheological discussions have largely developed within Western contexts, this study provides an analysis of how the logic of *creatio ex nihilo* operates specifically within the unique situation of South Korea, where rapid industrialization has merged with internalized American-style conservative Protestantism. By analyzing this unique intersection, I propose a theo-garbological approach to the South Korean context, identifying the historical alliance between nuclear policy and Protestantism, the FMD mass culling, and the formation of sacrifice zones as critical examples of how abstract theological doctrine converts into the politics of material waste.

Finally, on a practical level, I present how the church and society should interpret and relate to beings deemed as waste from the perspective of theo-garbological ethics, and further explore the possibilities for concrete action and resistance that this ethics demands.

E. OVERVIEW OF CHAPTERS

In this dissertation, I construct a theo-garbological perspective through a multidisciplinary approach grounded in the theoretical and methodological insights discussed above. The dissertation unfolds as follows:

Chapter One analyzes the multifaceted phenomenology of waste. I examine the shifts in its spatiotemporal properties and analyze its material-metaphorical duality. Furthermore, drawing on Mary Douglas's concept of "matter out of place," I investigate the political dimensions of waste, demonstrating how it functions as an apparatus to legitimize power and marginalize populations. Finally, applying the lens of hauntology and ecological awareness, I analyze the spectrality of waste, arguing that concepts such as *terra incognita* serve as conceptual devices that render the crisis of waste ambiguous and concealed.

Chapter Two critically examines the historical development of the doctrine of *creatio ex nihilo* and its eco-political implications. I trace how this doctrine was developed in the early church context and reinterpreted through modern theology, arguing that it has functioned as a foundational metaphor sustaining a logic of domination over both human and more-than-human beings. This chapter provides a case study to expose the structural link between nuclear technology and the logic of creation out of nothing.

Chapter Three proposes the ethics of theo-garbology—mourning, staying with, and caring for waste—based on *creatio ex profundis* as a theological alternative. Synthesizing relational ontologies and the politics of mourning, I propose a *tehomophilic*

ethics of hospitality. To do so, I analyze the destructive logic of *tehomophobic* ethics and argue that waste is structurally produced by this fear of the deep.

Chapter Four critically examines how traditional eschatology has rendered the earth transient and disposable. I analyze how fundamentalist eschatology constructs the current world as temporary and consumable, thereby providing a theological rationale that undermines ethical responsibility for the environmental crisis. This chapter investigates the ecological rhetoric of eschatology to challenge its escapist paradigm.

Chapter Five reinterprets waste as an eschatological agent through the concept of the *Apocalypcene*. I argue that waste is not a mere passive residue but an active agent and eschatological subject exposing the crisis of the Anthropocene. Analyzing waste as a traumatic reminder, I posit that the persistence of waste constitutes an ontological preservation of destructive energy. This persistence is the trauma. Consequently, this chapter proposes a process-relational Spirit of care, developing a theology of the Spirit that operates in the middle space between becoming and remaining.

The Conclusion brings these threads together through a dialogue with new materialism and posthumanism. In this final chapter, I articulate a preferential option for the discarded as the central ethos and propose concrete practical tasks for a theo-garbological life. Finally, I outline specific implications for both ecclesial and academic praxis, suggesting future directions for theological research in the Wasteocene.

CHAPTER ONE

PHENOMENOLOGY OF WASTE

A. MULTIFACETED ASPECTS OF WASTE

1. Material, Cultural, and Political Dimensions of Waste

Historically, waste has been defined in various ways, depending on cultural, political, environmental, economic, and social contexts. First, waste has acquired entirely new characteristics in terms of its temporal and spatial properties. According to Roman Köster, a German historian, "in the pre-modern era, most waste was organic and, apart from items made of metal or ceramics, eventually turned into compost. In modern mass consumer societies, however, the material nature of waste has changed significantly. It has become more diverse and complex."[39] I contend, however, that this complexity cannot be viewed as merely benign or neutral. It marks a radical shift toward permanent, toxic hybrids that defy natural degradation.

In particular, the proliferation of chemicals and their interactions has reached a level beyond human control and understanding. Carbon dioxide, which remains in the atmosphere for two hundred to one thousand years and causes global warming, as well as spent nuclear fuel, which must be securely isolated for over a million years, completely transform our temporal understanding of waste. Spatially, carbon dioxide does not remain in the region where it is emitted but spreads throughout the entire atmosphere of the earth due to wind patterns and atmospheric circulation. Radioactive wastewater from the Fukushima nuclear power plants, which were damaged during the 2011 Great East Japan

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[39] Köster, *Müll*, 15.

Earthquake, has been released into the Pacific Ocean after "*treatment*," raising concerns about contamination not only of the local marine environment but also of the broader global ocean system.[40] Furthermore, microplastics have demonstrated an extraordinary capacity for dispersal, appearing in snow and water samples near the summit of Mount Everest and in the guts of deep-sea organisms in the Mariana Trench.[41] This global mobility dissolves the boundary between local and global, implicating distant ecosystems and human and more-than-human communities in the consequences of waste produced elsewhere.

Second, as English literature scholar Susan Signe Morrison articulates in *The Literature of Waste: Material Ecopoetics and Ethical Matter*, the concept of waste operates as a multifaceted cultural and ethical construct that functions both metaphorically and materially.[42] Morrison argues that the materiality of waste inevitably takes on metaphorical significance, while the metaphorical labeling of individuals or groups as waste can produce material consequences for those so designated. For example, bodily excretions like menstrual blood or feces are often treated as polluting matter that marks individuals as morally impure or socially defiled; meanwhile, labeling

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[40] From a political ecological perspective, the "treatment" of waste or pollutants is not merely a technical process but a socio-political phenomenon shaped by power dynamics, economic interests, and uneven distributions of risk. The controversy over how to label Japan's radioactive wastewater exemplifies this reality.

[41] Shanye Yang, Guy Brasseur, Stacy Walters, Pablo Lichtig, and Cathy W. Y. Li, "Global Atmospheric Distribution of Microplastics with Evidence of Low Oceanic Emissions," *Npj Climate and Atmospheric Science* 8, no. 81 (2025): 1–6, https://doi.org/10.1038/s41612-025-00914-3.

[42] In this work, Morrison approaches waste by integrating interdisciplinary perspectives and emphasizing its metaphorical, material, and ethical dimensions. She examines waste not only as a physical phenomenon but also as a cultural and ethical construct. Specifically, she demonstrates that waste operates both materially (e.g., landfills, trash) and metaphorically (e.g., psychological or spiritual states of emptiness or excess), showing how waste metaphors reveal societal hierarchies and exclusions. Susan Signe Morrison, *The Literature of Waste: Material Ecopoetics and Ethical Matter* (New York: Palgrave Macmillan, 2015), 8–11.

marginalized groups as social "waste" legitimizes their physical removal, confinement, or neglect.[43] Furthermore, this metaphor of waste extends beyond the social realm to the interior life. Patterns of consumption and excess influence our understanding of psychological, moral, and metaphysical waste, ultimately eroding our social, spiritual, and ethical well-being. As this sense of "waste" intrudes inwardly, it transforms the inner self into a spiritual wasteland, especially when religious and existential values fail to offer resistance or instead mirror these patterns of excess.

Third, waste is deeply political in that it serves as an apparatus to legitimize power, marginalize populations, and advance ideological agendas. Its conceptualization and application reveal how political actors shape governance, territorial control, and social order. In other words, waste has historically been appropriated to dehumanize certain populations and in particular to devalue Indigenous methods of relating to nature. Western colonial regimes labeled Indigenous and Black communities as "human refuse," "excess," or "dirty," using these stigmas to justify segregation, exploitation, and marginalization.[44] Settler colonialism, especially by the British, framed Indigenous land use as savage and unproductive; it argued that because valuable natural resources were being "underutilized" by Indigenous inhabitants, the land itself was being effectively "wasted" and thus awaited the settlers' superior capacity to extract greater value and

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[43] According to Nancy Isenberg, an American historian, the term, "white trash," originated as a way for elites to distinguish themselves from poor whites, who were seen as inferior and "waste people." This label was used to justify their exclusion from full social and economic participation, and to mark them as disposable within the class hierarchy. Nancy Isenberg, *White Trash: The 400-Year Untold History of Class in America* (New York: Penguin Books, 2017), 309.

[44] Bill Ashcroft, Gareth Griffiths, and Helen Tiffin, *Postcolonial Studies: The Key Concepts* (New York: Routledge, 2013), 51–58.

progress.[45] A stark example of this is the legal doctrine of *terra nullius*, which classified inhabited Indigenous territories as “empty” or “waste” land. By defining the land as a void awaiting European “improvement,” this doctrine systematically erased Indigenous histories and rights to justify colonial dispossession and disposability.[46]

2. The Political Construction of Waste in the South Korean Context

The multidimensional nature of waste, particularly its political and temporal complexities, is brought into sharp focus in the context of South Korea’s nuclear energy discourse, where the definition and management of radioactive waste are uniquely intertwined with the legacy of state-led developmentalism and conservative Protestant theology. Examining this specific context is crucial for this dissertation, as it reveals how abstract concepts concretely shape the politics of waste, public perception of risk, and the subsequent marginalization of ecological ethics.

The standards defining spent nuclear fuel (SNF) in South Korea are another good example of the political construction of waste. Both anti-nuclear and pro-nuclear movements generally agree that SNF is highly radioactive and hazardous, requiring careful and secure management for extremely long periods, spanning from initial decades

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[45] Neel Ahuja, *Planetary Specters: Race, Migration, and Climate Change in the Twenty-First Century* (Chapel Hill: The University of North Carolina Press, 2021), 78.

[46] This account of waste as a colonial instrument draws primarily on Western historical examples, as this dissertation traces how South Korea internalized the Western logic of domination through its embrace of American-style Christianity and U.S. technological hegemony during the Cold War. Accordingly, traditional Eastern philosophies such as Buddhism and Confucianism, or the broader history of pre-modern colonialism within Asia, fall outside the scope of this study.

of interim storage to more than a million years of permanent sequestration.[47] Yet public risk perceptions of SNF are not determined by scientific data alone; they are shaped by a complex interplay of socioeconomic, political, psychological, and religio-cultural factors.[48] For example, the Korean government has promoted the nuclear energy industry, allocating significant budget resources toward public communication campaigns aimed at mitigating risk perceptions of SNF and fostering public confidence in the safety of its current radioactive waste management.

Furthermore, South Korea's discourse on nuclear energy has been deeply intertwined with its national security concerns, particularly given its status as a non-oil-producing nation. Pro-nuclear advocates emphasize nuclear power as a strategic necessity for energy security, arguing that it has provided stable, low-cost electricity critical for industrial competitiveness since the 1970s.[49] This framing, however, strategically obscures key facts. For example, proponents rarely mention that diversifying energy sources is actually more effective for energy security, nor do they acknowledge that the current cost of nuclear power generation is much higher than that of solar power—and

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[47] Both the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA/OECD) classify high-level radioactive waste, including SNF, as requiring isolation from the biosphere for timescales extending hundreds of thousands to one million years. See IAEA, *Classification of Radioactive Waste: General Safety Guide* (Vienna: IAEA, 2009), 7; Nuclear Energy Agency (OECD), *Radioactive Waste in Perspective* (Paris: OECD, 2010), 27, 34, 58, 78.

[48] For the multidimensional nature of risk perception, see Paul Slovic and Ellen Peters, "Risk Perception and Affect," *Current Directions in Psychological Science* 15, no. 6 (2006): 322–325, https://doi.org/10.1111/j.1467-8721.2006.00461.x; Lennart Sjöberg, "Factors in Risk Perception," *Risk Analysis* 20, no. 1 (2000): 1–12, https://doi.org/10.1111/0272-4332.00001; Asa Boholm, "Comparative Studies of Risk Perception: A Review of Twenty Years of Research," *Journal of Risk Research* 1, no. 2 (1998): 135–163, https://doi.org/10.1080/136698798377231; Jaeyoung Lim, and Kuk-Kyoung Moon, "Can Political Trust Weaken the Relationship between Perceived Environmental Threats and Perceived Nuclear Threats? Evidence from South Korea," *International Journal of Environmental Research and Public Health* 18, no. 18 (2021): 9816, https://doi.org/10.3390/ijerph18189816.

[49] International Energy Agency, *Energy Polices of IEA Countries: The Republic of Korea 2012 Review* (Paris: International Energy Agency, 2012), 99–110.

that this gap continues to widen.[50] Despite such distortions, this misconception of nuclear cost-efficiency has nevertheless become a widespread public assumption, systematically distorting public perception of energy economics.

In addition, the South Korean government has fostered the nuclear industry as an export sector. Large-scale promotional and industrial support budgets are allocated to expand nuclear technology exports to nations such as the United Arab Emirates and the Czech Republic; notably, the budget for promoting nuclear power in South Korea is significantly larger than that for promoting renewable energy.[51] Consequently, the general public is exposed to biased or distorted information suggesting that nuclear energy is effective for energy security which, in turn, weakens public awareness of the risks associated with nuclear power and spent nuclear fuel, effectively marginalizing ecological safety and environmental justice in favor of industrial growth.

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[50] Gunnar Luderer, Silvia Madeddu, Leon Merfort, Falko Ueckerdt, Michaja Pehl, Robert Pietzcker, Marianna Rottoli, et al., "Impact of Declining Renewable Energy Costs on Electrification in Low-Emission Scenarios," *Nature Energy* 7, no. 1 (2021): 32–42, https://doi.org/10.1038/s41560-021-00937-z.

[51] According to data released by National Assembly Member Kwon Chil-seung, an analysis of the Electric Power Industry Infrastructure Fund's expenditures between 2007 and 2016 shows that approximately 82.412 billion KRW($73.35 million USD) was spent on nuclear power promotion. In contrast, only about 267 million KRW($238,000 USD) was allocated to promote renewable energy during the same period. This figure shows that spending on nuclear power promotion was more than 300 times higher than on renewable energy promotion. Until recently, this pattern continued under the Yoon administration (2022–2025), which in 2024 cut the renewable energy budget by 443.5 billion KRW while increasing nuclear support by 133.2 billion KRW. The Lee administration (2025-present), by contrast, has significantly expanded the renewable energy budget — allocating 1.27 trillion KRW for 2026, a 41.6 percent increase from the previous year — while modestly raising the overall nuclear budget by only 6.2 percent. Yet this shift does not represent a departure from nuclear investment altogether; rather, the Lee administration has redirected nuclear funding away from large-scale reactors toward small modular reactors (SMRs), newly allocating 8.1 billion KRW for SMR manufacturing localization and passing the SMR Special Act in February 2026, which commits 1.2 trillion KRW to domestic SMR development by 2030. Aeri Boo, "Over 82.4 Billion Won from the Electric Power Industry Infrastructure Fund Spent on Nuclear Promotion: Allegations of Biased Allocation," *The Asia Business Daily*, August 24, 2017, https://v.daum.net/v/LtDac7l8zT [in Korean]; Yu Jun-ho and Yoon Yeon-hae, "Gov't Seeks Rapid Increase in Renewable Energy Budget," *Pulse (Maeil Business News Korea)*, September 1, 2025, https://pulse.mk.co.kr/news/english/11408626.

Additionally, and of significance, the perception of nuclear energy has been historically intertwined with Korean church history and Protestant theology. The administration of Syngman Rhee (1948–1960), South Korea's first president, regarded nuclear energy as a core strategy for national survival and development. President Rhee himself was a fervent anti-communist Christian whose faith was shaped by American Protestant missionary networks, and during that era, Christians held many key government positions.[52] The administration appropriated the symbolic capital of Christianity to buttress its political legitimacy, transforming religious identity into a foundation of state-led anti-communist ideology. Against this backdrop, Christian leaders were more likely to cooperate with the government's promotion of science, technology, and nuclear policy, rather than maintain a critical distance.

Following the Korean War, the majority of Korean churches prioritized national reconstruction, economic development, anti-communist ideology, and defense of democracy. Consequently, South Korean Christian leaders of the era generally held a highly positive view of scientific and technological progress, particularly when it aligned with state-led industrialization and national reconstruction.[53] This attitude toward science and technology should be read in relation to a broader Protestant pattern of selective

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[52] For studies on Rhee's anti-communist and pro-American Protestant activities, see Bruce Cumings, *Korea's Place in the Sun: A Modern History* (New York : Norton, 1997). In-Cheol Kang, "Syngman Rhee's Government as a Pro-Protestant Regime," *Christianity and History in Korea* 30 (March, 2009): 91–122 [in Korean].

[53] Under Japanese colonial rule, scientific and technological modernization came to be perceived by many Korean Protestants as a national imperative—a means by which Korea might secure sovereignty in the face of imperial encroachment. This association between faith, national strength, and technological progress has persisted in certain strands of Korean Protestant discourse into the postcolonial period, where it intersects with Cold War anti-communism and developmentalist ideology— though ecumenical and peace-oriented traditions within Korean Christianity have registered markedly different responses to questions of technological power and militarization.

technophilia. Western conservative Protestantism has historically exhibited a selective embrace of science—vehemently opposing evolutionary biology and climate science while actively supporting extractive sciences, military technologies, and nuclear energy. Mirroring this selective technophilia, South Korean Christian leaders aligned with intellectuals and leaders who emphasized the harmony between the order of creation and scientific advancement, expressing positive views on the peaceful use of nuclear energy. During this period, there was little critical reflection within the Church on the dangers or ethical issues associated with nuclear energy. In implementing the Rhee government's nuclear policy, Christian leaders who had studied in the United States played pivotal roles in both cultivating nuclear expertise and establishing the nation's foundational nuclear institutions. This demonstrates the close cooperation between the government and Christian leaders, united by the shared goals of industrialization and modernization.

From the perspective of Korean Church history, the predominantly conservative Christian leadership represented the vast majority of the Protestant community between the 1950s and the 1970s.[54] This dominant group generally supported or remained neutral toward nuclear energy and did not raise critical voices against the Rhee administration's unilateral pro-nuclear policies. Instead, they promoted science, technology, and economic

[54] Protestant refugees who fled from North Korea to the South, escaping communist persecution, became staunch supporters of the Syngman Rhee regime and established themselves as the dominant force within South Korean Christianity. The narratives of suffering and martyrdom came to be defined within South Korean society and the church as the "authentic Korean Protestant experience," and the voices of conservative, anti-communist Christians were recognized as the hegemonic representation of the whole Protestant identity. These conservative Christian leaders monopolized the leadership of megachurches and major institutions that achieved explosive growth, while conservative Protestant elites occupied key positions in the military, American-affiliated organizations, and universities, thereby dominating the broader Protestant cultural landscape. Kirsteen Kim and Sebastian C. H. Kim, "The Christian Impact on the Shaping of the First Republic of Korea, 1945–48: Anti-Communism or Vision for a New Nation?," *Religion, State & Society* 46, no. 4 (2018): 402–417, https://doi.org/10.1080/09637494.2018.1480211; Hyun Kyong Hannah Chang, "Exilic Suffering: Music, Nation, and Protestantism in Cold War South Korea," *Michigan Quarterly Review* 8, no. 1 (2014), https://doi.org/10.3998/mp.9460447.0008.105.

growth in cooperation with the government, reinforcing the Church's pro-government and pro-industrialization tendencies during that era.

The legacy of 1950s–1970s Protestant support for state-led modernization, as embodied by the Rhee administration, has contributed to a persistent pro-nuclear, pro-development orientation among Korea's conservative Protestant majority.[55] This orientation continues to influence how Protestants engage with nuclear policy. Consequently, the Protestant establishment is less inclined to join anti-nuclear movements, tending, instead, to prioritize arguments centered on economic and national security. Progressive Protestant voices, despite their active engagement, have not fundamentally shifted this mainstream stance. As a result, environmental movements within Korean churches have focused primarily on individual actions, such as saving electricity and reducing waste, rather than broadening their scope toward structural and political dimensions, such as energy transition or responding to the climate crisis. Yet Christian environmental organizations, both within and outside denominational frameworks, are increasingly working to overcome these limitations through grassroots approaches and community-based solidarity.

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[55] Kang, "Syngman Rhee's Government as a Pro-Protestant Regime," 91–122; Yong Jae Kim, "Conservative zealots: Evangelical politics in South Korea," *9DashLine*, July 9, 2023, https://www.9dashline.com/article/conservative-zealots-evangelical-politics-in-south-korea; Byung-Joon Chung, "The Park Chung-hee Regime and Christianity: Based on the Research History of Church-State Relations," *Christianity and History in Korea*, no. 56 (2022): 5–39.

B. MATTER OUT OF PLACE

British anthropologist Mary Douglas famously conceptualized dirt as "matter out of place," arguing that notions of dirt and pollution are not universal but are deeply tied to cultural systems of classification.[56] "Where there is dirt there is system. Dirt is the by-product of a systematic ordering and classification of matter, in so far as ordering involves rejecting inappropriate elements."[57] According to Douglas, the most fundamental basis of cultural classification and social order lies in entities that symbolize the boundaries of a domain. Therefore, understanding what defines purity and impurity reveals how a society's classification system and rules operate, demonstrating that objects function within real, moral, and religious structures. When something is perceived as being "out of place" in a society, it is treated as a violation of prevailing morality and social order, prompting rituals to restore the disrupted system. In this regard, Douglas's purity theory is not simply about spatial or geographical arguments, but rather about power and threats to power.[58] Douglas's insight into purity offers a critical lens for my analysis, revealing how the designation of "waste" functions as a political apparatus to enforce social control and uphold hegemonic power structures—precisely the political dynamic I problematized in the earlier analysis of the political construction of nuclear waste.

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[56] Mary Douglas, *Purity and Danger: An Analysis of Concept of Pollution and Taboo* (London: Routledge, 2010[1966]), 44.

[57] Douglas, *Purity and Danger*, 44.

[58] Max Liboiron, "Matter out of Place," in *The Routledge Handbook of Waste Studies,* eds. Zsuzsa Gille, and Josh Lepawsky (New York: Routledge, 2022), 31.

Regarding power and threats to order, waste encompasses the politics of sorting, labeling, controlling, avoiding, and eradicating. Douglas outlines several ways cultures deal with ambiguity: by redefining or labeling anomalies, controlling or eliminating them physically, treating them as dangerous or, most importantly, using them ritually to deepen meaning and highlight alternative levels of existence.[59] This ritual dimension is of particular significance for this theological project, for it suggests that waste, often treated merely as matter to be eliminated, can instead be re-imagined as matter for spiritual reflection and the reconciliation of life and death. Materials are labeled as either “dirt” and “danger” or “clean” and “safe,” leading to their categorization as objects of physical control, avoidance, or eradication. This process is driven not by inherent physical traits, but by their sociocultural-political implications. Labeling imposes limitations on the range of interpretations and reduces ambiguity. According to Douglas, ambiguous symbols, such as those found in poetry or mythology, can unify opposites including life and death or good and evil within “a single, grand, unifying pattern.”[60] This integration of opposites not only helps maintain the integrity of cultural classifications but also enables societies to reflect on and reconcile complexities and contradictions.

For example, the controversy around the naming of Fukushima’s contaminated water plays a significant role in the broader political and social debate surrounding its release. The Japanese government and Tokyo Electric Power Company (TEPCO) refer to the water as “treated water” or “ALPS-treated water,” emphasizing that it has been

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[59] Douglas, *Purity and Danger*, 48-50.

[60] Douglas, *Purity and Danger*, 50.

processed to remove most radioactive substances except tritium, which is difficult to isolate.[61] This terminology is strategically employed to signify safety and regulatory compliance, intending to reassure both domestic and international audiences that the water meets all safety standards prior to its discharge. However, critics outside Japan, particularly in neighboring nations such as China and South Korea as well as within environmental organizations, argue that these labels are misleading and downplay the presence of residual radioactive contaminants. They instead describe it as "contaminated water" or "nuclear wastewater," a classification that underscores concerns about remaining radioactive nuclides beyond tritium and potential environmental and health risks from its release.

From Douglas's perspective, the Japanese government and TEPCO's use of the term "treated water" (or "ALPS-treated water") is not merely a technical description, but a strategic deployment of classification to manage social risk. This aligns with her core insight that "where there is dirt there is system."[62] The Japanese Government and the nuclear industry constitute a system that defines the boundaries governing what is included or excluded in the designation ALPS-treated water. By emphasizing International Atomic Energy Agency (IAEA) technical verification and plans to reduce tritium concentrations below World Health Organization's (WHO) drinking water standards, the Japanese government is reclassifying this material as a "normal" byproduct

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[61] The term, "treated water," emphasizes the Advanced Liquid Processing System (ALPS) purification process, aiming to incorporate the stored Fukushima water into the existing framework of industrial wastewater management.

[62] Douglas, *Purity and Danger*, 44.

of industrial activity.[63] In the decision-making process for discharging contaminated water, however, the concerns of neighboring countries regarding their economies and ecosystems, as well as those of local Japanese residents and fishermen, were scarcely considered.[64] The Japanese government and TEPCO have monopolized not only the storage and release of the contaminated water, but also virtually most related discourse, policy, and scientific investigations.

As demonstrated in the case of the Japanese government and TEPCO's management of Fukushima's contaminated water, the boundaries between "clean" and "unclean," or "safety" and "danger," are sociopolitical constructs. Scientific and technological knowledge is selectively applied to demarcate these boundaries in ways that serve the interests of the Japanese government and nuclear industry.[65] For instance, water treatment data was presented in a format either inaccessible or unintelligible to the

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[63] Tritium (^3H), a radioactive isotope of hydrogen, cannot be removed by the ALPS filtration system at all, as it bonds with oxygen to form tritiated water (HTO)—a compound chemically indistinguishable from ordinary water. The Japanese government proposed diluting tritium concentrations to below 1,500 Bq/L, a level considerably lower than the WHO's drinking water guideline of 10,000 Bq/L. See International Atomic Energy Agency, *IAEA Comprehensive Report on the Safety Review of the ALPS-Treated Water at Fukushima Daiichi Nuclear Power Station* (Vienna: IAEA, 2023), 3. Critics have nonetheless argued that this standard was formulated for potable water rather than marine ecosystems, and that the long-term effects of organically bound tritium (OBT) accumulating through marine food chains remain insufficiently studied. See Friends of the Earth Japan, "Statement: We Strongly Condemn the Decision by the Japanese Government," April 12, 2021, https://foejapan.org/en/issue/20210413/3855/; Yuhi Satoh and Takashi Tani, "Estimation of Accumulation Potential for Tritium in Olive Flounder on Exposure of Treated Water Derived from Fukushima Daiichi Nuclear Power Station: Tritium Transfer from Seawater and Food Chain into Organically Bound Tritium in the Targeted Fish," *Environmental Research* 257 (2024): 119278.

[64] For further reading, see Leslie Mabon and Midori Kawabe, "Bring Voices from the Coast into the Fukushima Treated Water Debate," *Proceedings of the National Academy of Sciences* 119, no. 45 (2022): e2205431119, https://doi.org/10.1073/pnas.2205431119; Martin Fackler, "Media Coverage of Fukushima, Ten Years Later," *The Asia-Pacific Journal,* vol.19, issue 17, no. 3 (2021): 5622, https://apjjf.org/2021/17/fackler; Joke Kenens et al., "Living Apart Together: Local Governments and Citizen Radiation Measuring Organizations After Fukushima," *Citizen Science: Theory and Practice* 7, no. 1 (2022): 1–14; Gabriela-Cosmina Gherghe, "The Picture Has Changed, How About the Frame? Media Framing of Nuclear Energy in Japan before and after the Fukushima Nuclear Disaster," Master's Thesis, Lund University, 2021.

[65] François Diaz-Maurin, "How Fukushima's Radioactive Fallout in Tokyo Was Concealed from the Public," *Bulletin of the Atomic Scientists* 81, no. 1 (2025): 17–28.

public.[66] Furthermore, authorities actively "thwarted their [the Pacific Islands Forum expert panel's] investigations and an open scientific discourse with TEPCO scientists."[67]

In this regard, Douglas's politics of boundaries provides a critical lens applicable to waste discourses. Sociocultural-political discourses around waste, as seen in the case of Fukushima nuclear-contaminated water, operate to intensify or diminish perceived risks and dangers through boundary-drawing. According to Douglas, the boundary between purity and impurity is not fixed; it is very cultural. Entities do not occupy permanent or inherent positions, and no absolute distinction exists between order and disorder. Binary systems, such as order/disorder and purity/impurity, operate according to an A/not-A definitional scheme, where the positive value (order, purity) is established first and the negative term (disorder, impurity) is defined in relation to it as its negation. These are epistemological and moral constructs defined by social boundaries. Douglas further explains that classification systems inevitably produce anomalies: things or people that do not fit neatly into established categories. Instead of being ignored, these anomalies are often labeled "dangerous" or "polluted," thereby clarifying and reinforcing the system's boundaries. In this way, society does not presuppose the existence of "lawbreakers"; rather, the classificatory system itself reclassifies certain people, behaviors, or matter as "dirty," "dangerous," or "taboo," producing deviants and subversives. Crucially, applied to the nuclear context, this mechanism reveals how

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[66] Motoko Rich and Makiko Inoue, "Japan Wants to Dump Nuclear Plant's Tainted Water. Fishermen Fear the Worst," *New York Times*, December 23, 2019, https://www.nytimes.com/2019/12/23/world/asia/japan-fukushima-nuclear-water.html.

[67] Hyo-jin Lee, "Japan's Data on Fukushima Wastewater Should Not Be Taken at Face Value: Expert," *The Korea Times*, May 17, 2023, https://www.koreatimes.co.kr/foreignaffairs/20230517/interview-japans-data-on-fukushima-wastewater-should-not-be-taken-at-face-value-expert.

environmental victims or anti-nuclear voices are often categorized as "irrational" or "disruptive" anomalies within the dominant techno-political order, thereby justifying their marginalization.

C. ANTI-MEMORY, ANTI-FORM, ANTI-CULTURE, ANTI-NATURE, AND ANTI-VALUE

Waste occupies a paradoxical position in contemporary sociocultural-political discourses: it is described as simultaneously ubiquitous yet invisible, worthless yet meaningful, rejected yet unavoidable. Within cultural studies, waste is framed through paradoxical categories such as anti-form, anti-nature, anti-value, anti-culture, and anti-memory.[68] These anti-categories, as one might name these negative notions, position waste as a productive theoretical lens through which to examine cultural value, the practice of memory, and humanity's relationships with the environment.

Aleida Assmann, a German scholar of cultural memory, conceptualizes waste within memory studies as that which is designated for forgetting rather than remembering. She thus characterizes waste as anti-memory: that which must be discarded and excluded rather than preserved. Assmann distinguishes between two forms of cultural forgetting: active and passive. As she explains, "Active forgetting is implied in intentional acts such as trashing and destroying…The passive form of cultural forgetting is related to non-intentional acts such as losing, hiding, dispersing, neglecting,

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[68] The concepts of anti-form, anti-value, anti-culture, and anti-nature are drawn from Vilém Flusser, *The Shape of Things: A Philosophy of Design, trans. Anthony Mathews* (London: Reaktion Books, 1999). The concept of anti-memory derives from Aleida Assmann's theory of cultural memory; see Aleida Assmann, *Cultural Memory and Western Civilization: Functions, Media, Archives* (Cambridge: Cambridge University Press, 2011).

abandoning, or leaving something behind."[69] The defining distinction lies in intentionality: active forgetting is intentional, while passive forgetting is non-intentional. For example, censorship is a strategy for active forgetting, which has served as "a forceful instrument for destroying material and mental cultural products," and becomes "violently destructive when directed at an alien culture or a persecuted minority."[70]

From this perspective, waste manifests through both active and passive forms of forgetting. It encompasses materials that are deliberately destroyed or discarded (active forgetting), as well as those that merely fade from memory through neglect or obsolescence (passive forgetting). In highly politicized contexts, however, waste is not a simple byproduct of accidental neglect. Instead, it represents what is systematically excluded from attention, valuation, and use. Thus, waste functions as anti-memory by embodying what a culture intentionally erases or inadvertently lets slip away.[71]

Furthermore, Assmann distinguishes between the canon, the archive, and the rubbish heap as part of a continuum of inclusion and exclusion. The canon represents what a society actively remembers and values. It is a narrow and actively circulated core of a society's memory, continually rehearsed in rituals, texts, monuments, and performances. For example, canonical works include artworks, foundational narratives, and sacred texts that are rigorously selected and maintain enduring status. Assmann defines the process of elevating texts, persons, artifacts, or monuments to this sanctified

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[69] Aleida Assmann, "Canon and Archive," In *Cultural Memory Studies: An International and Interdisciplinary Handbook,* eds. Astrid Erll and Ansgar Nünning (New York: De Gruyter, 2008), 97–98.

[70] Assmann, "Canon and Archive," 98.

[71] Assmann, "Canon and Archive," 98.

position as canonization, which serves as a mechanism that formalizes their symbolic power while marginalizing alternatives and consigning them to the "rubbish heap" of cultural forgetting.[72]

For Assmann, the archive is a much larger and largely hidden storehouse of all recorded traces that have been preserved but are not part of everyday remembrance. Archives function as repositories of potential memory; their contents lie dormant until they are retrieved and activated by scholars, artists, or political or religious actors, and recast as memory for new purposes. As Assmann puts it, the archive "stores materials in the intermediary state of 'no longer' and 'not yet,' deprived of their old existence and waiting for a new one."[73] Yet when archives become outdated or lose their political and historical functions, they descend into a heap of rubbish. In this state, they fall beyond both canon and archive, existing as neglected, abandoned, and obsolete materials.[74]

Active and passive forgetting, along with the distinctions between the canon, the archive, and the rubbish heap, illustrate how the politics of memory can be linked to the politics of waste. Here, the canon stands as the opposite of trash. The rubbish heap represents trash itself, and the archive functions as a liminal space between the two. Both memory and waste politics involve selective valuation, deliberate disposal, and the possibility of retrieval. This intersection aligns with environmental anthropologist Sarah Osterhoudt's concept of "the political ecology of memory."[75] As one of the first scholars

[72] Assmann, "Canon and Archive," 100.

[73] Assmann, "Canon and Archive," 103.

[74] Assmann, "Canon and Archive," 103.

[75] Sarah Osterhoudt, "Written with Seed: The Political Ecology of Memory in Madagascar," *Journal of Political Ecology* 23, no. 1 (2016): 263–278.

to introduce this concept, Osterhoudt examines, in her work with smallholder farmers in Madagascar, how "the work of cultivating land" intertwines with "the art of cultivating memory," showing that everyday interactions with local landscapes serve as a medium for processing and expressing large-scale political histories.[76] In other words, she argues that a political ecology of memory examines how individuals and communities "render global histories personal"[77] by embedding broad socio-political forces into the material and mnemonic fabric of their landscapes.

The political ecology of memory profoundly influences ecological epistemology in two ways, both of which prove relevant to the question of waste. On one hand, as seen in Osterhoudt's research, it shapes how we understand our relationship with waste and the environment at personal, institutional, and global levels. On the other hand, this approach demonstrates that the processes of personal and collective memory-making can be shaped by various factors, such as politico-ideological strategies,[78] the spatio-structural

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[76] Osterhoudt, "Written with Seed," 265.

[77] Osterhoudt, "Written with Seed," 265, 274.

[78] See James V. Wertsch and Henry L. Roediger, "Collective Memory: Conceptual Foundations and Theoretical Approaches," *Memory* 16, no. 3 (2008): 318–326; Victor Roudometof, "Beyond Commemoration: The Politics of Collective Memory," *Journal of Political & Military Sociology* 31, no. 2 (2003): 161–169.

environment,[79] discursive scale,[80] and the modes of distributing and expressing discourses,[81] including social movements, ceremonies, and social media.

Moving beyond the view of waste as merely a site of forgetting, Vilém Flusser, a Czech-born Brazilian philosopher and renowned media philosopher, offers a dialectical perspective that positions waste as simultaneously anti-culture and anti-nature. To explain this mechanism, he illustrates this ambivalence through the example of bottles. For Flusser, a bottle faces two possible fates after use: it is either preserved as a cultural monument or shattered and cast off. In its shattered form, the bottle embodies both "anti-value" and an "anti-form" having lost its economic worth and coherent shape. Crucially, these shards exist in a state of liminality or limbo: they are "anti-culture" because they are rejected from human use and cultural reuse, while also being "anti-nature" because they cannot decompose back into natural cycles. This supports Flusser's argument that consumer society is "essentially a negatively entropic epicycle on an entropic process in which culture cumulatively transforms nature into waste."[82] Consequently, he diagnoses a flood of waste in modern society, suggesting that traditional human methods cannot easily digest or resolve this accumulating matter.[83]

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[79] Maurice Halbwachs, *The Collective Memory,* Translated by Francis J. Ditter and Vida Yazdi Ditter (New York: Harper Colophon Book,1980), 128-157; Anouk Bélanger, "Urban Space and Collective Memory: Analysing the Various Dimensions of the Production of Memory," *Canadian Journal of Urban Research* vol. 11, Issue 1 (2002): 69–92.

[80] Kevin R. Cox, "Spaces of Dependence, Spaces of Engagement and the Politics of Scale, or: Looking for Local Politics," *Political Geography* 17, no. 1 (1998): 1-23; David Delaney and Helga Leitner, "The Political Construction of Scale," *Political Geography* 16, no. 2 (1997): 94–95.

[81] Hiro Saito, "From Collective Memory to Commemoration," in *Handbook of Cultural Sociology*, eds. John R. Hall, Laura Grindstaff, and Ming-cheng Miriam Lo (New York: Routledge, 2010), 629–638.

[82] Vilém Flusser, *Dinge und Undinge: phänomenologische Skizzen* [Things and Non-things: Phenomenological Sketches] (München: Carl Hanser Verlag, 1993), 22.

[83] Flusser, *Dinge und Undinge*, 23.

The production of such “anti-natural” matter is starkly visible in the South Korean government’s slaughter policies during the 2010–2011 foot-and-mouth disease (FMD) epidemic, a case that vividly illustrates the intersection of waste management, memory studies, and anti-categories of waste.[84] The government implemented a “stamping-out” policy, mandating the mass killing of all animals on infected farms and preemptive culling within designated zones. By January 2011, 3.48 million animals, including 151,425 cattle, 3,318,299 pigs, and smaller numbers of goats and deer, were killed and buried at 4,583 sites.[85] The scale of culling overwhelmed infrastructure, causing delays in carcass disposal and inadvertent live burials. Farmers and activists condemned these practices as inhumane, a stark contrast to international guidelines advocating for stunned euthanasia before disposal.

This case demonstrates how the politics of memory operates through spatial concealment and temporal erasure: the government rapidly buried 3.48 million carcasses at 4,583 sites, deliberately removing these events from public view and discourse. This systematic forgetting—achieved through the ensemble of waste disposal systems and technologies—enables the public to remain detached from the harrowing reality of the mass culling and the systemic violence inherent in industrial animal agriculture: “The ensemble of the systems and technology related to waste disposal serves as a cultural

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[84] The 2010-2011 FMD epidemic in South Korea represents one of the most significant veterinary crises in the nation’s history. Beginning in November 2010 and lasting until April 2011, the outbreak led to the culling of over 3.48 million livestock, primarily pigs and cattle.

[85] Park, Jong-Hyeon et al., “Control of Foot-and-Mouth Disease during 2010–2011 Epidemic, South Korea,” *Emerging Infectious Diseases* 19, no. 4 (2013): 655–59.

device for collective amnesia and mind control."[86] The public thus remains focused on daily cycles of mass production, consumption, and disposal without acknowledging the ethical and ecological consequences of these practices.

Furthermore, there is a hierarchy at culling sites. At the lowest tier are the animals themselves, that are slated for "disease control" or death. The workers mobilized for killing and burial operations are similarly stratified based on their spatial proximity to the burial site, thereby manifesting this systemic hierarchy. On-site, soldiers, low-ranking government officials, and foreign laborers, many of whom are precarious workers outsourced through private contractors, are tasked with the most physically demanding and hazardous jobs. The more precarious a person's employment status, the more likely they are to be assigned to hazardous work.[87] After the culling operations, many of the mobilized workers did not receive proper treatment for trauma or compensation for occupational injuries, and it is often difficult to even find official records of their deployment to the sites. Furthermore, they were sometimes discriminated against as

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[86] Taehun Lim, "The Dark Ecology of the Dumpsite and the Literary Record: Rediscovering novels based on Nanjido," *The Journal of Literary Theory* 82 (January 2020), 129 [in Korean].

[87] The National Human Rights Commission of Korea, *Survey on Trauma Experienced by Participants of Stamping-Out/Slaughter of Disease Infected Animals*, 2017. This research investigates the psychological trauma and mental health conditions experienced by individuals involved in the culling and burial of livestock during outbreaks of FMD. It is also important to acknowledge the "invisible labor" of immigrant workers, who are frequently the de facto participants in culling operations. Although official government statistics often overlook their presence, civil society reports indicate that these workers are coerced into such traumatic labor due to their precarious legal status and the pervasive fear of deportation. As a result, they often endure these operations under the dual pressure of unstable employment and a systemic lack of agency; they are frequently mobilized without adequate safety training or protective gear, and in many cases, are unable to exercise their right to refuse such tasks. This dynamic renders them exceptionally vulnerable to systemic exploitation within the industrial necro-system.

potential sources of infection simply because they were assigned to the culling operations.[88]

This hierarchical structure is further influenced by the geographic and social context in which culling and burial operations take place. These operations are primarily conducted near livestock farms where FMD outbreaks have taken place. Land used for burial is prohibited from use for at least three years. This spatial structure reveals a stark geographical disparity: while meat consumption is concentrated in urban centers, the environmental and social risks of livestock production are externalized to rural peripheries. Consequently, when culling is carried out, the areas surrounding the farms become even more difficult to inhabit due to contamination of soil, groundwater, and rivers by leachate, as well as foul odors.[89] The isolation of these sites is not only geographic but also administrative; culling sites are strictly closed off. Access is strictly prohibited to anyone other than quarantine officials, making it difficult even for the media to approach for coverage. If even the media cannot approach these sites, such institutional barriers to information render the voices of those at the lowest tier of this hierarchy all the more invisible. This marginalization is patently clear in the case of

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[88] Yunjeong Joo, Hayoung Cho, and Hyomin Park, "Working Conditions in Culling Livestock and Risk Outsourcing," *Discourse201* 23, no. 3 (2020): 28-30 [in Korean]; Hyomin Park, Myung Sun Chun, and Yunjeong Joo, "Traumatic Stress of Frontline Workers in Culling Livestock Animals in South Korea," *Animals* 10, no. 10 (2020): 1920, https://doi.org/10.3390/ani10101920.

[89] Rural areas surrounding livestock farms were already burdened by industrial-scale pig production, which generated persistent odors and leachate prior to the FMD crisis. The subsequent mass burial of carcasses, however, did more than merely exacerbate existing conditions; it fundamentally altered the microbial community dynamics within the groundwater. See Man Jae Kwon et al., "Impacts of Leachates from Livestock Carcass Burial and Manure Heap Sites on Groundwater Geochemistry and Microbial Community Structure," *PLoS ONE* 12, no. 8 (2017): e0182579, https://doi.org/10.1371/journal.pone.0182579. This phenomenon can be interpreted as a process in which "culled life" undergoes a material metamorphosis into entirely different entities—leachate and novel microbial assemblages—within the subterranean realm, thereby infiltrating the human environment.

foreign workers. For instance, it is nearly impossible to hear from foreign workers because they are restricted by both language barriers and confidentiality agreements, ensuring that their perspectives remain invisible in the public awareness.[90]

The most profoundly erased voices, however, are those of the animals themselves—the 3.48 million beings silenced in the name of quarantine. In contrast, the 2010 FMD outbreak served as a traumatic turning point for one farmer, who saw thousands of his own pigs culled, leading him to a radical reconfiguration of his ethical relationship with animal life. Transforming his conventional pigsty into an animal welfare farm, he now prioritizes the flourishing of pigs, allowing them to roam and live according to their nature.[91] This transition from a participant in the culling apparatus to a practitioner of animal-centered care exemplifies the possibility of mourning and transformation that theo-garbological ethics seeks to cultivate, proving that even in the wake of systemic erasure, the lives of these "discarded beings" can be reclaimed as subjects of dignity.

Despite such individual acts of reclamation, however, the broader landscapes of culling operations, landfills, and radiation-exposed areas remain stigmatized as zones of impurity. The residents, animals, and plants in these areas are often regarded as contaminated, and trade or consumption related to them is strictly restricted. Although products from these areas may enter the market through smuggling or reprocessing, they are ultimately banned, forgotten, and rendered unmentionable. These processes are linked to the collective amnesia of the public in the consumer society. The destruction,

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[90] Taehun Lim, "The Dark Ecology of the Dumpsite and the Literary Record," 129 [in Korean].

[91] OSEN, "Animal Welfare Pork CEO Passes Plant to 20-Year Employee," *The Chosun Daily*, https://www.chosun.com/english/kpop-culture-en/2025/12/04/Q7XEHMQXBJFFLFXHSB4ZQ5KMG4/.

exploitation, and mass killing of life are reduced to statistics, such as financial losses or the number of culled animals. What is buried in the ground is also buried in memory.

The city is the embodiment of this amnesia. It is a space where the world's energy, resources, and labor are concentrated for consumption, while the consequences of that consumption are pushed out of sight. The waste generated by human activity is either expelled from the city or barred from entering it entirely. Meanwhile, essential but "unclean" and "hazardous" infrastructures, such as landfills, incinerators, livestock complexes, and nuclear power plants, are systematically relegated to the rural periphery, far from urban areas. The convenience and abundance of urban life are sustained by a carefully maintained amnesia, a process of selective forgetting.[92]

As demonstrated by the South Korean government's management of the FMD crisis, the land, rivers, people, and tools involved in the quarantine and burial operations were systematically erased from public memory. Animals in FMD-affected areas were invariably treated as objects to be buried, concealed, and forbidden, regardless of their infection status. Hastily constructed culling landfills were not designed to allow culled animals to decompose properly and return to nature. Instead, the surrounding soil was corrupted, toxic gases were released, and leachate escaped. These animals could neither return to nature through natural decomposition nor to culture by being incorporated into

[92] This dynamic recalls the theological figure of Babylon in Revelation 17–18, wherein the imperial city's prosperity is premised on the concealment and expenditure of peripheral lives and matter.

consumer society. Their "uncanny return"[93] occurred in the form of toxic gases,[94] leachate, and decaying soil.

This uncanny return of the "unclean" manifests even more enduringly in the aftermath of nuclear disasters. Following the 2011 Fukushima nuclear disaster, the wild boar population in the region increased rapidly, and many boars became highly contaminated with radioactive cesium, with some individuals exceeding 100,000 Bq/kg.[95] Their meat is therefore unfit for consumption, and both eating and burying these animals pose risks of secondary radioactive exposure.[96] This phenomenon, known as the "wild boar paradox,"[97] also occurred in Germany following the 1986 Chernobyl nuclear

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[93] The notion of "uncanny return" draws on both Freud's *Das Unheimliche* [The Uncanny] and Derrida's hauntology. Freud's concept of the *Unheimliche* turns on the double meaning of the German word *heimlich*: at once "familiar, homelike" and "hidden, concealed." Its negation, *unheimlich*, thus denotes not something entirely foreign, but something once intimate that has been repressed and returns in an estranged and unsettling form. As Freud defines it: "the uncanny [*unheimlich*] is something which is secretly familiar [*unheimlich-heimisch*], which undergone repression and then returned from it, and that everything that is uncanny fulfils this condition." The paradigmatic figures of the uncanny—death, corpses, ghosts—exemplify this logic: the reality of death, which we strive to repress and push out of sight, returns in distorted and terrifying forms. Derrida, in *Specters of Marx*, politicizes this psychoanalytic structure into a theory of hauntology. For Derrida, the ghost (*revenant*) is not simply the dead, but that which has been suppressed and excluded, returning to haunt the present and demand justice. The "familiar yet alien" structure of the uncanny maps precisely onto the paradoxical mode of Derrida's specter, which is neither fully present nor fully absent. Sigmund Freud, "The Uncanny," in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, *Volume. 17: An Infantile Neurosis and Other Works (1917–1919)*, trans. Alix Strachey, ed. James Strachey (London: The Hogarth Press and the Institute of Psycho-Analysis, 1955), 245.

