



Logostalgia: Eschatology and the Sixth Extinction

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What would it mean to give a theological account of mass extinction events? Taking into consideration new developments in extinction studies alongside the Greek tradition's vocabulary for the created order, this article argues that an eschatology centered on the excessive Logoi of creaturely existence can allow anthropogenic mass extinction to register as a call for contemplative acknowledgment. The eschatology builds critically on the deep incarnation thesis of Niels Henrik Gregersen and the work of Christopher Southgate, arguing for an anthropocentrism that participates in the excessive redemptive work of the incarnate Logos.



Do extinctions register theologically? I use that verb intentionally, meaning something analogous to the way a Geiger counter logs tremors in the Earth. Our theologies can “pick up” human death, wrapping it into the narrative of the resurrection. Further, in most ecologically informed theology, “there is little doubt that the message of salvation extends to the whole of creation, including other animals” (Conradie 2018, 756). In making that declaration, have theologians sufficiently made note of, and accounted for, the reality of the mass disappearances of entire plant and animal kinds—named and unnamed—from Earth’s history?

Species loss has in our time accelerated maddeningly, to approximately 1,000 times what paleobiologists refer to as the normal “background rate” of around 0.1 species per million per year (de Vos et al. 2015, 452–62): hence the judgment that a mass extinction is underway. This one follows the previous five major spikes in the background rate since the Cambrian explosion of life on the planet 540 million years ago, all of which are visible in the fossil record. Further, because this spike is being brought on by anthropic causes, some suggest that we have now passed beyond the Holocene and are living through the Anthropocene epoch.

Some, though not all, of the animal and plant kinds lost to the Anthropocene have names. The Pinta Island tortoise (*Chelonoidis niger abingdonii*) for instance bears a name, and not just as a subspecies: its last surviving member (d. 2012) roamed his Galapagos isle under the moniker “Lonesome George.” George had human friends, articles written about him, even his own Wikipedia page (Stewart 2012). He was in this respect a rare exception as the velocity of extinctions spirals. For every George, there are a million or more kinds that go unnamed, or even acknowledged, and are visible only to mathematical analysis (Rocha-Ortega et al. 2021, 718–28). In the words of activist and food justice researcher Raj Patel, “we’re losing species we have never heard of, those we’ve yet to put a name to” (Marshall 2017).

The question of “undescribed” loss focuses the theological crisis in a particularly acute way. A principal role of humans in the Edenic myth is naming the animals. Can animal and plant species with no names appear in our theological contemplations in any meaningful way? If the last American Chestnut had fallen in the primeval forest before anyone was there to notice, could it have left a trace in our doctrinal discourse? If an animal disappears from paradise before Adam gives it a name, does it belong within the Jewish and Christian narratives?

More pointedly, what if it is Adam himself who cuts down the unnamed tree or sprays for the unacknowledged pollinator? Here, at least, we have the vocabulary of sin to frame human involvement.

Asking about how such events register in our theological language is a way of asking how Christian discourse might take account of, and give account for, massive loss in the world within, among, and around us. The first century

Christians' intense wrestling with the news of Jesus's resurrection gave way to a new accounting for the universal experience of dying, and then also to the experience of being trapped in scarcity, sin, and suffering. I propose it is now time to wrestle out an account of the ways that same gospel touches our dawning awareness that we live after, alongside, and before unfathomable loss. That is to say that the language tradition that accrues to the Christian community, exegeting the Christian scriptures as a fabric of life and meaning, needs a way to hold both the named and unnamed losses of the Anthropocene, related to but distinct from the way it holds the losses that precede it. In what follows, I briefly sketch new developments in the science of extinction. I then take note of two current ecotheologies that I suggest are partially helpful in noting how such losses are logged theologically before offering my own contribution of an eschatological way forward.

What Is Extinction?

Our growing cognizance of mass extinctions—only in the last fifty years has there been a general scientific consensus that they occur—is creating new language, redefining old language, and even launching a new discipline. “Extinction studies,” birthed from a collection of essays by environmental scientists and philosophers centered in Australia, is now a journal that gathers biological and cultural interventions into the crisis (Rose et al. 2017).