[94] The anaerobic decomposition of buried carcasses produces a complex mixture of gases, including high concentrations of methane (CH_4) and carbon dioxide (CO_2), along with odorous and hazardous trace gases such as hydrogen sulfide (H_2S), ammonia (NH_3), and various volatile organic compounds (VOCs). Kwon et al., "Impacts of Leachates," e0182579.

[95] Rie Saito, Reiko Kumada, Kenji Inami, Kousuke Kanda, Masahiko Kabeya, Masanori Tamaoki, and Yui Nemoto, "Monitoring of Radioactive Cesium in Wild Boars Captured inside the Difficult-to-Return Zone in Fukushima Prefecture over a 5-Year Period," *Scientific Reports* 12 (2022): art. 5667, https://doi.org/10.1038/s41598-022-08444-1.

[96] Limeng Cui, Makiko Orita, Yasuyuki Taira, and Noboru Takamura, "Radiocesium Concentrations in Wild Boars Captured within 20 Km of the Fukushima Daiichi Nuclear Power Plant," *Scientific Reports* 10, no. 1 (2020): 9272.

[97] The wild boar paradox means that while radioactivity in other animals and the environment has gradually declined, wild boars remain highly contaminated.

accident—though recent research has shown that the persistence of contamination stems not from Chernobyl alone, but also from earlier nuclear weapons testing fallout dating back to the 1950s and 1960s.[98] Decades after the disaster, wild boars in southern Germany (notably, Bavaria) still show persistently high levels of radioactive cesium-137 in their meat—often exceeding regulatory safety limits for food.[99] In both cases, wild boars exposed to radiation have been treated as waste; in Japan, the nuclear-contaminated wild boars are hunted and sent to a purpose-built incinerator, which is equipped with filters to absorb radioactive materials released during cremation.[100] However, the ash produced from incinerating contaminated animals can also contain highly concentrated radioactive materials. Thus, they continuously exist as radioactive waste, requiring that they be strictly managed. Consequently, these radiation-exposed animals are reduced to a form of permanent radioactive waste that can never be returned to nature or culture. Even as ash, they require indefinite management, existing as a haunting material residue that prevents the nuclear disaster from ever being fully erased from the landscape or from memory. Ultimately, these creatures vividly illustrate the collapse of the absolute dualism

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[98] Felix Stäger, Dorian Zok, Anna-Katharina Schiller, Bin Feng, and Georg Steinhauser, "Disproportionately High Contributions of 60-Year-Old Weapons-^{137}Cs Explain the Persistence of Radioactive Contamination in Bavarian Wild Boars," *Environmental Science & Technology* 57, no. 36 (2023): 13602.

[99] Ole Berendes and Georg Steinhauser, "Exemplifying the 'Wild Boar Paradox': Dynamics of Cesium-137 Contaminations in Wild Boars in Germany and Japan," *Journal of Radioanalytical and Nuclear Chemistry* 331, no. 12 (2022): 5003–12.

[100] The 相馬方部衛生組合 有害鳥獣焼却場 [Soma Regional Sanitation Association Harmful Wildlife Incineration Facility] is a specialized incineration plant located in Soma City, Fukushima Prefecture, Japan. It is operated by the Soma Regional Sanitation Association, a special local public body jointly managed by Soma City and Shinchi Town. The facility is dedicated to the incineration of "harmful wildlife," particularly wild boars (*inoshishi*) that have been designated as pests or pose risks, especially in the aftermath of the Fukushima nuclear disaster; Will Worley, "Radioactive Wild Boars Rampaging Around the Fukushima Nuclear Site," *Independent*, April 1, 2016, https://www.independent.co.uk/news/world/asia/radioactive-wild-boars-rampaging-fukushima-nuclear-site-japan-a6972361.html.

between "pure nature" and "dangerous waste," persisting instead as liminal entities on a continuum that constantly disrupts our attempts at systematic erasure.

D. *TERRA INCOGNITA*, *TERRA PROHIBITA*, AND *TERRA OBSCURA*

Sites where culled animals are buried alive, where the carcasses of animals exposed to radiation are interred, and where these animals are incinerated—such areas are not only off-limits to media coverage but also restrict public access and scientific data collection. In a sense, these spaces represent what I call *Terra incognita* (non-existent lands), *Terra prohibita* (forbidden lands), and *Terra Obscura* (hidden lands). European colonial powers used the concept of *terra nullius* to declare lands as "belonging to no one," erasing Indigenous sovereignty to justify colonization, settlement, and resource extraction. Similarly, the concepts of *terra incognita*, *terra prohibita*, and *terra obscura* function as conceptual apparatuses that render serious waste issues obscure and hidden. In each case, a theological-legal fiction rendered already-inhabited lands as if they were empty, available, and disposable. This logic parallels how contemporary states and corporations designate certain contaminated zones, burial sites, and incineration facilities as if they were outside the sphere of ordinary social and moral concern.

Do the concepts of *terra incognita*, *terra prohibita*, and *terra obscura* share a theological commonality with *terra nullius*, which is notoriously grounded in the "Doctrine of Discovery"? The Doctrine of Discovery emerged in the 15th century through a series of papal bulls.[101] These decrees justified the seizure of non-Christian

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[101] On the origins of the Doctrine of Discovery in a series of fifteenth-century papal bulls, see Robert J. Miller et al., *Discovering Indigenous Lands: The Doctrine of Discovery in the English Colonies* (Oxford: Oxford University Press, 2010); Mark Charles and Soong-Chan Rah, *Unsettling Truths: The Ongoing, Dehumanizing Legacy of the Doctrine of Discovery* (Downers Grove: InterVarsity Press, 2019).

lands by framing their inhabitants as "enemies of Christ," erasing Indigenous sovereignty and authorizing enslavement and conquest.[102] The most influential document, *Inter Caetera* (1493), explicitly declared that "barbarous nations be overthrown and brought to the faith itself."[103] These papal bulls established the Doctrine of Discovery, a theological apparatus that justified Western colonial powers' conquest, settlement, and exploitation of territories across the globe. In doing so, they positioned non-Christian peoples as spiritually inferior beings whose sovereignty could be dismissed.[104]

It is remarkable that the Doctrine of Discovery persisted into modern times. In Australia, *terra nullius* became the legal foundation upon which British colonization rested until as recently as 1992.[105] According to Federal Indian Law scholar Robert J. Miller, in *Native America*, *Discovered and Conquered*, the appropriation of the Doctrine of Discovery by the United States was systematic and far-reaching. The doctrine provided the legal, ideological, and theological scaffolding for American territorial claims, Indian policy, and the dispossession of Native nations. From its colonial inception, the U.S. federal government adopted the doctrine as the moral basis for its dealings with

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[102] Mark Charles and Soong-Chan Rah, *Unsettling Truths*, 14–15.

[103] Pope Alexander VI, *Inter Caetera*, May 4, 1493, in *Papal Encyclicals Online*, https://www.papalencyclicals.net/Alex06/alex06inter.htm.

[104] However, in March 2023, the Vatican formally repudiated the Doctrine of Discovery. This repudiation was articulated in a joint statement issued by the Dicasteries for Culture and Education and for Promoting Integral Human Development. The statement emphasized that the Doctrine of Discovery "is not part of the teaching of the Catholic Church" and that the Church "repudiates those concepts that fail to recognize the inherent human rights of indigenous peoples." Dicasteries for Culture and Education and for Promoting Integral Human Development, *Joint Statement on the* "*Doctrine of Discovery*," March 30, 2023, *The Holy See*, https://press.vatican.va/content/salastampa/en/bollettino/pubblico/2023/03/30/230330b.html.

[105] Stuart Banner, "Why *Terra Nullius*? Anthropology and Property Law in Early Australia," *Law and History Review* 23, no. 1 (2005): 95–131.

Indigenous peoples, claiming that upon "discovery," it obtained ultimate sovereignty over Indigenous lands, while granting them only a limited "right of occupancy."[106]

As *terra nullius* is linked to the Doctrine of Discovery, the dominion mandate in Genesis, and Western colonial powers, the concepts of *terra incognita*, *terra prohibita*, and *terra obscura* all have theological, historical, and political rationales as well: capitalism, eschatology, and environmental imperialism. Just as colonial theology rendered inhabited lands conceptually "empty" to justify conquest, these modern rationales render certain spaces conceptually "invisible" to justify the systemic externalization of waste.

Every stage in the life cycle of waste, ranging from its generation and circulation to its final or temporary disposal, is deeply interconnected with the structures of capitalist production and consumption. Within this intersection of colonial theology and capitalist spatial logic, the concepts of *terra incognita, terra prohibita, and terra obscura* serve to name the specific spatial strategies through which such waste, such as hazardous and radioactive substances, is hidden within zones that are rendered legally marginal, socially unseen, and theologically disavowed.

The unequal distribution of waste in the capitalist system also reveals that the logic of colonialism is not merely a relic of the past but a force that actively reconfigures the present and future. While *terra nullius* belongs to historical colonialism, its underlying dynamics persist today, manifesting through new spatial strategies like *terra incognita, terra prohibita, and terra obscura*. Indeed, reflecting this logic, new forms of

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[106] Robert J. Miller, *Native America, Discovered and Conquered: Thomas Jefferson, Lewis & Clark, and Manifest Destiny* (Westport: Praeger, 2006), 25–58.

colonialism have emerged under labels like environmental imperialism, green imperialism, and climate colonialism. In this context, the concept of neo-colonialism, systematized by Kwame Nkrumah, expresses how the global powers continue to exploit and exert control over developing nations following their formal decolonization.[107] Neo-colonialism expands its reach through cultural, economic, and environmental instruments, while ecological imperialism further illustrates how this power occupies and extracts from the global periphery. Related terms such as *toxic colonialism*, *climate colonialism*, and *carbon colonialism* are all closely linked to this neo-imperialist phenomenon.

It is significant to note that waste is a key material underlying each of these concepts. In particular, "toxic colonialism," also termed "toxic waste colonialism," a term coined in the early 1990s by Jim Puckett of Greenpeace, refers to the practice by which wealthy nations and corporations export hazardous waste to territories in the Global South or to marginalized enclaves.[108] In this process, environmental harms and the health concerns of residents in waste-affected areas are overshadowed by the political and

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[107] Kwame Nkrumah formally conceptualized "neo-colonialism" in his work, *Neo-Colonialism: The Last Stage of Imperialism*, arguing that although former colonies may achieve nominal independence, they remain subject to the economic and political control of external powers through international financial structures and corporate interests. Kwame Nkrumah, *Neo-Colonialism: The Last Stage of Imperialism* (London: Thomas Nelson & Sons, 1965), ix–xx; Bill Ashcroft, Gareth Griffiths, and Helen Tiffin, *Post-Colonial Studies: The Key Concepts* (London and New York: Routledge, 2002), 146.

[108] Jim Puckett, a hazardous waste investigator for Greenpeace, observed that Western developed nations were exporting toxic industrial waste to Africa, Asia, and Latin America to reduce disposal costs. He linked this practice to historical imperialist exploitation, arguing that it represents a new form of colonialism where developed nations sacrifice the environment and public health of impoverished countries in exchange for waste disposal. See Laura A. W. Pratt, "Decreasing Dirty Dumping: A Reevaluation of Toxic Waste Colonialism and the Global Management of Transboundary Hazardous Waste," *Texas Environmental Law Journal* 41, no. 2 (2011): 151–152.

economic interests of the beneficiaries.[109] As starkly illustrated by chief economist of the World Bank Lawrence Summers' infamous memo (1991), the argument that "the economic logic behind dumping a load of toxic waste in the lowest-wage country is impeccable" effectively reduced the lives of African populations to a matter of economic calculus—rendering human beings, like waste itself, disposable and relocatable according to market logic.[110] Toxic colonialism, as such, exploits economic disparities, lax environmental regulations, and especially historical power imbalances rooted in colonial legacies.

Examining the philosophical and theological roots is essential to understanding the pervasive nature of toxic colonialism. This system operates on two foundational presuppositions: first, that nature is a commodity and a source of "unpaid work"; and second, that Indigenous peoples, enslaved (or current) Africans, and other marginalized groups were (and still are) treated as extensions of that nature to be exploited, rather than to be acknowledged as full members of society.

According to Jason W. Moore, the strategy of "Cheap Nature" allows capitalism to appropriate resources, labor, and waste-absorbing capacities at minimal cost. This is achieved through the production of the "Four Cheaps": labor-power, food, energy, and raw materials. This strategy redefines nature as a source of "unpaid work" delivered by

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[109] Ryan Thomson and Tameka Samuels-Jones, "Toxic Colonialism in the Territorial Isles: A Geospatial Analysis of Environmental Crime Across U.S. Territorial Islands 2013–2017," *International Journal of Offender Therapy and Comparative Criminology* 66, no. 4 (2022): 470–91, https://doi.org/10.1177/0306624X20975161; Jeff Ernst, "They Dumped Toxic Waste in My Backyard: How US Pollution Is Poisoning a Mexican City," *The Guardian*, January 14, 2025, https://www.theguardian.com/us-news/ng-interactive/2025/jan/14/monterrey-mexico-steel-us-toxic-waste.

[110] Lawrence Summers' memo was leaked and first published in *The Economist* ("Let Them Eat Pollution," February 8, 1992). For further discussion of it, see Cynthia Moe-Lobeda, *Building a Moral Economy: Visions of a Good Life* (Minneapolis: Fortress Press, 2024).

forests, soils, or rivers, and even humans, such as enslaved people and marginalized groups.[111] As a result, the "Cheap Nature" strategy was inaugurated by European colonial expansion, which integrated vast new territories, resources, and labor into the capitalist world-economy. Crucially, this strategy recasts the capacity of soils and oceans to serve as yet another form of "cheap nature": both as natural resources valued for human use and a limitless and unpaid sink for the toxic byproduct of capitalist production.

Furthermore, both the concept of toxic colonialism and Cheap Nature have theological roots in the misinterpretation of Christian doctrines of creation and eschatology, particularly through the lenses of dualism, anthropocentrism, and an eschatology of radical discontinuity—one that envisions a new creation wholly severed from the present world. These doctrines, often misinterpreted or co-opted by colonial interests, provided ideological scaffolding for exploitation, ecological alienation, and the commodification of life. While liberation theology has long critiqued structures of exploitation, pioneering theological criticisms of the metaphysical roots of ecological alienation were advanced by John B. Cobb. Rejecting Western Christianity's anthropocentric dualism, Cobb challenged the anthropocentric view that acknowledges only the intrinsic value of humans, asserts human dominance over the nonhuman world, and reduces nature to mere utility. Instead, he emphasized the profound interconnectedness of all life, arguing that the nonhuman world has its own intrinsic

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[111] Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015), 70–71.

worth and that human existence itself is radically dependent upon the flourishing of the broader ecological community.[112]

The misinterpretation of the new creation envisioned in the book of Revelation—which sees God's old creation as destined for destruction—is also connected to a dualistic worldview. This eschatology of radical discontinuity legitimizes the instrumental use of the environment, as it treats the material world as a disposable platform for human benefit. Such a misunderstanding has led many to devalue the material world, dismissing it as a temporary stage while awaiting a disembodied, spiritual existence. In this theological schema, the earth is not a home to be cherished but a wasteland to be transcended, providing a religious justification for the systemic neglect and wasting of the material world.

Therefore, the material character of waste encompasses theological dimensions. Its material processes of production, circulation, and disposal, as well as the sociocultural-political mechanisms through which waste is defined, revealed, concealed, or excluded, all are deeply intertwined with theological logic. These interconnected processes collectively constitute a critical subject for analysis within the discourses of political theology and ecological theology. In the subsequent chapters, I will conduct a critical examination of how specific theological perspectives, particularly those grounded in anthropocentric interpretations of creation narratives and otherworldly eschatologies, have historically legitimized or disregarded the "Wasteocene"—a term that better

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[112] Cobb, *Is It Too Late?*, 34–36.

encapsulates contemporary waste crises than does the Anthropocene.[113] In doing so, I will trace the concrete mechanisms through which these theological paradigms have justified humanity's exploitative relationship with the Earth and obscured the systemic violence embedded in waste generation, ecological degradation, and socio-material exclusion.

Furthermore, through eco-theological and political-theological lenses, I deconstruct the material and theological presuppositions that permeate the current era, epitomized by the Wasteocene. This involves unmasking the anthropocentric and dualistic ideologies, such as dominion-based creation narratives and escapist teleologies, that sustain cycles of disposability and ecological indifference. In addition, by recentering theology around an ontology of material interconnectedness, I reconceptualize waste not as an externality but as a revelatory site for confronting humanity's broken covenant with the Earth.

E. SPECTRALITY OF WASTE

While Mary Douglas's definition of dirt as "matter out of place" helpfully delineates boundaries between purity and contamination, her binary logic can inadvertently reinforce the illusion of control over what belongs and what does not. Yet the material realities of the Anthropocene—or more aptly, the Wasteocene—render such distinctions inadequate for theorizing modern waste discourse. Waste today is no longer confined to the margins; it permeates the very fabric of existence, blurring the lines

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[113] Marco Armiero, *Wasteocene: Stories from the Global Dump* (Cambridge: Cambridge University Press, 2021), 1. Marco Armiero's concept of the *Wasteocene* reframes the Anthropocene by centering systemic socio-ecological injustices tied to waste production and disposal. It critiques the universalizing narrative of the Anthropocene, instead emphasizing how capitalist and colonial structures produce "wasted people and places" through wasting relationships-social processes that normalize exclusion, toxicity, and inequality.

between self and environment, present and future. While Douglas's "dirt" presupposes a stable place from which matter is exiled, waste in the Wasteocene exposes the inherent fragility of such spatial and ontological certainty.

Do the intrinsic ambiguity and fragility of waste demand a shift from an ontological to a "hauntological" approach to waste? Jacques Derrida's hauntology provides a critical lens for understanding the temporality of waste,[114] emphasizing the presence of the absent—how the past, the unspoken, or the excluded continue to haunt present realities. Such ghosts are neither fully present nor entirely absent, neither fully alive nor completely dead, and neither existent nor non-existent. Thus, hauntology fundamentally disrupts linear temporality and deconstructs the metaphysics of presence underlying traditional ontology. The spectral dislocates time in several ways: the past intrudes upon the present; the future already makes demands upon us before it arrives; distinctions between "now," "then," and "to come" blur and interpenetrate one another. This raises an ethical question: what do we owe to the ghosts that haunt us? Derrida suggests that learning to "live with ghosts" involves an ethical responsibility: rather than seeking to exorcise them and thereby repeating the violence of erasure, one must extend to them hospitality and justice.[115]

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[114] The term, Hauntology, is derived from the French "*hantologie*," which sounds nearly identical to "*ontologie*" when spoken. Traditional ontology privileges presence, identity, and the determinable. Hauntology, by contrast, examines that which neither exists nor non-exists in conventional terms. Through the trope of the ghost or specter, Derrida demonstrates how there lingers, in the absence of a thing, a spectral element that may be more real than its corporeal counterpart. This spectral presence-absence disrupts binary oppositions, such as being/non-being, presence/absence, life/death, which have structured Western metaphysics. Derrida, *Specters of Marx*, 48.

[115] Derrida, *Specters of Marx*, xviii.

Waste haunts the structures of late capitalism, the Anthropocene, and the Wasteocene. Like the ghosts, waste exists between presence and absence, being and non-being. It is neither fully present in conscious awareness nor absent from ecological systems, neither fully alive nor completely dead. Viewed through Derrida's hauntology, waste emerges not as inert matter but as an active spectral presence. Hauntology fundamentally disrupts the linear temporality of waste: chemical and radioactive waste blur and destabilize distinctions between "now," "then," and "to come" by circulating and penetrating the environment. The Anthropocene context amplifies these hauntological qualities, as waste appears as a constant, unsettling reminder of unresolved ethical and theological responsibilities toward damaged ecosystems and vulnerable communities.

This spectral dimension of waste manifests concretely through three key hauntological characteristics: temporal dislocation, liminal materiality, and hospitality. Importantly, the ghostliness of waste does not mean that it becomes immaterial; rather it marks the way that stubbornly material substances continue to haunt social and ecological life. First, regarding temporal dislocation, nuclear waste storage projects confront the paradox of creating "danger signs" intended to communicate across 10,000 years, a temporal scale that exceeds human comprehension.[116] These repositories become monuments to what Derrida called the visor effect. Drawn from *Hamlet*, the visor effect captures the asymmetrical relationship between the living and the specter: the specter sees us, but we cannot fully see or meet its gaze. Derrida emphasizes that, regardless of

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[116] Chandler L. Classen, "Communication at the End of the World: Affective Material Performativity and the Nuclear Danger Sign," *Text and Performance Quarterly* vol. 42, no. 2 (2022): 10.

whether the ghost's visor is up or down, the ghost can see the living, but the living cannot see or know the ghost in return.[117]

Second, the spectrality of waste manifests liminal materiality. At large dumping grounds worldwide, such as Dakar's Mbeubeuss,[118] the Philippines' Payatas,[119] or India's Deonar,[120] plastic waste for local waste pickers exists simultaneously as commodity residue (discarded by urban consumers) and reconstituted economic resource (sorted, cleaned, and sold to recycling networks). This dual existence embodies Timothy Morton's concept of "dark ecology," which refers to substances that defy clean categorization as either beneficial or harmful.[121]

Third, at the ethical level, waste confronts us with the question of hospitality. Like Derrida's specters of Marx demanding justice, greenhouse gases, such as methane or carbon dioxide released from decomposing waste, inexorably resurge through climate feedback loops, rendering our attempts to conceal them in landfills or oceanic gyres ultimately untenable. Living with waste as spectral beings entails an ethics of hospitality:

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[117] Jacques Derrida and Bernard Stiegler, *Echographies of Television: Filmed Interviews* (Cambridge: Polity Press, 2002), 121.

[118] On Mbeubeuss, see Sarah Walker, "Dakar Has Lost Its Lungs: What the Spatialised Inequalities of Waste Can Tell Us about Climate (Im)Mobilities," *Environment and Planning C: Politics and Space* 42, no. 6 (2024): 958–73.

[119] On Payatas, see Hiroshi Ito and Chisato Igano, "Bad or worse? Applying critical theory to Explore the Impacts of Payatas Dumpsite Closure on the Former Waste Pickers," *Waste Management & Research* 41, no. 6 (2023): 1114–1120.

[120] On Deonar, see Sneha Sharma, "Geographies of Exclusion: Reproducing Dispossession and Erasure within a Waste Picker Organization in Mumbai," *International Journal of Urban And Regional Research* 47, no. 5 (2023): 861–875.

[121] "Dark ecology," proposed by Timothy Morton, is an ecological philosophical perspective that rejects idealizing nature as pure or separate from humanity. Instead, it emphasizes that humans and nonhumans must confront uncertainty, threat, and discomfort together within the complex web in which they are entangled.Timothy Morton, *Dark Ecology: For a Logic of Future Coexistence* (New York: Columbia University Press, 2016), 5–6; Gabrielle Hecht, "Interscalar Vehicles for an African Anthropocene: On Waste, Temporality, and Violence," *Cultural Anthropology* 33, no. 1 (2018): 109–41.

not a romantic embrace of toxicity, but a sober willingness to acknowledge its presence, assume responsibility for it, and reconfigure the social and theological relations that produced it.[122]

Much like the ghosts in the film *Ghostbusters*, which necessitate specialized detection equipment, waste demands tools to measure its spectral presence. In the *Ghostbusters* universe, the Psychokinetic Energy Meter (PKE Meter) serves to detect spectral entities; similarly, in the Anthropocene, international governmental organizations, non-governmental organizations, and individuals deploy analogous instruments to quantify radiation in the air, soil, and food, microplastics in water, fine particulate matter (PM10 and PM2.5) in the air, and CO2 in the atmosphere. These measurements reveal waste's pervasive, liminal materiality, which remains neither simply absent nor wholly graspable. Rob Nixon's concept of "slow violence"[123] further illuminates how waste, as it interpenetrates human and nonhuman bodies, blurs temporal boundaries and disrupts long-standing binaries of being and non-being, or presence and absence.

In *Humankind: Solidarity with Nonhuman People*, Timothy Morton extends the Derridean concept of the specter into the domain of ecological awareness. He rejects the divide between humans and nonhumans, asserting that "it is hard to distinguish between

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[122] The term hospitality derives from the Latin *hospes* (guest/host), which is itself rooted in *hostis*, originally meaning "stranger" and later "enemy." This etymological ambivalence—between welcome and hostility—is what Derrida captures in his concept of *hostipitality*: hospitality is never simply benign, but always involves the risk of encountering what is threatening or unwelcome. See Jacques Derrida, *Hospitality*, *Volume I*, trans. E. S. Burt, ed. Pascale-Anne Brault and Peggy Kamuf (Chicago: University of Chicago Press, 2023), 33–34.

[123] Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011).

life and non-life,"[124] and "*spectrality is nonhumans*, including the 'nonhuman' aspects of ourselves."[125] Consequently, ecological beings—a human, a tree, an ecosystem, or a cloud—must be thought of "not as alive or dead, but as spectral," neither solidly real nor completely unreal.[126] In other words, Morton's account of ecological beings as spectral does not remain a purely ontological claim; it reshapes what it means to become aware of, and to live with, such beings.

For Morton, ecological awareness means coexistence with nonhuman specters.[127] The substance ontology of capitalism sharply separates the essence of things from their phenomenological aspects, stripping them of inherent qualities and reducing them to mere data. By contrast, recognition of nonhuman specters enables us to cultivate, as Morton argues, "a feeling of unconditional solidarity with things, with everything, and anything."[128] In other words, ecological awareness involves an attunement to spectrality, consisting of a deep recognition of specters, which challenges the anthropocentric tendency to dismiss nonhuman beings around us as secondary or subordinate.[129] In this vein, ecological thought rejects presuppositions that separate the living from the non-living, the sentient from the non-sentient, or the real from the epiphenomenal.[130]

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[124] Timothy Morton, *Humankind: Solidarity with Nonhuman People* (Brooklyn: Verso Books, 2017), 56

[125] Morton, *Humankind*, 54.

[126] Morton, *Humankind*, 55.

[127] Morton, *Humankind*, 63.

[128] Morton, *Humankind*, 66.

[129] Morton, *Humankind*, 68.

[130] Morton, *Humankind*, 69.

When thinking about waste from the perspective of Morton's spectrality, waste emerges as a specter that reveals the darker and weirder malfunctioning of the world. It is not a superficial appearance but a disturbing symptom that marks waste as a hyperobject.[131] Morton cites a study by oceanographer Pincelli Hull to demonstrate how this spectral symptom manifests itself in the oceans.[132] Hull refers to spectrality as a signal of mass extinction, describing the oceans as "full of ecological ghosts," species so rare that they no longer fulfill their ecological roles, even though they are not yet extinct.[133]

These ghosts are not simply absent; they linger, haunting the ecosystem with their lost potential and former abundance. The presence of these spectral entities—rare species, collapsed populations, or ecological functions that have faded—signals that mass extinction is underway long before the final disappearance of species. This spectrality is not just an aesthetic metaphor but a real, observable phenomenon: the ecosystem is haunted by what is no longer fully present but not entirely gone. The "ghosts of oceans past" swim in "emptied seas," producing cascading changes in the ecosystem.[134] Thus,

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[131] Morton, *Humankind*, 75.

[132] Morton, *Humankind*, 75–76.

[133] Pincelli M. Hull, Simon A. F. Darroch, and Douglas H. Erwin, "Rarity in Mass Extinctions and the Future of Ecosystems," *Nature* 528, no. 7582 (2015): 345–351, https://doi.org/10.1038/nature16160.

[134] Hull et al., "Rarity in Mass Extinctions and the Future of Ecosystems," 349.

spectrality serves as a diagnostic tool: it reveals the hidden, ongoing collapse of ecological networks before extinction is officially recorded.[135]

Morton insists that spectrality is "a very precise ontological category, not just a haze that makes anything metaphysical impossible."[136] His point is that spectrality is not just a vague or poetic way of representing loss or absence. Instead, it describes a real mode of existence: entities can exist ontologically as specters, such as rare species, radioactive waste, or even the memory of extinct ecosystems. These entities are not simply "gone" nor fully "here"; rather, they persist in a liminal, haunting state, shaping reality and demanding ethical and scientific attention. Morton thus rejects spectrality as a mere "ineffectual aesthetic flicker,"[137] insisting instead that it is a rigorous category for understanding entities that disrupt clear boundaries between life and death, presence and absence, and past and present. Ecologically, spectrality names the haunting persistence of what is lost but not erased—ghosts that actively shape the living world.

In this context, I propose that waste emerges as a central matter that illuminates spectrality, especially in the Anthropocene. Waste exists in a strange ontological state wherein it is simultaneously present as discarded material, yet never fully coincides with itself; it transforms, persists, and affects realities beyond its apparent boundaries.[138] The

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[135] Ultimately, even before actual extinction occurs, the dramatic decline in abundance and function of once-common species can cause ecological collapse similar to that seen after mass extinctions. The presence of these "ghosts" in today's oceans signals that we are already experiencing a profound ecological crisis—one that resembles the aftermath of past mass extinctions, even if the species themselves have not yet disappeared completely.

[136] Morton, *Humankind*, 76.

[137] Morton, *Humankind*, 76.

[138] "Because spectrality is the flavor of the symbiotic real, where everything is what it is, yet nothing coincides exactly with itself." Morton, *Humankind*, 54.

spectral quality of waste emerges from this tension between presence and absence, and visibility and invisibility.

To understand Morton's concept of spectrality in relation to waste, we must engage with his notion of hyperobjects—entities that are counterintuitive, transdimensional, and "massively distributed in time and space relative to humans."[139] Waste, in its accumulated global form, functions precisely as such a hyperobject. As it continues to exist and affect the world, human-made materials such as plastics and nuclear wastes epitomize the spectral nature of waste, particularly in their temporal dimension. Even with technological and scientific advances, human knowledge can only address them within a limited temporal framework; they persist and exert unpredictable impacts across human timescales.

Thus, it is an illusion that waste is fully managed and disappears. Waste haunts us not just spatially but temporally, persisting far beyond human timescales. In *Dark Ecology*, Morton argues for cultivating a spirituality of care toward all objects, citing plutonium as an example. Morton suggests keeping nuclear waste above ground rather than burying it underground, because we can thereby see it more readily and learn to take more responsibility for it.[140]

The spectral image of waste and Julia Kristeva's concept of "the abject" converge in their shared focus on boundary dissolution, existential threats, and the destabilization

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[139] Timothy Morton uses the notion of hyperobject to describe entities like radioactive materials and global warming that are so massively distributed in time and space that they defy human comprehension and control. Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013), 1, 182.

[140] Morton, *Dark Ecology*, 161.

of human exceptionalism. Kristeva's theory of abjection provides a psychoanalytic lens for understanding how subjects relate to the matter that threatens their boundaries and identity. She defines the abject as that which "does not respect borders, positions, and rules" and "disturbs identity, system, and order."[141] Kristeva's analysis centers on the abject's fundamental opposition to the subject's coherence. She writes that "the abject has only one quality of the object and that is being opposed to I."[142] In other words, the abject is not the same as an object, which is something clearly outside and separate from the subject. The abject is neither a complete external object nor fully part of the subject. Substances such as blood, bodily waste, rotten food, or corpses—once part of the self—are deeply repulsive, thus prompting a desire to expel and distance them. Thus, these entities are not merely external objects but unstable presences at the borders between self and other.

Bodily waste serves as a paradigmatic example of abjection. As Kristeva puts it, bodily fluids and waste products represent "what life withstands, hardly and with difficulty, on the part of death."[143] These materials emerge from the subject's own body yet must be expelled to maintain the fantasy of the "clean and proper" body.[144] According to Kristeva, this process of abjection not only preserves the illusion of a discrete self but also entails a continual loss of parts of the self. As we cast out more and more of what threatens our identity, we risk reaching a point where nothing remains—where the self is

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[141] Julia Kristeva, *Powers of Horror: An Essay on Abjection,* Translated by Leon S. Roudiez (New York: Columbia University Press, 2024), 4.

[142] Kristeva, *Powers of Horror*, 1.

[143] Kristeva, *Powers of Horror,* 3.

[144] Kristeva, *Powers of Horror,* 71–76.

entirely dismantled and the body crosses the threshold into death. Abjection, then, is not only the process of expelling what is not oneself; it is also a gradual unraveling of the self, drawing us inexorably toward dissolution.

Morton applies Kristeva's concept of the abject to his idea of spectrality. He argues that "we obtain exactly the abject awareness that I can't peel nonhumans from me without ceasing to be myself."[145] He thus emphasizes the inseparability of humans from the nonhuman world and the profound ontological challenge this inseparability poses to the notion of a stable, autonomous self. In other words, he uses the abject to articulate a paradoxical awareness: the nonhuman is both something we might wish to reject or distance ourselves from (as abject), yet it is also constitutive of our very being. This aligns with his broader ecological and ontological argument that humans exist as holobionts within a mesh of symbiotic nonhuman relations—including trillions of microbes (~55% of total body cells).[146] Kristeva's concept of the abject shares with Derrida's and Morton's spectrality an ambiguous ontology and a paradoxical understanding of humans and nonhumans, being and non-being, and the living and non-living. Thus, when we critically reflect on what we have taken for granted, we begin to see the specters that reveal "something in the present is not going well, it is not going as it ought to go."[147]

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[145] Morton, *Humankind*, 67.

[146] Ron Sender, Shai Fuchs, and Ron Milo, "Revised Estimates for the Number of Human and Bacteria Cells in the Body," *PLoS Biology* 14, no. 8 (2016): e1002533, https://doi.org/10.1371/journal.pbio.1002533.

[147] Derrida, *Specters of Marx*, 27.

A hauntological understanding of waste allows us to think about waste without imposing fixed boundaries between self and other, human and nonhuman, or the clean and the unclean. This boundary-blurring thinking may feel uncanny and uncomfortable—not only because it reveals the interpenetration of all beings but also because it destabilizes the Western philosophical notion of a discrete subject and critiques, in a Levinasian sense, the philosophy of totality that subsumes the Other's alterity. Yet when we abandon anthropocentrically subjective perspectives, ecological awareness emerges. Following German political philosopher Hannah Arendt's metaphor of "thinking without a banister"—a practice of thought that rejects reliance on traditional religious, philosophical, or moral-political supports[148]—we may forge a new ontology of alterity and an ethics of radical relationality through the ecological awareness of waste.

The indifference, thoughtlessness, and eroded relationality of late modernity have led to the loss of both the space and the ability to consider the alterity of others.[149] This has become a defining characteristic of those living in what Zygmunt Bauman terms *liquid modernity.*[150] The ecological awareness described by Morton entails expanding the scope of dialogue and practicing an openness to becoming-with the other. Such a capacity transcends mere cognitive or aesthetic imagination; it demands a robust theological and theo-poetic imagination.

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[148] Hannah Arendt, *Thinking without a Banister: Essays in Understanding, 1953-1975* (New York: Schocken, 2018), 473.

[149] According to Zygmunt Bauman's concept of "solid modernity," the West possessed stable communal relations—feudal hierarchies, guilds, and civic associations—that were eroded in "liquid modernity." Zygmunt Bauman, *Liquid Modernity* (Cambridge: Polity, 2000), 4–7, 31–34.

[150] Z. Bauman introduces the term "liquid modernity" to describe the fluid, rapid changes in relationships, identities, global economics, and the uncertain nature of contemporary society. Z. Bauman, *Liquid Modernity*, 2.

The sociocultural and phenomenological analysis of waste presented in this chapter requires not only theological but also theo-poetic imagination to critically examine foundational Christian doctrines, particularly those concerning creation and eschatology. The multifaceted nature of waste—as a temporal and spatial phenomenon, a metaphorical construct, a political apparatus, and a spectral presence—exposes how boundaries between order/disorder, sacred/profane, valuable/worthless are not naturally given but ideologically and theologically constructed. The politics of boundary-making that determines what constitutes not only "matter out of place" but also "matter out of time" resonates deeply with theological frameworks that have historically constructed rigid distinctions between being/non-being, creation/chaos, divine order/primordial disorder.[151] The spectrality of waste, with its hauntological persistence across temporal and spatial boundaries, challenges linear theological narratives that posit creation as a singular, completed act of divine ordering from absolute nothingness.

The theological roots of toxic colonialism and the emergence of *terra incognita*, *terra prohibita*, and *terra obscura* as conceptual apparatuses will reveal how traditional creation doctrines have been co-opted to justify not only systems of domination and ecological exploitation but also an eschatological indifference toward the Earth as ultimately transient and disposable. The anti-categories of waste—anti-memory, anti-form, anti-culture, anti-value, and anti-nature—underscore the need for theological

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[151] Lisa Doeland, "Turning to the Specter of Waste: A Hauntological Approach," in *Perspectives on Waste from the Social Science and the Humanities*, eds. Richard Ek and Nils Johansson (Newcastle upon Tyne: Cambridge Scholars Publishing, 2020), 32.

frameworks capable of embracing ambiguity, multiplicity, and the generative possibilities latent within what has been relegated to the margins.

Building on this phenomenological foundation, the next chapter will critically examine the doctrine of *creatio ex nihilo* and its alternatives, particularly Catherine Keller's proposal of *creatio ex profundis* (creation out of the deep). This proposal serves as a critical lens through which to assess whether traditional theological logics can adequately address the complex realities of waste in the Anthropocene or whether new theological paradigms are required to articulate a more just and ecologically responsive understanding of divine creativity and creaturely existence.

The phenomenological analysis of waste has revealed that waste is not merely an inert object awaiting technological treatment or expulsion from the social body, but a spectral presence that haunts our society, persisting through the violence of unseeing and active forgetting. This social mechanism, which reduces matter to "nothingness" for disposal, is not a purely modern secular construct; rather, it is deeply rooted in theological assumptions. To understand how the Western theological imagination has legitimized the dominion over and erasure of the material world—despite the countervailing witness of the incarnate One—we must interrogate the foundational doctrine that posited a binary between divine being and material nothingness. Therefore, the following chapter critically examines the doctrine of *creatio ex nihilo*, demonstrating how its historical iterations provided the theological scaffolding for a logic of dominion that renders both nature and matter subject to erasure and waste.

CHAPTER TWO

THE ECO-POLITICAL THEOLOGY OF NOTHINGNESS:

A *TEHOMIC* CRITIQUE OF *CREATIO EX NIHILO*

Creation narratives are more than stories about the beginning of the world; they answer fundamental questions about human identity, teleology, and ethics, such as who we are, and who we ought to be. Furthermore, they characterize more-than-human entities and dictate how humans should relate to them, effectively distinguishing between what is inherently valued and what is rendered disposable. The logic of *creatio ex nihilo* has dominated theological discourse, despite the existence of other interpretative possibilities. The acceptance of doctrinal formulations emerges from philosophical and political contexts just as much as from theological reasoning. Once a doctrine reaches the status of absolute dogma, however, as seen in the historical dominance of *creatio ex nihilo*, it risks silencing alternative cosmologies and obscuring the diverse meanings embedded within creation stories.

Historically, the doctrine of *creatio ex nihilo* solidified as the orthodox account of origins through polemical engagement with rival cosmologies—ranging from the Platonic model of pre-existent matter to various emanationist or chaos-cosmos dialectical

systems.[152] Beyond its cosmological claims, it functioned to consolidate ecclesiastical authority and suppress perceived heresies. This socio-theological process systematically marginalized competing interpretations. By contextualizing the historical development of *creatio ex nihilo*, this chapter evaluates both its theological utility and its limitations through an eco-critical lens.

Furthermore, building upon eco-critical critiques, I argue that the traditional understanding of *creatio ex nihilo* has obscured the ecological crisis by devaluing materiality—specifically by "trashing" and erasing the primordial chaos to construct a narrative of an absolute beginning from nothing. In this chapter, I seek to recover suppressed dimensions of creation narratives that remain buried beneath the hegemony of *creatio ex nihilo* and propose a theo-garbological ethics of mourning and "staying with" waste in the Wasteocene.

A. HISTORICAL DEVELOPMENT OF *CREATIO EX NIHILO*

1. The Early Christian Theologians' Understanding of *Creatio Ex Nihilo*

The universal dogma of the Christian tradition asserts that God created the world out of nothing. The classic creeds, such as the Nicene Creed and the Apostle's Creed, however, do not explicitly state that the creation occurred "out of nothing," even though both clearly affirm God as the Creator of all things. The doctrine of creation from nothing

[152] While *creatio ex nihilo* enforces a strict hierarchy, emanationist models propose an ontological continuity that threatens the image of a transcendent sovereign and the corresponding ecclesiastical authority. Likewise, chaos-cosmos dialectical models—which view creation as a continuous negotiation with pre-existent chaos rather than a definitive triumph of absolute power—were marginalized for compromising the doctrine of total divine sovereignty. For further exploration of these suppressed traditions, see Keller, *Face of the Deep*, 47–53, 115–117; and Jon D. Levenson, *Creation and the Persistence of Evil: The Jewish Drama of Divine Omnipotence* (Princeton: Princeton University Press, 1988), 14–18, 47–48.

was theologically refined by the early Christian theologians and later officially codified at church councils, culminating at the Fourth Lateran Council (1215).[153] Among Protestant confessions and creeds, the Belgic Confession (1561), the Second Helvetic Confession (1566), and the Westminster Confession of Faith (1646) explicitly confess the doctrine of creation from nothing.[154]

While the doctrine of creation out of nothing was officially codified into creeds and confessions at the Fourth Lateran Council (1215), explicit references to creation out of nothing were developed from the early period of Christian thought.[155] The emphasis of *creatio ex nihilo* is found in the writings of early theologians such as Hermas, Theophilus of Antioch, Irenaeus of Lyon, and Augustine of Hippo. For instance, the earliest thought on *creatio ex nihilo* is found in Hermas and Theophilus. In *The Shepherd of Hermas*, Hermas exhorts that "first of all, believe that there is one God who created and finished all things and made all things out of nothing. He alone is able to contain the whole, but

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[153] Henry Denzinger, *The Sources of Catholic Dogma*, trans. Roy J. Deferrari (Fitzwilliam: Loreto Publications, 1955), 169 (DS 428) ("created each creature from nothing").

[154] For the explicit confession of *creatio ex nihilo* in these standards, see *The Belgic Confession*, art. 12, in Philip Schaff, *The Creeds of Christendom*, vol. 3 (Grand Rapids: Baker Books, 1990), 395 ("created of nothing the heaven, the earth, and all creatures"); *The Second Helvetic Confession*, ch. 7, in Schaff, *Creeds of Christendom*, 3:841 ("all those things do proceed from one beginning"); and *The Westminster Confession of Faith*, ch. 4.1, in Schaff, *Creeds of Christendom*, 3: 610 ("to create, or make of nothing, the world, and all things therein").

[155] The following tracing of the historical development of *creatio ex nihilo* is informed by the following seminal studies. While relying on these secondary works for historical framework, I have endeavored to engage directly with primary patristic sources to trace the conceptual evolution and mentions of the doctrine. See Frances Young, "Creatio Ex Nihilo: A Context for the Emergence of the Christian Doctrine of Creation," *Scottish Journal of Theology* 44, no. 2 (1991): 139–51; Gerhard May, *Creatio Ex Nihilo: The Doctrine of 'Creation out of Nothing' in Early Christian Thought*, trans. A. S. Worrall (Edinburgh: T&T Clark, 1994); Gary A. Anderson and Markus Bockmuehl, eds., *Creation ex nihilo: Origins, Development, Contemporary Challenges* (Notre Dame: University of Notre Dame Press, 2018); and Ian A. McFarland, *From Nothing: A Theology of Creation* (Louisville: Westminster John Knox Press, 2014).

Himself cannot be contained."[156] Similarly, Theophilus underscores the uniqueness of divine power by contrasting it with human craftsmanship, insisting that "what great thing is it if God made the world out of existent materials? For even a human artist, when he gets material from some one, makes of it what he pleases. But the power of God is manifested in this, that out of things that are not He makes whatever He pleases."[157] These early testimonies demonstrate that the concept of creation out of nothing was not a later theological innovation but was already taking shape among the earliest Christian writers.

A clearer and more decisive set of supporting positions emerges through the works of theologians such as Irenaeus and Augustine. Their advocacy of *creatio ex nihilo* developed as a direct response to the challenges posed by Marcionism and Gnosticism. In *Adversus Haereses*, Irenaeus emphasizes that God is completely self-sufficient in creation, requiring no external materials, patterns, or blueprints. Also, he denies the need for the pre-existence of matter,[158] contending that God takes "from Himself the substance of the creatures [formed], and the pattern of things made, and the type of all the adornments in the world."[159] Based on Irenaeus's assertion that God derives both the

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[156] Hermas, *The Pastor*, II. 2 Commandments, in *The Ante-Nicene Fathers: Translations of the Writings of the Fathers down to A.D. 325*, vol 2. ed. Alexander Roberts and James Donaldson (Edinburgh: T&T Clark, 2001), 20.

[157] Theophilus of Antioch, *To Autolycus*, II. 4, in *The Ante-Nicene Fathers: Translations of the Writings of the Fathers down to A.D. 325*, vol 2. ed. Alexander Roberts and James Donaldson (Edinburgh: T&T Clark, 2001), 95. The expression τὰ μὴ ὄντα—"the things that are not"— may carry more ambiguity than later readings of *creatio ex nihilo* allow. As May notes, the hardened language of "nothing" reflects "the aspirations of a later age to theological precision" rather than the openness of earlier formulations. See May, *Creatio Ex Nihilo*, 119.

[158] Irenaeus of Lyon, *Adversus Haereses,* II.14.4 ed. Alexander Roberts, James Donaldson, and A. Cleveland Coxe, trans. Alexander Roberts and William Rambaut, vol. 1, *Ante-Nicene Fathers* (Peabody: Hendrickson Publishers, 1995), 377.

[159] Irenaeus, *Adversus Haereses,* IV.20.1, in *Ante-Nicene Fathers*, vol. 1, 488.

substance and the pattern of creation "from Himself", three critical dimensions of his understanding of *creatio ex nihilo* come into focus: first, the substance of creation originates entirely from God's own divine power and will; second, the pattern or design of all created things flows from God's own wisdom and nature; and third, the beauty and order of the world reflect God's own perfection.

Augustine's formulation of *creatio ex nihilo* is developed in explicit opposition to two major philosophical alternatives that he regards as incompatible with Christian theology: Neoplatonic emanationism, which understands the world as flowing from God's own substance, and Manichean dualism, which holds that God created the world from eternally preexisting matter.[160] By rejecting emanationism, Augustine maintains the absolute distinction between the immutable Creator and the mutable creation, ensuring that the world is not a divine overflow but a product of God's free will.[161]

Simultaneously, in his polemic against Manichaean dualism, Augustine employs Neoplatonic logic to reframe evil not as a material substance, but as a privation of good—a move that, in affirming the fundamental goodness of even formless matter, represents a step away from outright material dualism.[162] By asserting that God created everything

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[160] The following examination of Augustine's doctrine of creation is informed by the scholarship of Dennis Patrick O'Hara, John C. Cavadini, and Jared Ortiz. Drawing upon their insights, I have sought to engage directly with Augustine's primary texts to analyze his specific articulation of *creatio ex nihilo*. See Dennis Patrick O'Hara, "An Ecotheological Consideration of *creatio ex nihilo*," *Catholic Theology and Thought* 87 (2022): 316–347; John C. Cavadini, "*Creatio ex nihilo* in the Thought of Saint Augustine," in *Creation ex nihilo: Origins, Development, Contemporary Challenges*, ed. Gary A. Anderson and Markus Bockmuehl (Notre Dame: University of Notre Dame Press, 2017), 163–164; and Jared Ortiz, *You Made Us for Yourself: Creation in St. Augustine's Confessions* (Minneapolis: Fortress Press, 2016), 1–41.

[161] St. Augustine, *The City of God*, XI, 22.

[162] For a further analysis of Augustine's formulation of creatio ex nihilo within the context of his anti-Manichaean polemic, see N. Joseph Torchia, *Creatio ex nihilo and the Theology of St. Augustine: The Anti-Manichaean Polemic and Its Legacy* (New York: Peter Lang, 1999).

from nothing, Augustine affirms that even formless matter is fundamentally good, yet inherently mutable precisely because of its origin in *nihil*.[163] Yet this affirmation remains constrained: matter's goodness is derivative and precarious, defined by its distance from God and its susceptibility to corruption—a logic that, I argue, still underwrites the disposability of the material world. This ontological precariousness defines creation as entirely contingent upon God's free will, extending to creation's continued existence: creatures are entirely dependent upon God's sustaining power for their continued existence, yet their ontological status as *ex nihilo* renders them subject to the processes of change and corruption.

Although Augustine constructs the idea of *creatio ex nihilo* not from a biblical basis, but from philosophical reasoning,[164] he does not overlook *Tohu wa-bohu*, the state of the earth before creation described as "formless and void" in Genesis 1:2. In *Confessions*, Augustine discusses the nature of formless matter (*materia informis*), maintaining that God created the formless matter prior to other particular creatures.[165]

> For because of their lowly position, they are less beautiful than all other things which are full of light and radiance. I have no reason to doubt that the formlessness of matter, which by your creation was made lacking in all definition and was that out of which you made so lovely a world, is

[163] St. Augustine, *Confessions*, 13. 33.

[164] St. Augustine, *Confessions*, 12. 6–7.

[165] St. Augustine, *Confessions*, 12. 3–4.

> conveniently described for human minds in the words "the earth invisible and unorganized."[166]

Unlike some earlier Christian theologians who proposed a temporal sequence in creation, Augustine develops a sophisticated understanding of creation as involving two simultaneous aspects: creation of formless matter and form. Augustine argues that God first created what he termed formless matter or *materia informis* from absolute nothingness.[167] This formless matter is not evil, as it often is in some ancient cosmologies; instead, it represents pure potentiality: matter without specific form or structure. This concept echoes the description in Genesis 1:2 that "The earth was without form and void (ESV)." It is often assumed that God simultaneously created formless matter, imparted form and order upon it, and brought forth the structured cosmos we observe today. Augustine, however, envisions this formative act through the implantation of *rationes seminales* (seminal reasons or causal principles). These are the hidden seeds or causes implanted by God at the beginning of creation, destined to unfold over time as the world developed.[168] According to this view, all living beings and natural kinds that

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[166] St. Augustine, *Confessions*, 12. 4.

[167] St. Augustine, *Confessions*, 12. 8.

[168] This Augustinian model provides a robust theological alternative to modern literalist creationism. By framing creation as a dynamic process of unfolding potentiality rather than a collection of static, finished products, it allows for a dialogue between ancient Christian tradition and contemporary developmental or evolutionary perspectives. Alister E. McGrath, *A Fine-Tuned Universe: The Quest for God in Science and Theology* (Louisville: Westminster John Knox Press, 2009), 101.

appeared later in history were already present from the outset in a seminal or potential form.[169]

To sum up, earlier theologians, in particular, Augustine and Irenaeus, developed remarkably similar understandings of this doctrine, despite living in different centuries and contexts. Their convergence on this theological principle reflects shared theological foundations, common philosophical challenges, and unified responses to heretical movements that threatened orthodox Christian teaching. The early Church faced significant challenges from Greek philosophical traditions that posited eternal matter and various forms of dualism. Greek philosophers, influenced by Aristotle, had an idea of the eternal cosmos and eternal matter from which the present world has emerged.[170]

That is, philosophers from other schools, including the Stoics and Epicureans, likewise maintained that the world—or its underlying reality— is eternal. They reached this conclusion through the principle that *ex nihilo nihil fit* ("nothing can come out of nothing"):[171] since only nothing can arise from absolute nothingness, there must always be some preexisting reality from which other things come to be. This fundamental difference concerning the nature of the world compelled early Christian theologians to develop a distinctly Christian account of the origin of the cosmos. Thus,

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[169] St. Augustine, *The Literal Meaning of Genesis*, trans. John Hammond Taylor, S.J., 2 vols. (New York: Newman Press, 1982), 6.10.17–11.19, 6.14.25–15.26; *The Trinity*, trans. Edmund Hill, O.P. (Brooklyn: New City Press, 1991), 3.8.13–9.16; Simo Knuuttila, "Time and Creation in Augustine," in *The Cambridge Companion to Augustine*, eds. David Vincent Meconi and Eleonore Stump (Cambridge: Cambridge University Press, 2014), 82.

[170] Janet M. Soskice, "*Creatio ex nihilo*: Its Jewish and Christian Foundations," in *Creation and the God of Abraham*, ed. David B. Burrell et al. (Cambridge: Cambridge University Press, 2010), 24–25; Aristotle, *Physics*, I.9, trans. C. D. C. Reeve (Indianapolis: Hackett Publishing Company, 2018), 18–19; and Aristotle, *De Caelo,* I.3, trans. C. D. C. Reeve (Indianapolis: Hackett Publishing Company, 2020), 5–7.

[171] May, *Creatio Ex Nihilo*, 8.

for them, the doctrine of creation was not merely a philosophical question but a deeply theological one, addressing God's nature, power, and relationship to the created order, as well as the central themes of divine transcendence, omnipotence, and the goodness of creation.[172]

2. Reformed Theological Understandings of *Creatio Ex Nihilo*

The Reformation period (16th century) represents a crucial theological bridge connecting the early Christian theologians' formulations of *creatio ex nihilo* with modern theological developments. While Martin Luther and John Calvin largely affirmed the traditional doctrine of *creatio ex nihilo* established by Augustine and other early Christian theologians, such as Hermas, Theophilus of Antioch, and Irenaeus of Lyon, these Reformers nevertheless provided distinctive emphases and interpretations that would influence subsequent theological thought. Their contributions to the doctrine of *creatio ex nihilo* were shaped by their emphasis on divine sovereignty, Scripture's authority, and their critiques of medieval scholasticism.[173]

Luther regards the doctrine of creation as central to his entire theological system. According to German theologian Johannes Schwanke, Luther sees creation as "the principal and permanent feature of God's action and communication," occurring

[172] Ortiz, *You Made Us for Yourself*, 1–10.

[173] For recent ecotheological retrievals of Luther's and Calvin's thought, see H. Paul Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology* (Philadelphia: Fortress Press, 1985); Susan E. Schreiner, *The Theater of His Glory: Nature and the Natural Order in the Thought of John Calvin* (Durham: Labyrinth Press, 1991); Larry Rasmussen, *Earth Community, Earth Ethics* (Maryknoll: Orbis Books, 1996); and Lisa E. Dahill and James B. Martin-Schramm, eds., *Eco-Reformation: Grace and Hope for a Planet in Peril* (Eugene: Cascade Books, 2016). While these works offer vital ecotheological insights, they are not examined in depth here, as this chapter prioritizes the historical and dogmatic trajectory of *creatio ex nihilo*.

continuously in a threefold manner: initial creation, preservation, and re-creation.[174] This expansive view of creation allowed Luther to connect the doctrine directly to his understanding of justification and salvation.[175]

Schwanke argues that Luther sees *creatio ex nihilo* as the paradigmatic example of God's ability to bring something out of nothing, a principle he applies analogically to justification. Luther emphasizes that God's creative act was fundamentally an expression of divine sovereignty and freedom. For Luther, *creatio ex nihilo* demonstrates that "God's action is always *sola gratia*," paralleling his understanding of salvation.[176] Just as God creates freely without requiring pre-existing materials, so too does God justify sinners without requiring preliminary human works.[177] Furthermore, unlike other medieval scholastics who focused primarily on the initial act of creation, Luther emphasized the ongoing nature of God's creative activity. In his lectures on Genesis, delivered in the final decade of his life, Luther developed a sophisticated understanding of creation that highlights God's continued involvement with the created order. For Luther, creation is not simply a past event but a present reality in which God remains actively engaged.[178]

At the same time, Schwanke emphasizes Luther's understanding of the states of creatures. Luther affirms the original goodness of creation as God's work, even as he

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[174] Johannes Schwanke, "Martin Luther's Doctrine of Creation," in *Oxford Research Encyclopedia of Religion* (Oxford University Press, 2017): 10–18, https://doi.org/10.1093/acrefore/9780199340378.013.329.

[175] Miikka Ruokanen, *Trinitarian Grace in Martin Luther's The Bondage of the Will* (New York: Oxford University Press, 2021), 113.

[176] Schwanke, "Martin Luther's Doctrine of Creation," 1.

[177] Ruokanen, *Trinitarian Grace in Martin Luther's The Bondage of the Will*, 113.

[178] Martin Luther, *Luther's Works*, vol. 1, *Lectures on Genesis: Chapters 1–5*, ed. Jaroslav Pelikan, trans. George V. Schick (Saint Louis: Concordia Publishing House, 1958), Chapter 2, verse 2.

insists that this goodness is now experienced under the conditions of fallenness. Sin does not abolish or erase the created order but distorts and burdens it, so that creatures remain good as creatures while groaning under the curse.[179] In this sense, Luther can speak both of creation as a gracious gift and of the world as subject to futility, holding together the goodness of God's creative will and the tragic brokenness of its present form. This tension allows him to frame justification not as an escape from creation but as God's renewing work within a damaged yet still inherently good creation.[180]

For Calvin, the theological purpose of creation is to maintain an existential orientation, focusing on how the created order relates to human knowledge of God and self-understanding. Although *creatio ex nihilo* is inseparable from his understanding of divine self-revelation and he affirms that "the world was made out of nothing,"[181] Calvin's treatment of the doctrine reveals a relatively limited engagement with its speculative aspects. This is because his primary concern lies not in a speculative theology of creation, but rather in the pastoral and practical implications that the doctrine holds for the believer.[182]

While Luther and Calvin reject the notion of pre-existing matter, they acknowledge the primordial material created by God at the beginning. For Calvin, "the

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[179] Schwanke, "Martin Luther's Doctrine of Creation," 13.

[180] Schwanke, "Martin Luther's Doctrine of Creation," 16.

[181] John Calvin, *Commentaries on The First Book of Moses Called Genesis*, trans. John King (Grand Rapids: Baker Book House, 1993), 70.

[182] In *Institutes*, Calvin states that "God, by the power of His Word and Spirit, created out of nothing the heavens and the earth," affirming *creatio ex nihilo* and the ongoing preservation and ordering of creation as a work of God. John Calvin, *Institutes of the Christian Religion* I, 14. 20. Ed. John T. McNeill (Louisville: Westminster John Knox Press, 1960), 180; Colin E. Gunton, *The Doctrine of Creation: Essays in Dogmatics, History and Philosophy* (New York: T & T Clark, 2004), 72.

seed of the whole world" refers to the initial formless matter created out of nothing by God, which was then shaped into the ordered universe.[183] Both reformers sought to liberate the doctrine of creation from its "largely philosophical context" and to restore it to its place within "the confessed creed."[184] In doing so, they reaffirmed "the contingency of the created order on a freely willed act of God" and recovered "the ontological distinction of Creator from creation."[185] Both, however, exhibited tendencies toward anthropocentric reduction. Luther's treatment in the *Greater Catechism* shows "a tendency to the reduction of the created world to its instrumental use for us"; while Calvin similarly narrows "the scope of a theology of creation to its anthropological relevance."[186] For Calvin, the created order retains its original goodness as "the theater of God's glory" (*theatrum gloriae Dei*) even in its fallen state.[187] This tension shapes his reading of the dominion mandate (Gen 1:28) as stewardship rather than exploitation. Yet, this ecological potential is ultimately overshadowed by the broader soteriological focus of the Reformation. As H. Paul Santmire notes, Luther's overriding emphasis on human

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[183] Calvin, *Commentaries on The First Book of Moses Called Genesis*, 70.

[184] Gunton, *The Doctrine of Creation*, 75.

[185] Gunton, *The Doctrine of Creation*, 76.

[186] Gunton, *The Doctrine of Creation*, 72.

[187] John Calvin uses the metaphor of the world as a theatre of God's glory, known as *theatrum gloriae*, to describe how the beauty, order, and magnificence of God's creation openly display his power, wisdom, goodness, and glory for all to witness. Calvin considers the world as a magnificent theater of God's glory and humans as the privileged spectator. God inscribed his glory into God's work in creation, and the world displays his glory in the natural and cultural world. In this theater, every living thing, no matter how humble or harmful, functions as a vehicle for the self-disclosure of its Maker. Thus, all creatures, according to Calvin, "from those in the firmament to those which are in the center of the earth, are able to act as witnesses and messengers of his glory." Peter Huff, "From Dragons to Worms: Animals and the Subversion of Hierarchy in Augustine's Theology," *Melita Theologica* 43 (1992): 69; Brian Gerrish, *The Old Protestantism and the New* (London: T&T Clark, 2004), 151; Calvin, *Institutes*, I. 6. 2, 52; Peter Huff, "Calvin and the Beast: Animals in John Calvin's Theological Discourse," *Journal of the Evangelical Theological Society* 42 no.1(1999): 3.

justification by faith reduces nature to a mere "theatrical stage-set" for human salvation history.[188] This tendency, as Keller argues, reflects how *creatio ex nihilo* within the Reformed tradition can function as theological warrant for treating matter as a passive object to be mastered.[189]

3. Modern Theological Understandings of *Creatio Ex Nihilo*

The doctrine of *creatio ex nihilo*, firmly established by the early Christian theologians and Reformed theologians, has undergone significant development and critical reassessment in modern theology. While remaining a cornerstone of orthodox Christian thought, the doctrine of *creatio ex nihilo* has been variously reaffirmed, reinterpreted, and, in some cases, challenged by contemporary theologians responding to new philosophical paradigms, scientific discoveries, and ethical concerns. The modern theological landscape reveals a complex interplay between traditional affirmations of God's creative power and novel approaches that seek to address perceived limitations in the classical formulation.

Jürgen Moltmann develops the ecological doctrine of creation by synthesizing traditional Christian theology with contemporary cosmology and evolutionary theory, particularly as a response to the current ecological crisis. His work critically approaches classical doctrines of creation, emphasizing the dynamic and ongoing nature of creation. Furthermore, Moltmann formulates a theology of nature rooted in the Trinitarian

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[188] H. Paul Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology* (Philadelphia: Fortress Press, 1985), 121-133, quoted in *Ecospirit: Religions and Philosophies for the Earth*, ed. Laurel Kearns and Catherine Keller (New York: Fordham University Press, 2007), 599.

[189] Keller, *Face of the Deep*, 196; and Jürgen Moltmann, *God in Creation: An Ecological Doctrine of Creation; the Gifford Lectures 1984-1985* (London: SCM Press, 1985), 61, 308.

perspective, highlighting the indwelling of the Holy Spirit within the created order to bridge the gap between divine transcendence and immanence.

Moltmann's ecological doctrine of creation emphasizes God's immanence in the world while maintaining the difference between God and the world. He insists that divine immanence is manifested through traces of God and involves a dialectic of God's inward and outward actions. Moltmann argues that since Augustine, Western Christian theology has predominantly focused on the world as existing outside of God, *extra Deum*, and largely neglecting its relationship to the life of the world within God. To address this, Moltmann introduces the notions of God's self-limitation or self-humiliation, drawing on the concept of *zimzum,* borrowed from Kabbalistic Jewish mysticism. By defining *zimzum* as God's self-contraction or self-limitation to make space for the creation of the world, Moltmann explains the emergence of "nothingness in God,"[190] which provides a dynamic and relational understanding of God's creative activity.[191]

According to Moltmann, prior to the creation of the world, God performed an act of self-limitation or self-emptying. God, who is infinite, omnipresent, and omnipotent, made room in advance to create finite beings outside of Himself. The *nihil* of the *creatio ex nihilo* is the result of this omnipotent, omniscient, omnipresent God withdrawing his presence and limiting his power. "The *nihil* for his *creatio ex nihilo* only comes into

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[190] Jürgen Moltmann, *God in Creation: An Ecological Doctrine of Creation; the Gifford Lectures 1984-1985* (London: SCM Press, 1985), 86.

[191] According to Moltmann, he accepts the concept of *zimzum* that Isaac Luria developed based on Gershom Scholem's understanding of *zimzum*. However, Dean-Drummond points out that Moltmann borrows the concept from Scholem's interpretation somewhat differently; Moltmann, *God in Creation*, 87; Celia E. Dean-Drummond, *Ecology in Jürgen Moltmann's Theology* (Lewiston: The Edwin Mellen Press, 1997), 201–205.

being because—and in as far as—the omnipotent and omnipresent God withdraws his presence and restricts his power."[192] This was God's act prior to his act of creation.

Furthermore, for Moltmann, God's immanence is manifested through the original creation. By affirming that the world was created out of nothing, *creatio ex nihilo*, he argues that there are no preconditions for God's creation and that the world is not a divine reality. Moltmann, however, shifts the emphasis: because God creates the world out of freedom and love, creation is not a demonstration of his boundless power. Instead, it is the communication of divine love—*creatio ex amore Dei*.[193]

Based on *creatio ex amore Dei,* Moltmann differentiates his interpretation of *creatio ex nihilo* from its traditional understanding. He critiques the traditional understanding of creation out of nothing because, since Augustine, God's work of creation has been understood primarily as an act of God outward (the economic Trinity), as distinct from an act of God inward (the immanent Trinity). Moltmann, on the other hand, states that it is impossible to conceive of any world outside of the omnipresent, omnipotent God, and that if it were possible to conceive of any world outside of God, the omnipresent, divine immanence would be compromised. Such a "world-outside-God" would effectively become an eternal reality co-existing alongside God, leading to a dualism that contradicts divine sovereignty.[194] Thus, Moltmann adopts Isaak Luria's concept of *zimzum* to explain the existence of a world outside God. Through this perspective, the omnipresent, omnipotent God makes room for creation out of nothing by

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[192] Moltmann, *God in Creation*, 87.

[193] Moltmann, *God in Creation*, 77–76.

[194] Moltmann, *God in Creation*, 86.

voluntarily limiting His presence to Himself, thereby creating a mystical space within the divine being for a distinct world to emerge. In addition, Moltmann presents a triune God who is not the impassive unmoved mover of the universe, but a living Being who initiates a primordial movement of love through self-limitation, thereby creating the necessary ontological space for creation to possess its own distinct being. “In the self-limitation of the divine Being which, instead of acting outwardly in its initial act, turns inwards towards itself, Nothingness emerges.”[195]

Moreover, Moltmann integrates soteriology with creation, arguing that “the affirmative force of God’s self-negation becomes the creative force in creation and salvation.”[196] Within God’s affirmation of creation, Moltmann sees God’s self-emptying or self-humiliation that culminates in the cross of Christ. That is, God’s act of creation implies that God is already open to the sufferings of redemption and prepared for God’s own self-humiliation. In addition, Moltmann expands the Trinitarian scope of *creatio ex nihilo*, asserting that “in the light of the cross of Christ, *creatio ex nihilo* means forgiveness of sins through Christ’s suffering, justification of the godless through Christ’s death, and the resurrection of the dead and eternal life through the lordship of the Lamb.”[197] In this reframing, the *nihil* of creation is no longer merely an abstract metaphysical void but becomes the site of abandonment and waste—the very condition that God’s creative and redemptive act enters and transforms. This opens onto the theo-

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[195] Moltmann, *God in Creation*, 87.

[196] Moltmann, *God in Creation*, 87.

[197] Moltmann, *God in Creation*, 91.

garbological possibility that what has been discarded, rendered "nothing," remains the subject of divine creative attention.

While Moltmann seeks to reinterpret the tradition, process theology takes a different path. Grounded in the metaphysics of Alfred North Whitehead and Charles Hartshorne, they reconceive reality as an interconnected web of becoming, where God interacts with the world persuasively rather than coercively. From this metaphysical standpoint, most process theologians repudiate the doctrine of *creatio ex nihilo* on theological, philosophical, and ethical grounds.[198] David Ray Griffin, for example, argues that the classical understanding of *creatio ex nihilo* is philosophically incoherent, biblically unsupported, and theologically detrimental, while advocating for a naturalistic dipolar theism. Griffin contends that *creatio ex nihilo* implies that God can unilaterally determine all events. In its place, he insists that divine power is persuasive, not coercive, asserting that God influences entities through "initial aims." He cannot override their inherent power of self-determination (*causa sui*).[199]

Furthermore, Griffin directly links *creatio ex nihilo* to the problem of evil. He argues that if God created the universe from absolute nothingness, God would necessarily retain the power to prevent all evil; thus, the persistence of genuine evil thus renders God

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[198] However, some process theologians seek to reinterpret *creatio ex nihilo*, not in the traditional sense, but as God giving order to potentialities or possibilities, rather than creating material reality from absolute nothingness. In this view, creation is understood as the divine act of bringing cosmic order, which can be described as "creation out of nothing" in a reimagined sense. Jay McDaniel, "Creation Out of Nothing, Reimagined," *Open Horizons*, https://www.openhorizons.org/creation-out-of-nothing-reimagined.html.

[199] David Ray Griffin, *Reenchantment without Supernaturalism: A Process Philosophy of Religion* (Ithaca: Cornell University Press, 2001), 175.

morally culpable.[200] In contrast, process theism proposes a theodicy of limited power, asserting that God cannot unilaterally prevent evil because creatures possess inherent self-determining power.[201] Griffin also draws on scholars such as Jon Levenson and Gerhard May to argue that *creatio ex nihilo* is absent from the Hebrew Bible. He insists that Genesis describes God ordering pre-existing chaos (*tohu wa-bohu*) rather than creating from absolute nothingness.[202] According to Griffin, the doctrine was first proposed by Gnostic theologians such as Basilides and Valentinus, and was later adopted by the early Church to affirm a theology of absolute divine sovereignty. Consequently, Griffin understands that the doctrine of *creatio ex nihilo* was established in alignment with oppressive theology and critiques the implication that God is wholly transcendent and unaffected by the world. Instead, his dipolar theism portrays God as intrinsically relational—both affecting and being affected by the ongoing process of creation, and thus deeply responsive to the world.[203]

Thomas Jay Oord, writing from within the open and relational theology tradition informed by process thought, also denies the doctrine of *creatio ex nihilo*, proposing c*reatio ex creatione a natura amoris*, which means God creates out of creation with a nature of love. By affirming that God perpetually creates from what God previously

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[200] David Ray Griffin, "Creation out of Nothing, Creation out of Chaos, and the Problem of Evil," in *Encountering Evil: Live Options in Theodicy*, ed. Stephen T. Davis (Louisville: Westminster John Knox Press, 2001), 114; Griffin, *Reenchantment without Supernaturalism*, 218. For a more detailed discussion of Griffin's theodicy and creation, see David Ray Griffin, *Religion and Scientific Naturalism: Overcoming the Conflicts* (Albany: State University of New York Press, 2000); Griffin, *Two Great Truths: A New Synthesis of Scientific Naturalism and Christian Faith* (Louisville: Westminster John Knox Press, 2004).

[201] Griffin, *Reenchantment without Supernaturalism,* 224; John B. Cobb Jr. and David Ray Griffin, *Process Theology: An Introductory Exposition* (Philadelphia: Westminster Press, 1976), 53.

[202] Griffin, *Reenchantment without Supernaturalism,* 137

[203] Griffin, *Reenchantment without Supernaturalism,* 150.

brought into being, Oord insists that *creatio ex creatione a natura amoris* aligns with Scripture's consistent depiction of divine creativity engaging preexisting materials, such as the primordial chaos or waters.[204] Also, Oord insists that this approach robustly affirms creation's essential goodness, as God shapes inherently valuable substrates, unlike the *ex nihilo* model, which derives creation from valueless nothingness.[205]

Critically, Oord argues that this model establishes divine creativity as intrinsic to God's eternal nature of love, making the act of creation necessary, rather than contingent. This stands in stark contrast to the traditional portrayal of a God who is only "accidentally" creative. Furthermore, this approach resolves the problem of theodicy: God's non-coercive power—working with, not unilaterally upon, creation—eliminates divine culpability for genuine evil, a problem he believes is exacerbated by the unlimited power attributed to God in the *ex nihilo* tradition.[206] Oord also emphasizes that *creatio ex creatione a natura amoris* posits an eternal, essential relationship between God and creation, rejecting *ex nihilo*'s implication of divine isolation. Ultimately, Oord centers God's everlasting love as the foundation of all creativity, offering a coherent relational ontology that prioritizes divine solidarity with world over unilateral power.[207] If God's creative love is non-coercive and eternally oriented toward what already exists—including what has been discarded and rendered "nothing"—then waste itself cannot be theologically dismissed as mere residue. A God who creates with and through what is

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[204] Thomas Jay Oord, "God Always Creates Out of Creation," in *Theologies of Creation: Creatio Ex Nihilo and Its New Rivals*, ed. Thomas Jay Oord, (New York: Routledge, 2015), 109–110.

[205] Oord, "God Always Creates Out of Creation," 118.

[206] Oord, "God Always Creates Out of Creation," 112, 118.

[207] Oord, "God Always Creates Out of Creation," 118–119.

already present, rather than overriding it, is equally a God who stays with what has been wasted, providing the theological grounding for a theo-garbological ethics of solidarity and care.

Feminist theological perspectives offer compelling critiques of the traditional doctrine of *creatio ex nihilo*, challenging patriarchal theological constructions and hierarchical understandings of divine power.[208] These critiques demonstrate how the doctrine of creation out of nothing has historically functioned to suppress feminine imagery of chaos and divine creativity while reinforcing masculine, monarchical conceptions of God.

Rosemary Radford Ruether, in her 1983 book *Sexism and God-Talk*, argues that the monotheistic tradition suppressed what she calls the "Primal Matrix," the ancient feminine imagery of God as the generative ground and the great womb of all beings.[209] The monotheistic tradition substituted in its place a patriarchal sovereign whose transcendence is premised on radical distance from creation.[210] A decade later, Sallie McFague contends that the "monarchical model" of God , which underlies the logic of

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[208] Prominent feminist theologians critique the androcentric conceptions of God inherent in classical theism, such as aseity, omnipotence, and absolute alterity. As these attributes constitute not only the androcentric views of divine but also the theological foundation of *creatio ex nihilo*, examining their arguments is significant for addressing feminist theological critiques of the doctrine of *creatio ex nihilo.* See Rosemary Radford Ruether, *Sexism and God-Talk: Toward a Feminist Theology* (Boston: Beacon Press, 1983); Elizabeth A. Johnson, *She Who Is: The Mystery of God in Feminist Theological Discourse* (New York: Crossroad, 1992); Sallie McFague, *The Body of God: An Ecological Theology* (Minneapolis: Fortress Press, 1993); Catherine Keller, *Face of the Deep: A Theology of Becoming* (New York: Routledge, 2003); and Mary-Jane Rubenstein, *Pantheologies: Gods, Worlds, Monsters* (New York: Columbia University Press), 2018.

[209] Ruether, *Sexism and God-Talk*, 48.

[210] Ruether, *Sexism and God-Talk*, 53–61.

creatio ex nihilo, justifies hierarchies of domination.[211] By placing God entirely above and apart from the world, this model authorizes a human postures of mastery over the natural world and the environment, encouraging attitudes of militarism, dualism, and escapism.[212] Instead, McFague offers "the model of the world as God's body" that "encourages holistic attitudes of responsibility for and care of the vulnerable and oppressed; it is nonhierarchical and acts through persuasion and attraction; it has a great deal to say about the body and nature."[213] About the same time, Elizabeth Johnson, in her seminal 1992 book *She Who Is*, similarly contends that the classical attributes undergirding *creatio ex nihilo*—divine aseity, freedom, and radical transcendence—are not neutral metaphysical descriptions but patriarchal constructions that systematically exclude relational and feminine ways of imaging the creator.[214]

A decade later, Catherine Keller demonstrates how the doctrine of creation out of nothing systematically obscures the potential for feminine imagery resonating within Genesis 1:2, particularly the *tehom* (the deep) over which God's spirit hovers. This Hebrew term, etymologically related to the Babylonian chaos-goddess Tiamat, represents a feminine principle of creative potentiality that predates the ordered creation.[215] Furthermore, Keller identifies the emergence and development of *creatio ex nihilo* as a deliberate attack on the "affective figure of divine *woman*," an attack "that provoked the

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[211] Sallie McFague, *Models of God: Theology for an Ecological Nuclear Age* (Philadelphia: Fortress, 1987), 78.

[212] McFague, *Models of God*, 78.

[213] McFague, *Models of God*, 78.

[214] Johnson, *She Who Is*, 237.

[215] Keller, *Face of the Deep*, 28.

first expression of the logic of *ex nihilo*."[216] In this context, the doctrine of *creatio ex nihilo* was identified with God's "manly power and wealth" while the figures of the creative, relational femininity of Gnostic cosmology were oppressed. This pattern reveals how *creatio ex nihilo* functioned not merely as a theological doctrine but as a tool for establishing patriarchal authority within Christian communities. Echoing Keller, Mary-Jane Rubenstein maintains that the historical development of *creatio ex nihilo* reveals deliberate efforts to eliminate a feminine divine; she argues that early theologians replicated this erasure by replacing the chaotic feminine *tehom* with a masculine-controlled void of orthodox creation theology.[217] The theological suppression of *tehom* thus enacts the same logic that underlies the wasting of matter: what resists the dominant order is rendered invisible and nothing. Yet as the following discussion suggests, the meaning of nothing is far less settled—theologically or scientifically—than the *ex nihilo* tradition assumed.

Modern quantum mechanics has revealed that what we traditionally consider empty space is far from empty. According to physicist Lawrence Krauss, in *A Universe from Nothing,* quantum mechanics proves *creatio ex nihilo* without requiring a divine creator. In his framework, however, "nothing" is not a void but a quantum vacuum—a state of fluctuating energy fields within a zero-energy universe, where positive mass-

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[216] Catherine Keller, "Nothingsomething on My Mind," in *Theologies of Creation: Creatio Ex Nihilo and Its New Rivals*, ed. Thomas Jay Oord, (New York: Routledge, 2015), 37.

[217] Mary-Jane Rubenstein, "Myth and Modern Physics: On the Power of Nothing," in *Theologies of Creation: Creatio Ex Nihilo and Its New Rivals*, ed. Thomas Jay Oord, (New York: Routledge, 2015), 9–11.

energy balances negative gravitational energy.[218] Thus, Krauss's definition of "nothing" is not as absolute void but as a quantum vacuum teeming with virtual particles and governed by physical laws. That is, this quantum vacuum is a dynamic state with pre-existing quantum fields, not "absolute nothingness," and filled with fluctuating energy fields and virtual particles that spontaneously appear and disappear. This phenomenon has led some scientists to suggest that the universe itself could have emerged from such quantum fluctuations.[219]

David Albert, however, critiques Krauss's redefinition of "nothing," arguing that it stems from a fundamental confusion about the meaning of nothingness. He argues that Krauss's quantum vacuum is not true nothingness but rather "particular arrangements of elementary physical stuff."[220] In other words, the quantum vacuum that Krauss refers to as "nothing" is actually a complex physical system containing quantum fields, energy fluctuations, and the fundamental laws of physics. As Albert puts it, "the true relativistic-quantum-field-theoretical equivalent to there not being any physical stuff at all isn't this or that particular arrangement of the fields—what it is (obviously, and ineluctably, and on the contrary) is the simple absence of the fields!"[221] Albert's concept of "simple absence of the field" is a philosophical construction rather than a real existing state, serving as a

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[218] Lawrence Maxwell Krauss, *A Universe from Nothing: Why There Is Something Rather than Nothing* (London: Simon & Schuster, 2012), 20, 153, 165-168.

[219] Krauss, *A Universe from Nothing*, 97–98, 153.

[220] David Albert, "On the Origin of Everything," a review of *A Universe from Nothing* by Lawrence M. Krauss, *New York Times*, March 23, 2012, https://www.nytimes.com/2012/03/25/books/review/a-universe-from-nothing-by-lawrence-m-krauss.html.

[221] Albert, "On the Origin of Everything."

critical tool to expose Krauss's conceptual errors and demonstrating that Krauss's "nothing" is still fundamentally "something."[222]

Building on this debate, Keller takes a distinctive position on the Krauss-Albert debate about quantum mechanics and creation from nothing. She critiques Kruass's argument for different reasons than Albert. Krauss claims that the quantum mechanical "vacuum" represents absolute nothingness from which the universe can be created without divine intervention. Keller, however, insists that Krauss's idea of treating "something that is not a thing" as "nothing" is problematic both scientifically and theologically.[223] Keller's position fundamentally aligns with Albert's critique that Krauss's "nothing" is actually a quantum field—a complex physical reality that is "certainly not nothing." Yet, she accepts this critique and develops it for deeper theological reasons. Keller maintains that Krauss presents a fully secularized version of *creatio ex nihilo*. She notes that Krauss "has the same absolute nothing, minus the creator."[224]

Also, Keller argues that Krauss engages in a "mirror game" by inadvertently mimicking the logic of the doctrine he seeks to refute. Just as early orthodox theology paradoxically absorbed the structural elements of the very heresies it opposed, such as Gnosticism, it sought to oppose, in order to solidify *creatio ex nihilo* as dogma. Rather than choosing between the "nothing" of New Atheism and the "nothing" of classical

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[222] Keller, "Nothingsomething on My Mind," 33.

[223] Keller, "Nothingsomething on My Mind," 34.

[224] Keller, "Nothingsomething on My Mind," 33–34.

theism, Keller offers a third way: *creatio ex profundis*, or creation from the deep.[225] This insight is grounded in her hermeneutical interpretation of Genesis 1:2: "darkness was over the face of the deep (*tehom*). And the Spirit of God was hovering over(*merahephet*) the face of the waters."

Unlike traditional theology, which often leaps from Genesis 1:1 to 1:3, Keller insists on taking seriously the elements of darkness, the deep, and the chaotic waters, which have been historically ignored as nothing or oppressed as "pre-existent" threats.[226] By portraying creation as emerging from the primordial deep rather than as an act of divine fiat *ex nihilo*, Keller stresses relationality, generativity, and openness.[227] She critiques *creatio ex nihilo* because it implies a dominion ideology, which affirms masculine absolute divine power that underwrites domination, exploitation, colonial control, and patriarchal frameworks.[228] For Keller, this western dominology aligned with *creatio ex nihilo* functions as religious authority that systematically identifies "anything dark, profound, or fluid with a revolting chaos, an evil to be mastered, a nothing to be ignored."[229] This logic of dominological erasure is precisely what theo-garbology seeks to contest: what has been cast out as "nothing"—the dark, the fluid, the decomposing—is not an absence to be overcome but a site of theological and ecological significance, where the Spirit works to make new life possible.

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[225] Keller, *Face of the Deep*, 86.

[226] Keller, *Face of the Deep*, 9.

[227] Keller, *Face of the Deep*, 116.

[228] Keller, *Face of the Deep*, 5, 19, 52–53.

[229] Keller, *Face of the Deep*, 6.

4. The Transformation of Theological and Philosophical Understanding of *Creatio Ex Nihilo*

The historical development of the doctrine of *creatio ex nihilo* reveals a complex process of theological transformation spanning nearly two millennia. Discourse related to *creatio ex nihilo* has been intertwined with specific historical and polemical contexts and profoundly shaped Western theological discourse, while simultaneously obscuring alternative cosmological possibilities.

The initial development of *creatio ex nihilo* by early Christian theologians was formed as a strategic response to perceived threats to Christian orthodoxy. The doctrine emerged primarily as a defensive mechanism against Marcionism and Gnosticism, establishing God's absolute sovereignty and self-sufficiency in creation.[230] Augustine's two-stage creation theory involved both formless matter and the subsequent imposition of form, which represented an attempt to reconcile the biblical narrative with philosophical coherence,[231] while maintaining the doctrine's core principle, such as God's *creatio ex nihilo*, God's absolute sovereignty, freedom, and the non-dependence of creation on preexisting matter.[232] Significantly, this patristic formulation was driven more by philosophical reasoning than by biblical exegesis.[233] The systematic marginalization of Genesis 1:2's *tohu wa-bohu* and the suppression of chaos-cosmos dialectical models reveal how theological orthodoxy prioritized doctrinal boundary-maintenance and

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[230] May, *Creatio Ex Nihilo*, 24, 61; Ortiz, *You Made Us for Yourself*, 1.

[231] Cavadini, "*Creatio ex nihilo* in the Thought of Saint Augustine," 163.

[232] Ortiz, *You Made Us for Yourself*, 24; Torchia, *Creatio ex nihilo and the Theology of St. Augustine*, 116–117.

[233] May, *Creatio Ex Nihilo*, 179.

philosophical coherence over textual complexity.[234] This process established a pattern of theological dominance that would persist throughout Christian history.[235]

The Reformation period demonstrated remarkable continuity with the patristic understanding of *creatio ex nihilo*, while being revolutionary in many theological aspects. Both Luther and Calvin affirmed the traditional doctrine while emphasizing divine sovereignty and scriptural authority. Their contribution, however, also had a tendency toward a more anthropocentric reduction, where creation's value became increasingly instrumentalized for human purposes rather than recognized for its intrinsic value. This reduction would have profound implications for subsequent theological engagement with ecological concerns.

The modern period has witnessed unprecedented diversification in theological approaches to creation doctrine. Moltmann's ecological theology, incorporating Kabbalistic concepts, such as *zimzum*, represents an attempt to maintain traditional doctrine while addressing contemporary ecological consciousness. Conversely, process theologians like Griffin challenged the doctrine's philosophical coherence and ethical implications. Their critiques focus on the problem of evil, divine relationality, and the need for persuasive rather than coercive divine power, and represent the theological opposition to *creatio ex nihilo*.

In addition, feminist theological perspectives have exposed the gendered dimensions of creation doctrine. Particularly significant in this regard is Catherine

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[234] Keller, "'Nothingsomething' on My Mind," 35, 38.

[235] John D. Caputo, "The Difference Nothing Makes: *Creatio Ex Nihilo*, Resurrection, and Divine Gratuity," *Theological Studies* 71 (2010): 530; Caputo, *The Weakness of God: A Theology of the Event* (Bloomington: Indiana University Press, 2006), 89.

Keller’s work, which uniquely bridges process theology and feminist theology—drawing on a relational ontology of becoming to unmask the patriarchal logic embedded in traditional creation doctrine. The systematic suppression of feminine imagery associated with primordial chaos reveals how *creatio ex nihilo* functioned not merely as a theological doctrine but as an apparatus for establishing and maintaining patriarchal authority. These feminist critiques have also illuminated the ecological implications of traditional creation doctrine, demonstrating how the emphasis on divine transcendence and absolute power has contributed to instrumental attitudes toward the natural world. Furthermore, the contemporary dialogue between theology and quantum mechanics reveals the need for more nuanced theological engagement with scientific cosmology.

This historical analysis sets the stage for a fundamental ecotheological critique of *creatio ex nihilo*. The doctrine’s emphasis on divine transcendence, absolute power, marginalization, and the instrumentalization of creation has contributed to theological paradigms that obscure rather than illuminate the ecological crisis. The systematic suppression of chaos-cosmos dialectical models has impoverished theological resources for understanding the complex, interdependent, and vulnerable character of the natural world.

Scholar of religion and ecology Whitney Bauman argues that the doctrine of *creatio ex nihilo* in Christian theology functions as an unquestionable, foundational myth that underpins a logic of domination and ideological monism. By positing that all reality originates solely from a transcendent God, *ex nihilo* severs historical and contextual ties that link Christianity to other traditions, thereby elevating abstract orthodoxy over

practical lived experience. This “magical” foundation provides a basis for philosophical monotheism and a system in which meaning and truth appear fixed, leading to the idolization of Christian thought and a positivistic approach that disregards ongoing creation and the novelty of life.[236] As a result, *ex nihilo* homogenizes origins, imposes a hegemonic logic, and erases contextual and dynamic aspects of reality when encountering other peoples, cultures, and worldviews, privileging static reasoning over lived context.

Whitney Bauman supports the claim that *ex nihilo* presupposes a logic of domination and foundationalist myth, and explains its “magical” absolute foundation with several arguments. First, *ex nihilo* enables Christianity to claim an unchangeable origin point, avoiding “beginning” questions and subsuming all reality under its own system. Second, drawing on the thinking of Mircea Eliade and Michael E. Zimmerman, Bauman links *ex nihilo* to mythic thinking and “magical thinking,” where foundational questions are bypassed in favor of a transcendent and unquestionable source.[237] Ironically, this mythologizing function is precisely the inverse of its original intent: creatio ex nihilo was developed by early Christian theologians as a polemical tool to purge mythic chaos—whether the Babylonian tehom or Gnostic emanationist cosmologies—from Christian thought, yet in doing so, it installed its own form of unquestionable mythic foundation.

Furthermore, Bauman adds that the adoption of Hellenistic philosophical ideas led Christians to conceptualize God as the sole, ultimate origin, making all power, value, and

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[236] Whitney Bauman, *Theology, Creation, and Environmental Ethics: From Creatio Ex Nihilo to Terra Nullius* (New York: Routledge, 2009), 30.

[237] W. Bauman, *Theology, Creation, and Environmental Ethics*, 30.

meaning flow from this one source. As a result, *ex nihilo* thinking turns language and concepts into fixed identities, repressing the evolving, contextual nature of meaning and leading to naive realism and positivism, providing a false, autotelic foundation for Christian thought, which maintains and enforces hegemony, erases difference and context, and resists transformation.[238] This foundationalist logic is not merely an abstract epistemological problem. When a theological system claims to speak from an unquestionable, acontextual origin, it simultaneously legitimizes concrete practices of domination—over land, over bodies, and over the more-than-human world. The nihilating logic embedded within *ex nihilo* thus bears directly on how modern civilization has treated waste, sacrifice zones, and discarded beings: what theology renders as nothing, political and economic systems are licensed to discard.

Thus, the recovery of suppressed dimensions within the creation narratives represents not merely theological revision but an urgent response to the Anthropocene crisis. This endeavor proposes a "theo-garbological" ethics rooted in the ecologically revised understanding of *creatio ex nihilo*—one that embraces the chaotic, the discarded, and the deep. Specifically, this project draws on Catherine Keller's *creatio ex profundis* as its constructive theological foundation. By recovering the primordial *tehom* not as nothingness to be overcome but as the generative ground of becoming, Keller's theology provides the ontological basis for theo-garbology's central claim: that what has been cast aside as waste is not nothing, but the very deep from which new ethical and theological possibilities may emerge.

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[238] W. Bauman, *Theology, Creation, and Environmental Ethics*, 29–30.

B. ECOPOLITICAL CRITIQUES OF *CREATIO EX NIHILO*

Building on this critique, ecotheological scholars such as Catherine Keller, David Ray Griffin, Terra Schwerin Rowe, Whitney Bauman argue that *creatio ex nihilo* underwrites environmental destruction and exploitation while reinforcing systems of domination over nature. Furthermore, the doctrine explicitly and implicitly promotes a dualistic worldview that bifurcates the infinite from the finite, centers humanity over the more-than-human through an anthropocentric lens, and upholds patriarchal frameworks that marginalize feminist values. Significantly, Bauman discusses how it provides a theological and epistemological justification for colonial perspectives, suggesting that humanity, as the *imago Dei,* is divinely commissioned to conquer and subdue the world.[239] Within this paradigm, nature is reduced to a mere "theater of God's glory,"[240] existing solely to manifest divine sovereignty rather than possessing its own intrinsic value or agency.

A critical analysis of *creatio ex nihilo*, however, requires a dialectical approach that distinguishes between its historical distortions and its original theological intent. While the doctrine has historically been misappropriated to justify the exploitation of nature and hierarchical domination, its primary purpose was to affirm God's absolute freedom and the essential goodness of creation against ancient dualistic perspectives that deemed matter as eternal or evil. Therefore, the ecopolitical critique presented here does

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[239] W. Bauman, *Theology, Creation, and Environmental Ethics*, 3.

[240] Calvin, *Institutes*, I. 6. 2, 52; See Susan E. Schreiner, *The Theater of His Glory: Nature and the Natural Order in the Thought of John Calvin* (Durham: Labyrinth Press, 1991).

not aim to simply reject the doctrine; rather, it seeks to unveil how its emphasis on divine sovereignty came to resonate with a logic of domination. This distinction paves the way for reinterpretations that retrieve the doctrine's liberative potential, much like Jürgen Moltmann's concept of *creatio ex amore Dei*. He reinterprets *ex nihilo* not as a demonstration of coercive power, but as an act of God's self-limiting love (*zimzum*).

Nevertheless, to delve into ecopolitical critiques of *creatio ex nihilo*, I critically examine how the doctrine has functioned as a theological scaffolding for political practices that designate certain beings, places, and materials as "waste"—matter to be excluded, suppressed, concealed, forgotten, and despised. Through a multidimensional analysis grounded in ecopolitical critique and concrete examples, I demonstrate that *creatio ex nihilo* operates as a political-theological apparatus for systematic abjection. Furthermore, drawing on a phenomenological analysis of waste in contemporary waste studies, I argue that this apparatus enables the systematic exclusion of what Mary Douglas calls "matter out of place," while simultaneously obscuring the spectral presence of that which has been cast aside into the void.

Thus, the doctrine of *creatio ex nihilo* functions as an ideological framework, certain aspects of which legitimize environmental destruction, reinforce hierarchical power structures, and perpetuate ecological injustices. As Keller argues, this logic of *ex nihilo* is fundamentally rooted in "tehomophobia"—the fear and systematic eradication of the primal chaos (*tehom*) in favor of a controllable, absolute void.[241] By replacing the

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[241] Keller, *Face of the Deep*, 26–27; Whitney A. Bauman, "Creatio ex Nihilo, Terra Nullius, and the Erasure of Presence," in *Ecospirit: Religions and Philosophies for the Earth*, ed. Laurel Kearns and Catherine Keller (New York: Fordham University Press, 2007), 354–57.

messy, relational matrix of primordial chaos with a sterile "nothingness," the doctrine establishes a dominological paradigm where anything unruly, disordered, or unassimilable to sovereign control is violently reduced to "nothing." Within this framework, waste—the material manifestation of this repressed chaos—is not mere physical residue. Just as orthodox theology sought to eradicate the primal chaos to maintain absolute order, the contemporary ecological regime continuously externalizes its disordered, unwanted matter, treating it as void. What theology declared nothing persists as the haunting, spectral presence of the discarded.

Specifically, the doctrine fosters an ecological consciousness that naturalizes the material realities of waste production, distribution, and disposal, thereby legitimizing systems of ecological injustice that disproportionately impact marginalized communities and more-than-human beings. In other words, by emphasizing absolute divine transcendence and the creation of order from absolute nothingness, the doctrine establishes a logic of *ex nihilo* that permeates political, ecological, and social relations. This logic is manifested in the designation of territories as *terra nullius*, the categorization of vulnerable populations as "human waste," and the treatment of environmental destruction as necessary collateral damage in the pursuit of progress. By examining waste through multiple perspectives—as temporal and spatial phenomenon, metaphorical construct, political apparatus, and spectral presence—I explore how this logic shapes the material politics of inclusion and exclusion within the waste discourse of the Anthropocene.