The term “extinction” may conjure images of a solitary dodo or Lonesome George, surrounded (in George's case at least) by teams of conservationists admitting to failure in a last-ditch attempt at captive breeding. Without diminishing this important final-stage work, the new field of extinction studies recognizes that the losses that precede and accompany “the last dodo” are in many ways the greater losses. In India, for instance, the population of native vultures (*Gyps indicus*) is in extreme decline. The vultures, adapted over countless generations to consume rotting human and nonhuman flesh and even the bacteria that causes anthrax, are succumbing to newer veterinary medications administered to the cattle upon whose carcasses they feed. This “functional extinction” is causing a radical transformation of the ecosystems of India, especially around the poorest villages. Anthrax is now at risk of increase. Wild rabid dogs and rats, taking over for the diminishing birds, are now consuming carcasses and increasing in number. Human scavengers, who survive by collecting clean bones for fertilizer, are risking their health in new ways as they wander riverbanks in search of sources of income (van Dooren 2014, 45ff.). Regardless of whether some vultures stay alive in zoos or even in the wild, extinction is an event already making a serious impact on the region.

The ecological impact of the vulture's endangerment demonstrates a second data point of the new extinction studies. Biologists are now paying attention to system extinction as a predecessor and pressurizer of species extinction. To take

a separate ecosystem as an example: as salt marsh meadows on the East Coast of the United States diminish, various species of birds, pollinators, and rodents find their numbers in decline. Even if none of these species is in sufficient crisis globally to register as endangered or under threat, the cross-sectional decline across the various groupings, with its correlating imprint on insects, fish, beach grasses, and human economies, registers as an indicator of irreparable loss at an ecological level (Jenkins 2024, 33ff.). Extinction then is not only a headline-grabbing moment about the end of a particular kind but a narrative about the crisis that hits an ecosystem when its coevolutionary inhabitants can no longer play the roles they evolved to play.

Finally, redirecting attention from the last dodo to the niche a species inhabits in a system allows us to ask difficult and challenging questions about human conservation goals. Thom van Dooren (2014, 87ff.), a leading philosopher in this newly developing branch of research, notes that intensive human intervention in the breeding and migratory trajectories of whooping cranes—humans in white costumes posing as mother birds when the chicks hatch, or leading a migration via gliders toward nesting grounds—is helping to carry on the species, but in so doing is also generating new ethical questions. The birds, for instance, are showing signs of lower-than-normal social connection with other birds, a situation that diminishes their ability to acquire basic life skills. As we save this particular species, we risk losing sight of what particular cranes are: not simply members of a certain animal class but part of “an intergenerational process of becoming . . . ‘participants’ in an ongoing and evolving way of life” (van Dooren 2014, 27). One could even say that a micro-extinction has already taken place when central aspects of that intergenerational process have ceased and must be rebooted technologically. Calling the species-defined process “flight ways,” van Dooren (2014, 38) suggests that extinction is not just loss of a kind but “of a potentially limitless set of emergent and branching flight ways from the present into the diversity of the future.”

The theological task, in this case, becomes more difficult than affirming a Christological embrace of individual lost kinds. Extinction moves through eschatology once we acknowledge the loss of the “limitless set of emergent and branching flight ways” (Johnson 2015, 251) left behind by Lonesome George and his ilk. It moves through hamartiology too once we acknowledge the human role in the losses. It intersects creation and the doctrine of God, notably under the inflection of theodicy (why would God make a world that manifests so much loss?), especially as we admit that even before the sixth mass extinction there were five others, and unreckonable losses in between, for which no human can be blamed.

So how can theology take an honest account of the current crisis?