1. From Theological Nothingness to Political Nullification

Whitney Bauman traces a genealogical line from the doctrine of *creatio ex nihilo* to the colonial logic that has historically justified the domination of both human and more-than-human beings. He insists that this doctrine serves as a foundational metaphor that supports what he terms a "logic of domination."[242] He contends that its triumph in third-century Christianity reflected the victory of specific power structures over pluralistic understandings of creation, rather than a mere divine revelation. The epistemological violence of *creatio ex nihilo* lies in its establishment of an "acontextual foundation" that claims transcendent authority—a claim to transcendent authority that obscures its own historical, cultural, and ecological roots. This theological perspective projects transcendent ideals onto colonized spaces and then justifies the domination of difference and otherness. Its logic parallels the colonial legal doctrine of *terra nullius*, which declared indigenous lands "empty" and essentially uninhabited. In both cases, existing populations and their deep-rooted relationships to the land are systematically erased to make way for an imposed, unilateral order.[243]

From an eco-social perspective, Bauman critiques the doctrine of *creatio ex nihilo* by arguing that it removes life from its immediate worldly context and justifies existence in a transcendent "beyond," rather than in the lived, finite material world. By positing an absolute origin in a transcendent God, *ex nihilo* leads to the erasure of daily eco-social realities, and fosters a binary between theory (abstract, transcendent knowledge) and

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[242] W. Bauman, *Theology, Creation, and Environmental Ethics*, 42–44.

[243] W. Bauman, *Theology, Creation, and Environmental Ethics*, 3–4.

praxis (contextual, lived experience). This foundationalism delegitimizes the continuous and evolving processes of life and naturecultures, imposing a hegemonic and homogeneous perspective that overshadows local, diverse meanings and relationships. Furthermore, Bauman points out that this way of thinking ignores continuous creation—the novelty and dynamic vitality of life that resists static categorization and totalizing systems. In doing so, *ex nihilo* not only marginalizes eco-social contexts but also enables an idolatrous logic that seeks to exert control over the inherent plurality and flux of lived reality.[244]

Within this logic, anything that cannot be captured by totalizing systems is rendered invisible or disposable. Waste is the most concrete expression of this disposability: what the logic of *ex nihilo* casts into nothingness finds its material correlate in the discarded matter, toxic residue, and sacrificed beings that accumulate at the margins of the ordered world—rendered garbage precisely because they resist assimilation into the sovereign system.

2. From *Ex Nihilo* to *Ex Profundis*

In analyzing the ideological implications of creation theology, I draw on Catherine Keller's deconstruction of *creatio ex nihilo*. Keller argues that by asserting that God created out of nothing, *creatio ex nihilo* serves to establish God as a truly omnipotent Creator and Lord whose power is absolute and non-contingent.[245] She demonstrates how this God is portrayed as absolute, transcendent, and self-sufficient,

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[244] W. Bauman, *Theology, Creation, and Environmental Ethics*, 30–31.

[245] Keller, *Face of the Deep*, 15–16, 53.

requiring no relations to anything beyond God for God's own existence.[246] Building her analysis, I contend that this doctrine constructs a foundational dualism, positing a singular, external Creator wholly independent of a radically dependent world.[247] Thus, the concept of nothing becomes the theological mechanism to safeguard God's absolute sovereignty and uniqueness.[248] Moreover, applying Keller's critique of "monotonotheism" reveals how this framework establishes a singular, fixed point of origin and an immutable, all-powerful authority that acts as an unchallenged master.[249] This ideological move, as Keller suggests, reduces the rich, complex, and relational dynamics of creation to a "monotone" of divine transcendence.[250] In doing so, it effectively rejects the polyphony (multiple voices), interactive dynamics, and the plural possibilities of infinite interpretation and meaning.[251]

A profound consequence of this theological understanding is its political and social analogue. The unilateral, non-relational model of power established by *creatio ex nihilo* provides a sacred justification for similar human power structures. A God who is an absolute, omnipotent, omniscient source of all being functions as a perfect template for patriarchal, monarchical, and colonial forms of power. The denigration of pre-existent

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[246] Keller, *Face of the Deep*, 88, 98.

[247] Keller, *Face of the Deep*, 46, 89.

[248] Keller, *Face of the Deep*, 57.

[249] Monotonotheism, borrowed from Friedrich Nietzsche, is a term critically employed by Catherine Keller to refer to the tendency of monotheistic theology to excessively emphasize singular, unchanging, and absolute sovereignty, thereby flattening relationality, polyphony (multiple voices), and interactivity. Keller, *Face of the Deep*, 109–110.

[250] Keller, *Face of the Deep*, 109–110.

[251] Keller, *Face of the Deep*, 117.

material or the nothingness from which the world is formed allows for a theological model of domination, wherein a superior power exerts absolute control over a passive, inferior substance. This theological imaginary enables and justifies the idea of human dominion over nature as a mere reflection of divine order, linking a specific ontology of creation to a broader practice of mastery and control.

In the end, such a logic of absolute sovereignty does more than dematerialize creation; it renders matter fundamentally disposable under human control. The primordial chaos—the tehom—was, in a theological sense, the first garbage: the unruly, unassimilable matter that the doctrine of *creatio ex nihilo* sought to declare nothing, to exile from the ordered world before the world itself began. Modern waste does not merely resemble this theological operation; it is its direct material heir. By positioning pre-existent chaos or materials as "nothing" to be conquered, the traditional perspective of *creatio ex nihilo* establishes a theological foundation for how we deal with waste today—treating discarded objects, toxic substances, and even marginalized communities as refuse to be erased and forgotten, exiled from the ordered world. Engaging critically with the logic of *creatio ex nihilo*, then, is not just an abstract theological exercise; it is a necessary step toward a theo-garbology capable of revaluing the spectral persistence of waste in the Anthropocene.

3. From Command to Solicitation

Applying a feminist lens, Keller argues that the historical embrace of *creatio ex nihilo* over chaos-based cosmogonies is rooted in a deep-seated fear of chaos, which has been symbolically linked to the feminine. She identifies that the doctrine as a patriarchal

mechanism designed to control and subdue the feminine waters of the deep. By demythologizing and repressing the agency of the primordial chaos represented by *tehom*, traditional theology has effectively relegated the maternal floods of primordial chaos to the margins. In this move, it has constructed a sterilized and linear account of origins that replaces the messy vitality of becoming with the static command of an absolute sovereign.[252]

Keller highlights the medieval Jewish commentator Rashi's reading of the creation narrative, which privileges nonlinear rather than linear temporality. She contends that Rashi's nonlinear interpretation opens the possibility of an alternative reading of creation that calls forth the potentiality within chaos instead of the paradigm of creation that established order through omnipotent command.[253] In other words, when the linear order of time is disrupted, the creation story no longer simply becomes about God imposing order from nothing through omnipotent command. Instead, the following interpretation becomes possible: Chaos is not mere nothingness or evil. Here, creation is not a dominating command that suppresses chaos, but an act that calls forth the possibilities hidden within chaos. According to this interpretation, God's words "Let there be light" appears not so much as a definitive command, but rather as a word that seduces or draws out hidden possibilities to be revealed. Keller contrasts this relational openness with the orthodox exegesis of Claus Westermann, a German Protestant theologian and Old Testament scholar, to demonstrate how the traditional insistence on a

[252] Keller, *Face of the Deep*, 52–63.

[253] Keller, *Face of the Deep*, 114–123.

linear creation narrative serves primarily to protect a theology of absolute dominance. While Westermann explicitly rejects Rashi's option to maintain "utter transcendence" through the rigid triad of command, dominion, and omnipotence,[254] Rashi's approach fractures this linear temporal flow, unveiling the rhythmic and pluralistic orders already vibrant within the chaos.[255]

Rashi's interpretation resonates profoundly with Deleuze's concept of virtuality. Deleuze conceptualizes the virtual not as a lack of reality, but as a real, differential field of potentiality that precedes and conditions actualization. Viewed through this lens, Rashi's reading of "Let there be light," interpreted not as a sovereign command but as a divine solicitation, functions as an invitation for a virtual multiplicity to undergo actualization. In this light, God's word expresses pre-individual relations and singularities. Therefore, creation emerges not as the dominating act of the omnipotent subject, but as the virtual finding expression in determinate, individuated actuality.[256]

Furthermore, Keller argues that when *tehom* is understood from the perspective of virtuality, rather than a negative force to be suppressed and eliminated, *tehom* can be

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[254] Claus Westermann, *Creation*, trans. John J. Scullion (Philadelphia: Fortress Press, 1974), 42–44, 74.

[255] Keller, *Face of the Deep*, 115.

[256] Deleuze rethinks the traditional metaphysical notion of "possibility" through the concept of "virtuality." He draws a clear distinction between traditional "possibility" and his own "virtuality." Possibility is that which has not yet been realized but could be realized; it belongs to an abstract domain separate from the real, and when the possible is realized it is essentially an image or copy of what was already given in outline—its process is realization. By contrast, the virtual is a fully real force that is part of reality while not yet actualized: the virtual is not opposed to the real but to the actual; the virtual is fully real as virtual. On this basis, Deleuze's philosophy of becoming can be summarized as follows: what is real is a whole composed by the tension between the virtual and the actual; the virtual continually creates new difference through the process of actualization. Here, virtuality—no less than actuality—constitutes a dimension of the real. Crucially, in Deleuze's concept of virtuality, the virtual and the actual are not alike: "actualization" is not the predictable unfolding of a pre-given form but a genuinely creative process of *différenciation*. Gilles Deleuze, *Difference and Repetition,* Trans. P. Patton (London: Bloomsbury, 2014), 272–275.

regarded as "the topos of creation, where the world surges in its virtuality, in the *complicatio*, or 'folding together,' the matrix of all relations."[257] Keller's understanding of *tehom* reveals a resonance with chaos theory. In this intersection, chaos is recognized not as mere disorder, but as a complex, non-linear order teeming with latent patterns and virtualities. It is not an antagonistic existence to be eliminated, but rather the primordial material and field of potentiality from which all creation arises. Consequently, the act of creation can be understood not as a binary struggle between order and disorder.[258] Rather, it becomes a process of emergence, wherein new orders are dynamically generated through the creative fluctuations of chaos.

This interpretation leads us to understand God not as the dominant being who enforces a fixed order, but as a poetic creator who continually calls forth differentiations from a chaotic multiplicity. Such a view aligns with process theology, which posits that the world consists not of fixed substances but of a dynamic process of becoming. God, who exists in relationality with the world, is not an absolute or immutable ruler; rather, God participates in the unfolding of events alongside the world.[259] Therefore, creation is understood not as a singular, linear event, but as a continuously ongoing emergent process. In this light, God acts not as the sovereign guardian of an already determined order, but as the one who opens paths of novel actualizations. By presenting possibilities to the world, God invites creatures to actualize them while new events unfold. Within this

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[257] Keller, *Face of the Deep*, 227.

[258] Keller, *No Matter What*, 30.

[259] Charles Hartshorne, *Omnipotence and Other Theological Mistakes* (Albany: State University of New York Press, 1984), 29; Griffin, *Reenchantment without Supernaturalism*, 150.

perspective, creation becomes a relational and collaborative process between God and the world, where the freedom and agency of creatures are not suppressed but respected.

By establishing how a feminist and process-oriented understanding of chaos, multiplicity, and nonlinear becoming reframes both the doctrine of creation and the image of God, it is evident that this interpretive shift has broad implications. Recognizing the deep as generative potential, rather than an adversary to be controlled or eradicated, invites a reorientation of theological imagination. Such an approach foregrounds the values of diversity, relationality, and emergent complexity within theological discourse, thereby decentering oppressive binaries and opening space for silenced alternatives to emerge. This shift not only reclaims the generative agency of the primordial deep but also affirms the ongoing, co-creative engagement between divine and world, and between multiplicity and relation. Thus, in contrast to a *tehomophobic* stance, a *tehomophilic* hermeneutics functions as a methodology that unveils and embraces those dimensions of being—such as relationality, polyphony, multiplicity, and interactivity—which are so often repressed, silenced, hidden, and sometimes diabolized with the erasure of the deep.[260]

Consequently, the systematic erasure of this primordial chaos finds its material expression in the material production of "waste." In his analysis of environmental destruction, philosopher David Wood argues that the modern industrial world operates by creating "toxic identities" that flourish only by excreting their waste into a supposedly

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[260] Keller, *Face of the Deep*, 120.

cost-free “outside”—the environment.[261] This mirrors the logic of creatio ex nihilo, which establishes a pristine internal order by relegating the messy, relational matrix of life to a nonexistent void. Similarly, theologian Sharon Betcher contends that by over-spiritualizing existence and abhorring the mortal, transient realities of the earth—humus—this paradigm interrupts the natural ecosystemic exchange. Wastes are no longer elementally digested back into the earth's fertility; instead, they are cut off and externalized as dead, toxic garbage.[262] Yet, as Denise Kimber Buell demonstrates, the theological and political attempt to make “sharp cuts” between the ordered human interior and the chaotic exterior is ultimately an illusion. Drawing on the concepts of “viscous porosity” and “trans-corporeality,” Buell highlights that the discarded waste—along with invisible agencies like microbes—inevitably crosses our bodily boundaries, entangling humans and nonhumans alike in webs of material impact.[263] In this sense, therefore, modern waste is not merely an environmental problem but the material remainder of suppressed chaos—the unruly, unassimilable matter that the dominological order attempts to eradicate, only for it to return and haunt the margins of the ordered world.

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[261] David Wood, “Specters of Derrida: On the Way to Econstruction,” in *Ecospirit*, ed. Kearns and Keller, 269–270.

[262] Sharon Betcher, “Grounding the Spirit: An Ecofeminist Pneumatology,” in *Ecospirit*, ed. Kearns and Keller, 326.

[263] Denise Kimber Buell, “The Microbes and Pneuma That Therefore I Am,” in *Divinanimality: Animal Theory, Creaturely Theology*, ed. Stephen D. Moore (New York: Fordham University Press, 2014), 65–66. On “viscous porosity,” see Nancy Tuana, “Viscous Porosity: Witnessing Katrina,” in *Material Feminisms*, ed. Stacy Alaimo and Susan Hekman (Bloomington: Indiana University Press, 2008), 188–213. On “trans-corporeality,” see Stacy Alaimo, *Bodily Natures: Science, Environment, and the Material Self* (Bloomington: Indiana University Press, 2010).

4. *Ex Nihilo* and A Phenomenology of Unseeing

The theological logic of *creatio ex nihilo* finds its most explicit and devastating material manifestation in the sociopolitical process of wasting. This process is far from a simple, neutral act of discarding. Rather, it is a political-theological apparatus that legitimizes the exclusion and suppression of certain materials, places, and even human populations. A phenomenological analysis of waste reveals that its production and management are closely related to a system that relies on the concealment and "unseeing" of what has been cast aside, while one that is simultaneously haunted by its spectral presence.[264]

According to Alan Hodkinson, a scholar of cultural and disability studies, the concept of "unseeing" is a phenomenological, social, and philosophical construct rather than simply a matter of literal blindness. He frames "unseeing" not as a mere lack of vision or physical inability to see, but as an active process of political exclusion and ignorance. In addition, there is the totalitarian visible that is not only seeing and being seen but also looking away, looking through, looking beyond.[265] Furthermore, he contrasts the "unseeing eye" with Bentham's "all-seeing, but unseen evil eye" of the Panopticon.[266] If the Panopticon surveils everything indiscriminately, the "unseeing eye" selectively fails to register, ignores, or erases that which does not fit the dominant

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[264] Hodkinson defines "unseeing" as an act of habitual and structured omission or erasure of disability in pedagogical materials and social consciousness. Alan Hodkinson, "The Unseeing Eye: Disability and the Hauntology of Derrida's Ghost—An Analysis in Three Parts," *Qualitative Inquiry* 27, no. 1 (2021): 17–27.

[265] Hodkinson, "The Unseeing Eye," 18.

[266] Hodkinson, "The Unseeing Eye," 17.

narrative—a process through which “unseeing” functions as a tool maintaining the boundaries separating normalcy from abnormality.

According to Lévinas’ ethics of the face, signification is not an abstract or interior concept but arises directly from our ethical encounter with the Other: “The Other faces me and puts me in question and *obliges* me by his essence qua infinity.”[267] This encounter is unique because it reveals infinity; in beholding the face, the subject encounters a demand that transcends totalizing or systematizing knowledge. In this context, those subjected to concealment become spectral beings through the act of unseeing. These spectral beings, however, are not mere absences but forms of existence that call for an ethical response. Conversely, the act of unseeing itself constitutes an act of violence that rejects such a response.

Unseeing is connected to Mary Douglas’s concept of “dirt as matter out of place.” In this definition, waste is not inherent to an object but is culturally and symbolically constructed. In addition, *creatio ex nihilo* reveals how the designation of something as “waste” is not a passive judgement but an active, dominating act of categorization. The theological doctrine posits an ordered creation from a formless “nothing.” This “nothing” is not merely an absence but an active theological category of abjection, a primordial chaos that must be overcome and relegated to non-being for an orderly world to exist. As Keller argues, orthodox theology achieves this order precisely by “unseeing” the vibrant,

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[267] Emmanuel Lévinas, *Totality and Infinity: An Essay on Exteriority* (The Hague: Martinus Nijhoff Publishers, 1979), 207.

relational deep, actively treating it as "a nothing to be ignored."[268] The politics of wasting operates in a parallel manner. The act of "wasting," as a social process, is a contested and regulated act of value transformation, rather than a simple loss of value from an object.[269] Therefore, wasting is fundamentally an apparatus of unseeing; it requires a willful blindness that renders the discarded matter—and the marginalized spaces it occupies—invisible. By unseeing what has been designated as waste, the dominant system successfully erases the presence of unwanted complexities, thereby maintaining the illusion of a clean, perfectly ordered, and sovereign world.

Just as the doctrine of creatio ex nihilo actively reduces the vibrant, relational matrix of tehom to a sterile "nothing" to secure absolute sovereign order, the modern socio-political apparatus categorizes unruly or unassimilable materiality as "waste" to justify its erasure. In this analogy, the notion of waste as merely useless oversimplifies the complex ways in which waste is entangled in active social processes structured by power dynamics and political relationships, including how waste becomes gendered, racialized, and stratified, reflecting and perpetuating societal inequalities.[270] As recent ecopolitical critiques demonstrate, capitalist and biopolitical regimes maintain their pristine illusions of progress by relocating human and extra-human others into the zone of "Cheap Nature" or "rubbish peoples," thereby naturalizing environmental racism and

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[268] Bauman, "*Creatio ex Nihilo*, *Terra Nullius*, and the Erasure of Presence," in *Ecospirit*, ed. Kearns and Keller, 355. Here, Bauman directly quotes page 6 of Keller's *Face of the Deep* to explain how Western dominology reduces chaos to "a nothing to be ignored."

[269] I examined various definition of waste, such as anti-memory, anti-form, anti-culture, anti-nature, and anti-value, in the previous chapter.

[270] Martin O'Brien, "Rubbish Values: Reflections on the Political Economy of Waste," *Science as Culture* 8, no. 3 (1999): 270–271.

social inequality.[271] Therefore, both a critical ecopolitical approach to the doctrine of *creatio ex nihilo* and a socio-political analysis of waste, such as Douglas's definition of waste, reveal how these seemingly abstract theological and anthropological concepts have concrete ecopolitical implications for environmental awareness and justice.[272] This abstract logic of erasure, as will be explored next, translates directly into the physical wasting of vulnerable bodies and territories in the Anthropocene.

5. The Specter of the Forgotten

The cultural imperative to "unsee" waste is a consequence of the logic of *ex nihilo* that seeks to create order by rendering the discarded as though it were nothing. The oversimplified concept of the linear, "take-make-dispose" model of the modern economy depends on an ideological process of "unseeing." This system is designed to extract raw materials, use them, and then discard them, predicated on the assumption of a world with endless resources and the capacity to absorb unlimited waste. These idealized conceptions of such a system are further reinforced by technological optimism.

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[271] Moore, *Capitalism in the Web of Life*, 70–71; Jasmir K. Puar, *The Right to Maim: Debility, Capacity, Disability* (Durham and London: Duke University Press, 2017), 82.

[272] Several scholars critique Mary Douglas's definition of dirt for being overly abstract and generalized. These critics argue that Douglas's discussion represents a symbolic-structuralist or semiotic approach that focuses on abstract systems of classification rather than on the concrete material realities of waste. They contend that this universalistic and totalizing tendency makes Douglas's concept inadequate for dealing with the diverse and heterogeneous nature of contemporary waste problems. For example, Culler describes Douglas's work as aiming to provide "vital evidence for the total structure of thought in a culture," and O'Brien notes that Douglas's focus on symbolism "fits awkwardly" when considering the billions of tons of municipal solid waste produced globally each day. Alexander and O'Hare, as well as Liboiron and Lepawsky, also highlight Douglas as the paradigmatic case of a symbolic-structuralist framework in waste studies. Furthermore, Annemarie Mol views Douglas's concept as having lost its usefulness in addressing the complex realities of actual waste through its mechanical repetition like a mantra. Jonathan Culler, "Junk and Rubbish: A Semiotic Approach," *Diacritics* 15, no. 3 (1985): 2; Martin O'Brien, *A Crisis of Waste?: Understanding the Rubbish Society* (London: Routledge, 2008), 128; Max Liboiron and Josh Lepawsky, *Discard Studies: Wasting, Systems, and Power* (Cambridge: MIT Press, 2022), 77; Charlotte Alexander and Patrick O'Hare, "Waste and Its Disguises: Technologies of (Un)Knowing," *Ethnos* (2020): 3; Annemarie Mol, "Not Quite Clean: Trailing *Schoon* and Its Resonances," *The Sociological Review Monographs* 68, no. 2 (2020): 392.

This "unseen" waste does not disappear. It persists as a spectral presence that haunts us as a reminder of the limits of human control over natural and social orders. It embodies the inevitability of material degradation and the entropic reality of time. This spectrality challenges the illusion of mastery and highlights humanity's vulnerability to time's irreversible effects, especially in the context of the Anthropocene. This spectral quality of waste represents the return of the repressed, the material manifestation of the very "nothingness" that the system attempted to abject and forget.

The logic of abjection and nullification inherent in the *ex nihilo* framework is not limited to the material world but extends to human beings as well. Waste is not only about discarded material; it is closely connected to a technique of power.[273] This power has justified discrimination, exclusion, forgetting, and unseeing by both amplifying and diminishing the metaphors of waste. Discarded material and abjected communities, however, appear as a spectral presence, as evidenced in the cases of nuclear technology management in South Korea and Japan.

C. THE LOGIC OF *EX NIHILO* OF NUCLEAR TECHNOLOGY

As discussed above, the doctrine of *ex nihilo* is not merely about divine omnipotent sovereignty but also about political exceptionalism.[274] The political discourses and social phenomena surrounding nuclear energy and nuclear technology represent critical issues that manifest the characteristics of both omnipotent sovereignty and political exceptionalism.

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[273] Max Liboiron and Josh Lepawsky, *Discard Studies*, 3, 7.

[274] Terra Schwerin Rowe, *Of Modern Extraction: Experiments in Critical Petro-Theology* (London: T&T Clark, 2023), 66–67.

In South Korea, nuclear energy was regarded as a divine gift from God, symbolized as the third fire.[275] Politicians and scientists from conservative Christian backgrounds championed nuclear energy, viewing it as a providential resource prepared by God for the nation's progress.[276] Consequently, state-led nuclear energy policies became the foundation for achieving the status of a militarily and economically advanced nation.[277] Furthermore, laws and policies facilitating the installation of nuclear facilities and infrastructure were precipitously established in a manner that frequently circumvented democratic processes, reflecting a prioritization of expediency over public deliberation and acceptance.[278]

This political sacralization of nuclear energy represents what Whitney Bauman identifies as the *ex nihilic* logic in operation. Just as he argues that the collective market system functions "in an *ex nihilic* fashion, erasing contextuality and prior presence in the local places,"[279] nuclear discourse in South Korea has operated by systematically erasing

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[275] "UAE 원전 수주, 고비마다 하나님 역사" [UAE nuclear power plant contract: God's work at every turning point: New year interview with Elder Jeong Geun-mo], *Christian Today*, December 31, 2009, https://www.christiantoday.co.kr/news/206049. In this interview, Jeong, a nuclear physicist and the former 12th and 15th Minister of Science and Technology in South Korea, explicitly framed nuclear energy as "the third fire"—following wood and fossil fuels—and declared the successful UAE contract to be "God's meticulously planned scenario," adding that "at every critical juncture, there was God's work." See also "정근모 장로 '원전 수출, 하나님이 사용하고자 주신 선물'" [Elder Jeong Geun-mo: 'Nuclear power export, a gift that God wanted to use'], *JTNTV*, January 5, 2010, http://jtntv.kr/total_economy/11254.

[276] "자랑스러운 성결인 정근모 장로" [Elder Jeong Geun-mo, a proud member of the Holiness Church], 한국성결신문 [*The Korea Evangelical Holiness Church News*], January 23, 2021, https://www.kehcnews.co.kr/news/articleView.html?idxno=139626. This article highlights Jeong's career as a prominent nuclear physicist and former Minister of Science and Technology, while underscoring his belief that nuclear energy is a "divine gift" and a providential resource prepared by God for South Korea's development.

[277] Yong Jae Kim, "Conservative zealots: Evangelical politics in South Korea," *9DashLine*, July 9, 2023, https://www.9dashline.com/article/conservative-zealots-evangelical-politics-in-south-korea.

[278] Jungin Kim, "The Effects and Antecedents of Perceived Fairness in the Deliberative Process for Sustainable Citizens' Participation," *Sustainability* 13, no. 14 (2021): 7735.

[279] W. Bauman, *Theology, Creation, and Environmental Ethics*, 100.

the prior ecological and social contexts of areas designated for nuclear power plants, treating them as *terra nullius*. The theological narrative of nuclear energy as a "hidden gift from God" functioned as an ontological justification for this erasure and intentional ignorance, allowing the state-industrial complex to act as if it had omnipotent agency over local territories and communities.

Amid this historical development, the deleterious effects of nuclear energy—including ecological, social, and cultural impacts—were inadequately assessed, and the economic and health damages suffered by nearby residents remained largely unacknowledged. Because nuclear technology was perceived not only as a gift from God but also as something deeply entwined with the myth of national development, criticism of nuclear energy was often regarded as opposition to military and authoritarian regimes that had been steadily consolidated since the Korean War, or condemned as anti-national behavior.[280] Within this political and social context, scientific discourse and democratic public debate concerning nuclear energy were virtually stifled; victims' voices were rarely brought to public attention, and those opposing nuclear energy were sometimes accused of being "anti-national forces" or of being driven by NIMBYism (Not In My Backyard).[281] In this way, the authoritarian regime's pursuit of technological progress necessitated a violent process of spatial and human exclusion, wherein both the potential

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[280] Paul Y. Chang illustrates the social costs generated by South Korea's authoritarian model of developmental absolutism and the accompanying climate of anti-democratic repression. During the 1970s, criticism of environmental issues or of the adverse consequences of development was often construed as opposition to the government's economic growth agenda and therefore subject to suppression. See Paul Y. Chang, *Protest Dialectics: State Repression and South Korea's Democracy Movement, 1970-1979* (Stanford: Stanford University Press, 2015).

[281] See Jiwon Nam-Speers et al., "Examining the Role of Perceived Risk and Benefit, Shared Concern for Nuclear Stigmatization, and Trust in Governments in Shaping Citizen Risk Acceptability of a Nuclear Power Plant," *The Social Science Journal* 60, no. 4 (2023): 695–714.

hazards of radioactive waste and the vulnerable populations were rendered invisible—cast out as waste by the same logic of nullification that the doctrine of *creatio ex nihilo* inscribed into the Western theological imagination: what cannot be assimilated into the sovereign order is simply declared nothing.

1. Sacred Oil and Divine Nuclear: Parallel Logics of Exceptionalism

There are striking historical and political parallels between the way the United States views oil and the way South Korea views nuclear energy. Oil was discovered in Pennsylvania in 1859, on the eve of the Civil War, at a critical juncture when the whaling industry was in decline and the American economy faced significant turbulence. Western Pennsylvanians, already steeped in radical evangelicalism, interpreted oil's spectacular and mysterious arrival in sacred terms, viewing it as the workings of God.[282] Finding oil deposits was regarded as a manifestation of divine providence.[283]

According to Darren Dochuk, the "Civil Religion of Crude" shows a religious approach to oil extraction that emerged in the United States.[284] The "Civil Religion of Crude," closely associated with the Rockefellers and Standard Oil, refers to the intertwining of American Christianity with the oil industry. It fostered a cultural and political worldview where oil is seen as a divine gift, rendering its extraction and use a righteous, God-ordained mission. In this vein, oil was treated not merely as a natural resource, but a blessing from God, a gift bestowed upon America to ensure its greatness.

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[282] Darren Dochuk, *Anointed with Oil: How Christianity and Crude Made Modern America* (New York: Basic Books, 2019), 8; Darren Dochuk, "Blessed by Oil, Cursed with Crude: God and Black Gold in the American Southwest," *The Journal of American History* 99, no. 1 (2012): 51–61.

[283] Dochuk, *Anointed with Oil*, 39.

[284] Dochuk, *Anointed with Oil*, 181, 294–295, 501.

Within this religious atmosphere, economic success from oil was often interpreted as being inextricably linked to the missionary expansion of Christianity because profits from oil were conceived of as a means of funding and facilitating global evangelism. While Dochuk locates this dynamic within the specific history of the American oil industry, its theological logic deeply resonates with what William Connolly terms the evangelical-capitalist resonance machine. It provides a blueprint for how conservative religious frameworks across different contexts—including the South Korean support for nuclear energy—legitimize industrial expansion by equating economic hegemony with divine mission.

This sanctification of extractive industries, which framed oil as a divine blessing in the American context, finds a striking parallel in the South Korean embrace of nuclear energy. Lacking domestic oil reserves and emerging from the devastation of Japanese colonial rule and the Korean War, South Korea adopted nuclear energy not merely as a technological choice, but as an axiomatic pillar of national salvation.

Parallel to Dochuk's analysis which reveals how oil came to be seen as a divine blessing justifying ecological destruction, South Korea's nuclear discourse has theologized nuclear power as a non-negotiable prerequisite for national development and progress. This perspective has historically allowed the state to marginalize or obscure the ecological and social risks inherent in nuclear waste management. Consequently, this systemic "unseeing" has resulted in a profound lack of public awareness regarding the negative aspects of nuclear energy. Consequently, this systemic "unseeing" operates not merely as a deficit of public awareness, but as an active politics of wasting. By framing

nuclear progress as an unquestionable dogma of development, the state effectively externalizes the material reality of radioactive waste—and the marginalized communities burdened by it—rendering them as a forgotten population to be erased from the national vision.

2. The Theological *Terra Nullius* of Nuclear Sites

In South Korea, nuclear energy, metaphorically referred to as “the third fire,” was perceived as a divine gift, garnering widespread support from politicians and scientists from conservative Protestant backgrounds. During the Park Chung-hee regime (1961-1979), a political-religious alliance formed between conservative Protestantism and the military dictatorship, centered on a shared ideology of anti-communism. This alliance granted the conservative Protestant community economic benefits and legal privileges.[285] Within this social context, state-led nuclear energy policies were supported not only by conservative Protestant leaders but also by conservative Christian politicians and scientists. A significant number of them were pro-American, and many of the nuclear scientists had received their degrees or training with U.S government support.[286] The sacralization of nuclear energy by these figures was grounded in a specific theological logic: that an omnipotent God, who created *ex nihilo*, had concealed nuclear energy

[285] Byung-Joon Chung, “The Park Chung-hee Regime and Christianity - Based on the Research History of Church-State Relations,” *Christianity and History in Korea*, no. 56 (2022): 5–39; Helen Jin Kim, *Race for Revival: How Cold War South Korea Shaped American Evangelical Empire* (New York: Oxford University Press, 2022).

[286] Kunwoo Cho et al., “Funding for Radiation Research: Past, Present and Future,” *International Journal of Radiation Biology* 95, no. 7 (2019): 816–40.

within the mysteries of the cosmos as a divine gift.[287] They argued that this gift was providentially prepared to facilitate the revival and reconstruction of South Korea, which had been devastated by Japanese colonialism and the Korean War.[288]

Moreover, this theological justification aligned with the international discourse on the peaceful use of nuclear technology, particularly the United States' "Atoms for Peace" program.[289] This perspective was further reinforced by the Cold War dynamics between South and North Korea after the Korean War, as these conservative Protestant politicians and scientists viewed South Korea's military and economic superiority—achieved through advanced nuclear technology—as a triumph of democracy and Christianity over

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[287] Jang In-soon, a nuclear physicist born in 1940 and widely regarded as the godfather of South Korean nuclear energy, made several statements interpreting nuclear energy through the lens of Christian faith. For instance, he declared: "Nuclear energy is the energy that God has concealed within the atomic nucleus—which constitutes no more than one ten-thousandth of an atom—and it is an energy source accessible only to the people of scientifically advanced nations." Like Jeong Geun-mo, Jang interpreted nuclear technology as the intersection where divine providence and South Korea's economic development converge. "원자력은 인류가 이룬 가장 위대한 업적 중의 하나 [Nuclear Power Is One of the Greatest Achievements of Humanity]," *Kidok Times*, January 29, 2019, http://www.kidoktimes.co.kr/5365.

[288] Yun and Oh analyze Korea's early nuclear power policy from 1954-1961. During this period, despite the promotion of the "Atoms for Peace" discourse in the international society, hydroelectric and thermal power were preferred over nuclear power, due to its high cost in Korea, whose industrial infrastructure had been destroyed by the Korean War. Despite this, the ROK-U.S. Atomic Energy Agreement was signed under the unilateral initiative of the United States, driven by the U.S.-Soviet system competition. As a result, nuclear power, despite Korea's immature industrial and economic conditions, came to be seen as a technology that could rapidly advance the nation's underdeveloped living standards. Yun and Oh argue that this process, where nuclear power was introduced on a fragile scientific, technological, and socio-economic foundation, ultimately reinforced an exclusive technocratic governance. Sun-Jin Yun and Eun-Jeong Oh, "A Study on the Social Construction of the Nuclear Power Generation Policy in Korea: Focused on the Introduction Processes of Nuclear Technology," *Journal of Environmental Policy and Administration* 14, no. 1 (2006): 37–74.

[289] Nuclear research and development cooperation between the United States and South Korea originated with President Dwight D. Eisenhower's "Atoms for Peace" program, announced on December 8, 1953, which aimed to promote peaceful uses of nuclear technology. The first significant milestone was the operation of a 100-kilowatt research reactor in 1962, later upgraded to two megawatts, marking sustained collaboration under several peaceful nuclear cooperation agreements signed from 1956 to 1965. Despite the severe post-Korean War conditions, this program enabled South Korea to develop a domestic cadre of skilled nuclear engineers. With strong American support rooted in the Atoms for Peace initiative, South Korea embarked on the introduction of commercial-scale nuclear power plants in the 1970s, laying the foundation for its nuclear energy policy. Mark Hibbs, "U.S.-ROK Cooperation on Civilian Nuclear Energy: A New Generation of Atoms for Peace," The National Bureau of Asian Research (NBR), September 30, 2018, https://www.nbr.org/publication/u-s-rok-cooperation-on-civilian-nuclear-energy-a-new-generation-of-atoms-for-peace/.

communism and atheism. Given that a core tenet of conservative Protestantism was its staunch anti-communism, critics of this conservative ideology or policy were frequently branded as pro-North Korean sympathizers or even "Antichrists."[290] Within this historical trajectory, the deleterious aspects of nuclear energy were never adequately evaluated. Furthermore, the industrial-academic-political nexus surrounding nuclear technology[291] continuously reproduced idealized narratives about nuclear power, effectively denying the general public access to diverse and critical information.[292]

3. The "Non-Terrestrial Omnipotence" of Nuclear Elites

While the development of nuclear technology in South Korea does not exhibit an explicit doctrinal connection to the theology of *creatio ex nihilo*, analyzing it through the lens of this logic reveals how the logic, seemingly unconnected to nuclear discourse, has influenced the understanding of nuclear technology and public acceptability of nuclear energy. Specifically, the resonance between the logic of *creatio ex nihilo* and nuclear energy in South Korea demonstrates how the techno-bureaucratic elites systematically backgrounded what Zygmunt Bauman calls the "dependency" of the powerful center

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[290] Yong Jae Kim, "Conservative zealots: Evangelical politics in South Korea," *9DashLine*, published online July 10, 2023, https://www.9dashline.com/article/conservative-zealots-evangelical-politics-in-south-korea.

[291] In South Korea, the term "nuclear-mafia" is a critical expression used to describe a powerful cartel formed by state-run corporations, such as Korea Hydro & Nuclear Power, government ministries, academia, and the political establishment. Similarly, In Japan, the term "*genpatsu-zoku*" [nuclear power tribe] is used to express a strong alliance between the government and the nuclear power industry.

[292] However, the situation began to shift in the mid-2010s. Following the 2011 Fukushima nuclear disaster in Japan, the core of South Korea's anti-nuclear movement expanded broadly, from residents of affected regions and environmental organizations to include the general public. See Dowan Ku, "The Anti-Nuclear Movement in South Korea: Evaluation in terms of Ecological Democracy," *Journal of Peace and Unification Studies* 2, vol. 2 (2012), 57–86; Hyuk Jun Seo and Ju Yong Jung, "A Study on the Change of Anti-Nuclear Movement after Fukushima Nuclear Accident," *The Journal of Asian Studies* 16, no. 3 (2013), 93–124.

upon the periphery by erasing social, ecological, cultural, and local communities' values.[293] Furthermore, it highlights how these elites exercised "non-terrestrial power" through the systematic manipulation of spatial mobility and temporal acceleration.[294]

The act of backgrounding dependency, coupled with the manipulation of spatial mobility and temporal acceleration, serves as a fundamental strategy for the elites to achieve ethereal omnipotence and non-terrestrial power. This type of power structure shapes the dialectic of global mobility and immobility. In other words, according to Bauman, contemporary social stratification operates along "their degree of mobility—their freedom to choose where to be."[295] This creates a structural asymmetry between "global mobiles" and "immobile locals."[296] The mobile elites possess power to control spatial and temporal conditions—deciding where to live and when to leave—whereas the immobile locals are deprived of the right to choose the basic conditions of their existence.[297]

This structural asymmetry creates what Bauman identifies as the "eerie yet awesome combination of ethereality with omnipotence," functioning as a secular

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[293] For Z. Bauman, "backgrounding" refers to the systematic process by which powerful centers render their dependencies on peripheries invisible while maintaining the illusion of autonomous, transcendent power.

[294] Z. Bauman develops the concept of "non-terrestrial power" to describe a defining feature of power in the globalized era: those who hold power can move freely across space and disengage from the localities they govern, while those subject to power remain fixed in place and are subjected to the consequences of decisions made elsewhere. This spatial asymmetry is compounded by temporal acceleration. Those who hold power make decisions rapidly at the center, while their costs unfold slowly at the periphery over decades, including environmental degradation, health risks, and displacement. See Zygmunt Bauman, *Globalization: The Human Consequences* (Cambridge: Polity, 2013), 19, 87.

[295] Z. Bauman, *Globalization*, 86.

[296] Z. Bauman, *Globalization*, 76, 99–100.

[297] Z. Bauman, *Globalization*, 87.

manifestation of the *creatio ex nihilo* paradigm.[298] To maintain this god-like illusion of boundless, non-terrestrial power, the dominant regime requires immense technological and energetic apparatuses that appear to transcend physical limits. Simultaneously, it must violently externalize the toxic material costs of this power onto the hidden spaces of the immobile locals. Nuclear energy exemplifies this phenomenon: it is portrayed as a divine, transcendent solution for the nation's future, while its material reality—the negative consequences and the haunting presence of the potentially lethal waste—is systematically silenced and obscured.

4. Hidden People, Silenced Voices

South Korea has the highest nuclear power plant density in the world,[299] and 5.29 million people, which is approximately ten percent of the country's total population, live within a 30-kilometer (18.6-mile) radius of nuclear facilities.[300] Recent lawsuits by

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[298] Z. Bauman, *Globalization*, 19.

[299] South Korea has 26 reactors and leads with about 26.6 reactors per 100,000 km² (South Korea: 97,644 km²), making its nuclear plant density nearly 2.6 times that of France, 3 times that of Japan, and almost 28 times that of the USA. This demonstrates that South Korea is the world's densest nuclear-operating nation by land area.

[300] Intergovernmental organizations such as the IAEA (International Atomic Energy Agency), the NEA (Nuclear Energy Agency), and EURATOM (European Atomic Energy Community) periodically publish detailed reports on the number of operating reactors, nuclear energy output, and the share of nuclear power in national energy mixes. Notably absent from these reports are statistics on reactor density per unit of national land area, the size of populations residing within a 30-kilometer radius of nuclear facilities, or on-site density—that is, the number of reactors concentrated within a single plant complex. Yet calculating these figures is not difficult, given that data on land area, population, and reactor counts are publicly available. As of 2026, South Korea operates 26 reactors and ranks first in the world in reactor density per unit land area, on-site reactor concentration, and the size of populations living in proximity to nuclear power plants. What kinds of information are produced, recorded, and disseminated is itself a political process—one that reinforces certain facts while rendering others invisible. For global nuclear energy statistics provided by these organizations, see International Atomic Energy Agency, Power Reactor Information System (PRIS), "In Operation & Suspended Operation," https://pris.iaea.org/pris/worldstatistics/operationalreactorsbycountry.aspx; World Nuclear Association, "Nuclear Reactors in South Korea," https://world-nuclear.org/nuclear-reactor-database/summary/South%20Korea; World Nuclear Association, "South Korea — Reactor Database," https://world-nuclear.org/nuclear-reactor-database/summary/South%20Korea.

residents living near the Kori Nuclear Power Plant have begun to expose health issues afflicting local communities. Over six hundred thyroid cancer patients filed a class-action lawsuit. Furthermore, the discourse of environmental justice surrounding nuclear energy has extended beyond issues affecting those residing near nuclear facilities to encompass the concerns of residents living near transmission line corridors.[301] This shift has illuminated environmental injustices and inequalities arising throughout both the production and transmission processes of nuclear energy. In essence, the entire infrastructure of nuclear energy operates by designating these rural geographies and their residents as a cost-free outside—a dumping ground for the system's toxic byproducts. Through this systemic neglect, the residents bearing the actual health burdens of radiation and transmission lines are rendered as disposable beings, revealing how the narrative of national development is literally built upon the physical wasting of human bodies and their habitats.

Internal exposure to radioactive materials is invisible and cannot be detected by sensory organs. Except in cases of severe leakage accidents, official statements typically maintain that exposure remains below "safety standards." These safety standards,

[301] South Korea's geographically uneven energy infrastructure creates a distinctive form of nuclear-related environmental injustice. The country's nuclear power plants are concentrated along the southeastern coastline, while electricity demand is centered in the metropolitan area; as a result, extensive high-voltage transmission corridors must traverse rural and mountainous regions whose residents had no voice in siting decisions. These communities bear the burdens of electromagnetic field (EMF) exposure, property devaluation, and landscape destruction—risks incurred in the service of energy consumed elsewhere. The 2013–2014 Miryang transmission tower conflict brought national and international attention to this dimension of nuclear-related environmental injustice. This shift has illuminated how environmental inequalities are reproduced not only in the production but also in the transmission of nuclear energy. For further discussion of the Miryang transmission tower conflict and its implications for energy justice in South Korea, see Su Young Choi, "Protesting Grandmothers as Spatial Resistance in the Neo-Developmental Era," *Korean Studies* 43 (2019): 40–67; Choi Sang-won, "Miryang Residents' Fight Against Electricity Towers to Stretch into Next Year," *The Hankyoreh*, December 31, 2013, https://english.hani.co.kr/arti/english_edition/e_national/617785.html; Choe Sang-hun, "As Power Line Grows, So Does Fight Between Ancient and Modern South Korea," *New York Times*, October 30, 2013, https://www.nytimes.com/2013/10/30/world/asia/koreans-say-power-line-plan-threatens-tradition.html.

however, do not guarantee the biological and health safety of local residents. Radiation thresholds vary by country and fluctuate according to socio-political circumstances.[302] This variation suggests that safety standards are determined not solely by biological characteristics, but also by socio-political considerations—and that they are therefore not objective, rigorous scientific benchmarks, but rather fluid and variable concepts shaped by social factors.[303]

Health problems from radiation exposure can emerge ten to thirty years later. In the interim, residents may relocate, and even when symptoms occur, it is difficult for individuals to prove a causal link to radiation exposure, which has made it challenging for victims to file lawsuits or be officially recognized as victims. According to Rob Nixon, this constitutes "slow violence"—"a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all."[304]

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[302] This is evident when comparing the drastically different standards for radioactive cesium in Korea and Japan before and after the Fukushima disaster, and how those standards contrast sharply with those in the United States. Before the Fukushima nuclear disaster, Japan's provisional safety standard for radioactive cesium in food was 500 Bq/kg. After the accident, public anxiety and international concern intensified, leading the Japanese government to dramatically tighten this standard to 100 Bq/kg. Similarly, following the accident, South Korea not only banned imports of seafood from certain Japanese prefectures but also strengthened its own standard from 370 Bq/kg to 100 Bq/kg, aligning it with Japan's new limit. If standards before the accident were truly a "safe" and scientifically sound limit, such drastic changes would have been unnecessary. The differences become even more pronounced when we compare these standards to those in the United States. The U.S. Food and Drug Administration (FDA) sets a level of 1,200 Bq/kg for cesium-137. This suggests that a level of 1,200 Bq/kg is considered "safe" in the U.S., while the same level would be deemed "unsafe" in Korea and Japan. Ultimately, a "safety standard" isn't a universal, unchanging scientific truth; it's a social construct affected by society's perception of risk, fear, and political considerations. Aya Hirata Kimura, "Standards as Hybrid Forum: Comparison of the Post-Fukushima Radiation Standards by a Consumer Cooperative, the Private Sector, and the Japanese Government," *The International Journal of Sociology of Agriculture and Food* 20, no. 1 (2013): 17. For a comparison of cesium safety standards across countries following the Fukushima nuclear accident, see Citizens' Nuclear Information Center, "Radioactive Cesium Contamination of Food After the Fukushima Nuclear Accident: Summary up to Fiscal Year 2019," February 11, 2021, https://cnic.jp/english/?p=5326.

[303] Lawrence Busch, *Standards: Recipes for Reality* (Cambridge: MIT Press, 2013), 32.

[304] Nixon, *Slow Violence and the Environmentalism of the Poor*, 6.

Residents living near nuclear power plants have experienced continuous exposure to this slow violence, yet they find it difficult to prove the harm, demand safety measures, or obtain compensation. This is because research produced by the nuclear industry and academia consistently asserts that nuclear plants operate safely and that radioactive levels in surrounding areas are maintained below safety standards. Moreover, the economic and cultural embeddedness between local communities and the nuclear industry silences residents' critical voices and hinders the spread of anti-nuclear discourse.