Deep Incarnation

One influential engagement with the broader question of nonhuman death comes under the name “deep incarnation.” Niels Henrik Gregersen, the term’s coiner, argues that since the gospel’s central theme is the embrace of cosmic materiality by the son of God, our Christology must now expand to embrace all the sufferings and losses that lie beyond and before *homo sapiens*. When God takes on flesh, God enters “into the very tissue of biological existence, and system of nature” (Gregersen 2001, 205). This is not to suggest a naive pantheism or panentheism, as if the incarnate God is another name for the divinity that moves in all creation. Rather, the suffering Christ is the enfleshed God who bears the story of all suffering: “[T]he point of deep incarnation is that the incarnate One is present in all creation as the co-sufferer with all flesh, and as the redeemer of all flesh, even in states of disintegration, violence, and mental despair” (Gregersen 2013, 253). The kenotic journey of the son into flesh takes him not only into human flesh but into the fabric of the cosmos as a whole, including even the fleshly beings and groups who have been lost to history.

Christ’s humanity is still significant in this account, but now not in an exclusively anthropocentric way. God became incarnate as a human because, “as far as we can tell, only human beings can be mindful of the universe at large, including stars, and oceanic depths, the wildlife of eagles and leopards, and the tamed life of sheep and roses. Moreover, only human beings are capable of cultivating an ethical concern, which in a systematic manner reaches out to fellow creatures beyond ones own group and species” (Gregersen 2015, 226). As the human Jesus, then, God became a creature with capacity to connect to a world both intellectually and ethically, and so could perform in and through his life the very thing his biological existence instantiated: God entering the “system of nature.” Beyond this, his humanity was fitting, as a Thomist might put it, because of an analogous relationship between the human and divine ways of knowing: “Finally, only human beings evidence a self-reflective relation to God as the source of all that is. In this sense, it is possible to speak of a special resonance between the divine Logos and the scope of human rationality and sensitivity when it is fully and properly exercised” (Gregersen 2015, 226). The humanity of the incarnate Logos, then, is the appropriate vehicle for cosmic salvation for three reasons: as human, Christ can become mindful of the world; he can, further, empathize with kinds radically different from himself, creating parables for the kingdom out of seeds and ranch animals; finally, as human, his flourishing intellect is equipped to resonate with the infinite mind of God, thus forming of the incarnate one a true icon of the divine.

This would seem to be the opportunity for Gregersen to extrapolate out from Christ’s humanity to our participatory role, for instance in offering a “ministry

of reconciliation” (2 Corinthians 5:18 NRSV) for humans, uniquely equipped as we are to know and empathize with the creatures and kinds of the cosmos. He does not, however, offer any significant soteriological role to human agency, and his formulation of Christ’s work clarifies why: “Salvation means being embraced by God’s self-embodying Logos/Wisdom who is interweaved with the complex material-spiritual world of creation for the sake of its transformation” (Gregersen 2015, 368). Gregersen is concerned about shifting soteriology from a “too anthropocentric view” to a “cosmic perspective” (Gregersen 2024, 258; Johnson 2015, 258), and so the question of why God became human drifts backstage, with preference to Gregersen’s central concern of showing why God became a material inhabitant of the cosmos.

This non-anthropocentric perspective diminishes the impact of his attention to the resonance of Christ’s humanity with the divine Logos, leaving it only half integrated into this Christology. So, the human Christ can know the mustard seed and the leaven, and can even note the shepherd’s anxiety for his lost sheep as an analogue for the Father’s search for sinful souls; but these observations are somewhat trivial, as the heart of the saving work is in God’s entering into the system of nature. Human activity, even the activity of naming the creatures, does not cause any ripples in the soteriological pond. The voice of the saving verb is, for us, passive: salvation is a matter of “being embraced.”

The loss of either described or undescribed creatures, all of which are no longer available for our contemplation or empathy, then does not ultimately matter for deep incarnation. So long as they can be embraced by the Logos, our search for them, care for them, or even awareness of them is soteriologically insignificant.

Other theologians, working with Gregersen’s thesis or in parallel tracks to it, have extended this line of thinking about the work of Christ as cosmically significant. Elizabeth Johnson (2015a, 2015b) has emphasized that a deep incarnation implies a deep resurrection. If Christ’s descent takes him into the world’s flesh, the overcoming of death at Easter really becomes the proclamation of life for all existence. Hannah Malcolm (2023, 15), working with the idea of biological mutualism, the study of the symbiosis and coevolutionary relationships that take place within organisms and throughout ecosystems, suggests that the ascension of Christ implies “the ascended (and eschatological) microbiome.” If our humanity cannot be isolated from the network of organisms within and around us, then God’s taking on of human flesh, including the resurrection and ascension, must include that entire network. To paraphrase Gregory of Nazianus’s famous formula, the biome is present in both what is “assumed” and in what is “healed.”