Furthermore, in South Korea, the close relationships between nuclear power plants and high-voltage transmission lines are not widely known, yet they hold significant implications from an environmental justice perspective.[305] Nuclear power complexes are located far from the metropolitan areas and major cities. Consequently, four to six nuclear reactors are concentrated on a single site. This creates a structure where electricity is mass-produced in remote, rural regions and then transmitted to distant metropolitan centers. To efficiently deliver a massive amount of power, 100-meter-high transmission towers are constructed at about 100-meter (328 feet) intervals, sending electricity to high-consumption areas—yet the electromagnetic fields they generate impose significant health and economic burdens on nearby residents and livestock.[306]

In South Korea, this issue only came to public attention after a seventy-four-year-old Miryang resident self-immolated in protest against the construction of high-voltage

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[305] For analysis of transmission line conflicts and environmental justice in South Korea, see Su Young Choi, "Resilient Peripheralization through Authoritarian Communication against Energy Democracy in South Korea," *Environmental Politics* 30, no. 6 (2021): 40–67; Sang-Hun Choe, "As Power Line Grows, So Does Fight Between Ancient and Modern Korea," *New York Times*, October 29, 2013, https://www.nytimes.com/2013/10/30/world/asia/koreans-say-power-line-plan-threatens-tradition.html?smid=url-share.

[306] Choi, "Resilient Peripheralization," 41; Choe, "As Power Line Grows."

transmission towers near his village.[307] This act catalyzed public recognition of the cumulative suffering endured by communities near both nuclear facilities and transmission corridors. It was through this cumulative history of sacrifice and suffering endured by these communities that discourses on nuclear phase-out, energy transition, and energy justice began to emerge in South Korean society. The collective experience of these communities came to be expressed through phrases such as "Electricity flows on blood" ("전기는 피를 타고 흐른다")—expressing how a seemingly clean and abstract form of energy is sustained by the literal sacrifice and suffering of rural residents.

5. Forbidden Land, Abandoned People

Relocating residents away from the vicinity of nuclear facilities and transmission lines might appear to mitigate the aforementioned issues, as well as many issues related to environmental justice. Such measures, however, fail to address the deeper problem of procedural exclusion. As previously discussed, nuclear energy and technology in South Korea were established at an exceptionally rapid pace through political and policy support. This urgency was used to justify the intentional bypassing of adequate social and environmental deliberation regarding the construction of nuclear power plants and the disposal of nuclear waste. Democratic procedures and public deliberation processes with affected residents near nuclear facilities were rarely implemented. Consequently, information regarding the potential risks inherent in nuclear power plants was not

[307] "Protests over High-Voltage Pylons Get Intense," *Korea JoongAng Daily*, May 20, 2013, https://koreajoongangdaily.joins.com/2013/05/20/socialAffairs/Protests-over-highvoltage-pylons-get-intense/2971877.html.

properly provided.[308] The government sometimes told residents that they were building "electricity factories"—a characterization that not only obscured the nature of the facilities but actively suppressed residents' capacity to assess and contest the risks they faced. The majority of the information provided to them centered on the economic incentives the region would gain from nuclear plant construction.[309] Taken together, these practices reveal a systematic pattern in which certain territories and the people living there are excluded from due process, political participation, and access to crucial information.[310]

The invisible damage caused by radioactive materials renders the victims' voices and their very existence correspondingly invisible. This dual characteristic—the invisibility of the radioactive substances and the corresponding invisibilization of their victims—enables actors such as governments and the nuclear industry to evade responsibility.[311] This dynamic is not unique to nuclear harm: key markers of the

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[308] Joohee Lee and John Byrne, "Expanding the Conceptual and Analytical Basis of Energy Justice: Beyond the Three-Tenet Framework," *Frontiers in Energy Research* 7 (2019): 99.

[309] Karen Bell, *Achieving Environmental Justice: A Cross-National Analysis* (Bristol: Policy Press, 2014), 91; Minkee Kim, "Risk Communication about Nuclear Power in Korea: One-Year Descriptive Analysis on Twitter," *Science Education International* 24, no. 3 (2013): 331.

[310] Seiichiro Takamine, a Japanese sociologist, examines the effects of 67 nuclear tests conducted by the United States between 1946 and 1958 at Bikini and Enewetak Atoll in the Marshall Islands. During one research he conducted an interview with Tony DeBrum, the former Minister of Foreign Affairs in the Marshall Islands, emphasizing how he described "nuclear culture" and its disastrous affect as "deny, lie and classify." Takemine Seiichiro, "Invisible Nuclear Catastrophe Consequences of the U.S. Atomic and Hydrogen Bomb in the Marshall Islands: Focusing on the 'Overlooked' Ailuk Atoll," *Hiroshima Peace Science* 39 (2017): 64.

[311] Sociologist Benno Herzog introduces a concept of "invisibilization" to reveal a power mechanism that excludes social suffering from public spheres and obfuscates its structural causes. He argues that physical invisibilization produces the conditions for social invisibility, thereby blurring and hiding the responsibilities and power relations of the actors who cause such suffering. See Benno Herzog, Invisibilization of Suffering: The Moral Grammar of Disrespect (London: Palgrave Macmillan, 2020), 79-85, 160-161. For its relevance to environmental issues, see Fiona Amundsen and Sylvia C. Frain, "The Politics of Invisibility: Visualizing Legacies of Nuclear Imperialisms," *Journal of Transnational American Studies* 11, no. 2 (2020): 127; Donna M. Goldstein, "Invisible Harm: Science, Subjectivity and the Things We Cannot See," *Culture, Theory and Critique* 58, no. 4 (2017): 321.

Anthropocene—including increased atmospheric carbon dioxide, oceanic microplastics, and radioactive materials—share this same structure of invisibility and long latency. It is precisely this shared structure that makes environmental harm so difficult to politicize and contest. Furthermore, these impacts are mediated by a range of social, biological, psychological, and political factors, causing these impacts to be manifested in various forms across different timescales. As a result, the suffering, symptoms, and harm experienced by victims tend to generate scientific and political controversy rather than social consensus. Phil Brown, a scholar of sociology and environmental studies, terms this phenomenon "contested illness," in which affected communities must actively struggle to have their suffering recognized against dominant scientific and institutional narratives.[312] This process of protracted, diffuse, and systematically obscured harm is precisely what Nixon's concept of "slow violence," introduced earlier, is designed to capture.[313] Within this framework of slow violence, the systemic refusal to recognize such contested illnesses functions as an active politics of wasting. By keeping the damage protracted and invisible, the dominant regime effectively reduces both the contaminated environments and the afflicted bodies to unseen, disposable waste.

6. Nuclear Specters: The Haunting of (Un)discarded Waste

Nuclear power plants, which utilize nuclear fission, are sometimes regarded as a solution to the climate crisis because they do not emit carbon dioxide during the generation process. This perception of nuclear energy as "clean" largely overlooks the

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[312] Phil Brown, *Toxic Exposures: Contested Illnesses and the Environmental Health Movement* (New York: Columbia University Press, 2007), 6–15.

[313] Nixon, *Slow Violence*, 8–9.

carbon dioxide emitted during the mining and processing of uranium, its fuel, as well as the contamination of mining regions— areas that frequently overlap with Indigenous and rural communities already bearing disproportionate environmental burdens. Furthermore, the most significant challenge lies with spent nuclear fuel (SNF) or high-level radioactive waste (HLW or HLRW), which requires shielded containment for hundreds of thousands to potentially one million years to prevent the leakage of its toxicity and radioactivity.[314] Despite this, most nations operating nuclear power plants have yet to find a method or site for permanent disposal, resorting instead to interim storage.

This technical predicament carries a deeper ontological dimension. Spent nuclear fuel rods are classified as nuclear waste but held in temporary storage because the technology and sites for permanent disposal have not been secured. Thus, they exist in a dual state: discarded yet not discarded. HLW appears discarded to the public but remains undiscarded in reality. Moreover, the cost and responsibility for managing HLW are deferred to future generations—a structure of intergenerational injustice that extends the logic of environmental harm indefinitely forward in time. The interim or permanent storage facilities for this waste must be so hermetically sealed that not even groundwater can penetrate them. This effectively means that the land they occupy becomes permanently uninhabitable—what environmental justice scholars call a "sacrifice zone,"

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[314] Claudio Pescatore, "Beyond One Million Years: The Intrinsic Radiation Hazard of High-Level Nuclear Wastes," *Nukleonika* 69, no. 4 (2024): 215–24, https://doi.org/10.2478/nuka-2024-0029; OECD Nuclear Energy Agency (NEA), *Management and Disposal of High-Level Radioactive Waste: Global Progress and Solutions* (Paris: OECD/NEA, 2020), 18.

a cursed territory where not only current and future human generations but also other forms of life cannot reside.[315]

This perspective on land—disrespecting land and ignoring the value of life rooted in it, thus exploiting land and life dependent upon it—parallels how the logic of *creatio ex nihilo* became the theological justification enabling *terra nullius*. If the logic of *ex nihilo* is understood not merely as a theological doctrine but as an ideological logic—the ostensible ability to create wealth, order, and value from nothing, as if without resources or sacrifice—then the myth of nuclear power operates along a structurally similar axis. Both share a method of rendering the periphery invisible from the perspective of the center: *terra nullius* erases the existing inhabitants and ecologies of colonized land, while nuclear discourse erases the communities, ecosystems, and long-term costs that sustain the production of "clean" energy. This shared logic fosters the illusion of humanity's ability to control nuclear technology and create energy from the mysteries of the universe, while simultaneously erasing human and more-than-human victims and their intrinsic values and contexts.

Within such a development-oriented state discourse, economic development and achievement are regarded as superior to ecological values, deliberative democracy, and equality. At times, these values are dismissed as nothing or chaos that hinders the nation's progress. The cost, risk, and responsibility for managing HLW are deferred to future generations and more-than-human beings, creating a profound form of temporal injustice. The (un)discarded waste thus acts as a specter—a haunting presence from the past that

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[315] Steve Lerner, *Sacrifice Zones: The Front Lines of Toxic Chemical Exposure in the United States* (Cambridge: MIT Press, 2010), 3.

perpetually troubles the future. Those who voice opposition in the present are labeled as NIMBYists or subversives, and their voices and sacrifices are systematically silenced, ignored, and suppressed. This labeling functions as a scapegoat mechanism by producing and perpetuating "sacrifice zones."[316]

7. The Logic of Domination, the Enchantment of Destruction: *Creatio ex Nihilo* and South Korea's Nuclear Techno-scientism

South Korea's nuclear development unfolded within a political and cultural context deeply intertwined with American-style Christianity and U.S. technological hegemony, making the patterns it produced highly recognizable. Although the theological logic of *creatio ex nihilo* was explicitly theorized in earlier Western Christian traditions, its underlying dominological grammar was internalized and secularized within South Korea's developmentalist and techno-nationalist ideologies.

Because of this thorough secularization, unlike the relationship between *terra nullius* and the logic of *ex nihilo*, as discussed by Whitney Bauman, and unlike Terra Schwerin Rowe's analysis of the tight link between extractivism and American conservative Christianity, the political and social context of nuclear technology in South Korea does not appear to have been directly or explicitly shaped by religious or theological ideas such as the doctrine of *creatio ex nihilo*. Yet this does not mean that

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[316] South Korea's Act on the Promotion of Electric Power Development, for example, reveals how the state appropriates an administrative tool to prioritize rapid, state-led energy infrastructure development over the democratic rights, safety, and well-being of local communities. Enacted in 1979 during an era of authoritarian developmentalism, the law's core mechanism is to expedite the construction of power plants and transmission networks by centralizing approval processes and overriding local planning authority. From an environmental justice perspective, this has systematically sacrificed the interests of politically and economically marginalized communities for the benefit of distant urban and industrial centers. The law infringes upon citizens' rights and creates injustice in several key ways: violation of procedural justice, infringement on safety and health, and the creation of "sacrifice zones." Lerner, *Sacrifice Zones*, 3.

religious currents were entirely absent. The rapid industrialization of South Korea unfolded alongside the dramatic expansion of Protestantism, in which economic growth was widely interpreted as divine blessing, and the embrace of Western technology and capital was understood as both modernization and faithfulness. This religious ethos provided an affective underlay for the developmentalist drive that shaped favorable public perceptions of nuclear expansion. This section contends, then, that a structural and ideological homology between the logic of *ex nihilo* and South Korea's developmentalist techno-nationalism can be identified—one that operates not through explicit theological influence, but through the deep grammar of domination, erasure, and enchantment that the logic of *ex nihilo* has historically made available.

When the history of nuclear energy in South Korea is analyzed from the perspective of political ecology and environmental justice, it reveals patterns that resemble the critiques of the doctrine of *creatio ex nihilo*—namely, patterns in which the logic of *creatio ex nihilo* contributes to ecological harm, as described by Whitney Bauman and Terra Rowe in the Western Christian context. Although South Korean Protestantism emerged through Western Christian missionary and theological influences, those influences were reconfigured within the pressures of colonial history, anti-communism, and developmental state ideology. In this context, the logic of domination associated with *creatio ex nihilo* operated not as a direct theological inheritance, but as a structural disposition toward land, life, and power that shaped how nuclear energy was imagined, justified, and imposed.

The logic of *ex nihilo*—characterized by absolute power, creation from absolute nothing, the erasure of preexisting matter, and exclusive forms of ownership—has become secularized and thoroughly internalized within South Korea's developmentalist and techno-nationalist ideologies, fundamentally shaping South Korea's approach to nuclear technology. Whitney Bauman demonstrates that the doctrine of *creatio ex nihilo* established a logic of domination that paved the way for the colonial concept of *terra nullius*. Rowe shows how extractivism, when connected to the metaphor of an omnipotent God, becomes "enchanted"—imbued with salvific and redemptive power.[317] Although South Korean developmentalism was overtly secular, its core narrative—of technological-nationalistic salvation and the management of territory and population—shares deep structural homologies with theological concepts such as *creatio ex nihilo* and divine sovereignty, along with their structural consequence of erasure. Indeed, the state assumes a quasi-divine posture: it creates order from disorder, progress from backwardness, and national power from the raw material of land and labor—rendering what already exists as nothing more than inert matter awaiting transformation.

The doctrine of *creatio ex nihilo* posits a radical dualism between the omnipotent, decontextualized creator and passive, dependent creation, thus establishing a systematic foundation for the logic of domination. By modeling a relationship of absolute authority over passive matter, this theological perspective has provided a template for hierarchies of dominance over persons, territories, and more-than-human life—serving as the

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[317] Rowe, *Of Modern Extraction*, 11.

ideological bedrock of the colonial mindset.[318] For example, Tertullian's understanding of the "all power-God" functions as a "transcendent, universal, and decontextualized source" of value and as an unquestionable authority.[319] As Bauman suggests, this theology provides a foundational support system for a psychology of dominance, mirroring a desire for mastery in both rhetorical and political spheres. In this way, it crystallized a model of power that moved beyond the ecclesial realm to become a primary instrument for secular and colonial appropriation.[320]

This understanding of the divine provides a model for human action: as bearers of the *imago Dei*, humans inherit an ontological resemblance to the creator, while as God's agents, they are commissioned to exercise dominion. This understanding of the divine and humans incites anthropocentric modes of thinking that drive humans to remake the world through the domination of land, life, and more-than-human beings.

The *ex nihilo* mode of thought does not merely exclude and erase, but simultaneously confers enchantment. In this regard, Rowe's work expands and complements Bauman's analysis by tracing how this enchanting logic operates within modern extractivist economies. Although Rowe does not name *creatio ex nihilo* directly, she critically examines what she calls "petro-theology"—a theology enacted through the metaphor of the omnipotent God and the idea of salvation and resurrection. In this logic, petroleum becomes not just a material resource, but a divine gift or even a savior promising technological redemption. The resurrection logic of fossil fuels implicit in

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[318] See W. Bauman, *Theology, Creation, and Environmental Ethics*, 12–32.

[319] W. Bauman, *Theology, Creation, and Environmental Ethics*, 28.

[320] W. Bauman, *Theology, Creation, and Environmental Ethics*, 28.

Rowe's petro-theology—transforming what was dead and buried into new life and power —parallels the structure of *creatio ex nihilo* as a secularized enactment of it in that the logic reframes extraction as a redemptive act of creation. This logic redefines the extraction and combustion of fossil fuels—formerly inert matter isolated temporally and spatially—as acts that bring about new life, power, and progress: in other words, as creating value out of the "nothingness" of the earth's depth.[321] A structurally identical logic operates within nuclear discourse: uranium, extracted from the earth, is similarly re-enchanted as a source of clean, limitless, and nationally redemptive energy—its devastating costs rendered invisible by the salvific narrative that surrounds it.

In this way, the *ex nihilo* imagination performs a dual function: it simultaneously erases preexisting forms of value and enchants newly created entities as redemptive acts. This logic is further amplified when combined with the discourse of the developmental state, the metaphor of the omnipotent God, anthropocentrism, the understanding of human beings as bearers of the *imago Dei*, and the biblical mandate to "be fruitful and multiply." Each of these factors converges on a single operative logic: that the human has an authority to transform land, life, and matter into productive national wealth, which is not merely permissible but divinely and historically mandated. As a result, they serve to justify exclusion and marginalization of beings regarded as what Keller calls chaotic, dark, fluid, or excessive, those whose very existence provokes the sovereign order's *tehomophobia*.

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[321] Rowe, *Of Modern Extraction*, 149–152.

Within the discourse of the developmental state, this logic manifests as what Michel Foucault describes as biopolitics.[322] In doing so, it distinguishes between those whose lives are deemed productive for national development and those whose expendability becomes a structural necessity for progress. The latter is what Zygmunt Bauman calls "wasted lives"—surplus populations that the developmental logic cannot absorb and therefore must discard.[323] The logic of such biopolitics inevitably produces sacrifice zones: regions offered up on the altar of national development, where the costs of progress are externalized onto the most vulnerable. As demonstrated in the preceding sections, communities adjacent to nuclear power plants and high-voltage transmission corridors in South Korea stand as clear examples: populations systematically excluded from deliberation, exposed to slow violence, and rendered invisible.

Those excluded, whom Bauman calls "wasted lives," have been variously labeled as reactionaries, NIMBYists, procommunists, or outsiders.[324] They have been framed as sources of fear and anxiety and have been structurally subjected to oblivion, erasure, and invisibility. This stigmatization resonates deeply with the logic of *creatio ex nihilo*: both function by rendering certain beings as nothing, thereby clearing the ground for a salvific narrative of progress and redemption. Ultimately, the logic of *creatio ex nihilo* positions existing land and life as "nothingness," as chaos or disorder to be eliminated and

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[322] Michel Foucault, *The History of Sexuality, Vol. 1: An Introduction*, trans. Robert Hurley (New York: Pantheon Books, 1978), 135–145.

[323] Z. Bauman, *Wasted* Lives, 5, 39–40.

[324] The labeling of anti-nuclear activists and residents as "procommunists" carries particular ideological weight in the South Korean context, where anti-communism has historically functioned as a state apparatus for suppressing political dissent. See Mi Park, "Organizing Dissent against Authoritarianism: The South Korean Student Movement in the 1980s," *Korea Journal* 45, 3 (2005): 263.

overcome. By framing them in this way, it legitimizes their erasure and replacement, thereby contributing to the violent secular theology that underlies the creation of the developmental nation-state.

It is precisely against this *ex nihilo* logic of domination and erasure that political-ecological and political-theological critique must be directed. I contend that we must reimagine what is rendered and designated as waste, what is cast off as abject—objects of hatred and fear—and what is silenced and erased within given structures and systems. Rather than regarding “nothingness,” “chaos,” or “disorder” as realities to be eradicated and eliminated, I propose that we reexamine the ways in which we are entangled and interconnected, and cultivate a relational and practical orientation toward what is considered waste. In this light, I turn to the notion of *creatio ex profundis*—creation out of the deep—considered in both political-theological and ecological-ethical dimensions, and discuss how such a perspective might contribute to an ethics of care as a form of planetary thought in the Wasteocene.

By retrieving the suppressed chaotic depth through the lens of *creatio ex profundis*, this chapter has begun to reinterpret the relationship between God and the world not as unilateral domination but as interdependent becoming. This theological shift fundamentally alters the status of “waste”: if the deep is the generative womb of creation rather than evil to be eradicated, then the discarded beings of our civilization cannot simply be ignored.[325] Acknowledging the agency and interconnectedness of matter demands not only theological reconstruction but also a new ethical praxis capable of

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[325] Keller, *Face of the Deep*, 87–88, 222.

responding to what has been cast aside. Consequently, the next chapter proposes theo-garbology as a practical response to this new creation theology: an ethic of mourning, staying with, and caring for discarded beings that the logic of *ex nihilo* has rendered as nothing.

CHAPTER THREE

REIMAGINING *CREATIO EX PROFUNDIS* THROUGH A THEO-GARBOLOGY: MOURNING, STAYING WITH, CARING FOR WASTE

A. *CREATIO EX PROFUNDIS* AS A THEOLOGICAL ALTERNATIVE

As discussed in the preceding chapters, the doctrine of *creatio ex nihilo* is not merely a matter of ancient metaphysical speculation. This doctrine has functioned as a politico-theological apparatus that legitimizes a logic of domination which excludes and erases certain beings, places, and materials by treating them as if they did not exist. As a result, the proliferation of sacrifice zones and the normalization of slow violence have been concealed behind modern society's pursuit of development and progress. This logic of nullification manifests in the attempt to control and annihilate waste—an attempt bound to fail. Oppressed, concealed, and silenced waste inevitably returns as a spectral presence that haunts us, signaling the end of the illusion of humanity's total control over natural and social orders.

Where, then, can one find the theological and ethical resources to move beyond this destructive logic of nullification? If *creatio ex nihilo* has theologically underwritten a politics of exclusion and concealment, what theological imagination can ground an ethic of facing the waste we have created, acknowledging its uncomfortable reality, and coexisting with it? It is precisely at this juncture that we must turn to the alternative theology of creation out of the deep—*creatio ex profundis*, which reveals a relational becoming with the complex and chaotic pre-existence of the deep (*tehom*), not a

unilateral divine act that suppresses nothingness and chaos. This, in turn, provides a significant theological ground for an ethics of "staying with" waste, including beings considered marginalized, concealed, and discarded. Building on this theological shift, in this chapter, I propose a "theo-garbology" as a theological alternative, suggesting a planetary ethic of care responsive to the Wasteocene era. This is not simply a theological reflection about waste; rather it is the work of focusing on the very surplus and spectral reality that the logic of *ex nihilo* sought to repress and nullify.[326]

To this end, I adopt *creatio ex profundis* as a theological foundation, as proposed by Catherine Keller, through her interpretation of the concept of the deep in Genesis 1:2. She understands the deep not merely as chaos or nothingness to be overcome, but as a primordial, symbolically feminine power pregnant with the potentiality for creation.[327] From her perspective of *creatio ex profundis*, creation becomes a process of relational solicitation rather than dominative command, one that calls forth the infinite potentiality within the deep. This "*tehomophilic* hermeneutics" subverts the hierarchical and exclusive creation narrative of *creatio ex nihilo*, acknowledging the multiplicity and interconnectedness of all beings and calling for a paradigm shift that accepts chaos as a generative principle rather than as disorder.[328]

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[326] While research examining waste issues through theological analysis is limited, the following sources offer practical approaches to the intersection of Christian faith and environmental concerns, particularly from the perspectives of stewardship ethics, creation care, and environmental justice: Caleb Cray Haynes, *Garbage Theology: The Unseen World of Waste and What It Means for the Salvation of Every Person, Every Place, and Every Thing* (Nashville: McGahan Publishing House, 2021); Christiane Lang Hearlson, "Theological Imagination in a Throwaway Society: Contending with Waste," *Theology Today* 78, no. 2 (2021), 159–169; Francis A. Schaeffer, *Pollution and the Death of Man* (Wheaton: Crossway, 1970).

[327] Keller, *Face of the Deep*, 28.

[328] Keller, *Face of the Deep*, 27–28, 186–189.

Furthermore, following Keller, I interpret *tehom* as a site of generative chaos, not as a symbol of absolute evil. This does not imply, however, a romanticization of chaos, as Keller herself acknowledges the ambivalence of the deep. Rather, *tehom* represents both the womb of creation and the threat of dissolution.[329] Just as the flood narrative reveals *tehom* as a destructive force that can overwhelm order, waste in the Anthropocene carries this dual agency: it is a toxic threat to survival, yet also the material ground from which new ecological relations must be negotiated.[330]

The notion of theo-garbology proposed in this chapter, grounded in the theological insight of creation from the deep, articulates an ethical practice of forging a new relationship with waste: mourning, staying with, and caring for it. At this juncture, one might question the scope of this empathic approach: while it is intuitive to mourn the wasting of human or animal lives, how can we legitimately extend such mourning to mundane detritus like potato peels, rotten fruit, or thrown-away paper? This incredulity, however, is symptomatic of a Western dualistic paradigm that rigidly bifurcates "valuable sentient life" from "valueless dead matter." To mourn such everyday garbage is not an act of sentimental anthropomorphism; it is an ethical grieving for a profound ecological disconnection.

In the earth's natural economy, a potato peel is not an inert void; it is humus—fertile matter meant to circulate within the metabolic harmony of the ecosystem. This is precisely what ecological Marxist thinker John Bellamy Foster names the "metabolic

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[329] Keller, *Face of the Deep*, 86, 91.

[330] Keller, *Face of the Deep*, 130–131.

rift": the rupture capitalism introduces into the metabolic interaction between human society and the rest of nature, severing the natural cycles through which organic matter decomposes into nutrients, renews fertility, and sustains life.[331] What was once a self-renewing loop becomes a one-way flow—matter extracted, consumed, and expelled as permanent, toxic waste, never permitted to complete its cycle. As Betcher similarly observes, the capitalist economic superstructure violently cuts off waste from the soil's fertility, transforming a life-sustaining metabolism into a death-producing machine.[332] Our mourning, then, is a radical refusal of this systemic severing—a call to restore the cyclic animacy of matter that the logic of *ex nihilo* first declared nothing. It is here that theo-garbology begins: not with solutions or remedies, but with the willingness to stay in the discomfort of what we have refused to face.

Theo-garbology, by mourning waste, resists the historical violence of "active forgetting" and collective amnesia, proposing a practice of remembering the loss of marginalized and suffering beings. This is not merely an emotional response but a theological task that awakens an ethical responsibility for ecological suffering and social injustice. Furthermore, rather than seeing waste as something to be eliminated, theo-garbology, by staying with its presence, directly confronts the dark ecology of the world that waste reveals and fosters a new relationship seeking co-existence with more-than-human entities beyond anthropocentric perspectives.[333]

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[331] John Bellamy Foster, *Marx's Ecology: Materialism and Nature* (New York: Monthly Review Press, 2000), 141–142, 155–170.

[332] Betcher, "Grounding the Spirit," 326.

[333] Morton, *Dark Ecology*, 5–6.

Specifically, the "uninhabitable places" and "unmigratable beings" left behind, as well as the distorted perception of "wasted people," will be re-examined from a theo-garbological perspective.[334] They are not objects to be merely eliminated or excluded, but witnesses to the suffering produced by our collective amnesia and the dominative logic of *creatio ex nihilo*; they are a crucial part of the interconnected relational web that creation from the deep seeks to affirm. Through the practice of staying with these forgotten beings, theo-garbology calls us to confront the uncomfortable truths of the world we have refused to face. In doing so, it dismantles the boundaries created by waste, thereby seeking new possibilities for all beings to live together.

B. MOURNING WITH WASTE

Catherine Keller's idea of *creatio ex profundis* provides a significant theological insight for mourning with waste. Here, the mourning is not an emotional state towards loss; rather it constitutes a political, theological act of resistance against systems that deny the existence of loss and erasure. In contrast to the classical doctrine of *creatio ex nihilo*, which presupposes absolute divine origin and total control, *creatio ex profundis* understands creation as emerging from the *tehom*—the primordial deep that precedes established orders.[335] This theological reorientation is crucial for theo-garbology, as it

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[334] For extensive discussions on the physical uninhabitability of the planet due to the climate crisis, see David Wallace-Wells, *The Uninhabitable Earth: Life After Warming* (New York: Tim Duggan Books, 2019) and Jeff Goodell, *The Heat Will Kill You First: Life and Death on a Scorched Planet* (New York: Little, Brown and Company, 2023). Regarding the socio-political implications of slow violence and the human rights crises faced by those in unmigratable or forced-migration conditions, see Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011) and Gaia Vince, *Nomad Century: How Climate Migration Will Reshape Our World* (New York: Flatiron Books, 2022).

[335] Keller, *Face of the Deep*, 157–200.

recognizes that creation already involves remainder, excess, and that which defies inclusion within a systematic order.

Keller's process-relational approach draws on Alfred North Whitehead's understanding that "the ultimate metaphysical principle is the advance into novelty" through persuasive rather than coercive divine power.[336] From this process-relational perspective, God's power manifests not through *ex nihilio*-based omnipotent control but through responsive love that solicits possibilities from the chaotic potential of the deep. This theological insight underpins theo-garbology: if creation emerges from the deep rather than nothingness, then waste represents the traces of ongoing creation processes that resist systematic capture, rather than a failure of divine creation.

From the perspective of *creatio ex profundis*, this resistance is theologically significant. The *tehom* was never fully domesticated by the act of creation; it persists as the generative, unruly ground that sovereign order cannot exhaustively contain. Waste, in this sense, carries the signature of the deep: it is matter that has escaped the boundaries of the ordered system, returning as what Keller identifies as the chaotic, dark, fluid, or excessive—that which the dominological logic sought to eradicate but could not.[337] This resistance takes multiple forms. At the human level, it is visible in those rendered disposable by sovereign order—refugees, sacrifice-zone communities, the economically and politically excluded—whose persistent presence refuses erasure. But the resistance extends to nonhuman matter as well: radioactive isotopes migrate through soil, water, and

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[336] Alfred North Whitehead, *Process and Reality: An Essay in Cosmology*, eds. David Ray Griffin and Donald W. Sherburne (New York: Free Press, 1978), 343.

[337] Keller, *Face of the Deep*, 39, 64.

bodies across centuries beyond every containment protocol; microplastics infiltrate ecosystems in ways no regulatory system anticipated; organic matter severed from its metabolic cycle accumulates as toxic excess that defies management. In each case, what the dominological system declares finished and gone returns—not as resolution, but as haunting remainder, bearing witness to the ongoing, unfinished nature of creation itself.

This theological remainder is not abstract. It takes concrete social form in the populations and materials that modernity itself cannot absorb. Modernity, in the name of progress and order, inevitably produces a "surplus." According to Bauman, modernity's twin compulsions—order-building and economic progress—systematically generate populations that do not fit established structures or are no longer useful, rendering them "superfluous, unnecessary, unneeded and unwanted."[338] These individuals become "human waste" that does not fit the design of the modern order. As Bauman puts it, the production of such "waste" is no longer a localized problem but has become a global phenomenon, precipitating a planetary crisis.[339] Armiero's concept of the Wasteocene aptly captures what Bauman describes: an era defined by the systemic production and disposal of those rendered superfluous by modern order.[340]

This social phenomenon of a planetary crisis is deeply intertwined with the theologically driven extractive imagination analyzed by Rowe. In her view, modernity's extractivism is rooted in a post-medieval theological shift that reconceptualized divine power as an external and exceptional force that imposes its will on passive and malleable

[338] Z. Bauman, *Wasted Lives*, 40.

[339] Z. Bauman, *Wasted Lives*, 69.

[340] Armiero, *Wasteocene*, 1.

matter.[341] This theological perspective justifies the overturning of space, defining those who live in organic relation with the land as uncivilized beings who have failed to transcend materiality, thereby turning their lands into sacrifice zones.[342] As such, both the social process described by Bauman and the theological imagination analyzed by Rowe share a common logic of defining and excluding specific beings as worthless, as waste.

This logic of domination aligns with the theological structure of *creatio ex nihilo* criticized by Keller. The doctrine of creation out of nothing begins with the theological erasure of the chaotic reality (*tehom*) that existed prior to creation—effectively functioning through a form of active forgetting. This theology proclaims that there was nothing to mourn before creation. Similarly, Rowe identifies the resurrection logic of petro-capitalism—the justification of fossil fuel extraction by aligning it with the Christian redemption narrative of death, burial, and resurrection.[343] These "triumphal resurrection narratives" sanctify exponential capital accumulation and energy expansion, all while violently obscuring the actual death and toxic bondage of marginalized populations globally, including Indigenous communities, the Global South, and historically oppressed laboring classes—all of whom are exploited at the foundation of the extractive economy. This logic secures life and freedom for a privileged few at the

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[341] Rowe, *Of Modern Extraction*, 67.

[342] Drawing on theologian Willie James Jennings' analysis, Rowe explains that Western Christianity and modernity separated the foundation of human identity from specific geographical places. As a result of this overturning of space, the ideal human (modern whiteness) was posited as a being endowed with a "transient" capacity to break free from the bounds of matter and place, traversing freely and manipulating materiality. In contrast, human beings who remained rooted in their relationship with specific lands or places, such as Indigenous and Black populations, were defined as deficient and incapable entities who lacked the transcendent ability to "extract" themselves from materiality. Rowe, *Of Modern Extraction*, 77–79.

[343] Rowe, *Of Modern Extraction*, 152.

expense of many others.[344] In this way, the resurrection logic of petro-capitalism renders mourning for what is destroyed economically both unnecessary and irrational by promising that every crisis (death) can be converted into a new profit (resurrection).[345]

The logic of *ex nihilo* and the capitalist ideology of progress are two sides of the same coin: both enact the theological erasure of *tehom* and the forgetting of loss in order to maintain an illusion of absolute sovereignty—whether imagined as divine omnipotence or market resilience—that denies death and destruction. Within a system that continually produces wasted matter, however, mourning becomes a practice of resistance against its destructive mechanisms. Mourning for waste, therefore, is a theological task that genealogically exposes this violent and exploitative structure. It is a liturgical counter-formation that publicly memorializes the sacrifice zones created by developmentalism.

In addition, the practice of mourning with waste draws on Keller's understanding that *creatio ex profundis* involves ongoing encounter with spectral traces that resist systemic erasure. Extending Jacques Derrida's notion of hauntology, waste appears as a spectral return that unsettles linear temporalities presupposed by both *ex nihilo* creation and progressive developmentalism. Chemical and radioactive waste—whose temporalities far exceed human scales—embodies this hauntological disruption, persisting and returning in ways that escape human planning and control.

Reading Zygmunt Bauman's analysis of "wasted lives" through a hauntological lens further extends this theological reflection on waste into human communities

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[344] Rowe, *Of Modern Extraction*, 152–154.

[345] Rowe, *Of Modern Extraction*, 152.

rendered superfluous by economic development. Bauman demonstrates how modernity produces "human waste" through the same mechanisms that produce material waste: both represent systematic production of surplus—populations and material—that resist integration into productive systems.[346] Mourning with waste, therefore, reveals that both material and social abandonment alike are the consequences produced through the interconnected process of the logic of *ex nihilo*.

Moreover, waste appears as a specter that subverts the linear temporality shared by the logic of *ex nihilo* and progressivism. Chemical and radioactive wastes, for example, return as a spectral reality that reveals the instability of coherent order as they disrupt human planning and control. Greenhouse gases causing climate change, marine microplastics, and other pollutants embody the spectral reality of waste that modern humanity confronts, and these spectral realities manifest materially within the bodies of humans and other animals and throughout ecological systems. In his reflection on living with the dead, Derrida offers an excellent insight into how waste and abandoned beings as spectral realities ought to be approached:

> It [living together with the dead] is rather an essential possibility of existence…"Living together" with the past of those who are no longer and will not be present or living, or with the unpredictable future to come [*avenir*] of those who are not yet living in the present.[347]

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[346] Z. Bauman, *Wasted Lives*, 5, 39.

[347] Jacques Derrida, "Avowing—The Impossible: "Returns," Repentance, and Reconciliation," in *Living Together: Jacques Derrida's Communities of Violence and Peace*, ed. Elisabeth Weber (New York: Fordham University Press, 2013), 20.

The coexistence with abandoned beings, who exist as specters, is essential to the understanding of humanity in the Anthropocene—just as Derrida states that living together with the dead is an essential possibility of existence. And yet, living together with wasted beings entails ethical and affective difficulty. It demands that we become a subject who practices compassion and mourning, as Derrida puts it "I mourn therefore I am."[348] Mourning is a performative act insofar as it entails not only the capacity to mourn with others, but also the critical discernment to move beyond their positive and negative aspects by examining their macro and micro structures.

Mourning is a politico-theological practice that exposes the common logic—namely, the logic of *ex nihilo*—at work in the production of both material waste and social exclusion and discrimination. In this context, mourning does not merely reside in sentimental sympathy for loss. The politics of mourning includes active remembrance, as Haraway notes: "To re-member, to com-memorate, is actively to reprise, revive, retake, recuperate."[349] Following the thought of Derrida and Haraway, mourning extends beyond recollection of the past and the grief of loss. Mourning is bound up with memory, and memory is, in turn, connected to responsibility; as discussed in Chapter 1, this renders memory a profoundly political act. If mourning is a political counter-practice on behalf of

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[348] Jacques Derrida, *Points: Interviews, 1974-1994*, edited by Elisabeth Weber (Stanford: Stanford University Press, 1999), 321.

[349] Haraway, *Staying with the Trouble*, 25.

the memories and voices that have been oppressed, ignored, and silenced, there is no reason not to see it as an act that also allows the deep (*tehom*) to surge forth.[350]

Drawing from Derrida's own eulogy, feminist theologian Namsoon Kang discusses the politics of mourning, elaborating ethico-political dimensions of mourning.[351] First, mourning is not only grieving for the death of the other but also includes mourning for one's own death-to-come.[352] Second, genuine mourning is not about succumbing to feelings of sorrow and grief; true mourning is "never ceas[ing] affirming survival," holding onto the traces and the "memory" of the one who has passed away before us.[353] For Derrida, survival is not simply the continuation of a biological life, but an unconditional affirmation of life: the act of remembering the presence of those who have departed and continuing to carry them forward in the work of creating the world they sought to achieve—assuming an endless responsibility to their traces and specters to faithfully carry forward their legacy.[354] Thus, they are present even in their absence, and sustained remembrance teaches us to learn how to live with these specters. Third, mourning is compassion—being together with the life and suffering of others.[355] In

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[350] Keller, *Face of the Deep*, 74. Keller writes: "If mourning lets the Deep gush through his [Augustine's] eyes, the waters will well up afterwards in his hermeneutics. No autocratic, dispassionate point of view, but a passionate, indeed bodily theology begins to take form, attentive to his own volatile fluctuations.

[351] Leslie Hill, *The Cambridge Introduction to Jacques Derrida* (Cambridge: Cambridge University Press, 2007), 11; Namsoon Kang, *Derridawa-ui De-iteu: Aedohanda, Goro Naneun Jonjaehanda* [Dating Derrida: I Mourn, Therefore I Am] (Paju: Planet B, 2022), 290–292.

[352] Kang, *Dating Derrida*, 290.

[353] Leslie Hill, *The Cambridge Introduction to Jacques Derrida* (Cambridge: Cambridge University Press, 2007), 11.

[354] Jacques Derrida, *Learning to Live Finally: The Last Interview*, trans. Pascale-Anne Brault and Michael Naas (Hoboken: Melville House Publishing, 2007), 15, 26, 52.

[355] Kang, *Dating Derrida*, 291.

this line, mourning includes compassion and a sense of loss toward entities silenced, oppressed, and excluded by the logic of *ex nihilo* and domination theology. Thus, we engage in a continuous act of remembrance that allows us to persistently speculate on and live with these spectral entities. Finally, compassion and mourning become the love and absolute affirmation of life; such unconditional affirmation of the other is true hospitality, generating a smile toward the other.[356]

Therefore, mourning is one of the most potent ways of staying with wasted lives and uncomfortable beings—as Keller reflects, with "the humans forever slipping beneath the status of the human, the nonhumans by definition crammed there beneath all humans."[357] Mourning is also a way of engaging hospitality. Thus, it is about "dwelling with a loss," which Haraway points out, "opens us into an awareness of our dependence on and relationships with those countless others being driven over the edge of extinction."[358] Mourning enables us to understand what Derrida says about living: that to live is always "living together."[359] Yet, when mourning is seen as active hospitality and a way of living together, it offers a way of relating to the other that is neither selective nor confined within fixed boundaries and orders. True mourning rejects predetermined plans or teleological directionality, instead acknowledging uncertainty and unpredictability as

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[356] Kang, *Dating Derrida*, 291.

[357] Catherine Keller, *Political Theology of the Earth: Our Planetary Emergency and the Struggle for a New Public* (New York: Columbia University Press, 2018), 30.

[358] Haraway, *Staying with the Trouble*, 38–39.

[359] Derrida, "Avowing," 19–20.

fundamental conditions.[360] Mourning, as intrinsic to cultivating response-ability,[361] is not a linear process directed solely toward human beings but seeks a tentacular entanglement that goes beyond the boundaries of purity and impurity.[362] Thus, Haraway reminds us, mourning views all "inhabitants of the world, creatures of all kinds, human and non-human" as wayfarers traveling alongside us.[363]

C. TOWARD A TEHOMOPHILIC THEOLOGY OF WASTE: ETHICS OF CARE FOR WASTE

The politics of mourning is about accepting spectral presence as part of ethical and political life through remembering and responding to spectral beings. In the context of the ecological crisis, spectral beings coexist with us, not merely as ghosts of the past, but as material-semiotic agents actively shaping the world. Haraway's concept of "becoming-with" is central to her vision of a "relational material-semiotic worlding," in which entities "become who and what they are" only through their relationships with others.[364] From this perspective, environmental problems require attention to the entangled relationships between human and more-than-human actors. Likewise, responsibility is not a human-only capacity but emerges among diverse beings through relationships of response-ability.

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[360] Haraway, *Staying with the Trouble*, 49.

[361] Haraway, *Staying with the Trouble*, 38.

[362] Haraway, *Staying with the Trouble*, 31–32.

[363] Haraway, *Staying with the Trouble*, 32.

[364] Haraway uses the term "material-semiotic" to emphasize that meaning-making (the semiotic) and the physical world (the material) are not separate entities but are always already intertwined in the processes that create worlds. For a more detailed discussion on how these practices shape relational ontologies, see Haraway, *Staying with the Trouble*, 1, 4, 13, 60.

Haraway's understanding of response-ability is faced with a criticism from traditional Western philosophy that has held that responsibility requires conscious, intentional subjects capable of deliberation and choice. Drawing on Actor-Network Theory, Haraway expands the concept of agency by engaging with Latour's fundamental shift in the definition of actors and agencies, in which "any thing that does modify a state of affairs by making a difference is an actor."[365] In addition, agency can also be understood as relational and situational: an actor is not a fixed entity but is constituted through the relationships, connections, and alliances it forms with various others.[366] Therefore, response-ability reconstructs the concept of responsibility, which has traditionally been grounded in subjectivity, as the capacity to respond to and influence one another within interdependent relationships, rather than as the mere presence of voluntary intention. For Haraway, response-ability thus moves beyond human exceptionalism to cultivate the capacity to respond on a damaged earth for multi-species flourishing.[367]

Such a cultivation of response-ability, however, necessitates a theological deconstruction of the sovereign subject that has historically obscured the entanglement of all beings. Facing beings who are systematically oppressed, erased, and silenced in the age of climate crisis and global inequality, Keller's *tehomic* and *tehomophilic* theology deconstructs the theological justification for the traditional sovereignty-dominion paradigm and offers an alternative discourse. This discourse supports an ethics of

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[365] Latour, *Reassembling the Social*, 71.

[366] Latour, *Reassembling the Social*, 46, 217–218.

[367] Haraway, *Staying with the Trouble*, 116, 132.

interdependence, vulnerability, and care as a theological ground for creation.[368] It does so by reestablishing an understanding of creation rooted in multi-species entanglement—one that decenters human exceptionalism and opens toward a relational ontology of the *tehom*.

Significantly, Keller's interpretation of the relational plurality of *Elohim* provides theological grounds for resisting exclusive nationalism or religious fundamentalism, which imposes singularity and homogeneity on a political community.[369] By emphasizing how the Hebrew name *Elohim* is literally a plural noun that nevertheless takes a singular verb, Keller reveals a divine "plurisingularity."[370] When divinity itself is understood as a dynamic of multiplicity, difference, and interpenetration, such an understanding demands theological engagement with the core issues of contemporary politics concerning political pluralism and coexistence with the others. These are the others who have been muted by

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[368] Keller, *Face of the Deep*, 5–6, 25–27, 136–139, 173–175; Keller, *Political Theology of the Earth*, 16, 43–44, 75–77; Austin Roberts, "Resisting Geopower: Political Theologies of the Anthropocene," in *Political Theology on Edge: Ruptures of Justice and Belief in the Anthropocene*, ed. Clayton Crockett and Catherine Keller (New York: Fordham University Press, 2022), 59, 70–71.

[369] Drawing upon the discussion of the medieval rabbinic commentator Rashi, Catherine Keller notes that *Elohim* is a plural noun, arguing that the act of creation already inherently contains a "many-ness" of viewpoints and relational dynamics. Taking this a step further, Keller presents the unconventional reading found in the Jewish mystical text, the *Zohar*. The *Zohar* exploits the Hebrew word order (verb–subject) to interpret Elohim as the object of creation, rather than the subject. That is, the Ineffable Source created the "palace" or "womb" called "Elohim." In this interpretation, *Elohim* is described as *Binah* (understanding), the third Sephira, who is the Divine Mother and is called "the totality of all individuation." This interpretation dismantles the viewpoint that Elohim is a singular and fixed subject-Creator, challenging the "univocal posturing" of the creator, which has always been masculinely gendered. Instead, by reconstituting divinity itself as a multiple, reciprocal, and generative dynamic, this perspective provides grounds for a theological critique of the univocal posturing that imposes a single voice. In other words, the interpretation of Elohim through the concept of plurisingularity is neither monistic nor dualistic, but rather articulates a pluralism of interdependent individuations that are "constantly coming, flowing, through one another," offering a "pluralism of plurisingularities." Keller, *Face of the Deep*, 178–179.

[370] Keller, *Face of the Deep*, 173.

the dominant discourse and rendered as dark, profound, and fluid by the prevailing order.[371]

This theological reconfiguration of divinity demands a radical re-evaluation of "stewardship ethics" and "creation care" discourse.[372] Although these discourses, largely based on an interpretation of *imago Dei* that establishes an anthropocentric hierarchy, have long been central to creation ethics, they face significant criticism for their inherent limitations.[373] The concept of stewardship is critiqued as anthropocentric for positioning humans as masters and managers of nature, thereby justifying the exploitation of the natural world as a mere storehouse of resources. Furthermore, creation care has been criticized for reducing environmental problems to an individual and moral dimension—a move that overlooks their structural and political causes. Consequently, this approach tends to focus on market-based solutions, such as improving energy efficiency or retrofitting churches, while evading a fundamental critique of the capitalist systems of growth and accumulation that drive climate change. The language of eco-justice is more

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[371] Keller, *Face of the Deep*, 6.

[372] Situated primarily within evangelical theological circles, stewardship ethics and creation care have followed divergent trajectories. Green evangelicals and many in the mainline Protestant tradition adopted the language of "creation care" in the 1994 Evangelical Declaration on the Care of Creation by the Evangelical Environmental Network. In contrast, the Cornwall Alliance, founded in 2000 as a counter-movement, reclaimed and redeployed the language of "stewardship" to justify the extraction of natural resources as the responsible use of God's gifts. Kearns, "Green Evangelicals," 158–164.

[373] For representative critiques of stewardship ethics and creation care as anthropocentric perspectives, see Sallie McFague, *The Body of God: An Ecological Theology* (Minneapolis: Fortress Press, 1993), which critiques stewardship for maintaining human dominion over a passive nature and proposes an embodied, relational alternative; Rosemary Radford Ruether, *Gaia and God: An Ecofeminist Theology of Earth Healing* (San Francisco: HarperCollins, 1992), which links anthropocentric hierarchy to patriarchal and colonial structures of domination; H. Paul Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology* (Philadelphia: Fortress Press, 1985), which traces the ambivalence of Christian theology toward the natural world; and David Clough, *On Animals: Volume I: Systematic Theology* (London: T&T Clark, 2012), which challenges the anthropocentric exclusion of nonhuman animals from theological consideration. For a focused critique of creation care's failure to address the structural and political causes of ecological degradation, see Willis Jenkins, *Ecologies of Grace: Environmental Ethics and Christian Theology* (Oxford: Oxford University Press, 2008), 3–20.

likely to critique those systems. As Kearns notes, while stewardship and creation care models typically rely on a homocentric view of change focused on individual conversion and personal lifestyle choices, the eco-justice movement emphasizes a sociocentric approach aimed at structural and institutional transformation.[374]

As Kearns demonstrates, as the language of stewardship was embraced by climate skeptics, green evangelicals turned to the language of creation care to avoid being confused with the competing frameworks deployed by opposing camps within American evangelicalism. In the South Korean Protestant context, by contrast, both concepts were broadly embraced within evangelical environmental movements without such sharp ideological polarization as they had initially been in the U.S. Nevertheless, political and social dynamics were equally operative in the Christian environmental movement of South Korea. South Korean evangelical environmentalism has largely presented itself as "politically neutral," yet in practice it has reinforced conservative political and economic structures while emphasizing church-centered environmental practice as an expression of personal faith. This inward orientation discouraged local churches and individual believers from participating in secular environmental movements, thereby limiting engagement with local communities and other religious organizations in the field of environmental movement—and ultimately becoming a barrier to addressing environmental issues as fundamentally political and structural problems.

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[374] Laurel Kearns, "Saving the Creation: Christian Environmentalism in the United States," *Sociology of Religion* 57, no. 1 (1996): 56–57; and Laurel Kearns, "Religion and Environmental Justice," in *Religions and Environments: A Reader in Religion, Nature and Ecology*, edited by Richard Bohannon (London: Bloomsbury Academic, 2014), 300, 306.

The concept of the "Evangelical-Capitalist Resonance Machine," developed by American political theorist William E. Connolly, offers a useful framework for understanding the South Korean Protestant church's attitude toward Christian environmentalism.[375] Connolly argues that this resonance machine achieves its goals by subverting environmentalism, weakening labor power, attacking social security, and curtailing minority rights, while simultaneously supporting preemptive wars and fostering a climate of hostility toward the Islamic world and Europe.[376] Ecologically, Connolly critiques this resonance machine for "discounting the future of the earth" to expand its present economic privileges.[377] In response, Connolly proposes a counter-politics grounded in a "care for the fragility of the world," which is an active political disposition that affirms the world's inherent vulnerability and contingency.[378] In this sense, "care" signifies the ethical posture required to navigate a pluralistic world without imposing a singular, sovereign order.

This understanding of care begins with the recognition that the world is not a fixed entity but a processual reality that is constantly being disrupted and reconfigured. Such political fragility is inextricably linked to ecological fragility. An awareness of how life is intertwined within a community comprising both humans and more-than-humans is inseparable from perceiving the fragility of things. Planetary-scale climate change, the

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[375] William E. Connolly, "The Evangelical-Capitalist Resonance Machine," *Political Theory* 33, no. 6 (2005): 869–886.

[376] William E. Connolly, *Capitalism and Christianity, American Style* (Durham: Duke University Press, 2008), 40.

[377] Connolly, "The Evangelical-Capitalist Resonance Machine," 870, 876.

[378] Connolly, "The Evangelical-Capitalist Resonance Machine," 883.

collapse of biodiversity, the spread of pollution way beyond its origins, and resource depletion clearly demonstrate that the world is not a stable, static background but a fragile system composed of the complex interactions of interconnected entities.

Therefore, Connolly's understanding of care extends beyond the pluralism of human society to an ethical response to the ontological condition of the planetary community that humans and more-than-humans co-constitute. His ethics of care resonates deeply with Keller's *tehomophilic* theology. In *A World of Becoming*, Connolly explicitly engages with Keller's *Face of the Deep*, acknowledging the profound affinity between his political philosophy of becoming and her theological reclamation of the chaotic, generative deep (*tehom*).[379] By endorsing Keller's argument, Connolly points out that the traditional doctrine of *creatio ex nihilo*, in its attempt to protect divine perfection, has historically either offloaded the responsibility for evil and imperfection onto human free will or dismissed the reality of suffering as mere "appearance."[380]

As a result, the very existence of a "simmering, unformed mess" that precedes creation in the creation narrative is denied.[381] Such denial fundamentally distorts the perspective of a world in the process of becoming. It leads us to overlook not only the mystery of existence emerging "at the edge of chaos" but also the profound uncertainties that are incessantly repeated and differentiated within it.[382] The form of care enacted

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[379] William E. Connolly, *A World of Becoming* (Durham: Duke University Press, 2011), 107–108.

[380] Connolly, *A World of Becoming*, 107.

[381] Connolly characterizes the "simmering, unformed mess" as the generative, primordial chaos—identified with the biblical *tehom*—that precedes and persists within the process of creation. By acknowledging this "mess," Connolly challenges the doctrine of *creatio ex nihilo*, arguing that it lifts the burden of "primordial guilt" from humanity by framing imperfection not as a result of human sin, but as an inherent condition of a "world of becoming." Connolly, *A World of Becoming*, 107–108.

[382] Connolly, *A World of Becoming*, 107.

through such distortion functions merely as a strategy of management and control, incapable of embodying solidarity and love. Yet within the new ethics of care envisioned by Connolly and Keller, the production of "unnecessary beings"—those deemed erased or silenced—is brought to an end. This approach stands in stark contrast to *tehomophobic* ethics. Whereas *tehomophilic* ethics fosters an amorous agonism that liberates silenced beings and vigorously contests oppressive forces without mimicking their logic of erasure, *tehomophobic* ethics presupposes their abandonment.[383]

D. THE DESTRUCTIVE LOGIC OF TEHOMOPHOBIC ETHICS

Tehomophobic ethics operates through a fear of the chaotic, fluid, dark, and uncontrollable dimensions of existence. This fear manifests as a drive for sovereignty, control, and the subordination or elimination of what cannot be mastered.[384] This *tehomophobic* ethics exerts a devastating influence on beings marked as chaotic, excessive, or uncontrolled in the following ways:

First, *tehomophobic* ethics establishes rigid hierarchies in which the sovereign—whether God, patriarch, state, or colonial power—exercises control over subordinated beings. As Catherine Keller demonstrates, the doctrine of *creatio ex nihilo* guards "God's unity against gnostic complexity, unconditional omnipotence against constraining

[383] Catherine Keller develops the therm "amorous agonism," drawing on Chantal Mouffe's and William Connolly's respectful agonisms. Keller reframes political contestation as simultaneously loving and conflictual: it vigorously contests oppressive forces and structures without mimicking their logic of erasure or domination, while maintaining an affirmation of the other's irreducible difference. Unlike antagonism, which seeks the elimination of the opponent, amorous agonism holds open the tension between love and struggle as the condition of genuine pluralism. Keller, *Political Theology of the Earth*, 51-53, 73.

[384] Keller shows how the *creatio ex nihilo* doctrine, which insists that God created from absolute nothing rather than from preexistent chaos, established a theological paradigm of unilateral, omnipotent control. Keller, *Face of the Deep*, 41–99.

conditions, [and] masculine symbolic privilege against the affective, sensual and unruly femininity."[385] Crucially, this *tehomophobic* paradigm transcends the boundaries of abstract dogma, manifesting itself within the material-ecological sphere. Such a *tehomophobic* theological perspective has justified a stewardship ethics and creation care discourse, which position humans as masters and managers of nature, thereby legitimating the exploitation of the natural world as a storehouse of resources.

Second, *tehomophobic* ethics produces "waste" by systematically marking certain beings as chaotic, dark, fluid, or excessive—and therefore as threats to be eliminated or controlled. Keller highlights that throughout Christian history, chaos has been feminized —associated with matter, body, sexuality, emotion, and nature.[386] Those beings marked with these qualities become the "constitutive outside" that must be abjected to maintain the sovereign subject's boundaries.[387] This logic extends beyond gender to encompass all beings marked as dark, uncontrolled, or excessive: racialized peoples, colonized bodies, disabled persons—and, most crucially for this project, victims of environmental violence (climate refugees, radiation-exposed communities)—alongside more-than-human beings excluded from recognition.

Third, *tehomophobic* "care," grounded in the autonomous sovereign subject, denies the fundamental interdependence that constitutes existence. This denial sustains the fantasy that the sovereign can declare a state of exception in the Schmittian sense,

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[385] Keller, *Face of the Deep*, 63.

[386] Keller, *Face of the Deep*, 39, 64.

[387] Keller, *Face of the Deep*, 62.

rendering waste invisible to the public, consigned to oblivion in collective memory, and thus abjected and expelled from the social order.[388]

E. WASTE AS A PRODUCT OF TEHOMOPHOBIA

The connection between *tehomophobic* ethics and the production of waste becomes evident when waste is recognized as that which the sovereign order designates as chaotic excess requiring disposal. Representative materials characterizing the Anthropocene—such as nuclear waste, greenhouse gases, and microplastics—epitomize this logic. They result from effort to harness and control materials and an ecosystem for human domination over nature. Yet, these materials refuse to be eliminated; they persist, toxic and uncontrollable, for millennia. These materials stand as beings that simultaneously demand ethical response in the present while remaining spectral existences systematically denied recognition within dominant orders.

Similarly, victims of climate change and environmental pollution, such as those living near nuclear facilities or waste processing and disposal sites, become "human waste" from the perspective of *tehomophobic* ethics. They are the sacrifice zones and the populations deemed expendable in the name of national development and energy security.

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[388] Citing Agamben's analysis, Keller points out that the state of exception has been solidified not as an exceptional measure but as a "technique of government" and the "constitutive paradigm of the juridical order." In Schmitt's account, the sovereign is "he who decides on the exception," that is, the one who can suspend the rule of law and thereby determine who falls outside its protection. Within this state of exception, those stripped of legal protection are reduced to "bare life." Keller elucidates the ways in which the state of exception excludes specific populations from the human condition by drawing parallels between the Nazi Lager or concentration camps, contemporary refugee camps, and U.S. detention centers for immigrants. Consequently, the beings pushed outside the law by the sovereign's declaration of exception—the bare life—become "human waste" or the "abject." Keller, *Political Theology of the Earth*, 51-53; Carl Schmitt, *Political Theology: Four Chapters on the Concept of Sovereignty*, translated by George Schwab (Chicago: The University of Chicago Press, 2005), 5.

To face those beings systematically oppressed, erased, and silenced amid climate crisis and global inequality demands an ethics that challenges the logic of disposability.

Tehomophilic theology provides such an ethics. By affirming the *tehom*—the dark, fluid, chaotic deep from which all creation emerges—it rejects the sovereign logic that produces beings as waste. Rather, all beings, including those identified as waste, are participant in the ongoing creative emergence of the world. They are not external to the system but constitutive of it. Their spectral presence cannot be erased but demands Haraway's response-ability—the ability to respond to and be affected by these others in their radical alterity.

F. TEHOMOPHILIC ETHICS: AN ETHICS OF HOSPITALITY AND CARE

Tehomophilic theology reconceives creation not as an act of unilateral sovereign power exercising control over chaos, but as an ongoing creative emergence from the primordial deep—a process characterized by relational plurality, interdependence, and vulnerability. This theological reconfiguration has profound ethical implications of care, particularly toward beings systematically rendered as waste within dominant orders. The *tehom* constitutes not evil chaos to be mastered but the generative matrix from which all creation continuously emerges—a space of radical plurality, difference, and becoming.[389] The divine *ruach* "vibrates" or "hovers" upon its face, engaging in what Keller describes as a "dialogical cooperation" rather than unilateral control.[390]

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[389] Keller, *Face of the Deep*, 170–171.

[390] Keller, *Face of the Deep*, 117.

Tehomophilic ethics functions as an ethic of hospitality and care through the following principles:

First, *tehomophilic* ethics recognizes that all beings become who and what they are only through relationships with others. As Haraway states, "ontologically heterogeneous partners become who and what they are in relational material-semiotic worlding. Natures, cultures, subjects, and objects do not preexist their intertwined worldings."[391] This relational ontology refuses the sovereign subject who stands apart from and above the web of relations. *Tehom* enables a rereading of creation not as an event of domination nor as the world's static origin, but as the genesis of relational entanglement—an entanglement that itself generates new forms of chaos, friction, and uncertainty.[392] *Tehomophilic* ethics does not romanticize this entanglement; it does not ask us to embrace every chaos it produces. Rather, it asks us to recognize it: to refuse the sovereign reflex that would immediately re-categorize new disorder as waste to be eliminated, and instead to remain present to what the entanglement reveals—however uncomfortable, dark, or unresolved.

This ontological insight, translated into epistemology, reveals that knowledge is not the exclusive possession of an isolated subject but emerges from entangled relationships between human and more-than-human actors through direct material engagement with the world. Others, including humans and more-than-humans, are not an object waiting for care with eager longing or with insentient indifference; rather they are

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[391] Haraway, *Staying with the Trouble*, 12–13.

[392] Keller, *Face of the Deep*, 158–159, 226.

active agents modulating relationships. Their response-ability opens and closes within concrete arrangements and encounters. In other words, this form of ethical thinking acknowledges that our knowledge of the world emerges from the entangled relationships between human and more-than-human actors.[393] It also arises from what Barad calls "a direct material engagement with the world."[394] Within this relational ontology, care is not something an autonomous sovereign unilaterally bestows upon dependent others, but a constitutive and reciprocal practice through which beings co-create one another.

Second, *tehomophilic* ethics affirms vulnerability as the fundamental condition of creaturely existence. This ethical perspective emphasizes that all creatures share a common beginning in the fluid, unstable waters of *tehom*—we are all, fundamentally, vulnerable and contingent beings. Science and technology studies scholar María Puig de la Bellacasa's concept of "touch" further substantiates this shared vulnerability on both sensory and ethical levels. Touch, she argues, is not a unidirectional contact but a reversible encounter: "we are touched by what we touch."[395] Likewise, when we touch waste—whether material waste or socially abandoned people—we are simultaneously touched and transformed by that contact, compelled to acknowledge our own vulnerability.

Yet if Puig de la Bellacasa's reversible touch names the ethical transformation wrought by immediate contact, it leaves open a further question: what of those

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[393] Haraway, *Staying with the Trouble*, 101.

[394] Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham: Duke University Press, 2007), 49.

[395] María Puig de la Bellacasa, *Matters of Care: Speculative Ethics in More than Human Worlds* (Minneapolis: University of Minnesota Press, 2017), 20.

entanglements that operate without proximity—the slow violence of toxicity, the radioactive legacy that crosses bodies across generations and geographies? It is here that Barad's quantum ontology extends the ethical reach of touch. Given that this understanding of touch names a relation attentive to one's own fragile, subjective, and interdependent grounds, *tehom* can be read as relational entanglement—one that begins concretely in the practice of material intra-action. This touch does not require literal physical proximity; rather, in Barad's quantum ontology, touch is not contact between preexisting entities but an intra-active becoming in which boundaries and response-ability are simultaneously constituted. In this sense, care is not a one-sided bestowal but an iterative, diffractive opening to the other. Read through Barad's notion of the inhuman, such vulnerability becomes an ethical condition for solidarity that exceeds local proximity and remains accountable across vast planetary distances and temporalities (or generations).[396]

Furthermore, as Puig de la Bellacasa emphasizes, "intra-active touch demands attentiveness to the response, or reaction, of the touched."[397] This entails recognizing that beings regarded as waste are not merely passive objects but actors who possess their own response-ability. Such recognition subverts a unilateral and authoritative ethics of care.[398]

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[396] Karen Barad, "On Touching—the Inhuman That Therefore I Am," *differences* 23, no. 3 (2012): 206–223.

[397] Puig de la Bellacasa, *Matters of Care*, 120.

[398] Puig de la Bellacasa gives an example of Donna Haraway's interspecies relationship with her dog to explain how an ethics of care encompasses resistance and frustration. In their everyday life and training, care is not expressed through human mastery or unidirectional benevolence. Instead, they "train each other" in a process that is described as cobbling together "non-harmonious agencies," inevitably involving friction, resistance, and the continuous necessity to adjust to the more-than-human other's unpredictable responses. Puig de la Bellacasa, *Matters of Care*, 82–83.

It reframes care not as a romantic endeavor of innocent protection, but as a "non-innocent" ethico-political practice.[399] In this sense, *tehomophilic* care remains open to the resistance and responsiveness of the other—even to the possibility of interruption and frustration. Yet these reactions, interruptions, and frustrations are not negations of order but disclosures of new possibilities.

Third, *tehomophilic* ethics provides a theological foundation for affirming multiplicity against homogenizing singularity. It thereby rejects the logic that designates certain beings as excessive, unclean, or disposable. Instead, it creates space for beings to be recognized, affirmed, and cared for in their unique modes of existence. In other words, it emphasizes a form of care that responds to the particularity of each being rather than one that homogenizes difference under a universal principle. This ethical stance necessitates a shift beyond Latour's "matters of concern" toward Puig de la Bellacasa's "matters of care."[400] While Latour's matter of concern focuses on the aesthetic gathering of existing participants and their interests, Puig de la Bellacasa's "matters of care" functions as a political intervention that actively re-counts "who and what is ratified as concerned."[401] This is not merely about representing those who are already visible; it is

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[399] Puig de la Bellacasa, *Matters of Care*, 12.

[400] Bruno Latour redefines things as "matters of concern" (MoC) where multiple interests, values, and controversies are entangled, rather than treating them as isolated, objective facts. He views things not as passive objects under human control but as active actors capable of mediating and translating relationships. While Maria Puig de la Bellacasa acknowledges that Latour's MoC effectively illustrates the complexity of things, she critiques its limitations. She argues that Latour's approach to more-than-human actors is somewhat moderate and neutral, thereby failing to adequately address excluded existences or power asymmetries. Consequently, Bellacasa contends that simply listing or respecting concerns is insufficient; instead, care requires a proactive sense of "doing" and "intervening." For a further exploration of their differing perspectives on matter of concern, see Bruno Latour, "Why Has Critique Run Out of Steam? From Matters of Fact to Matters of Concern," *Critical Inquiry* 30, no. 2 (2004): 225–48 and Maria Puig de la Bellacasa, "Matters of Care in Technoscience: Assembling Neglected Things" *Social Studies of Science* 41, no. 1 (2011): 85–106.

[401] Puig de la Bellacasa, *Matters of Care*, 58.

what Puig de la Bellacasa calls a "speculative commitment"—a form of attentiveness that bends toward what has been systematically neglected, unloved, or rendered invisible, allowing itself to be touched and transformed by what dominant care regimes have refused to touch.[402]

This speculative commitment opens toward a *tehomophilic* reimagining of care, in which the chaotic multiplicity of creation becomes a practice of assembling neglected entities. If we understand chaos (*tehom*) as the "swarming, fluttering, bifurcating multiples," and if we see this multiplicity as revealing the process of creation as a "prolific play of difference,"[403] then, on the level of care, this can be practiced through the assembling of neglected entities. This is not merely a conversation among already visible beings but an act of drawing systematically ignored, abandoned, and stigmatized beings—piles of trash, contaminated soil, migrant workers, the disabled, endangered species—into the sphere of concern.

Fourth, *tehomophilic* ethics—resonating with new materialist thought and actor-network theory, both of which expand concepts of agency and responsibility—transcends human exceptionalism by broadening the category of agency. This decentering of the human enables a move beyond traditional anthropocentric Christian eco-ethics such as stewardship ethics or creation care. It is crucial to recognize *tehomophilic* ethics as expanding the scope of agency and responsibility. Here, waste or abandoned beings are regarded neither as "objects of management" nor as "subjects of protection," nor as

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[402] Puig de la Bellacasa, "Matters of Care in Technoscience," 96, 100.

[403] Keller, *Face of the Deep*, 10.

"resources" to be reused under the guise of "recycling." Rather, this ethic calls for coexistence with waste and participation in its processes of decomposition, circulation, and regeneration. Such a stance demands not merely reclassifying waste into another moral category but engaging in a political practice that reconfigures the relationship with waste itself.

Perhaps the most tangible expressions of this ethical practice unfold in two distinct yet related sites: the intentional composting processes of permaculture and the unruly multispecies ecologies of landfills. Under the logic of modern waste management, humans have positioned themselves as external managers, attempting to banish and control refuse from a sanitary distance. The practice of composting, however, actively shatters this illusion of separation. It demands that the human ceases to be an overseer and instead becomes a humble co-participant in what Haraway terms *sym-poiesis*, or "making-with."[404] In this intimate process, bacteria break down complex organic compounds, fungi extend their mycelial threads, and earthworms ingest and aerate the mixture—transforming what was waste into humus, a dark, living soil teeming with biological vitality. We do not simply "dispose of" waste; rather, we collaborate with what Charles Darwin once recognized as the "small agencies" of worms and microorganisms, engaging in a multi-species circulation that heals polluted soils and regenerates nutrients.[405]

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[404] Donna Haraway, "Symbiogenesis, Sympoiesis, and Art Science Activisms for Staying with the Trouble," in *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene*, ed. Anna Tsing, Heather Swanson, Elaine Gan, and Nils Bubandt (Minneapolis: University of Minnesota Press, 2017), M25.

[405] Bennett, *Vibrant Matter*, 96.

A similar decentering of human mastery extends to the massive scales of landfills. In capitalist systems, garbage dumps are typically regarded as quarantined spaces of death, but they actually function as vibrant, uncontrolled ecosystems where countless human and nonhuman actors coexist and circulate life. At sites like the Felipe Cardoso landfill in Montevideo, Uruguay, or the Jardim Gramacho dump in Brazil, informal waste-pickers do not view the dump as a horrifying wasteland; instead, they affectionately call it "the mother" because it provides food, clothing, and shelter, intimately intertwining their lives with the waste.[406] Within these spaces, an unruly multi-species circulation unfolds as scavenging birds, rats, and methane-generating bacteria—which engineers affectionately term "spacebugs"—actively participate in the decomposition process.[407] Moreover, the sight of a discarded tomato or potato sprouting anew atop a landfill, its roots hopelessly tangled in plastic debris, serves as a poignant theoretical reminder: waste transcends being a mere "object of management" to become an unpredictable agent capable of regenerating new life.[408]

Furthermore, this ethical reconfiguration is materialized in the political and aesthetic regeneration of discarded materials, often termed "salvage art." Moving beyond the capitalist guise of "recycling," this practice preserves the raw materiality of waste while reconfiguring its political relationship. A powerful example is the work of Dominican Artist Tony Capellán, who intervenes directly in the circulation of waste.

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[406] Patrick O'Hare, "Landfill life and the many lives of landfills," in *The Routledge Handbook of Waste Studies*, ed. Zsuzsa Gille and Josh Lepawsky (London: Routledge, 2022), 55, 60.

[407] O'Hare, "Landfill life and the many lives of landfills," 62.

[408] O'Hare, "Landfill life and the many lives of landfills," 62.

Collecting worn-out plastic flip-flops and bottles washed ashore along the Caribbean coast, he does not clean them up or reprocess them; instead, he creates massive installations where the discarded shoes are pierced by barbed wire.[409] This visceral display visualizes the waste produced by neoliberal consumption and the "wasted lives"—the poor, refugees, and marginalized populations—treated as disposable by the capitalist empire.[410]

Coexisting with waste to expose the violence and contradictions of the empire is a proactive political practice that regenerates waste into a resonant moral and political voice. Ultimately, this ethic drives toward a radical ontology that recognizes that we are not posthuman but "compost"—mutable matter already entangled in the decomposition and regeneration of the living world.[411] To acknowledge this is to sit with the unsettling reality that even our own bodies are destined to decompose and circulate back into the vibrant web of life.

Finally, *tehomophilic* ethics refuses the logic of disposal. By affirming the chaotic deep from which all beings continuously emerge, it recognizes that nothing can be truly eliminated from the web of relations that constitutes our world. What we mark as waste does not vanish but persists, returns, and demands our response. Material waste, humans and more-than-humans regarded as waste, abandoned lands, and polluted waters and air do not belong to separate categories; all are subordinated to systems of accumulation,

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[409] Elizabeth M. DeLoughrey, *Allegories of the Anthropocene* (Durham: Duke University Press, 2019), 105–108.

[410] DeLoughrey, *Allegories of the Anthropocene*, 102–103; Z. Bauman, *Wasted Lives*, 97.

[411] Haraway, "Symbiogenesis, Sympoiesis," M45.

domination, and sacrifice that depend on designating certain beings and places as disposable. In this light, *tehomophilic* ethics of care for waste becomes an ethics of resistance.

The ethical practice of theo-garbology—staying with the spectral presence of waste and mourning our ecological losses—offers a way of living responsibly amid the ruins of the Wasteocene. Yet this ethical engagement provokes ultimate questions about how to care for a wounded world. If waste is not merely matter that humans can perceive, control, and manage with precision, does Christian hope imply escaping this contaminated reality, or is there a possibility for staying with it? Addressing this question requires a shift from an ethics of the present to a vision of the future. The next chapter, therefore, challenges the escapist paradigm of fundamentalist eschatology and articulates a vision of "new creation" as cosmic renewal, where waste is understood as an apocalyptic agent testifying to the necessity of God's healing justice.

CHAPTER FOUR

RETHINKING WASTE WITH APOCALYPTIC METAPHORS

In Chapter One, I examined the multifaceted phenomenology of waste, arguing that waste operates as a spatiotemporal phenomenon, a metaphor, a political apparatus, and a spectral presence. In Chapter Two, I critically analyzed how the doctrine of *creatio ex nihilo* has contributed theological indifference toward waste and the justification of ecological violence. In Chapter Three, I proposed theo-garbology's practical ethics of mourning, staying with, and caring for waste based on an alternative creation theology through *creatio ex profundis*. Chapter Four focuses on critically analyzing how the persistent spectral presence of waste unsettles and reconfigures contemporary society's apocalyptic imagination.

To this end, I critique literalist-fundamentalist apocalyptic discourse and secularized apocalyptic rhetoric from the perspectives of political and ecological theology. Literalist-fundamentalist apocalyptic discourse renders the earth transient and disposable; secularized apocalyptic rhetoric, despite its ecological urgency, often forecloses transformative agency. Against both, I propose that waste, in its spectral persistence, enacts its own apocalyptic function—not as a sign of predetermined end, but as a material unveiling of what dominant theologies have sought to conceal. Finally, I reframe the practical ethics of theo-garbology proposed in Chapter Three—mourning, staying with, and caring for waste—as new apocalyptic practices.

A. TRANSIENT AND DISPOSABLE EARTH?: CRITIQUES OF APOCALYPTIC METAPHORS

The doctrine of *creatio ex nihilo* is traditionally bound to a linear conception of time. The act of creation out of nothing is posited as the absolute origin, with no time existing prior to creation. The theological logic that the Creator brings forth the world out of nothing establishes a structure of beginning, progression, and consummation. Within this structure, the narrative of creation, fall, redemption, and eschaton unfolds along the trajectory of linear time.

In particular, a specific form of fundamentalist eschatology—broadly characterized by a rigid adherence to premillennial dispensationalism and a literalist interpretation of scripture, in which history is divided into divinely ordained epochs culminating in an imminent, literal end-time —has construed the present world as transient and consumable. This perspective provides a theological rationale that undermines ethical responsibility for the environmental crisis. It functions ideologically to legitimate concrete material practices such as the subterranean burial of nuclear waste, the dumping of plastics into the ocean, and the emission of greenhouse gases into the atmosphere. Within a linear temporal trajectory, fundamentalist eschatology understands creation out of nothing, the irrevocable fall, and the final judgment and end. This reflects a teleological and deterministic conception of time: following creation, both nature and human society are perceived as already fallen, advancing linearly toward a “predetermined end” in accordance with the divine plan and prophecy. In this paradigm, creation and eschaton serve as ideological proofs of God’s absolute sovereignty and eternal decree. For instance, just as creation out of nothing is interpreted as the singular

and absolute beginning ordained by God, the end is understood as a unique and definitive conclusion—thereby reinforcing a theological certainty that all natural phenomena and the course of civilization proceed linearly toward a predetermined end.

Within such fundamentalist eschatology, all beings—including humans—derive their significance solely within the structure of creation–fall–redemption or annihilation. Consequently, phenomena such as political instability, ecological crisis, and war are regarded as stages that must be passed through within this schema. Premillennial theology, which posits that the current world order is approaching its end and that time itself is finite, presupposes that God has granted a finite world for a finite task—the Great Commission—within a limited future.

In particular, dispensational premillennialism has contributed to a consumptive view of the world and has diminished ethical responsibility for creation. Dispensational premillennialism divides human history into distinct eras, or "dispensations," to understand God's unfolding redemptive plan.[412] Its most fundamental theological tenets include maintaining a strict separation between Israel and the church, and teaching a pretribulational rapture.[413] According to this logic, the world is "going to hell in a handbasket," and the most we can hope to do before the end is upon us is to save souls.[414] Such an eschatological outlook views the expectation of making the world better through

[412] Timothy P. Weber, "Dispensational and Historic Premillennialism as Popular Millennialist Movements," in *A Case for Historic Premillennialism: An Alternative to "Left Behind" Eschatology*, edited by Craig L. Blomberg and Sung Wook Chung (Grand Rapids: Baker Academic, 2009), 10.

[413] Weber, "Dispensational and Historic Premillennialism as Popular Millennialist Movements," in *A Case for Historic Premillennialism*, 10.

[414] Craig L. Blomberg and Sung Wook Chung, "Conclusion," in *A Case for Historic Premillennialism*, 172.

human progress or social improvement as a betrayal of the gospel, placing its hope solely in the Lord's return.[415] Influenced by dispensationalism, evangelicalism focuses the mission of the church on saving people from eternal damnation, strictly narrowing it down to an "individualistic spiritual salvation."[416] Consequently, the material, physical, and earthly affairs of the individual are considered secondary, and naturally, social involvement is treated as of little importance. Even when they engage in social work, it is merely "a means of evangelistic outreach" rather than an effort aimed at social transformation.[417] Furthermore, attempts to integrate social concerns—such as hunger, health, living conditions, and justice—into the gospel (a holistic approach) are considered a dangerous openness to "political interpretations of the gospel" and a negative influence on the primarily spiritual aspect of the mission.[418]

The distinctive social and missional implications of dispensational premillennialism are evident in its impact on evangelical mission practices.[419] According to Oscar A. Campos, a theologian working in the Latin American context, modern dispensational premillennialism, influenced by North American fundamentalism, has been criticized for promoting a "Great Reversal" that relegated progressive social

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[415] Oscar A. Campos, "Premillennial Tensions and Holistic Missiology: Latin American Evangelicalism," in *A Case for Historic Premillennialism*, 157.

[416] Campos, "Premillennial Tensions and Holistic Missiology," in *A Case for Historic Premillennialism*, 158–159.

[417] Campos, "Premillennial Tensions and Holistic Missiology," in *A Case for Historic Premillennialism*, 156.

[418] Campos, "Premillennial Tensions and Holistic Missiology," in *A Case for Historic Premillennialism*, 157.

[419] Campos, "Premillennial Tensions and Holistic Missiology," in *A Case for Historic Premillennialism*, 147–169.

engagement to secondary importance. Rooted in a pessimistic worldview and a strong spiritual-material dualism, this perspective fostered evangelical mission practices—especially in Latin America—that prioritized individual spiritual salvation, while neglecting material and social concerns. As Norberto Saracco pointedly criticized, this approach has given Latin American evangelicals a "Gospel without Kingdom."[420] Moreover, indigenous Christians in the two-thirds world frequently criticize dispensational premillennialism's pretribulational rapture doctrine as undermining social action and justice for the oppressed.[421] At its core, this issue reflects dispensational premillennialism's dualistic interpretation of creation, which manifests "unwitting gnostic tendencies" that diminish the value and significance of the physical world.[422]

From the perspective of dispensational premillennialism, all natural resources essential to human achievement in the present world—such as petroleum, coal, metals, and minerals—are viewed as having been placed on the earth for the explicit purpose of

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[420] The term "Gospel without Kingdom" is used by Norberto Saracco, a Pentecostal pastor and scholar, to critique Latin American evangelicalism for being heavily influenced by dispensationalist theology. Saracco points out that this theological framework narrows the purpose of evangelism strictly to "individualistic spiritual salvation." It leads believers to assume that socio-political contexts, earthly affairs, and material and physical dimensions will only be transformed for the good when everything is surrendered to Christ in "the future kingdom of God." Consequently, he critiques this approach for making believers completely indifferent to their present social realities. Samuel Escobar, "Report: The Whole Gospel for the Whole World from Latin America," *Transformation* 10. no. 1 (1993): 30–32, quoted in Campos, "Premillennial Tensions and Holistic Missiology," in *A Case for Historic Premillennialism*, 157–158.

[421] The reason for this criticism is that, for Christians in the two-thirds world who are already experiencing suffering, starvation, and butchery in their present reality, the pretribulational rapture assumes that God will protect his people from awful, prolonged suffering; however, from their perspective, if God is so concerned with protecting his people from suffering, they cannot help but ask why God has not done anything to alleviate the horrific reality. Therefore, they point out that a doctrine emphasizing only a future escape is counterproductive to social action and justice for the oppressed here and now, and they find it offensive to their painful reality. Craig L. Blomberg, "The Posttribulationism of the New Testament: Leaving 'Left Behind' Behind," in *A Case for Historic Premillennialism,* 84.

[422] Sung Wook Chung, "Toward the Reformed and Covenantal Theology of Premillennialism," in *A Case for Historic Premillennialism*, 144.

enabling Christians to fulfill the mandate of the Great Commission before the final day.[423] Furthermore, such theological interpretation fails to recognize the material sustainability of the earth's ecosystems or the value of more-than-human beings as objects of redemption, reducing the present created world to a transient and disposable instrument.[424]

As a result, dispensational premillennial theology does not regard concern for climate change and ecological crisis as a matter of theological urgency. Rather, it calls for the unlimited expansion of evangelical mission activities. Moreover, this perspective interprets environmental destruction as evidence of human sinfulness and impending doom, fostering a pessimistic outlook in which human society is seen as incapable of overcoming its fallen state, thereby encouraging passive fatalism rather than structural transformation.

Traditional dispensational premillennialism, combined with a dualistic worldview, tends to foster a negative assessment of the material world. In particular, misconstruing "new creation" not as the restoration of the existing created order but as its destruction and replacement has engendered the notion that the present creation is destined for annihilation, thereby providing a theological rationale for humans to exploit

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[423] Christopher J. Vena, "Working with Pentecostal and Evangelical Forms of Christianity," in *T&T Clark Handbook of Christian Theology and Climate Change*, edited by Ernst M. Conradie and Hilda P. Koster (New York: T&T Clark, 2020), 327.

[424] John McArthur Jr., an influential preacher, insists that "God intended us to use this planet, to fill this planet for the benefit of man. Never was it intended to be a permanent planet. It is a disposable planet. Christians ought to know that." Paul Braterman, "God intended it as a disposable planet: Meet the U.S. pastor preaching climate change denial," *The Conversation*, October 12, 2020, https://doi.org/10.64628/AB.qmmdrs5p4. For a sharp critique of conservative Christian figures who regard fossil fuels as a divine gift from God and deny climate change, see Bill McKibben, "Top-Notch Theology (or Not)," *Sojourners*, March 2013, https://sojo.net/magazine/march-2013/top-notch-theology-or-not.

the environment for their own benefit. Within this paradigm, traditional dispensationalism and its apocalyptic strands tend to devalue the material world as merely temporary, fostering an anticipation of a disembodied and purely spiritual existence in heaven, thereby diminishing a sense of moral responsibility for the physical realities of the present age.[425]

Several scholars across theology, environmental studies, and political science have documented this theological tendency and its material consequences. Environmental Studies scholar David Orr, for example, posits that "belief in the imminence of the end times tends to make evangelicals careless stewards of our forests, soils, wildfires, air, water, seas, and climate."[426] This casual link, however, is subject to scholarly debate. Interdisciplinary environmental studies scholar Robin Globus Veldman's extensive research, in *The Gospel of Climate Skepticism*, suggests a more complex landscape, arguing that evangelical climate skepticism is driven less by apocalyptic resignation than by deeply embedded cultural and political identities.[427] While Veldman's findings caution against oversimplifying the relationship between eschatology and environmental attitudes, the apocalyptic framing remains a significant factor within many theological discourses that have historically legitimized the neglect of creation.

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[425] This critique targets a specific strand of eschatological thinking rather than conservative evangelicalism as a whole; as an American writer, climate change activist Katharine Wilkinson demonstrates, a growing number of evangelical communities have actively resisted this paradigm, embracing creation care as a central expression of Christian faithfulness. See Katharine K. Wilkinson, *Between God and Green: How Evangelicals Are Cultivating a Middle Ground on Climate Change* (Oxford: Oxford University Press, 2012).

[426] David W. Orr, "Armageddon Versus Extinction," *Conservation Biology* 19 (2005): 291.

[427] Robin Globus Veldman, *The Gospel of Climate Skepticism: Why Evangelical Christians Oppose Action on Climate Change* (Oakland: University of California Press, 2019), 8–9, 102–103.

Building upon these examinations of eschatological pessimism, David Horrell, a British New Testament scholar, critiques premillennial eschatology on the grounds that it holds that "working to preserve the natural environment is not only pointless, it is working against God's purposes (and thus for Satan's), since the destruction of the physical elements of the cosmos must happen before the End."[428] Similarly, Steven Bouma-Prediger, a prominent Reformed eco-theologian, observes that North Atlantic and U.S churches have often operated with an "escapist eschatology" that, as historian Roderick Nash notes, views the earth as merely "a kind of halfway house of trial and testing from which one was released at death."[429] Building on this, Christopher J. Vena, a Christian ethicist, asserts that such eschatological pessimism reduces the natural world to merely "the context wherein human lives are lived," dictating that "creation has little to no intrinsic value."[430] Finally, Keith D. Dyer categorizes these problematic attitudes through the "principle of disconnectedness"—the belief that "we humans don't have to share or feel responsible for Earth's fate"—and the "principle of transcendence," which dictates that "what really matters is the next world."[431]

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[428] David G. Horrell, *The Bible and the Environment: Towards a Critical Ecological Biblical Theology* (London: Equinox, 2010), 16.

[429] Roderick Nash, *The Rights of Nature* (Madison: University of Wisconsin Press, 1989), 91–92, quoted in Steven Bouma-Prediger, "Finding Common Ground on Ecological Virtues," in *T&T Clark Handbook of Christian Theology and Climate Change*, ed. Ernst M. Conradie and Hilda P. Koster (London: T&T Clark, 2020), 182.

[430] Vena, "Working with Pentecostal and Evangelical Forms of Christianity," in *T&T Clark Handbook of Christian Theology and Climate Change*, 327.

[431] Keith D. Dyer, "When Is the End Not the End? The Fate of Earth in Biblical Eschatology (Mark 13)," in *The Earth Story in the New Testament*, ed. Norman C. Habel and Vicky Balabanski (Sheffield: Sheffield Academic Press, 2002), 45.

These scholars demonstrate that teleological escapism—the tendency to displace present-world problems and responsibilities onto a transcendent future—functions as a powerful ideological basis for disregarding the intrinsic value of the material world and the earth's ecosystems. As a result, avoidance of responsibility and passivity (or an eschatological, escapist depoliticization) in the face of actual environmental destruction or climate crisis become theologically legitimized.

Reducing Christian eschatology to a doctrine of total destruction and replacement, however, overlooks the biblical theme of cosmic renewal. The biblical promise of "new heavens and a new earth" does not signify the abandonment of the present material world, but rather its transformation and healing. This interpretation finds robust support across the theological spectrum. Ecological biblical scholars such as Barbara Rossing and Norman Habel emphasize that the "new earth" signifies the healing of the land and a rejection of imperial annihilation.[432] Significantly, this aligns with the findings of evangelical scholars such as N. T. Wright and J. Richard Middleton, who insist that the resurrection of Jesus acts as the prototype for this cosmic restoration.[433] Despite their

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[432] The "new earth" constitutes a "renewed earth" rather than a completely new replacement. Norman Habel rejects the traditional reading that devalues the Earth as merely "disposable matter" destined to be destroyed in God's "cosmic incinerator." See Norman C. Habel, "Introducing the Earth Bible," in *Readings from the Perspective of Earth*, ed. Norman C. Habel (Cleveland: Pilgrim Press, 2000), 26; see also The Earth Bible Team, "Guiding Ecojustice Principles," in the same volume, 49. Furthermore, Barbara Rossing emphasizes that the biblical "new earth" is not a "replacement for this current earth" or a "different" planet, but rather its "resurrection or renewal." She explicitly rejects the destructive eschatology that anticipates the annihilation of the world, insisting instead that God loves creation and will "never leave the world behind." See Barbara R. Rossing, *The Rapture Exposed: The Message of Hope in the Book of Revelation* (New York: Basic Books, 2004), 7, 129.

[433] Nicholas T. Wright, *Surprised by Hope: Rethinking Heaven, the Resurrection, and the Mission of the Church* (New York: HarperOne, 2008), 100-101; J. Richard Middleton, *A New Heaven and a New Earth: Reclaiming Biblical Eschatology* (Grand Rapids: Baker Academic, 2014), 155.

differing methodological starting points, these diverse voices confirm that God's ultimate purpose is the redemption of creation, not its annihilation.

From a theo-garbological perspective, this shift from replacement to renewal is crucial. If the new creation is a healing of the old, then "waste"—the material legacy of our civilization—cannot simply be ignored. Instead, it functions as a hyperobject. Persisting beyond human timescales, this hyperobject participates in what the Apostle Paul describes as the "groaning of creation" (Romans 8:22). It is not merely inert matter to be discarded but an active "apocalyptic agent" that testifies to our ecological sins and yearns for redemption. Thus, eschatological hope reconfigures waste not as a matter of disposal, but as an integral part of a vision of healing (Revelation 22:2). In this vision, even the scars of the earth are remembered and transformed in the light of divine justice.

As previously discussed, the core theological and social impulses of dispensational premillennialism—its dualistic worldview, pessimistic assessment of the material world, and escapist eschatology—have found particularly fertile ground in Korean Protestantism. Introduced primarily by early Western (especially U.S.) missionaries and popularized through figures like John Nelson Darby and through texts such as the Scofield Reference Bible, these ideas have strongly shaped the Korean Protestant perception of nature, history, and mission. As a result, Korean Protestant interpretations of the Bible have focused on imminent destruction, fostering indifference toward contemporary environmental issues. This legacy continues to shape public theology and activism within Korean Protestant communities today.[434]

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[434] Hyunte Shin, "The Influence of the Bible in Shaping the Negative Viewpoint of Korean Christians towards Nature," *The Expository Times* 132, no. 5 (2021): 211–222.

B. THE ECO-RHETORIC OF APOCALYPTICISM: DIAGNOSIS AND CRITIQUE

Apocalyptic imagery and metaphors have never been confined to the religious sphere alone; as political scientist Alison McQueen has shown, apocalyptic rhetoric has persistently shaped political discourse from the Renaissance to the nuclear age.[435] In contemporary society saturated with utopian visions and scenarios of global catastrophe, such language has found a particularly concentrated expression in the discourse of climate crisis and ecological catastrophe.[436] As a result, depictions of nature and the earth as imminently collapsing and being destroyed frequently emerge in modern media, literature, and art.[437] Apocalyptic rhetoric is also commonly employed by environmental activists to convey their concerns and values; for climate activists, in particular, such rhetoric often functions as "shock tactics designed to win the hearts and minds of the general public at crucial historical moments."[438]

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[435] McQueen points out that contemporary apocalypticism has shifted to narratives of secular cataclysms such as climate change. Alison McQueen, *Political Realism in Apocalyptic Times* (Cambridge: Cambridge University Press, 2018), 2, 56.

[436] David Wallace-Wells, *The Uninhabitable Earth: Life after Warming* (New York: Tim Duggan books, 2020), 157, 229, 239, 255.

[437] Jeff Goodell, *The Heat Will Kill You First: Life and Death on a Scorched Planet* (New York: Little, Brown and Company, 2023); Kim Stanley Robinson, *The Ministry for the Future* (New York: Orbit, 2020); Sarah Jaquette Ray, *A Field Guide to Climate Anxiety: How to Keep Your Cool on a Warming Planet* (Oakland: University of California Press, 2020); Mario Alejandro Ariza, *Disposable City: Miami's Future on the Shores of Climate Catastrophe* (New York: Bold Type Books, 2020); David Wallace-Wells, *The Uninhabitable Earth: Life After Warming* (New York: Tim Duggan Books, 2019); Bill McKibben, *Falter: Has the Human Game Begun to Play Itself Out?* (New York: Henry Holt and Company, 2019); Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (New York: Henry Holt and Company, 2014); Allen Thompson and Jeremy Bendik-Keymer, eds., *Ethical Adaptation to Climate Change: Human Virtues of the Future* (Cambridge: MIT Press, 2014); Bill McKibben, *Eaarth: Making a Life on a Tough New Planet* (New York: Times Books, 2010).

[438] Jimmie M. Killingsworth and Jacqueline S. Palmer, "Millennial Ecology: The Apocalyptic Narrative from Silent Spring to Global Warming," in *Green Culture: Environmental Rhetoric in Contemporary America*, ed. Carl G. Herndl and Stuart C. Brown (Madison: University of Wisconsin Press, 1996), 21.

On the other hand, apocalyptic rhetoric can be appropriated as a means of advancing political agendas through fear rather than rational dialogue. Ingrid M. Hoofd, a media theorist at Utrecht University, argues that when climate activists deploy apocalyptic rhetoric that ignores the complexity and scale of planetary crisis and fixates on particular issues, they succumb to what she calls "speed elitism."[439] This tendency cultivates anxiety about the threshold of impending catastrophe rather than advancing genuine structural transformation, thereby dramatically diminishing—or even erasing—the transformative potential of political action. Such approaches prioritize the management of technical thresholds by technological elites over grassroots participation and structural change.[440]

Frederick Buell, a cultural studies scholar at CUNY, traces the historical trajectory of environmental apocalypse and analyzes its relationship to the biblical tradition of apocalypse. According to Buell, while the emergence and deployment of nuclear weapons prompted discourse on nuclear apocalypse, environmental apocalypse discourse actually bears greater affinity to the Judeo-Christian apocalyptic tradition. This is because the notion of an environmental apocalypse appropriates and modifies four major characteristics of the Judeo-Christian tradition: "sudden rupture with the past, presentation of revelation, narratives of a world-end, and dramatization of final judgment."[441]

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[439] See chapter 4 ("Humanism Overheating: The Conundrum of Climate Change Activism") of Ingrid M. Hoofd, *Ambiguities of Activism: Alter-Globalism and the Imperatives of Speed* (New York: Routledge, 2012), 83–105.

[440] Stefan Skrimshire, "Climate Change and Apocalyptic Faith," *WIREs Climate Change* 5, no. 2 (2014): 238–239.

[441] Frederick Buell, "A Short History of Environmental Apocalypse," in *Future Ethics*, 15.