These arguments have much to offer new theological considerations of extinction. Deep incarnation interprets anew the classical notion of apocatastasis, the ultimate and universal embrace of the cosmos by God.

Gregersen and others have challenged the world of Christian thought to consider how the human Christ draws not just the human but also nonhuman cosmos into this fellowship.

Ultimately, though, Gregersen does so in a way that leaves the grief of extinctions, and especially the freneticism of mass extinction, outside the scope of theological significance.¹ This demonstrates the limits of a soteriology that deemphasizes human participation. Because the center of deep incarnation is cosmic rather than anthropic, human efforts to save species and systems, to speculate on the flight ways the disappeared might have taken, or to take responsibility for our own role in their losses do not register as theologically significant, even if a theologian commends ethical action of this sort. God—in the assumption of flesh, death, resurrection, and ascension—saves the dodo, the cloud forest, and the undescribed masses who have exited the Earth. Theologically speaking, there is nothing more that can be said.

Creation's Groan

In some ways, Christopher Southgate's arguments for the significance of the cross of Christ for the "groaning of creation" pick up where Gregersen's stop. Like the latter, Southgate (2018, 16) takes "the Cross of Christ to be the epitome of this divine compassion, the moment of God's taking ultimate responsibility for the pain of creation, and—with the Resurrection—to inaugurate the transformation of creation." Beyond this, though, he advocates "a very high doctrine of humanity" (Southgate 2018, 16), even a nonexclusive anthropocentrism that manifests in just the sort of contemplative human activity Gregersen gestures toward in Christ but cannot quite account for theologically.

Contemplation, Southgate argues, involves a proper vision of creation. A poet himself, he appeals to Gerard Manley Hopkins's language of *inscape* and *instress* to develop an ecologically aware account of contemplation. *Inscap*e involves acknowledging the kind that has evolved—with its "trends, regularities, patterns"—but also the individual with its inimitable "thisness."² The *instress* is the way *inscape* relates to a network beyond its individuality, and in particular to one who observes it.³ Right contemplation is a matter of receptivity to others, and so of acknowledging the networks within which both contemplator and the contemplated exist. Lucifer's fall, Hopkins says, is centrally a matter of "instressing his own *inscape*" (Southgate 2008, 100).

One way of characterizing the Anthropocene, using this vocabulary, is to say that "humans have frequently failed to instress their environment in a way that enabled them to understand the need to preserve that environment's ability to sustain them" (Southgate 2008, 98–99). In putting it this way, Southgate notes that poor receptivity of the terrestrial relationships to which we belong misconstrues not only our ecologies but also our anthropology. Like Lucifer, a

human who in stresses only her own inscape has lost track of the creature she herself is called to become.

At this point, however, an odd note emerges in Southgate's rich account of contemplative ecotheology. The creature's inscape, he insists, includes its entire emergence as a kind, including the competitive impulses that have caused deaths and even, on a grander scale, extinction events. Every kind that exists in the world today exists on the backs of the countless (98% of all earthly kinds, Southgate notes) species they—and we—have left behind on the tree of life. The inscapes must incorporate what Southgate (2002, 813) admits is “natural evil,” since he operates from the principle that “giving God all the credit and none of the blame is precarious theology” (Southgate 2002, 813). He even suggests that the Greek fathers' term “Logos” could be a synonym for “inscape.” In this way, the “inner structure and pattern” that emerges from the divine Word itself incorporates the red-in-tooth-and-claw narrative of its biological journey (Southgate 2008, 112; Johnson 2015, 190ff., 227).