At the same time, Buell contends that an environmental apocalypse differs from the dramatic judgment envisioned in the Judeo-Christian apocalyptic tradition. While a biblical apocalypse frames the end of the world as a moment of ultimate judgment—marked by the separation of the sheep from the goats and the division between the followers of Christ and the forces of evil—environmental apocalypse rhetoric reconfigures rather than dissolves this moral framework.[442] It retains a strong distinction between good and evil, but relocates evil from individual sin to systemic and structural forces: corporations, extractive economies, and the political will that prioritizes profit over planetary survival.[443] What it undermines is not the good/evil binary itself, but the mechanism of final judgment—the dramatic separation of individual into the saved and the condemned. When evil is systemic, implicating nearly all participants in industrial civilization, the logic of individual accountability dissolves into collective complicity.[444] The most decisive difference, then, is not that environmental apocalypse abandons moral distinction, but that it renders individual final judgment untenable while intensifying the indictment of structural evil.

According to Buell, however, the religious right effectively re-literalized this apocalyptic imagination, reintroducing stark divisions between the saved and the damned into the discourse of nuclear and environmental catastrophe.[445] In Buell's account, the religious right made literal what nuclear and environmental apocalypse reinvented. Buell

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[442] Buell, "A Short History of Environmental Apocalypse," in *Future Ethics*, 16.

[443] Buell, "A Short History of Environmental Apocalypse," in *Future Ethics*, 16.

[444] Buell, "A Short History of Environmental Apocalypse," in *Future Ethics*, 16–17.

[445] Buell, "A Short History of Environmental Apocalypse," in *Future Ethics*, 17.

traces this progression by tracing how the discourse around nuclear destruction evolved. He first introduces the observation of U.S. historian Perry Miller that the atomic bombing of Hiroshima made the biblical apocalypse a historical reality.[446] Building on this context, Buell introduces fundamentalist preacher Jerry Falwell, noting that Falwell explicitly identified the threat of a nuclear holocaust with Armageddon.[447]

By mapping nuclear catastrophe and later ecological crisis onto a literalized Armageddon scenario, the religious right could identify concrete social groups as enemies of God's plan. Consequently, according to Buell, right-wing Christians displayed no hesitation in stigmatizing and punishing groups they deemed deviant.[448] This attitude helped give a particular edge to their political rhetoric as they became more active in and essential to the Republican Party. This rhetorical edge was then weaponized effectively against environmentalists in the 1980s and 1990s: the religious right successfully stigmatized environmental rhetoric as coming from groups described as "anti-human misanthropes," and "gloomy, moralistic, people-hating Calvinists," "monotonal, gloomy,

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[446] Buell, "A Short History of Environmental Apocalypse," in *Future Ethics*, 13, quoted in Perry Miller, "End of the World," in *Errand into the Wilderness* (New York: Harper Torchbooks, 1956), 238.

[447] Buell, "A Short History of Environmental Apocalypse," in *Future Ethics*, 17, quoted in David F. Noble, *The Religion of Technology* (New York: Penguin, 1999), 109.

[448] Buell, "A Short History of Environmental Apocalypse," in *Future Ethics*, 16–17.

anti-human, neo-Malthusian purveyors of doom," and even "the greatest single threat to the American economy."[449]

Thus, apocalyptic metaphors are strategically deployed by both climate change believers and skeptics. In his article "The Apocalyptic as Contemporary Dialectic: From Thanatos (Violence) to Eros (Transformation)," Mark Levene, a genocide scholar, presents a dialectical choice facing humanity. Drawing on Freudian concepts, he contrasts two opposing modes of apocalyptic imagination: the "apocalypse of Thanatos" and the "apocalypse of Eros."[450] Levene maintains that the apocalypse of Eros recovers the ancient prophetic purpose of apocalypse not as a prospect of obliteration but as a prophetic wake-up call for "Eros"—signifying life, love, and a grassroots affirmation of the will to live in planetary reconciliation.[451] This mode envisions the crisis as an opportunity for profound social transformation and bottom-up renewal. Conversely, Levene argues that the prevailing technocratic, heroic mode of secular apocalypse in modernity aligns with Thanatos—a death-wish driven toward destruction by elite

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[449] Buell, "A Short History of Environmental Apocalypse," 20. Additionally, as Laurel Kearns notes, this weaponization of apocalyptic rhetoric and dichotomous judgment is manifested to an extreme in the Cornwall Alliance's video campaign, "Resisting the Green Dragon." Borrowing symbols from the Book of Revelation, they portray environmentalism as a "spiritual deception" threatening Christianity and a conspiracy aimed at population control, warning of coming judgment for those who do not resist it. She points out that this aggressive framing emerged paradoxically to counter the rise of creation-care evangelicals who consider responding to climate change a biblical duty, suggesting the existence of deep fissures and complexity within conservative Christianity regarding environmental issues. See Laurel Kearns, "Green Evangelicals," in *The New Evangelical Social Engagement*, edited by Brian Steensland and Philip Goff (New York: Oxford University Press, 2014), 167–169; and "Resisting the Green Dragon," YouTube video, posted by AO Vision, https://www.youtube.com/watch?v=Bsv4Iht9Zug.

[450] Mark Levene, "The Apocalyptic as Contemporary Dialectic: Form Thanatos (Violence) to Eros (Transformation)," in *Future Ethics: Climate Change and Apocalyptic Imagination*, edited by Stefan Skrimshire (New York: Continuum, 2010), 59–80.

[451] Levene, "The Apocalyptic as Contemporary Dialectic," 61.

management. He warns that this dominant mode is in fact a harbinger of catastrophe, which he terms the apocalypse of Thanatos.[452]

This mode of apocalypse is characterized by several features as described by Levene.[453] First, there is a blind faith in technological fixes. The Western hegemonic system operates on the premise that every problem can be solved by advanced technologies and that overwhelming disasters only reinforce the need for further technological intervention, even at extraordinary costs.[454] Second, the response to the climate crisis is shifting away from UN-centered greenhouse gas reduction efforts toward the strategic interventions of a military-industrial complex, involving government agencies, military planners, and technology-driven corporate partners, whose primary concern is national security rather than ecological sustainability.[455] Third, reliance on geo-engineering positions human beings as Promethean actors endeavoring to avert catastrophe, supporting international policy moves toward reinvigorating the technical supremacy of dominant states—primarily the United States.[456]

This Thanatos apocalypse ultimately aggravates inequality for the poor and vulnerable through disaster capitalism: for example, climate refugees are viewed as "barbarians at the gate," becoming objects of exclusion and control. As an alternative,

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[452] Levene, "The Apocalyptic as Contemporary Dialectic," 61.

[453] Levene, "The Apocalyptic as Contemporary Dialectic," 60–68.

[454] Levene, "The Apocalyptic as Contemporary Dialectic," 60.

[455] Levene, "The Apocalyptic as Contemporary Dialectic," 61.

[456] Levene, "The Apocalyptic as Contemporary Dialectic," 63. For a theological analysis of how geo-engineering reshapes the human self-understanding as a Promethean actor charged with averting catastrophe, see Forrest Clingerman, "Geoengineering, Theology, and the Meaning of Being Human," *Zygon* 49, no. 1 (2014): 6–21; Forrest Clingerman and Kevin J. O'Brien, "Playing God: Why Religion Belongs in the Climate Engineering Debate," *Bulletin of the Atomic Scientists* 70, no. 3 (2014): 27–37.

Levene proposes the Eros Apocalypse, in which Eros stands for life, love, and coexistence with the natural world. The Eros Apocalypse reframes apocalypse not as a prediction of destruction but as a prophetic warning—a wake-up call that invites all humanity to participate in planetary reconciliation.[457]

Stefan Skrimshire, a political theologian, observes, in his essay "Eternal Return of Apocalypse," which explores the contemporary meaning and reception of apocalypse, that apocalypse has taken on a cyclical pattern, in which one crisis is followed by another. Rather than signifying a cataclysmic rupture or moment of destruction at a specific point in the future, apocalypse now refers to a state of ongoing catastrophe.[458] In other words, just as the violence caused by environmental problems unfolds slowly, our current apocalyptic conditions emerge slowly and repeatedly, rather than abruptly.[459] This interpretation, however, also tends to cast humans as passive observers within the grand sweep of planetary history—or even as a "cancerous growth" on the planet—ultimately diminishing the significance of human agency.[460]

Building on Hans Urs von Balthasar's theological dramatic theory, Celia Deane-Drummond focuses on the potential of dramatic rhetoric for interpreting apocalypse, rather than viewing apocalypse through the lens of grand narratives.[461] Drama displays human actions and temporal events within particular contexts, reflecting the

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[457] Levene, "The Apocalyptic as Contemporary Dialectic," 61.

[458] Stefan Skrimshire, "Eternal Return of Apocalypse," in Skrimshire, *Future Ethics*, 219–241.

[459] Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011).

[460] Celia Deane-Drummond, "Beyond Humanity's End: An Exploration of a Dramatic versus Narrative Rhetoric and its Ethical Implications," in Skrimshire, *Future Ethics*, 244–245.

[461] Deane-Drummond, "Beyond Humanity's End," 242–243, 253.

indeterminacies and ambiguities of human life.[462] Furthermore, drama draws the audience into active participation, evoking a deep sense of individual agency.[463] Consequently, dramatic rhetoric in relation to apocalypse, unlike fatalistic or grand narrative approaches, offers a more encompassing ethical vision, which Deane-Drummond, drawing on Peter Scott, calls "postnatural politics."[464] It strengthens personal responsibility and reduces the potential for political resignation, while also opening up space for more-than-human beings to be active agents on the stage of human activity, rather than mere backdrops to human drama.[465]

1. Haunting Waste: Apocalypse as Spectral Unveiling

As Celia Deane-Drummond proposes, transforming the apocalypse from a deterministic narrative into a drama that emphasizes the agency of actors and extending the scope of actors to include both human and more-than-human beings represent a crucial theological shift that liberates apocalyptic thought from the constraints of anthropocentric salvation drama. Even in Deane-Drummond's proposal, however, humans still occupy a central position. While she expands the category of actors, she explicitly maintains human distinctiveness by assigning humans a specialized role based on self-conscious awareness of God and moral responsibility.[466] As Matthew Eaton

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[462] Deane-Drummond, "Beyond Humanity's End," 248, quoted in Hans Urs von Balthasar, *TheoDrama* Vol 1 (1988), 17.

[463] Deane-Drummond, "Beyond Humanity's End," 248, 252.

[464] Deane-Drummond, "Beyond Humanity's End," 248, quoted in Peter M. Scott, "Right out of Time? Politics and Nature in a Postnatural Condition," in *Religion, Ecology and the Public Sphere* edited by Heinrich Bedford-Strohm and Celia Deane-Drummond (London: Continuum, 2011), 57–75.

[465] Deane-Drummond, "Beyond Humanity's End," in *Future Ethics*, 252–254.

[466] Deane-Drummond, "Beyond Humanity's End," in *Future Ethics*, 242–259.

argues regarding such ecotheologies, retaining human exceptionalism based on cognitive capacities like self-reflection implicitly sustains a "metaphysical anthropocentrism" that establishes a value hierarchy among creatures.[467] Therefore, despite Deane-Drummond's attempt to decenter the human through apocalyptic drama, the fundamental ontological difference between humans and nonhumans remains intact, leaving the agency of more-than-human beings marginalized within a persistently anthropocentric framework.[468]

If the apocalyptic drama is to offer a genuinely comprehensive ethics, its stage must transcend the entrenched distinction between nature and humanity, and the scope of agents must extend beyond living beings. This is not merely a rhetorical expansion but a claim grounded in process thought: as Whitehead argues, every actual occasion—whether human, animal, or material—is a subject of experience, however minimal, participating in the creative advance of the universe.[469] The binary between nature and humanity is, on this account, a metaphysical fiction that process theology has contested in favor of a "democracy of fellow creatures."[470] Keller's tehomophilic thought inherits and radicalizes this insight, insisting that the deep waters of *tehom* are not a passive backdrop to creation but an agential matrix from which all beings—living and nonliving—emerge and to which they return.[471]

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[467] Matthew Eaton, "Beyond Human Exceptionalism: Christology in the Anthropocene," in *Religion in the Anthropocene*, ed. Celia Deane-Drummond, Sigurd Bergmann, and Markus Vogt (Eugene, OR: Cascade Books, 2017), 202–203.

[468] Eaton, "Beyond Human Exceptionalism," 202, 217.

[469] Whitehead, *Process and Reality*, 7, 15.

[470] Whitehead, *Process and Reality*, 50.

[471] Keller, *Face of the Deep*, 12, 161, 227.

Moreover, if the apocalypse is an unveiling of what is hidden, we must reckon with the most powerful yet most silenced agents who perform this unveiling. It is precisely at this juncture—where the invisible is made visible and the discarded is recognized as agential—that the spectrality of waste emerges as central to apocalyptic thought. Insofar as matter itself—in the form of radioactive residue, microplastic accumulation, or the slow decomposition of landfills—actively reveals the present ecological crisis, it functions not merely as evidence of human failure but as an agential force that demands response. This is precisely what thinkers like Jane Bennett, in her account of "vibrant matter," and Karen Barad, through her notion of intra-active materiality, have argued: matter is not inert substance awaiting human interpretation but an active participant in the making and unmaking of worlds. To read apocalypse through this lens—to attend to the material agencies that exceed human intention and control, that haunt the present with their toxic persistence—is to reorient apocalyptic thought from the drama of human moral agents to the revelatory force of matter itself. Might we not call this a "material apocalyptic turn"?

In light of this material apocalyptic turn, waste is not merely the background or a passive object. Whether greenhouse gases driving global warming, spent nuclear fuel demanding a million years of isolation, or microplastics discovered in deep ocean trenches, glaciers, and even atop Mount Everest, waste emerges as a spectral presence that defies human attempts at control, classification, and elimination, perpetually

returning to haunt us.[472] This spectrality is not simply a metaphor but a concrete operation that waste performs across time and space, materially refusing both linear temporality and complete annihilation into nothingness. Moreover, waste functions as an apocalyptic witness that materially testifies to the reality that the ideologies of anthropocentrism and dominion theology sought to conceal. These are the most discomforting yet powerful material agents participating in the cosmic drama described by Deane-Drummond. When the agents of apocalyptic drama are thus expanded beyond living beings to include spectral matter itself, the material reality of waste ceases to be a mere narrative motif of the end times. Rather, it functions as a material actor that deconstructs the political construction of time and space and enacts the apocalyptic essence—namely, the unveiling of that which has been concealed.

In contemporary society, waste enacts this apocalyptic function. Nuclear waste and radioactive contaminated water that we believe has been "eliminated," plastics that we assume will "decompose," and greenhouse gases that we imagine have "vanished"—none of these has disappeared. Instead, as spectral entities, they transcend time and space, continually returning to confront us. Radioactive materials persistently released from the Fukushima nuclear plant, microplastics found in Arctic glaciers, and methane gas emitted from thawing permafrost—each is an apocalyptic witness, revealing truths we have sought to conceal. Moreover, the spectrality of waste is intimately linked to the apocalyptic function of waste. Far from being wholly eradicated, waste persists as a

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[472] Waste and apocalyptic discourse are connected by the simple fact that most of what (if not all that) will remain of humanity is plastic, trash, abandoned contrivances, and other man-made objects. David Lombard, "Anthropocene Aesthetic Shifts in Post-Apocalyptic Literature: An Analysis of Waste and the Sublime in Maureen F. McHugh's After the Apocalypse," *Revenant*10 (2024): 82.

disturbing symptom, exposing the failures of our present systems and subverting conventional understandings of linear time and homogeneous space.

Fundamentalist apocalyptic expressions presuppose a close and closed future and a predetermined end, standing in stark contrast to the original meaning of apocalypse as opening and unveiling. Derrida cautions against the certainty and closure implicit in finality-driven apocalyptic rhetoric, warning that the tone which proclaims the end as a foregone conclusion suppresses the ethical openness at the heart of apocalyptic thought. Instead of averting his gaze from the unknowability of future catastrophe, he explicitly states, "Apocalypse means Revelation, of Truth, *Un-veiling*," thereby emphasizing that apocalypse originally signifies the unveiling of that which is hidden.[473]

In contrast, Derrida argues, a nuclear war would annihilate every trace—destroying evidence, record, and witness—and thus erasing the very structure of revelation, leaving no possibility for symbolization, mourning, or memorialization.[474] Consequently, apocalyptic scenarios that presuppose a predetermined end do not disclose truth; instead, they function as rhetorical devices that encourage passivity rather than meaningful ethical action. In this way, Derrida's critique of nuclear apocalyptic discourse offers a parallel ground for interrogating the rhetorical strategies of both fundamentalist eschatology and climate change discourse, both of which may foster theological and political inaction under the illusion of certainty.

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[473] Jacques Derrida, "No Apocalypse, Not Now: Full Speed Ahead, Seven Missiles, Seven Missives," *Diacritics* 14, no. 2 (1984): 24.

[474] Derrida, "No Apocalypse, Not Now," 20–31.

Similarly, Keller rejects apocalypticism as a closed scenario and instead seeks to recover its original meaning as unveiling. For Keller, apocalyptic closure functions as a rhetorical apparatus that paralyzes action toward truth. In its place, she proposes an ethical posture that confronts the present directly while continually leaving open the possibility of multiple futures. In *Facing Apocalypse*, Keller reads the Book of Revelation through the lens of today's climate crisis, yet reconstructs it not as a prophecy of predetermined end, but as a space for change and creative response. She argues that "possibility is what we materialize," thus emphasizing the potential for concrete action oriented toward political and ecological healing, rather than a closed future.[475] Just as the final vision in Revelation is not the end of the world but rather "the leaves of the trees are for the healing of the nations" (Rev 22:2), Keller's reading resists apocalyptic certainty and calls for transformative practice for life and justice amid present uncertainty and ecological crisis.[476] Building on Keller's reading, the contemporary ecological crisis constitutes an apocalyptic situation that overturns the traditional view of the end as a single future event. It is crucial not to overlook the agency of the material elements involved in the ecological crisis, nor the events that arise from their entanglements.

2. The Prophetic Waste

The material reality of waste embodies the ongoing catastrophe in concrete terms. Waste manifests through various forms such as nuclear materials, greenhouse gases, and

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[475] Catherine Keller, "Apocalypse After All?" *Political Theology Network*, last modified December 29, 2022, https://politicaltheology.com/apocalypse-after-all/.

[476] Catherine Keller, *Facing Apocalypse: Climate, Democracy, and Other Last Chances* (Maryknoll: Orbis Books, 2021), xxi, 181–182.

microplastics, all of which function as hyperobjects—entities distributed across time and space at scales that vastly exceed human perception. These hyperobjects persist on temporal scales far beyond a human lifespan; for instance, spent nuclear fuel requires isolation for a million years, and such entities possess the paradoxical quality of being everywhere and nowhere at once. Such entities break down distinctions between past, present, and future, and blur the boundaries between presence and absence, manifesting as spectral beings. The long-term temporality enforced by waste as a hyperobject signals the collapse of linear temporal frameworks such as those presupposed by *ex nihilo* reasoning and premillennialist theology.

Just as apocalyptic expressions in Daniel and Revelation are interpreted within the context of their historical circumstances and symbolic associations, contemporary apocalyptic discourse can likewise be articulated through political and scientific languages. While traditional apocalyptic dualism often intensifies boundaries between good and evil, especially between divinity and humanity, it is important to note that apocalyptic texts also contain moments that destabilize the rigid distinctions between divinity, humanity, animals, other living beings, and inanimate matter. For instance, as biblical scholars Jennifer L. Koosed and Robert Paul Seesengood observe, in the book of Daniel, the boundaries between the human, the divine, and the bestial are repeatedly blurred when human sovereigns literally transform into grazing beasts and monstrous hybrids mediate divine revelation.[477] This destabilization reaches its apex in the book of

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[477] Jennifer L. Koosed and Robert Paul Seesengood, "Daniel's Animal Apocalypse," in *Divinanimality: Animal Theory, Creaturely Theology*, ed. Stephen D. Moore and Laurel Kearns (New York: Fordham University Press, 2014), 183.

Revelation, which Stephen D. Moore aptly describes as a bizarre theological bestiary thickly populated with chimerical and nonhuman actors. Here, the ultimate representation of the divine is not an exalted anthropomorphic king, but rather what Moore calls a "quadrupedal Christ" in the theriomorphic guise of a slaughtered, multi-horned, and multi-eyed Lamb.[478] By placing a vulnerable nonhuman animal at the center of divine worship, Moore argues that this "animal Christology" profoundly subverts human exceptionalism and effectively collapses the hierarchical separation between the divine and the creaturely.[479]

This blurring, brought to the fore by the material turn, opens possibilities for apocalyptic interpretation from perspectives such as new materialism and object-oriented ontology, which critique the boundaries of anthropocentrism and speciesism. In the age of climate crisis, apocalypse may no longer be revealed exclusively through visions or dreams imparted to chosen prophets, but rather through the agency of material entities themselves. Matter, in this sense, assumes a prophetic function.

From this perspective, scientific data and formulas—such as chemical equations or symbols—can no longer be regarded as neutral information. Measurements like carbon dioxide (CO_2) at 450 ppm, tritium (^3H), radioactive cesium-137, or 30,000 Bq/kg are not merely neutral indications of the composition or condition of specific substances.[480] While their scientific, social, political, and philosophical meanings may not be inherent in

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[478] Stephen D. Moore, "Ecotherology," in *Divinanimality*, ed. Moore, 209.

[479] Moore, "Ecotherology," in *Divinanimality*, ed. Moore, 209.

[480] For a study demonstrating how the implications of the same physical measurements are differentially constructed according to the specific political and cultural contexts of a society, see Sheila Jasanoff and Sang-Hyun Kim, "Containing the Atom: Sociotechnical Imaginaries and Nuclear Power in the United States and South Korea," *Minerva* 47, no. 2 (2009): 119–46.

the chemical symbols themselves, these formulas and symbols acquire a distinctly active agency when embedded within concrete contexts—ecological, social, political, or cultural networks.

In this context, the information conveyed through chemical symbols and numerical data becomes a powerful apocalyptic expression, unveiling hidden realities. This semiotic shift extends beyond chemical formulas to include temperature, sea level, the concentration of particular substances, and other forms of scientific data. As apocalyptic signs that expose the crisis we face, these material entities simultaneously bear witness to what we have done in the past, where we stand in the present, and what may befall us in the future.

As the permafrost that remained frozen for thousands of years in Siberia and Alaska thaws, methane and carbon dioxide trapped within it are being released into the atmosphere, and ancient viruses are making a return—this is not a scene from a movie.[481] Similarly, the collapse of ice sheets in Greenland and Antarctica is causing rising sea levels and flooding in low-lying areas.[482] The phenomenon of the Amazon rainforest ceasing to function as a carbon sink and instead becoming a source of carbon emissions is equally alarming.[483] Rising ocean temperatures and acidification have led to the widespread bleaching of coral reefs around the world, presenting yet another terrifying

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[481] Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2023: Synthesis Report* (Geneva, Switzerland: IPCC, 2023), Section 2.1.2 and 3.1.2; Popat Mohite et al., "Zombie Virus Revitalized from Permafrost: Facts and Fiction," *New Microbes and New Infections* 53 (April 2023): 101113.

[482] IPCC, *Climate Change 2023: Synthesis Report*, Section 3.1.3.

[483] IPCC, *Climate Change 2023: Synthesis Report*, Section 3.1.3 and 3.3.1.

image.[484] Should the vast oceanic conveyor belt known as the Atlantic Meridional Overturning Circulation (AMOC) slow down or stop due to the influx of freshwater from Greenland, the climate in Northern Europe would rapidly cool, while global rainfall patterns, sea levels, and temperatures would descend into chaos—these are all scenarios approaching us now.[485]

The earth thaws, and the substances of death enter the atmosphere. Ancient, deadly materials buried underground awaken. Ice melts, the ocean currents slow down, and the atmosphere swirls into turbulence. Beneath the ocean, whitened reefs appear, while forests burn red. Lands become deserts. The terrain exposed by melting glaciers turns black and teems with insects. People starve and kill each other over access to water and farm lands. As epidemics wreak havoc, the soil is tainted—dead animals buried during outbreaks emit foul odors above, and below, rotten blood seeps through the ground. The earth cries out against their wrongful deaths. At the ruined reactor of the Fukushima nuclear power plant, unending fires burn, continually sending radioactive materials into the Pacific Ocean, and these deadly substances are flowing into our bodies as well.[486]

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[484] IPCC, *Climate Change 2023: Synthesis Report*, Section 2.1.2 and 3.1.2.

[485] IPCC, *Climate Change 2023: Synthesis Report*, Section 3.1.3.

[486] For scientific and journalistic accounts of the ongoing release of radioactive materials from the Fukushima nuclear plant into the Pacific Ocean and the potential for these substances to enter the human body through the food chain, see Yi Liu et al., "Fukushima Contaminated Water Risk Factor: Global Implications," *Environmental Science & Technology*59, no. 7 (2025): 3703–3712; NOAA Fisheries, "Fukushima Radiation in U.S. West Coast Tuna," 2025, https://www.fisheries.noaa.gov/west-coast/science-data/fukushima-radiation-us-west-coast-tuna; and BBC News, "The Science Behind the Fukushima Waste Water Release," August 25, 2023, https://www.bbc.com/news/world-asia-66610977.

We live in an apocalyptic age—one in which material entities have become the very mediators of apocalypse. The materials we once regarded as waste— materials we sought to erase, forget, remove, and discard—have not vanished. Instead, they disrupt the narrative of our past, present, and future, exposing the crises that confront us. These realities compel us to reconsider the ontology of what counts as "waste" in contemporary society. Carbon dioxide, microplastics, radioactive waste, methane—these are not merely peripheral residues destined to dissolve at the end of time.

Whereas apocalyptic metaphors once infiltrated reality through the twisting of temporality and spatiality in visions and dreams, they now manifest through the twisted material presence of discarded things. These entities unsettle and disturb the configuration of time and space in our lived world, laying bare our existential predicament. This reality stands before us, as a text or a formula inviting interpretation through numbers, symbols, statistics, trends, and graphs, demanding our responsible response. Such situations present a material drama of what has been, what is, and the haunting possibilities of what is yet to come. Here, the material world embodies Walter Benjamin's vision of the "Angel of History," who perceives the past not as a steady march of progress, but as a single, ongoing catastrophe.[487] As the unresolved "wreckage" of this past continually piles up at our feet, it lays what Benjamin calls a "weak messianic claim" on our present generation—not a coercive, omnipotent power to fix the world from above, but a haunting call that demands our ethical response and responsibility for

[487] Walter Benjamin, "Theses on the Philosophy of History," in *Illuminations: Essays and Reflections*, ed. Hannah Arendt, trans. Harry Zohn (New York: Schocken, 1969), 254, 257–258. For a compelling new materialist reading of Benjamin, see Karen Barad, "What Flashes Up: Theological-Political-Scientific Fragments," in *Entangled Worlds: Religion, Science, and New Materialisms*, ed. Catherine Keller and Mary-Jane Rubenstein (New York: Fordham University Press, 2017), 24–25.

redemption. Simultaneously, as Derrida's hauntology suggests, these toxic residues act as specters—ghosts of a past that refuses to pass—actively haunting our present to demand justice and to shape the spectral possibilities of the future.

CHAPTER FIVE

MATERIAL APOCALYPTICISM AND THE SPIRIT OF COMPOST

A. FROM ANTHROPOCENE TO APOCALYPCENE: WASTE AS AN APOCALYPTIC AGENT

Although waste has traditionally been viewed as passive, worthless debris under traditional anthropocentric paradigms, new materialism and object-oriented ontology expose it as a potent actant and a hyperobject of planetary scale. Waste acts as an agent that not only triggers but constitutes apocalyptic or eschatological events. In this light, matter transcends its role as a passive resource for human use, appearing as an active presence with inherent agency. This agency interrogates and reveals the relationships between humans and the material realities that have been repressed, concealed, silenced, and discarded.

The designation of the Anthropocene is grounded in a distinct material reality. Although geologists at the International Commission on Stratigraphy voted on March 5, 2024, to reject the formal adoption of this term as a new epoch, it is undeniable that substances such as radioactive materials, carbon, plastics, and even chicken bones have become the definitive geological markers of the current age.[488] At the same time, it is necessary to attend to the critical discourse surrounding the term itself. Indeed, the term Anthropocene has drawn significant scholarly critique on multiple fronts. One central

[488] Raymond Zhong, "Human Age? Nope, Scientists Say," *New York Times*, March 5, 2024, https://www.nytimes.com/2024/03/05/climate/anthropocene-epoch-vote-refusal.html. Additionally, for a study emphasizing that chicken bones have a clear potential to be a distinct biostratigraphic marker species representing the current epoch (the Anthropocene), alongside other anthropogenic markers such as plastics and radioactive materials, see Carys E. Bennett et al., "The Broiler Chicken as a Signal of a Human Reconfigured Biosphere," *Royal Society Open Science* 5 (2018): 180325, https://doi.org/10.1098/rsos.180325.

concern is its universalizing gesture: by naming the era after humanity as a whole, it distributes responsibility for planetary destruction across all people, thereby obscuring the vastly unequal contributions of different actors. The fossil fuel industry, global capitalist systems, and powerful economic elites bear far greater responsibility than vulnerable populations—Indigenous communities, communities of color, the global poor, and those in the Global South—who have contributed little to environmental collapse, yet suffer its consequences most acutely. This universal humanity framing is not merely imprecise; it actively obscures historical and structural inequalities. In response, scholars have proposed alternative nomenclatures—Capitalocene, Plastocene, Fossilcene, Carboncene—each foregrounding specific material and systemic drivers of crisis rather than a generic "human" agent.[489]

A second line of critique addresses the term's philosophical assumptions. While acknowledging human activity as the driving force behind planetary change, the term Anthropocene reinforces anthropocentric thinking by positioning humans as the sole architects of earth's fate, when in fact the crisis stems from particular modes of

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[489] As a critical alternative to the term, Anthropocene, Jason W. Moore proposes the "Capitalocene," locating the origins of the ecological crisis within the history of capital accumulation. Andreas Malm traces the historical roots of climate change by designating the fossil-fuel-dependent capitalist economy as "Fossil Capital." Intersecting with these economic critiques, Kathryn Yusoff problematizes the universalizing narrative of the Anthropocene by emphasizing its foundational ties to racialized extraction and colonialism in *A Billion Black Anthropocenes or None*, arguing that the geologic epoch was built upon the exploitation of Black and Indigenous bodies. Furthermore, Timothy Mitchell discusses "Carbon Democracy" by analyzing how carbon energy systems have shaped modern political power, while Heather Davis deepens the perspective of the "Plastocene" by focusing on the ontological shifts and geological traces produced by plastic. For detailed discussions, see Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015); Andreas Malm, *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming* (London: Verso, 2016); Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2018); Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (London: Verso, 2011); Heather Davis, *Plastic Matter* (Durham: Duke University Press, 2022).

production and socioeconomic organizations rather than from humanity as such.[490] Finally, despite its claims to scientific objectivity, Anthropocene discourse largely emerges from and reflects the concerns of the Global North, marginalizing other epistemic traditions and voices while masking the colonial and imperial histories that structure contemporary ecological devastation.

These critiques of the term Anthropocene are entirely justified, given that a true understanding of this era requires close attention to the specific materials that define it. Considering that the majority of these defining substances are categorized as waste, hazardous matter, or that which must be discarded, the Anthropocene could be more accurately designated as the Wasteocene.[491] More radically, if we recognize that waste actively exposes the realities of ecological crisis, structural inequities, and injustice—while simultaneously demanding transformation and resistance—then waste can be seen as the most potent apocalyptic medium of the contemporary age.

Therefore, caring for the earth can begin with listening to these apocalyptic voices. What is revealed through things considered waste is not merely the crises of global warming, the spread of toxic matter, and ecosystem destruction. Rather, waste performs an apocalyptic function by explicitly exposing the limits and contradictions of the existing capitalist, anthropocentric, and political orders. Thus, when we approach

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[490] For a critique of how Anthropocene discourse relies on a universalist view that masks the colonial, imperial, and racial histories of ecological devastation while privileging Western/Global North perspectives, See Michael Simpson, "The Anthropocene as Colonial Discourse," *Environment and Planning D: Society and Space* 38, no. 1 (2020): 53–71; Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2018); and Andreas Malm and Alf Hornborg, "The Geology of Mankind? A Critique of the Anthropocene Narrative," *The Anthropocene Review* 1, no. 1 (2014): 62–69.

[491] Armiero, *Wasteocene*, 1.

what is deemed waste, we discover that this world is already teeming with these apocalyptic voices and movements. Ultimately, as Catherine Keller warns "we find ourselves, selves of any or no religion, circulating in the ambience of the biblical apocalypse."[492] Hence, we inhabit the *Apocalypcene*.

The agency exerted by what is deemed as waste is vividly captured by Jane Bennett's notion of "Thing-Power." She argues that these materials function as "quasi-agents" with their own independent trajectories and propensities, doing far more than simply blocking human will.[493] As demonstrated in the preceding chapter's analysis of the phenomenology of waste, there is no such thing as "perfect" disposal. Consider animals buried during the foot-and-mouth disease outbreaks: they persist as active participants in the ecosystem, circulating as gases and fluids. This persistent activity impacts not only the physical and mental states of the people connected to them but also the social relations they inhabit, thereby generating profound material effects.

Furthermore, despite the apocalyptic warnings such as those of *Silent Spring*, a persistent hubris and blind faith in science have produced countless hazardous chemicals that now far exceed human perception and control.[494] Labeled simply as "toxic," these uncontainable substances circulate by penetrating indiscriminate multitudes of humans,

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[492] Catherine Keller, "Amorous Entanglements," in Karen Bray et al., eds., *Earthly Things: Immanence, New Materialisms, and Planetary Thinking* (New York: Fordham University Press, 2023), 100.

[493] New materialist Jane Bennett critiques the traditional anthropocentric view that treats matter as inert, passive, and merely an obstacle to human will. She challenges this assumption by proposing "Thing-Power," which posits that nonhuman matter is a vibrant "quasi-agent" with its own trajectory and active force. See Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010), 2–6.

[494] There are an estimated 350,000 different types of manufactured chemicals on the global market. See Linn Persson et al., "Outside the Safe Operating Space of the Planetary Boundary for Novel Entities," *Environmental Science & Technology* 56, no. 3 (2022): 1512.

animals, and plants. This "trans-corporeality" of matter loosens the boundaries between the human and the more-than-human, compelling us to reconsider the very definition of humanity.[495] Moreover, waste exerts a broad and persistent influence not only spatially, through ecosystem cycles, but also temporally. Acting as a core subject of this apocalyptic era, waste embodies the characteristics of hyperobject, infiltrating our daily lives.[496] In this way, concepts such as thing-power, trans-corporeality, and hyperobject demonstrate that material actors like waste are no longer passive residues but active actants and apocalyptic subjects that expose the crises of the Anthropocene. Ultimately, they demand from us an ethical and political response.[497]

While mourning is a necessary first step, engaging with waste in the Anthropocene requires us to confront a deeper structural reality. Unlike the dead who depart, waste refuses to go away. It lingers and leaks, permeating boundaries and disrupting linear understanding of time. This persistence—the refusal of the past to stay in the past—aligns the ontology of waste with the structure of trauma. Just as trauma is not an event that is simply "over," waste is a material reality that remains. Therefore, to fully grasp the theological implications of waste, we must turn to the intersection of trauma theory and materiality.

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[495] Stacy Alaimo, *Bodily Natures: Science, Environment, and the Material Self* (Bloomington: Indiana University Press, 2010).

[496] Morton, *Humankind*, 75.

[497] The ethical and political response demanded by this apocalyptic crisis does not stem from conscious human intent. Rather, it emerges through the diverse "ontological entanglements" inherent in materiality. Karen Barad, "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter," *Signs: Journal of Women in Culture and Society* 28, no. 3 (2003): 826–27.

B. WASTE AS A TRAUMATIC REMINDER

Without considering the diverse ontological entanglements entailed by materiality, it is hard to perceive how waste reveals its apocalyptic functions. Furthermore, because the apocalypse revealed by waste is characterized by more-than-human temporality, spatiality, and scale that transcend human units of measurement, it exceeds human language and cognition. This disparity eludes human sensation and perception, destabilizing our value systems and worldviews, shattering our consciousness, and inducing ontological trauma.[498]

Philosopher Michael Marder and visual artist Anaïs Tondeur describe the Chernobyl explosion that occurred in April 1986 as a "catastrophe of consciousness" (or "exploded consciousness").[499] The physical imperceptibility of radioactive fallout made the disaster nearly impossible to perceive or describe. In the face of this event, modern science, technology, and worldviews became useless; the result was not just the destruction of the environment, but the destruction of consciousness itself. The trauma of Chernobyl remains unprocessed because we lack an adequate consciousness to represent it. Therefore, as Marder and Tondeur put it, we need to endeavor to think the unthinkable and represent the unrepresentable.[500]

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[498] On the multigenerational character of such trauma in the context of toxic disasters, see Kai T. Erikson, *A New Species of Trouble: The Human Experience of Modern Disasters* (New York: W. W. Norton, 1994); "Toxic Reckoning: Business Faces A New Kind of Fear," *Harvard Business Review* 68, no. 1 (1990): 118-126. Erikson, a sociologist of disasters and collective trauma, shows how stealthy toxic contamination can be absorbed into the tissues of the body and remain for generations, creating a special dread and chronic uncertainty that slowly fractures social worlds and subjectivities.

[499] Michael Marder and Anaïs Tondeur, *The Chernobyl Herbarium: Fragments of an Exploded Consciousness* (London: Open Humanities Press, 2016), 11.

[500] Marder and Tondeur, *The Chernobyl Herbarium*, 11.

It is, therefore, necessary to take a further step and acknowledge that the subject of trauma can extend to more-than-human beings. Highlighting the structural parallels between ecological suffering and human trauma, Timothy A. Middleton argues that trauma theology can be effectively integrated with eco-theology.[501] Although he does not acknowledge the agency of more-than-human beings, he insists that, just as human trauma persists and recurs, ecological damage often results in permanent, irreversible consequences—such as extinction or climate change—that qualify the initial destruction as a truly traumatic event.[502] Middleton maintains that events like extinction and climate change are not transient injuries but permanent "wounds" that endure beyond the initial destruction. This characterization deeply resonates with Derrida's concept of *hauntology*. Just as trauma defies linear time by recurring and haunting the present, ecological destruction operates as a spectral force that transcends time and space, existing in a liminal state of being "neither fully present nor fully absent." Extinct species and ravaged landscapes linger as "absent presences," haunting the ecosystem much like ghosts.

This hauntological and traumatic character of ecological damage can be linked to a "collapse of witnessing" that Middleton identifies as a central symptom of this trauma.[503] Because nature cannot communicate through human language, its non-cognitive signals of distress are largely ignored by modern humanity, creating a severe

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[501] Timothy A. Middleton, "Christic Witnessing: A Practical Response to Ecological Trauma," *Practical Theology* 15, no. 5 (2022): 420–31.

[502] Middleton, uses a "deliberately anthropomorphic approach" to describe ecological trauma. This means he intentionally describes more-than-human entities, such as forests, the Earth, or animals, using human characteristics—such as having a "voice," feeling "pain," or experiencing "trauma"—even though he acknowledges they do not have human psychology. Middleton, "Christic Witnessing," 422.

[503] Middleton, "Christic Witnessing," 423.

rupture in communication. As Middleton himself notes, thus, “the rest of the ecosphere has never had the ability to articulate its suffering.”[504] Consequently, the “collapse of witnessing” can be understood as a failure to recognize these ecological specters. A practical theological response, therefore, requires not only acknowledging the physical wounding of the earth but also bearing witness to these spectral lingering effects that continue to hover over the living world.[505]

To bridge this communicative rupture, Middleton adopts a “deliberately anthropomorphic approach,” suggesting that human trauma symptoms “apply metaphorically in the ecological realm.”[506] This method, however, can be criticized for inadvertently reinforcing anthropocentrism. By insisting that ecological suffering must be translated into human terms in order to be intelligible, he potentially obscures the unique material vitality of the more-than-human. Ironically, while Middleton acknowledges Stacy Alaimo’s warning that “speaking for nature can be yet another form of silencing, as nature is blanketed in the human voice,” his anthropocentric translation risks doing exactly that: smothering the distinct voice of nature with human concepts, thereby prioritizing human epistemological structures over the ontological reality of matter itself.[507] Rather than allowing matter to signify through its own modes of being, Middleton’s approach reflects the inherent limits of human language itself.

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[504] Middleton, “Christic Witnessing,” 422.

[505] Middleton, “Christic Witnessing,” 422.

[506] Middleton, “Christic Witnessing,” 422.

[507] Middleton, “Christic Witnessing,” 427.

Furthermore, Middleton explicitly states that his deliberately anthropomorphic approach is not meant "to argue for the consciousness (or otherwise) of the trees and the landscape, but to treat them as if they can experience trauma for the sake of ascertaining how this might alter our response."[508] By intentionally bypassing nature's actual material expressions—such as the chemical signals released by trees—in favor of a metaphorical framework designed to provoke human empathy, he effectively reduces nonhuman agency to a mere psychological strategy. This can be criticized for deploying the nonhuman primarily as an instrument for human ethical correction. Such instrumentalism stands in tension with the relational perspectives that recognize the autonomous power and entangled reality of human and more-than-human entities.

In contrast to this human-centered translation, matter does not wait for human interpretation; it testifies to its own existence through its vibrant materiality and incessant intra-actions. The toxic leachate from Korea's FMD burial sites physically disrupts state narratives of "biosecurity," allowing the spectral return of millions of killed animals—forcibly reduced to "nothingness"—to haunt and deconstruct the official silence. Similarly, the radioactive water of Fukushima acts as a hyperobject, exercising an autonomous temporality that transcends political rhetoric and creates trans-corporeal entanglements across species boundaries. Even microplastics, infiltrating the deepest trenches and the human placenta, function as molecular "material prophets" that indict the ecological sins of the Anthropocene—specifically the Plastocene.[509] Ultimately, waste

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[508] Middleton, "Christic Witnessing," 422.

[509] Heather Davis, *Plastic Matter* (Durham: Duke University Press, 2022).

is not a passive object of human language but an active agent that—through decay, radioactive half-lives, and molecular infiltration—shatters anthropocentric history and exposes the hidden, entangled networks of our shared reality.

The apocalyptic character of the ecological crisis is most vividly disclosed in waste. Though waste is discarded, erased, excluded, and silenced, its spectral presence ceaselessly haunts the spaces around us. Yet, waste is no longer a passive object awaiting human metaphorical interpretation. Through its ontological entanglements, it acts as a material witness and an apocalyptic prophet, operating beyond the bounds of human temporal and spatial control to expose the contradictions of this era. To understand waste as an active agent of apocalyptic unveiling and as a traumatic subject of the ecological crisis wrought by humans is to approach it not merely as a metaphor but as an ontological reality. This becomes even more apparent when approached from the perspective of process theology.

While Middleton suggests we *lend* our voice to nature to bridge the communication rupture, from a process-theological perspective, waste already possesses its own subjective form of feeling or prehension, in that every actual entity perceives and incorporates its past. Waste is not "dead matter"; it is matter that has "prehended" the violence of extraction, commodification, and rejection. The "trauma" of waste is not, as Middleton's anthropomorphic framing implies, a metaphor for human sadness; it is the ontological retention of destructive energy—whether it be the radioactive half-life of Chernobyl or the molecular persistence of plastic. This persistence is the trauma—an inability to be integrated into the cycle of life, remaining as an "undigested" lump in the

planetary body. Beings physically and chemically exposed to such materials, along with the policies, societies, emotions, and cultures related to this exposure, come to share in this trauma.

Challenging the view that nature remains mute without human translation, new materialism asserts that waste speaks through its own intra-actions.[510] Waste leaches, mutates, radiates, and haunts; this is not a "metaphorical cry" dependent on human perception, but a literal, material assertion of presence. This perspective deeply resonates with Richard Bauckham's eco-theological reading of Luke 19:40, where Jesus warns that if his disciples are silenced, "the stones would shout out." Bauckham argues that creation possesses an independent capacity to testify that requires no human mediation; indeed, when human praise fails, nonhuman creation steps in to compensate for the loss.[511] Following this logic, we can posit that as humanity abdicates its prophetic role amidst the ecological crisis, suffering more-than-human entities are assuming this agency. In the context of the Anthropocene, waste emerges as this "stone crying out": an independent, material witness testifying to the ecological sins of empire, requiring no human interpreter to validate its testimony.

Politically, the trauma of waste can be understood as a "return of the repressed." Waste disrupts the capitalist fantasy of endless growth. It refuses to go "away" because, ecologically, there is no "away." By returning to haunt our water, air, land, and bodies, waste becomes a political entity that destabilizes the presumed sovereignty of human

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[510] Barad, *Meeting the Universe Halfway*, 33.

[511] Richard Bauckham, "Joining Creation's Praise of God," *Ecotheology* 7, no. 1 (2002): 45–59.

boundaries. It calls for what Levi Bryant terms a "democracy of objects" in which humans are no longer the sole masters.[512] Waste, as an apocalyptic prophet and a subject of trauma, unveils the unthinkable reality of our interconnectedness and shatters anthropocentric history. By embodying the more-than-human temporality and trans-corporeality, waste haunts the present. This spectral presence compels a theological reckoning, forcing us to confront the radical ethico-political choice of how to live amidst the ruins.

Following this concept of a "democracy of objects," Luke 19:40, "the stones would shout out," can be reinterpreted as a scriptural moment in which inanimate matter—the stones themselves—is granted doxological agency, capable of glorifying God apart from human mediation.[513] This interpretation rejects human exceptionalism and ontologically situates all entities, living and non-living alike, on what Deleuze and Guattari call a "plane of immanence," a flat ontological field in which no entity is hierarchically privileged over another.[514] Reading Luke 19:40 through this lens,

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[512] In *The Democracy of Objects*, Levi Bryant rejects the privileging of the human subject over nonhuman entities. By dismantling the "monarchical" status of humanity, Bryant argues that all objects—whether humans, waste, or ecosystems—possess equal ontological status and autonomous existence, interacting with one another without requiring mediation by human consciousness. Levi R. Bryant, *The Democracy of Objects* (Ann Arbor: Open Humanities Press, 2011), 19–28.

[513] It should be noted that this scriptural language is itself anthropomorphic, attributing human vocal agency to stones. This linguistic tension is perhaps unavoidable given the constraints of human language discussed above. The theological point, however, is not that stones literally speak in human language, but that they possess their own form of agency and participatory being that exceeds human perception—as Isaiah 55:12 similarly suggests when the trees "clap their hands."

[514] Deleuze and Guattari's "plane of immanence or univocality" designates an ontological field in which the inanimate and the animate, the artificial and the natural, and all heterogeneous entities are arrayed without any higher or lower organization. On this plane, all multiplicities are flattened onto a single plane regardless of their number of dimensions, and signs and chemicals, human and nonhuman elements intersect equally without any metaphor or hierarchy. Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 9, 69, 266.

inanimate entities such as stones—and, by extension, waste materials and discarded objects—are not passive remnants but vital witnesses and agents in the unfolding of revelation. Theologically, this understanding calls for an expanded imagination in which material entities not only participate in the chorus of creation's praise but also reveal themselves as subjects of apocalyptic drama; humanity joins this drama as one of the participants rather than monopolizing this ongoing drama.

C. A PROCESS RELATIONAL SPIRIT OF CARE

In the Anthropocene—or more accurately, the Apocalypcene—the crisis of waste is not merely an environmental management issue but a profound theological and ontological trauma. Embodying a prophetic apocalypse and acting as a traumatic subject, waste emerges as a being with whom we are staying and living. As Shelly Rambo argues in *Spirit and Trauma*, trauma is not an event to be gotten over but a persistent reality that "remains."[515] This "remaining" constructs an intertextual resonance with the ontological feature of waste on which this study focuses.