Classical Latin and Greek theology operates from a privative account of evil, natural or otherwise. In that view, for instance, an invasive apex predator that manages to drive a less powerful predator to or even beyond the brink of extinction is certainly bearing witness to various words—structures, patterns—according to which God called it into being, but not bearing witness in and through this violence itself. Without even considering the complex question of sin in the nonhuman world (Dean-Drummond 2021), we can observe that beauty, truth, and goodness can exist in diminished forms and over against their own contrastive backgrounds. For Maximus the Confessor, for instance, the Logoi of creation are the eternal inflections of the Logos itself, which generates all of creation, both universals and particulars (Maximus, 2014a, 75ff.; Loudovikos 2010, 58; Wood 2022). Accordingly, he can read the parables of the kingdom as naming first of all a creature's ontological relation to God—as kind and as individual organism—and then as a degree of remove from the Logoi themselves, treating the effect of sin on that relation. So, we are sheep prior to and despite wandering off, silver coins before we are lost, and inheritors despite our exile in the far country (Maximus 2014b, 44–45).

With this distinction between form and fallenness, Maximus gives us a way of acknowledging the competitive struggle for life in the world without reducing the world to that agon. The inscape/Logos of a vine involves growth, extension, reliance on external support, and generating seeds for more life; in an environment characterized by as much or more scarcity than abundance, this vine lives in part by strangling and consuming other plant life. Further, we can even allow the cooperative non-Darwinian drivers of evolution to register theologically as residue of unfallen inscape.⁴ The Maximian question for Southgate: Why is it precarious theology to insist that the one in whom “there is no darkness at all” (1 John 1:5) is imaged only in a thing's systemic exchange

of gifts, not in its privative behavior in “the far country”? Natural evil leaves no mark on God.

Further, if humans are in fact creatures within these systems, how could Southgate’s metaphysics avoid undergirding an anthropology in which our Luciferian impulses toward neighbor and ecosystem were not also integral ingredients in our divine calling? In that case, igniting a sixth mass extinction would constitute a faithful expression of our inheritance as *imago Dei*.

Southgate is aware of the conundrum. His recent work develops a theology of glory that seeks to make space within the divine being for the darkness as well as the light (Creegan 2018, 812–13). Everything that exists is a sign of God: not that a “tsunami could be called a glorious event, but it contains elements of divine glory.” This is the case because “God is odd” (Southgate 2014, 802), and God’s glory is beyond all fathoming. But while appeals to mystery and paradox are never inapt in theology, reifying such appeals as explanations of theodicy moves quickly toward the problematic voluntarism of the late Middle Ages. The tsunami, or the disappearance of 98% of living kinds, seems to be evidence of a divine *potentia ordinata* that gives us no discernible experience of God’s eternal goodness and charity.

At this point, an even more salient oddity in Southgate’s theology emerges. Paradoxically, our involvement with the species in danger of extinction now requires working to save them from their own competitive impulses, even as we see these impulses as integral to the glory of God within them. While acknowledging the difficulty of speculation on the details, Southgate insists that proper theological attention to human participation in the eschatological glory of God’s creation would involve inserting ourselves as barriers to the destructive patterns of living things. “Wise humans, living simply but ingeniously, might *end the pattern of mass extinction*” (Southgate 2002, 819–20). While Southgate (2008, 126–27) admits that humans cannot, on their own, “protect every species infinitely,” he sees the abolition of the pattern of extinction as our divine vocation. He even suggests that, faced with the threat of a new ice age, our best recourse would be “to pump as much greenhouse gas into the atmosphere as possible” in order to keep the planet warm (Southgate 2008, 110).

This radical proposal comes out of Southgate’s anthropocentric eschatology. “God draws the evolutionary process on in search of goals such as freely choosing beings” (Southgate 2002, 816), he argues, incorporating here elements of a Whiteheadian metaphysic. Thus drawn, evolving life generates humans as those whose freedom gives them a role in “the eventual redemption of the world” (Southgate 2002, 816). So even if the violent beauty of the species is a manifestation of the Logos/doxa/inscape, our presence on Earth as co-redeemers calls us to reshape these inscapes, mitigating the more drastic effects of their evolved capacities for destruction.