If trauma, for Rambo, is a persistent phenomenon that refuses to end, remaining in the ambiguous space of the "middle" between life and death, then waste in the Apocalypcene is similarly not matter that goes "away." Instead, it lingers in geological time and returns like a ghost. The affinity between these two concepts challenges the "complete annihilation" or "neat resolution" presupposed by traditional soteriology and

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[515] Shelly Rambo, *Spirit and Trauma: A Theology of Remaining* (Louisville: Westminster John Knox Press, 2010), 15–16.

the doctrine of *creatio ex nihilo*, sharing instead a theological commitment to the persistence of *tehom*.

Furthermore, Rambo repositions the Holy Spirit not as a victor conquering death, but as a witness who remains at the site of suffering and testifies in silence.[516] This resonates with my argument, which identifies beings regarded as waste as "material witnesses"—apocalyptic witnesses exposing the contradictions of capitalism and anthropocentrism—as "actants," as crying entities. Ultimately, Rambo's ethics of living with wounds rather than erasing them, converges with this study's praxis of staying with and mourning waste, which embraces discarded entities as integral partners in symbiosis rather than as objects of abjection. In short, the theo-garbology proposed here theoretically and practically engages Rambo's pneumatology of remaining, Keller's *tehomic* theology, and Haraway's compostist ethics. Thus, this chapter proposes to understand the Holy Spirit as a process-relational spirit of care, rather than as a transcendent victor conquering death to enrich life.

D. THE SPIRIT OF THE MIDDLE: BETWEEN BECOMING AND REMAINING

The theological tradition has largely confined the Holy Spirit anthropocentrically, focusing on the realm of personal salvation, ecclesial renewal, and spiritual comfort. Consequently, this perspective has otherized the material world, effectively placing it outside the scope of the Spirit's ministry. Yet the Anthropocene—an epoch marked by both ecological catastrophe and the systematic production of "wasted lives"—demands a

[516] Rambo, *Spirit and Trauma*, 111–141.

radically reimagined pneumatology. Thus, I argue for a Spirit who is present not only in the sanctuary but in ecologically wounded places such as landfills, clear-cut forests, melting glaciers, and radioactively contaminated oceans and lands.

For example, Jürgen Moltmann conceives of the Holy Spirit as the "Spirit of life," immanent within the entire cosmic system of life.[517] Similarly, drawing from Genesis 1:2, Keller reinterprets the Spirit's hovering (*merahephet*) over the deep not as an act of domination, but as a vibrant pulsing that engages with chaotic and formless matter (*tohu wa-bohu*).[518] For her, this chaotic deep is not an enemy to be conquered or eliminated but the very medium of potentiality. Therefore, she re-envisions the Spirit as the "spirit of planetary possibility" that draws forth new creation "at the edge of chaos," rather than as an omnipotent creator imposing order from above.[519] Collectively, these discourses challenge traditional theological understandings by proposing a renewed conception of the Spirit as a response to today's ecological crisis.

To understand the Spirit of care, we must first dismantle the theological infrastructure that allowed for the creation of waste: the doctrine of *creatio ex nihilo* as covered in chapter Two. As Keller argues in *Face of the Deep*, the traditional Christian assertion that God created the world out of "nothing" has functioned to erase the "*tehom*." This erasure has profound ecological consequences. If matter is created from

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[517] Moltmann criticizes a tendency to reduce the Holy Spirit to only the Spirit of redemption, such as in the charismatic movements, which is an escape and a flight from the politics and ecology of the Spirit in the world of today. Rather, he suggests the Spirit as the divine energy of life, which interpenetrates all the living and links the body and nature. Jürgen Moltmann, *The Spirit of Life: A Universal Affirmation* (Minneapolis: Fortress Press, 1992), 8.

[518] Catherine Keller, *No Matter What: Crisis and the Spirit of Planetary Possibility* (New York: Fordham University Press, 2025), 141; Keller, *Face of the Deep*, 4–6.

[519] Keller, *No Matter What*, 3.

nothing by a sovereign will, it has no inherent agency or resistance; it is mere stuff to be used and discarded. When it becomes "waste," we imagine we can send it back to "nothingness"—to an "away" that does not exist.

Whitehead's process philosophy opens a new avenue for understanding the Holy Spirit. Against the portrait of an unmoved mover in classical theism, Whitehead posits a God with a dipolar nature: a primordial nature, which encompasses all potentialities, and a consequent nature, which is the actualization of those potentials in response to the world.[520] The primordial nature represents God's eternal transcendence—the infinite reservoir of possibilities (eternal objects) that lure creation toward beauty and novelty. The consequent nature embodies God's immanent responsiveness, where God receives and experiences every event in the cosmos—every moment of joy, every instance of suffering, every act of destruction.

As Whitehead famously captures, "God is the great companion—the fellow-sufferer who understands."[521] This divine empathy is not sentimental; it is ontological. God's very being is constituted by relation to the world. Charles Hartshorne further clarifies this dipolarity as the distinction between God's abstract essence and concrete actuality, emphasizing that God's concrete aspect depends on the decisions made by worldly actualities. Consequently, God's knowledge becomes relative to the world, allowing God to participate in every joy and share in every suffering of the world.[522]

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[520] Whitehead, *Process and Reality*, 344–345; Charles Hartshorne and William L. Reese, *Philosophers Speak of God* (Chicago: The University of Chicago Press, 1976), 17.

[521] Whitehead, *Process and Reality,* 351.

[522] John B. Cobb and David Ray Griffin, *Process Theology: An Introductory Exposition* (Philadelphia: Westminster Press, 1976), 47–48; Keller, *Political Theology of the Earth*, 125.

Within this process perspective, the Holy Spirit can be understood as the dynamic agency of the divine lure. God offers every actual entity the best possible aim for that moment—an initial aim that does not coercively move matter deemed as "waste"; rather, the entity constitutes itself by prehending past data (physical prehension) and feeling God's lure (conceptual prehension). Thus, I want to suggest that even waste possesses a form of agency, perceiving its environment in its own way.[523] This divine persuasion is how the Spirit intervenes in this microscopic level. Furthermore, just as God receives the world's experiences into the divine life, the suffering and alienation of beings regarded as waste are preserved in God's memory.

This pneumatological function can be understood through Whitehead's concept of subjective aim, which acts as a form of divine wisdom. This wisdom gathers every actual occasion—with its sufferings, losses, failures, fleeting joys, and fragile achievements—and integrates it into the ever-living harmony of God's consequent nature. In this way, nothing of genuine value is simply lost to oblivion but is tenderly held within the divine whole.[524] Read pneumatologically, this wisdom can be interpreted as the work of the Holy Spirit: a divine care that does not bypass the "failed" and discarded fragments of reality but draws them into God's universal feeling as irreplaceable threads in the texture of creation.

Therefore, the Holy Spirit in process theology serves as the mediating force between God's dipolar nature. The Spirit is the bi-directional bridge between

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[523] Whitehead, *Process and Reality*, 67, 105, 186.

[524] Whitehead, *Process and Reality*, 346.

transcendence and immanence, between what-is and what-might-be. On the one hand, the Spirit translates God's primordial possibilities into the initial aim offered to each emerging entity. On the other hand, the Spirit receives the world's experiences and feelings back into God's consequent nature, transforming them into new possibilities for ongoing creation.[525] In the context of a theo-garbology, this signifies that nothing is abandoned; rather, the suffering of the discarded is prehended into the divine life.[526] It affirms that within God's economy and the planet's economy, nothing regarded as waste is ever truly excluded or thrown away. Through the agency of the Spirit, the finality of disposal is rejected, and the rejected are perpetually lured back into the web of value and relation.

Ultimately, this process-relational pneumatology begins instead with *creatio ex profundis*. The Spirit does not command the deep to vanish but "vibrates" or "hovers" over the face of the waters, working with the chaos and the pre-existing potentiality. In the context of the Apocalypcene, the Spirit does not promise a new creation that simply wipes away the toxic history of the earth. Rather, the Spirit is the force that works amidst the "waste"—the modern *tehom*. As the matrix and lure of becoming, the Spirit beckons new possibilities out of the mess we have made.[527] This shift redefines waste not as "nothing" (ontological nullity) but as matter that retains a spectral, chaotic agency. The

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[525] John B. Cobb, Jr. and David Ray Griffin, *Process Theology: An Introductory Exposition* (Philadelphia: Westminster Press, 1976), 48.

[526] Whitehead, *Process and Reality*, 346.

[527] Keller, *Face of the Deep*, 218–221.

Spirit engages this agency to lure it toward new forms of relationality, rather than to suppress it.

When acknowledging this agency of waste, we confront the reality that not all chaos is immediately fertile ground for new creation. In the *Apocalypcene*, much of our "deep" consists of toxic, dangerous, polluted, and radioactive legacies that linger as permanent scars upon the earth and in the air. The lure of becoming cannot simply bypass the heavy reality of what has been destroyed. Therefore, before the Spirit lures us into novelty, the Spirit must first meet us in the deep desolation and paralysis of the wasteland. This requires a new understanding of the Spirit. From a process theological perspective, the movement of becoming is inseparable from the persistence of remaining. Just as the Spirit hovered over the waters and was present with chaos, the Spirit's activity in this age does not erase, ignore, or bypass the old to create something entirely new. Instead, by abiding with the oppressed and the discarded, the Spirit makes new becoming possible.

If the Spirit is at work in the deep, how does she work? Shelly Rambo, in *Spirit and Trauma*, offers a critical corrective to triumphalist pneumatologies that rush from Good Friday (death) to Easter Sunday (resurrection), skipping the silence of Holy Saturday. Rambo identifies the Spirit of Holy Saturday as the "Middle Spirit"—the one who does not enact a miraculous reversal but simply remains in the space of death and trauma.[528] This "theology of remaining" is essential for an ecological age defined by the "permanence" of waste. Radioactive waste, for instance, demands a "deep time"

[528] Rambo, *Spirit and Trauma*, 111–141.

perspective; it will "remain" lethal for millennia. A theology that promises instant healing or rapture is useless here. We need a Spirit who remains.

Additionally, Rambo argues that the Spirit's primary activity in trauma is "witnessing." The Spirit testifies to the persistence of love even when life seems impossible. In the theo-garbological context, the Spirit witnesses to the "groaning" of creation (Romans 8:22). Waste acts as a "spectral witness"—a haunting reminder of broken covenants. Furthermore, Rambo insists that "survival" is not a lowly state but a holy one.[529] To survive trauma is to carry the wound. The Spirit of care validates the struggle of ecosystems and communities to simply survive amidst catastrophic situations. This Spirit stays with them as the Spirit of resilience. Her power is not a coercive force, but the persuasive power to sustain life in the "middle" of the wasteland.

1. Compostist Pneumatology: Staying with the Trouble

The Spirit's "remaining" is not passive; it is an active engagement with the materiality of the world. Haraway's "compostist" ethics—her call to "stay with the trouble" and "make kin"—provides the ethical texture for this pneumatology. In a "Chthulucene" world where purity is impossible, we must become "compostists," not "post-humanists." We are humus, soil, dirt.[530]

The compostist Spirit works through decomposition and regeneration. On the one hand, the Spirit does not seek a "pure" nature untouched by humans, nor a "pure" spirit detached from matter. Rather, the Spirit challenges the "hygienic" theology that equates

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[529] Rambo, *Spirit and Trauma*, 25–26.

[530] Haraway, *Staying with the Trouble*, 55.

holiness with cleanliness. Here, holiness is found in the mixture, in the messy entanglement of species. This profound material intimacy is not without theological precedent; as Martin Luther once provocatively observed, "The power of God...must be essentially present in all places even in the tiniest leaf," and Christ "is present in all creatures, and I might find him in stone, in fire, in water."[531] Yet, in our contemporary ecological ruin, the compostist Spirit calls us to push this incarnational logic even further. Just as Haraway urges us to make kin with "odd kin"—unexpected, non-biological relatives—the process-relational Spirit lures us into kinship with the "abject," the beings we have rejected. This is a radical expansion of the neighbor-love command. To love the Spirit is to love the networks of matter through which the Spirit moves. It means acknowledging that the plastic in the ocean, the radioactive waste buried deep underground, and the carbon dioxide accumulated in the atmosphere are, in a terrifying way, our "kin"—products of our desires, now acting back upon us. The Spirit calls us to take responsibility for this kinship, transforming "trash" from an object of disgust into a "matter of care."

Recognizing gaseous waste like carbon dioxide as our kin, however, requires expanding the understanding of composting beyond a strictly subterranean, solid process. Composting is fundamentally an expansive, respiratory event—a grand metabolic exchange of oxygen and carbon between microbes and the atmosphere. To theologically bridge the gap between solid decay in the soil and gaseous emissions in the air, the

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[531] Martin Luther, "That These Words of Christ, 'This Is My Body,' etc., Still Stand Firm Against the Fanatics (1527)," in *Luther's Works*, vol. 37, ed. Robert H. Fischer (Philadelphia: Fortress Press, 1961), 57–58; Martin Luther, "The Sacrament of the Body and Blood of Christ—Against the Fanatics (1526)," in *Luther's Works*, vol. 36, ed. Abdel Ross Wentz (Philadelphia: Muhlenberg Press, 1959), 342.

ecological and metabolic process of "respiration" find its profound theological counterpart in *pneuma* and *ruach*. As Denise Kimber Buell argues, *pneuma* (breath/spirit) and microbes act as invisible, trans-corporeal agencies that connect us to our environment, revealing a "viscous porosity" where respiration becomes a profoundly relational act that refuses neat boundaries between human and nonhuman, or organic and inorganic.[532] Catherine Keller similarly envisions *ruach* (wind/breath/spirit) not as an omnipotent dictator, but as the "spirit of planetary possibility" that vibrates over the flux of creation.[533] Emphasizing our profound ecological entanglement, Keller invokes the prophetic eco-poetics of Lucille Clifton, reminding us that "the air you have polluted you will breathe."[534] Therefore, the Spirit as r*uach* and *pneuma* serves as the vital bridge connecting the soil to the sky. Carbon dioxide, expelled as the breath of industrialization, is not an immaterial void; rather, it is a gaseous waste that must be re-integrated into the respiratory cycles of the earth through the very breath of the compostist Spirit.

This deeply relational understanding of soil requires a shift in our ontological and political frameworks. As O'neil Van Horn argues, the earth-ground must be distinguished from a static "foundation"; rather, it is a dynamic, multi-species matrix characterized by "(de)composition."[535] For Van Horn, "(de)composition *holds in tension* the ways in which organic life is rendered possible by and is *composed of decomposition*."[536]

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[532] Buell, "The Microbes and Pneuma That Therefore I Am," in *Divinanimality*, 65–66.

[533] Keller, *No Matter What*, 3.

[534] Lucille Clifton, Mercy (Rochester: BOA, 2004), 72, quoted in Keller, *No Matter What*, 102.

[535] O'neil Van Horn, *On the Ground: Terrestrial Theopoetics and Planetary* Politics (New York: Fordham University Press, 2024), 18–20.

[536] Van Horn, *On the Ground*, 110.

Therefore, to embrace a theo-garbology is to participate in this (de)compositional process, where the Spirit's breath salvages and composes new life out of the toxic and atmospheric ruins of the Wasteocene.

2. The Spirit of Dissenting Care: Matters of Care in the Ruins

A pneumatology of care, however, cannot remain apolitical. Thus, I draw on Puig de la Bellacasa's work on *Matters of Care* to prevent such a pneumatology from becoming a romanticized view of nature. She reminds us that care is not just a warm feeling; rather, "Staying with care's potential to disrupt thus is not (only) about making visible neglected activities we want to see more 'valued'…It requires engaging with situated recognitions of care's importance that operate displacements in established hierarchies of value and understanding how divergent modes of valuing care coexist and co-make each other in non-innocent ways."[537] Thus, care is a matter of doing practiced in a site of conflict and involves decisions about what to care for and how.[538]

Furthermore, Puig de la Bellacasa proposes a "speculative ethics" that does not project utopian ideals onto an empty future; rather, it excavates the alternative possibilities already latent within the densely entangled relations of the present—what she calls the "thick present." To speculate, in her sense, is not to escape the real but to perceive, within the actual conditions of care and conflict, trajectories that dominant

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[537] Puig de la Bellacasa, *Matters of Care*, 12.

[538] Puig de la Bellacasa, *Matters of Care*, 5.

timescapes of productivity and extraction have rendered invisible.[539] This move resonates structurally with Whitehead's notion of the divine lure: God does not impose a predetermined telos upon the world but gently persuades each moment toward its unrealized potentialities. As Puig de la Bellacasa envisions alternative futures within the thick present, the process Spirit functions as the speculative lure, inviting us to ask: "What else could this be?" "How else could we live?" This constitutes the prophetic function of the Spirit. In the face of the "inevitability" of capitalist extraction and waste, the Spirit sparks the imagination for "otherwise" possibilities and lures us toward speculative futures—not as escapist fantasies, but as concrete potentialities latent within the present crisis.

In this regard, the Holy Spirit can be understood as the Spirit of dissenting care. Caring for the "unloved"—for toxic soil, for "ugly" species, for discarded communities, for poisoned peoples, for inconvenient animals—is an act of dissent against a system that values only profit and efficiency. However, the Spirit of care is a Spirit of dissent who disrupts the normative flows of capital that turn life into waste. Thus, to care for waste is not about reducing, reusing, recycling, and even responsibly managing it; rather, it is about dissenting from the culture of disposability. In addition, as Puig de la Bellacasa emphasizes, care is "maintenance"—the invisible, often drudging labor that keeps the

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[539] Puig de la Bellacasa employs the concept of the "thick present" to describe how the present moment is densified with a multiplicity of entangled and implicated timelines. This concept is positioned in opposition to the pervasive timescape of techno-scientific productionism, where the present is compressed and subordinated to the linear achievement of future output. Puig de la Bellacasa, *Matters of Care,* 203, 207.

world going.[540] In this sense, the Spirit is the divine maintainer present in this repetitive, unglamorous work.

What emerges from this pneumatology of care is an "ethics of dwelling." We are not saved *from* the Earth, but *with* the Earth. The Spirit does not rapture us out of the polluted world, but empowers us to plant a garden upon it. The Spirit enables us to confront the "spectral agency" of waste with "dissident care" rather than fear, empowering us to weave the world's wounds into a new, living whole—scarred, yet alive. This is the hope of the process-relational Spirit: not a return to Eden, but a lure toward a thriving, hybrid future emerging from the deep of ruins.

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[540] Puig de la Bellacasa, *Matters of Care,* 155.

CONCLUSION

THEO-GARBOLOGICAL ETHICS: A THEOLOGICAL CONVERSATION WITH NEW MATERIALISM AND POSTHUMANISM

A. THEO-GARBOLOGICAL ETHICS: CONCEPTUAL SYNTHESIS AND THEOLOGICAL RECONSTRUCTION

Throughout this study, I have investigated the phenomenological characteristics of waste, examining its temporal, spatial, and political dimensions in the context of the Anthropocene. By drawing on examples ranging from the radioactive wild boars of Fukushima, Japan, and the burial sites of culled livestock in South Korea to the poisoned, contaminated bodies of so many workers, I have also demonstrated how waste acts not merely as inert matter to be discarded but as a spectral presence that blurs temporal, spatial, and material boundaries. Moreover, I have critically interrogated how traditional theological perspectives, particularly the doctrine of *creatio ex nihilo* and an apocalypse of closure, have often been complicit in the logic of “disposability.” This logic underpins the modern capitalist and developmentalist paradigms that ignore the intrinsic value of more-than-human beings and matter.

Furthermore, I have argued that waste is not simply “matter out of place” but a constitutive element of modern political and theological order. For example, the “myth of nuclear safety,” the “gospel of economic growth,” and the theological logic of *creatio ex nihilo* have functioned as apparatuses legitimizing erasure and rendering the negative consequences of development invisible. However, as demonstrated throughout the chapters, waste refuses to disappear as inert matter. Rather, it returns by circulating and

penetrating through the myriad complex entanglements of life, as evidenced in toxic leachate and gases escaping from livestock burial sites, radioactive cesium accumulating in the bodies of wild boars, and hazardous chemicals traversing the trans-corporeal boundaries between human and more-than-human beings.

In this concluding chapter, therefore, I propose a theo-garbological ethics as an alternative ecotheological paradigm—one that resonates with secular environmental discourses beyond religious boundaries through a critical conversation with new materialism and posthumanism. This ethics does not aim to solve the problem of waste through technological mastery or escapist spirituality.[541] Instead, it seeks to reorient our theological and embodied relationship to more-than-human entities, including matter itself, acknowledging that we are inextricably entangled with the waste that we have systemically ignored or expelled. By engaging with the concepts of entanglement, trans-corporality, staying with waste, liberation for waste, and compost theology, this chapter articulates a vision of planetary conviviality that embraces the vulnerability and interconnectedness of all created beings.

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[541] Clive Hamilton critiques the optimistic belief toward the Anthropocene that humans can overcome the current environmental crisis through human reason, rationality, and technological prowess. And he critically refers to this optimistic perspective as "Promethean Hubris." While Celia Deane-Drummond acknowledges that Hamilton approaches the Anthropocene with a prophetic voice regarding the severity of the crisis, she challenges his excessive pessimism and tendency to overlook the transformative potential of religious traditions. Instead, she argues that Pope Francis's "integral ecology" corrects this scientific absolutism by recovering the spiritual dimensions of the crisis, thereby offering a more robust pathway to hope and responsibility. Clive Hamilton, *Defiant Earth: The Fate of Humans in the Anthropocene* (Cambridge: Polity Press, 2017), 35–40; Celia Deane-Drummond, "Living Narratives: Defiant Earth or Integral Ecology in the Age of Humans?," *The Heythrop Journal* 59 (2018): 916–24.

1. Entanglement: Wasted Worlds and Prophetic Matter

The first pillar of theo-garbological ethics is the recognition of entanglement. As I observed in the case of the wild boar paradox in both Fukushima and Germany, radioactive isotopes such as cesium-137 do not respect national borders or the biological boundaries among species. They migrate through fungal networks, enter the bodies of boars, and eventually pose risks to human and other animal consumers. This phenomenon vividly illustrates what new materialist Karen Barad calls "intra-action"—the reality that distinct entities do not precede their interactions but emerge in and through their constitutive entanglement.

In the context of South Korea, the entanglement of waste is deeply political and theological. As discussed in previous chapters, the "myth of nuclear safety" promulgated by the state and the "gospel of growth" preached by conservative Protestantism have formed a techno-theological alliance. This alliance attempts to separate the benefits of energy production from its toxic byproducts and its victims—the residents living near the nuclear complex—by rendering these victims and their suffering invisible. Theo-garbological ethics, however, insists that this separation is an illusion. The electricity that powers the megachurches of Seoul is ontologically entangled with the suffering of rural residents living near nuclear power plants and the radioactive waste accumulating in temporary storage facilities.

Thus, in this ethic, waste functions as what we may call "prophetic matter." Just as biblical prophets revealed the hidden sins of Israel, the material agency of waste—whether as seeping leachates from foot-and-mouth disease burial sites, detectable tritium

in the ocean, or greenhouse gases such as carbon dioxide and methane in the atmosphere —reveals the hidden violence in the Wasteocene. Waste speaks; it testifies against the delusion of endless growth and the theological hubris that treats the earth as little more than a disposal site—a world destined to be discarded at the end of days. Acknowledging this entanglement compels us to abandon the anthropocentric fantasy of control and accept our complicity in the "wasted worlds" we have created.

2. Trans-corporality: Nuclear Flesh and Shared Vulnerability

While Karen Barad's entanglement ontologically asserts our fundamental inseparability from the environment, Stacy Alaimo's trans-corporeality bears witness to this entanglement manifesting phenomenologically through the concrete pain and toxicity of the body. Theo-garbological ethics adopts this perspective to challenge the traditional theological anthropology that views the human body as a closed, sacred vessel separate from the material environment.

The bodies of workers mobilized for mass culling operations during the FMD outbreak, and the bodies of residents in nuclear sacrifice zones, are sites where the toxic legacy of top-down developmental governance becomes flesh.[542] These sites embody what I call "nuclear flesh" and, more broadly, "wasted flesh"—bodies that are physically constituted by the pollutants they ingest and inhale. This trans-corporeality reveals a profound and shared vulnerability: far from being autonomous individuals, we are porous beings, constantly exchanging matter with our surroundings.

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[542] The phrase "becomes flesh" deliberately echoes the Johannine language of incarnation (John 1:14), suggesting that the toxic legacy of the Wasteocene is a theological problem, written into creaturely bodies, rather than a social, political, or cultural one.

Therefore, theo-garbological ethics shifts the understanding of the body in a radically material sense. When we ingest microplastics or radioactive isotopes, we are rendered inextricably bound to the suffering of the planet through this shared material reality. Recognizing this shared vulnerability is the starting point for an ethics of care that extends beyond the human to include the soil, water, and more-than-human entities that share our trans-corporeal condition. In this sense, theo-garbological ethics rejects the "bounded self" of modern individualism and embraces a "porous self" open to both the pain and the healing of the world.

3. Staying with Waste: Spirituality of Remaining in Contaminated Time

Modernity and its theological allies have been driven by the logic of "separation" —the illusion that we can detach ourselves from the material consequences of our existence—and by the desire to "externalize"—to sanitize and to render invisible the messy and chaotic entanglement of life. This logic gives rise to what I called *terra incognita*, *terra prohibita*, and *terra obscura*. In contrast, theo-garbological ethics calls for a mode of existence of "staying with waste." Borrowing from Haraway's concept of "staying with the trouble," this is a refusal to flee into futuristic fantasies of either technological salvation or otherworldly rapture.

To stay with waste means to remain both physically and spiritually in the places of abjection. It entails living in the present with abandoned beings, forsaken spaces, and forgotten voices and narratives, practicing a mindfulness toward the *apokalypsis* manifested through their spectral presence. Drawing on Catherine Keller, this "apocalyptic mindfulness" serves as a spiritual counter-measure against both nihilism and

denialism. Instead of waiting for an omnipotent God to intervene from above, it attunes us to the divine as a non-controlling "lure"—a persuasive power that calls us to face the planetary crisis with responsible realism. By dreamreading the signs of the times not as predictions of doom but as ancient prototypes for earthly renewal, we cultivate a "hope in the dark." This is a hope that sustains the struggle for improbable but holy possibilities, relying not on miraculous rescue, but on our entangled agency to salvage the eros of possibilities within the ruins.[543]

Such staying is the refusal to forget the "wasted lives." It involves a politics of memory that counters the state-enforced amnesia regarding environmental disasters. For churches, this means transforming our liturgies and practices to cultivate wonder, deepen attentiveness to the living world, and foster a sense of belonging and connection with the earth—for one cannot mourn what one has never loved. Only from this place of cultivated love and connectedness can churches genuinely mourn and remember ecological losses, holding the grief of the earth with honesty and tenderness. It means that churches themselves must become sites where the stories of the discarded are told and where the grief of the earth is held and honored.

This spirituality of remaining is an act of resistance against the "throwaway culture" that treats both objects and people as disposable. By staying with the waste, we affirm the value of what has been rejected and commit to the long, arduous work of remediation and repair, even when a complete "cure" is impossible.

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543. Keller, *No Matter What*, 57–61.

4. Liberation for/with Waste(d Lives): Political Theology at the Margins of Matter

Building on the foundational commitment of liberation theology to God's preferential option for the poor, Latin American theologians since Leonardo Boff have already expanded this horizon, forcefully arguing that "the cry of the poor and the cry of the earth" are intrinsically linked.[544] In this context, theo-garbological ethics does not merely append waste as a missing ecological dimension; rather, it intensifies this theological tradition by interrogating how the ideologies of capitalism, imperialism, and colonialism are distinctly materialized in the Anthropocene through waste. Consequently, I have argued that the theological horizon of liberation must widen: the preferential option for the poor must be deepened and extended to encompass a preferential option for the "wasted."

This expansion redefines the subjects of liberation. The category of the "wasted" spans across ontological divides, encompassing both the human residents of sacrifice zones—such as those living in the shadow of environmental violence and injustice—and the more-than-human entities cast aside as the abject by the logic of capitalist desire. True liberation remains impossible if we continue to view materials—such as microplastics in the oceans, greenhouse gases in the atmosphere, or used nuclear fuel in temporary storage facilities—merely as external problems to be managed or removed. Rather, we must

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[544] Leonardo Boff, *Cry of the Earth, Cry of the Poor*, trans. Philip Berryman (Maryknoll: Orbis Books, 1997); Leonardo Boff, *Ecology & Liberation: A New Paradigm* (Maryknoll: Orbis Books, 2000); Ivone Gebara, *Longing for Running Water: Ecofeminism and Liberation* (Minneapolis: Fortress Press, 1999); and Daniel P. Castillo, *An Ecological Theology of Liberation: Salvation and Political Ecology* (Maryknoll: Orbis Books, 2019). Pope Francis similarly draws this connection at the level of the magisterium, observing that the earth "is beginning to look more and more like an immense pile of filth," while simultaneously decrying the throwaway culture that discards both the earth and the poor. See Pope Francis, *Laudato Si': On Care for Our Common Home* (Vatican City: Libreria Editrice Vaticana, 2015), §21.

confront them as our kin—the material offspring of our systemic desires—and acknowledge our profound entanglement with them.

Liberation in a theo-garbological perspective, then, is not an escape from the material world, but a practice of radical solidarity with the discarded. It requires the difficult work of making kin with the abject. In so doing, it transforms uncomfortable presences, unsettling entities, and inconvenient matters into matters of care. This constitutes a political theology of the margins that disrupts the culture of disposability by valuing precisely what has been erased, forgotten, and rejected. To stand with the wasted is to interrupt the normative flows of capital that turn life into refuse, and to practice the difficult, patient work of turning refuse back into life—what we might call, in the most material and theological sense, a practice of composting.

5. Compost Theology: Toward Material Resurrection and Open Apocalypse

Finally, from the perspective of theo-garbological ethics, my critique of closed apocalypticism leads to what I term "compost theology." Throughout this dissertation, I have interrogated the doctrine of *creatio ex nihilo* not merely because it depicts matter as a passive backdrop to the divine-human drama, or as passive and destined for annihilation, but because of its deeper, political function: the demonization of chaos and the legitimation of the existing order.

By positing "nothingness" as the precondition for divine action, traditional *ex nihilo* theology has historically framed primordial chaos—the complexity, mystery, uncertainty, and ungraspable depth of *tehom*—as a disorder to be conquered or an evil to be suppressed. This theological insistence on absolute order establishes a binary that

treats unruly depth and chaos as dangerous, often as evil. Within this logic, anything that resists existing order and categorization—such as chaos, complexity, mystery, uncertainty, and the unfathomable—can be marked as a threat to the divine and social order. It is this *tehomophobic* logic that underpins the modern compulsion to control, manipulate, and render invisible the unruly vibrancy of material entanglements.

In response to these *tehomophobic* tendencies, I propose a compostist pneumatology that reclaims the creative potential of the wasted matter. This aligns with Catherine Keller's compelling shift from "salvation" to "salvaging." In *No Matter What*, Keller argues that salvation should not be understood as a supernatural flight from a ruined world, but as the salvaging of earthly possibility. For Keller, to salvage is to find whatever can be "recycled renewingly" from the ruins of the past—however impurely.[545] Just as *creatio ex profundis* draws life from the chaotic waters rather than from nothingness, compost theology insists that the Spirit works by caring for and recycling the "impure" potentiality of wasted matter.

Building on the pneumatological perspectives developed in Chapter Five—specifically the integration of a process-relational spirit of care, the theology of the "middle," and the ethics of staying with the trouble—I have articulated a compostist pneumatology as a theological response to the Apocalypcene. This synthesis weaves the ethics of salvaging with Donna Haraway's compostist ethics, process theology's relational ontology, and Shelly Rambo's theology of trauma, allowing us to reimagine the Holy Spirit. This Spirit is not a transcendent victor who rescues humanity from the earth,

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[545] Keller, *No Matter What*, 21–23.

but a Middle Spirit who remains with the ruins. Abiding in the radioactive materials, microplastics, greenhouse gases, and toxic persistences of the Anthropocene, this Spirit vibrates over the chaotic deep (*tehom*) in *creatio ex profundis*. Rather than creating *ex nihilo*, this Spirit acts as a divine lure, soliciting new forms of relationality from within the discarded, silenced, and decomposing realities of our present.

Finally, this compostist pneumatology represents care as a political act of dissent. The "Spirit of dissenting care" disrupts the capitalist logic of disposability, efficiency, and endless growth. It empowers an "ethics of dwelling," where salvation is found not in an exclusively human escape from the polluted world that leaves more-than-human entities behind, but in the difficult, faithful labor of maintaining life and planting gardens within the ruins. To live in the Spirit of compost is to weave the world's wounds into a living whole, affirming that God is actively dismantling the boundaries of disposability and persuading us to enter into a new, responsible kinship with the very things we sought to discard.

This theology offers what might be called an "open apocalypse." Instead of a predetermined end, it views the current ecological crisis as an unveiling (apocalypse) of our entanglements, inviting us to participate in the ongoing creation of the world. There is no absolute "away"; everything returns; everything changes. This perspective nurtures a hope that is not optimistic but resilient—a hope grounded in the generative power of the earth and the Spirit who works in solidarity with the discarded, the suppressed, and all that is deemed fit for elimination.

It is here, in the messy, entangled, and fertile darkness of the compost, that we find the possibility of a new beginning. Theo-garbological ethics invites us to become compostists—co-laborers who, alongside fungi, bacteria, insects, and worms, work to transform the toxic legacies of the Anthropocene into a future where life can flourish anew.

B. PRACTICAL PROPOSALS: TRANSFORMATIVE PRAXIS IN THE WASTEOCENE

1. Toward a Theo-Garbological Praxis: Implications and Future Directions

Through this study, I have presented academic and practical proposals to respond to the crisis of the Anthropocene, or more specifically, the Wasteocene, by mapping a new approach I call theo-garbology. I have argued that waste is not merely physical debris but a multidimensional phenomenon in which the demarcation of power, political exclusion, and theological nihilism converge. In particular, I have critically examined how the doctrine of *creatio ex nihilo* and an escapist eschatology together reinforce the logic of disposability in modern capitalism, both degrading the earth into a transient and disposable entity and relegating specific regions and beings into sacrifice zones and sacrificeable entities. Furthermore, I have sought to move beyond this dematerialized escapism, redefining waste as an active material apocalyptic agent and proposing the concept of the composting Spirit who stays with the wasted lives in order to bring forth new life.

As I conclude this study, it is imperative to go beyond theoretical deconstruction toward concrete praxis by shifting theologically from *ex nihilo* to *ex profundis* and

embracing the spirituality of compost. This shift is essential to reshaping our engagement with the academy, the Church, and the public sphere.

The primary academic contribution of this dissertation lies in expanding the horizons of ecological theology by synthesizing waste studies with political theology and process theology. Such a synthesis establishes theo-garbology not merely as a niche sub-field, but as a critical lens for re-evaluating traditional dogmas of creation and eschatology. First, by integrating waste studies with eco-process theology, I have challenged the theological tendency to treat matter as a passive recipient of form. Instead, by conceptualizing waste as vibrant matter and a spectral presence that haunts our socio-political structures, I have demonstrated that theology must grapple with the remainders of civilization. Through this demonstration, I expand the eco-hermeneutical reach of Catherine Keller's *creatio ex profundis* and *tehomophilia*, applying these concepts to the material reality of waste and offering a transformative theological perspective for the Wasteocene.

Moreover, grounded in my direct and indirect experiences, I have presented South Korean cases to demonstrate how *ex nihilic* logic legitimates political exceptionalism. In this dissertation, I have also offered a counter-narrative: divine power is not a unilateral force that makes problems vanishing into nothingness, but a relational power that abides with and lures all beings to bring forth new potentialities for life out of the seemingly chaotic, dangerous, and uncertain deep.

This theological turn makes the following specific academic contributions. First, by acknowledging the spectrality of waste or matter, it deconstructs a progressive view of

history based on linear time. Instead, waste is redefined not as mere relic of the past, but as an active actant that haunts the present and renders the future precarious. Second, by analyzing the mechanism of abjection, this study establishes a theological foundation for solidarity with those marginalized as "waste." Crucially, it refuses to replicate the human/animal divide, extending this solidarity to encompass both human victims—such as residents of sacrifice zones, waste-handling laborers, and climate refugees—and the nonhuman animals whose bodies and habitats are equally discarded by industrial capitalism.

Based on the theo-garbological critique of the Wasteocene, I have proposed three fundamental shifts that intertwine epistemological conversion with ethical responsibility. These shifts move theology away from the logic of *ex nihilo* —characterized by domination and erasure—toward a praxis of *ex profundis.*

2. From the Epistemology of Purification to the Ethics of Composting

Traditional theology has often operated on an epistemology of purification, seeking to extract eternal, immutable truths by separating them from the decaying, material world. This mirrors the logic of waste management that seeks to isolate "clean" consumerism from its "dirty" residues. A theo-garbological approach, however, adopts a compostist epistemology. It recognizes that truth does not emerge from nothingness, but arises from the messy, chaotic, and uncertain process of entangled entities.

Therefore, the theo-garbological task is not to get rid of waste, but to stay with the trouble of the world and thereby nurture new forms of life—a commitment that demands an ethics of staying-with-waste and becoming-compost. This theological and compostist

transformation moves beyond the illusion of individual purity, calling us to acknowledge our own porosity and vulnerability. Within the context of churches and their ministries, this transition necessitates the following two practices:

First, Facing the Uncomfortable: We must question how the comfort and abundance we enjoy daily are maintained through the concealment of waste. Even amidst the ongoing climate crisis, this concealment masks the structural reality that the asymmetric consumption of fossil fuels—which has widened the gap between the Global North and the Global South—has long institutionalized environmental injustice. Further compounding this situation, we are entering a precarious new phase: alongside the recent surge in AI usage, energy demand is exploding. To meet this demand, the trend of denuclearization is being reversed, with actual investment and institutional support for increasing nuclear power generation rising once again.[546] This trend presupposes a blind optimism about technology and human rationality. Theo-garbological ethics must reject this belief and maintain a critical attitude toward prevailing social consensuses that normalize the sacrifice of specific groups, beings, and regions.

Second, Decentering: The theological criteria for the divine, holiness, and wholeness cannot be confined to pristine landscapes, church sanctuaries, ideologies of

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[546] International Energy Agency (IEA), *Electricity 2025: Analysis and forecast to 2027* (Paris: IEA, 2025), 10, 15, 145, 192. According to the International Energy Agency (IEA), the rapid expansion of artificial intelligence (AI) and data centers is a primary driver of the global surge in electricity demand. To secure the massive amounts of stable power required, nuclear energy is making a strong comeback in policy circles worldwide. Countries including the United States, Korea, European nations, and the Middle East are accelerating their return to nuclear power by restarting retired plants and investing in new reactors and small modular reactors (SMRs). For recent media coverage of this development, see Chris O'Brien, "Nuclear Power's AI-Driven Renaissance: From Taboo to Essential," *The French Tech Journal*, June 23, 2025, https://www.frenchtechjournal.com/nuclear-powers-ai-driven-renaissance-from-taboo-to-essential/; Anne T. Griffin, "Big Tech Bets On Nuclear Power For AI Strategy Edge," *Forbes*, January 26, 2026, https://www.forbes.com/sites/annegriffin/2026/01/26/big-tech-bets-on-nuclear-power-for-ai-strategy-edge/

cleanliness, or narratives of economic growth. The divine is not confined to spaces of order, cleanliness, and perfection, and neither is it absent from the abandoned, the forgotten, and the silenced—from the beings and regions cast out by the logic of disposability. A theo-garbological perspective insists that holiness spreads across the full terrain of creation, and that it is precisely in attending to what has been discarded that we may recover a fuller, more honest vision of the sacred.

3. From the Politics of Unseeing to the Witness of Hauntology

The logic of *ex nihilo* is rooted in the conviction that chaos and disorder must be conquered and eliminated. Within this framework, waste is treated as a chaotic remainder that must be suppressed, resulting in a politics of unseeing. This epistemological violence allows us to ignore the consequences of technocratic capitalism. Theo-garbology counters this with what we may call hauntological realism—a concept I established in Chapter 1 through Derrida's hauntology. This realism insists that the reality of the Wasteocene is not merely what is visible and present, but includes the spectral agency of waste that haunts the margins of our political and theological consciousness. In other words, it also asserts that nothing is ever truly gone. Waste possesses agency; it returns as a spectral presence—radioactive isotopes, microplastics, and the memories of displaced communities—that haunts our present. Recognizing these ghosts compels us toward an ethics of spectral presence. For the ministry of the church field, the following practices are required:

Christianity in the Wasteocene must move beyond a passive perspective that views nature merely as a stage for salvation, a setting for systemic evil, or a site of chaos awaiting apocalyptic destruction. It must also surpass the limits of a merely formal and

doctrinal stewardship ethic. Instead, it should pursue and practice a liturgy of mourning for the sacrifice zones and a political commitment to rendering the invisible visible. Furthermore, as I have suggested throughout this study, such a theology must actively cultivate kinship with the abject. By embracing marginalized beings, and by transforming what has been rejected as "waste" into a profound "matter of care," Christianity can embody an ethics of solidarity in a damaged world.

Furthermore, this theological praxis must go beyond abstract theological reflection to engage concretely with the material realities of environmental degradation. To truly stand with the marginalized, theo-garbological ethics demands an empirical grounding: it must actively incorporate scientific data and the localized knowledge generated by field engagement. In doing so, it interprets the accelerating destruction of ecosystems—often concealed behind the rhetoric of progress—as a form of ongoing ecological apocalypse. Just as citizen science disrupts expert-monopolized knowledge systems and empowers local residents to measure and record their own environments to reveal the truth, theo-garbological ethics must read quantitative data and information about things considered waste, such as charts and graphs of contamination levels, not merely as secular statistics, but as urgent theological and apocalyptic testimony. Such

apocalyptic testimony compels concrete action and resistance.[547] Through this empirically grounded praxis, the pastoral field and the devastated landscapes of sacrifice zones become inseparable sites of redemptive action.

C. EPILOGUE: FUTURE HORIZONS AND ACADEMIC TASKS

Ecotheology encompasses a wide and dynamic terrain that far exceeds abstract stewardship, actively engaging material environmental injustices and the unequal conditions of life. Drawing on this broader contextual turn in ecotheology, this dissertation has aimed to move mainstream Korean ecotheology beyond theoretical abstraction by grounding it in the specific material conditions of the ecological crisis. This indicates that ecological theology needs to expand beyond speculative discourse to connect deeply with various material realities, such as energy, water, soil, atmosphere,

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[547] Citizen science refers to the active engagement of the general public—non-professional scientists—in the research process, such as data collection and analysis, and the formulation of policy recommendations. Before this term was standardized, such activities were variously described as "community science," "civic science," "online citizen science," or "crowd science." While citizen science generally expands the scope of scientific research by mobilizing public participation, its deeper significance lies in the democratization of knowledge. It challenges the notion that science is the exclusive domain of professionals, advocating for the integration of local, "lay," or traditional knowledge systems. Since 2000, discourse in science and technology studies (STS) has moved beyond treating citizen science as a mere adjunct to professional expertise. Instead, it increasingly frames citizen science as a tool for epistemic justice and political resistance. For instance, Aya H. Kimura, a professor of sociology and director of the University of Hawaii Center on Sustainability, demonstrates how citizens practice "epistemic resistance" through data to testify to the truth against the state's "politics of unseeing," whereby government authorities systematically denied health risks from radioactive contamination, dismissing citizens' concerns as irrational fear and suppressing data that contradicted official narratives. Similarly, Gwen Ottinger, an STS scholar focused on the intersection of environmental justice and technological expertise, analyzes how citizens subvert environmental data monopolies held by corporations and the state by using self-made monitoring devices, thereby achieving epistemic justice. For further reading on this subject, see Aya H. Kimura, *Radiation Brain Moms and Citizen Scientists: The Gender Politics of Food Contamination after Fukushima* (Durham: Duke University Press, 2016); and Gwen Ottinger, *Refining Expertise: How Responsible Engineers Subvert Environmental Justice Challenges* (New York: New York University Press, 2013).

and further into environmental health and policy.[548] The current lack of sustainability in ecological initiatives, which often take the form of ephemeral programs or superficial one-off events, stems precisely from the absence of such material depth. When this kind of interdisciplinary engagement is cultivated, the reconstruction of ecological liturgy and Christian ecological education can proceed with greater sustainability and more profound impact.

While this study opens a door to the transformative potential of theo-garbology, the encounter between waste studies and theology, along with a new understanding of matter, demands a comprehensive revision of our theological accounts of God, humanity, and the rest of creation. Theo-garbology, therefore, calls for a rigorous reimagining of traditional dogmatics, specifically within the realms of the doctrine of God, anthropology, and soteriology. As a total systematic reconstruction lies beyond the scope of these pages, I can only suggest the directions of such a task here.

First, regarding the Doctrine of God, theo-garbology envisions God as immanently engaged and participating in the process of birthing life from filth and chaos—from among the abandoned and oppressed. In this sense, God is not the absolute sovereign who creates out of nothing and conquers chaos to establish order, but rather a Holy Composter, whose image resonates deeply with the eco-theological metaphor of God as the Holy Gardener. Drawing on O'neil Van Horn's terrestrial theopoetics, this

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[548] A growing number of ecotheologians and environmental ethicists have already paved the way for this material and policy-oriented turn. For foundational work connecting ecotheology with environmental justice, energy, water, and public health, see Cynthia Moe-Lobeda, *Resisting Structural Evil: Love as Ecological-Economic Vocation* (Minneapolis: Fortress Press, 2013); Keller, *Political Theology of the Earth*; Jenkins, *Ecologies of Grace*; Zenner, *Just Water*; and Norman Wirzba, *This Sacred Life: Humanity's Place in a Wounded World* (Cambridge: Cambridge University Press, 2021).

divine composting is not an abstract intervention but an active, messy process of (de)composition that remains intimately entangled with the concrete earth-ground.[549] This image of the Holy Composter invites a new understanding of holiness, moving beyond a "theology of suffering" toward a "theology of the discarded."

Second, in theological anthropology, the traditional paradigm of stewardship often presupposes a hierarchical dualism between the human manager and nature as an object of governance. Theo-garbology, however, recognizes humans as porous beings who constantly exchange matter with the environment, revealing that we are constitutively entangled with human-made waste, various toxic substances, and even with socio-political contexts. In the era of the Wasteocene, as we acknowledge that our very bodies are permeated by microplastics, chemicals, and radioactive isotopes, what does the *imago Dei* signify through the lens of a theological anthropology of "staying with the waste"?

Theo-garbology is not a set of ethical guidelines for practices such as recycling or zero-waste movements. Rather, it seeks to deconstruct our theological reflection *on* waste and propose a new possibility of theological reflection *through* waste. That which we define as waste never truly vanishes; it returns as a haunting presence. Yet, these ghosts appear not to destroy us, but to reveal to us who we are, what we have wrought, and how we might find reconnection. While modernity fueled by technological optimism remains indifferent to these spectral beings—attempting to exorcise them or make them oblivious —the Holy Spirit, as the Spirit of compost, urges us to recognize their presence and

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[549] Van Horn, *On the Ground*, 18–20, 110. Van Horn conceptualizes "(de)composition" not merely as decay, but as a dynamic matrix where organic life is rendered possible by and composed of decomposition. This provides a robust eco-theological grounding for the image of God as the Holy Composter.

respond with responsibility. The Spirit groans even now over malodorous landfills, atop the burial mounds of culled livestock, and beside the silent vaults of nuclear waste, co-suffering with the victims of slow violence. In the age of the Anthropocene or the Wasteocene, theology must resist the distant gaze toward a celestial heaven. Instead, it must labor to midwife life from within the very groans of those beings deemed "waste."

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