Why the change? How is it that Southgate defends the notion that natural evil is an aspect of divine glory and yet also asserts that our calling is to end the reign of these patterns in creation? The answer has to do with the way he conceives of history. If the key moment in life's evolution is the arrival of deliberative beings with freedom of will, then once we humans have arrived, a new phase emerges. "I regard this as the eschatological phase of history, in which humans should be looking to their own liberation and to the relief of creation's groaning" (Southgate 2008, 126).⁵ Evolution, then, ushers in a penultimate phase of creation: those aspects of inscapes that earlier manifested divine glory now need to be abolished in anticipation of the peaceable kingdom.

There are several theological problems with this construction. For one, a creeping Marcionism emerges as a notion that the God of redemption works against the God of creation. If our role is to acknowledge the mystery of the latter, and yet undo that mystery by participating in the salvific work of the former, untempered doxa begins to look like a sinister and untrustworthy force.

Beyond this overarching theological aporia, there are also ethical problems with Southgate's proposal. As Eva van Urk-Coster (2023, 172–99) notes, the eschaton is not all that reliable as a guide to practical interventions in the biosphere.⁶ Does a mandate to end extinction require us to dress in whooping crane suits so that we can teach new chicks necessary life skills, regardless the costs? In such cases, are we preserving the divinely given Logos of the crane, or are we diminishing it? Further, how might we make decisions between species who are in competition within a common ecosystem? Most (all?) native species were once invasive, after all.

What, also, are we to say to those species only visible via mathematical modeling? Even if we manage to give some paragraphs in our eschatology to the cranes and Lonesome George—to "pelican heaven," in Southgate's whimsical yet serious proposal (Southgate 2008, 46ff.; McDaniel 1989)—we have failed to allow the undescribed kinds to leave a theological mark. Assuming for the moment that our work with the cranes is ethically justifiable, it is still hardly statistically significant in terms of the broader realities of unseen losses. Those who love the majesty of the birds and who feel their loss enough to travel miles to see the nesting couples will celebrate their survival. Will anyone similarly in stress and celebrate the survival of a nondescript prairie grass, a microorganism, or an unnamed species of gnat? How might we act as co-redeemers—Southgate's (2008, 16) term—of the staggering number of species already lost?

Finally, to raise a dark and difficult possibility inexcusably deep into this article: it may simply be too late. The current increase of carbon molecules in the oceans has brought the Earth to or near an "excitation threshold" similar to that of the prior extinction events, meaning that the climate crisis may now be a self-perpetuating event (Rothman 2019, 14813–22). What is the theological vocation of humans if no amount of intervention will stop the current

anthropogenic extinction, or even allow us to participate in God's redemptive work in more than symbolic but practically negligible ways?

A Logos-Oriented Eschatology

My proposal for a theological registering of extinction (reconfigured, in line with the burgeoning field, as specific and systemic, acute, and dynamic) builds on both the deep incarnation thesis of Gregersen and the anthropocentric bent of Southgate's constructions. I agree with both that it is ultimately the kenosis and theosis of the Godhuman, through the cross, resurrection, and ascension, that revise the ending of lost kinds as well as lost individuals, whether human or not. I further agree—with Southgate, and with an initial if undeveloped aspect of Gregersen's Christology—that humans fulfill a particular priestly role within this cosmos, contemplating the kinds and thus sharing in the redeeming work.

However, a futurist eschaton focuses this participatory work in ways that are not entirely justifiable. That is, if our contemplation of a new creation is limited to an extrapolation of a future out of the possibilities of the present, we will fail to imagine possibilities that exceed the present, and may lock our vision on ethically questionable projects (the cranes) that seem, from our limited perspectives, eschatologically sound.

If the eschaton is not primarily an imminent future we share in via technological intervention, what is it? I propose, first, that we conceive of the eschaton as the excess of Logos or inscape we contemplate as we consider the various creatures and systems of our world. That is, rather than what a thing might someday be, I suggest that an eschatological vision of *Gyps indicus*, say, involves naming the embodied ways it appears to me, even as I acknowledge the excess beyond what I can know. Such contemplation, in line with Maximus's reading of the parables, constitutes an eschatological phenomenology, or a Logos-oriented eschatology.

In his later speculations on perception, phenomenologist Maurice Merleau-Ponty notes that one can name a thing only by naming what it is to them, as their embodied presence interacts with it. This interaction forms “a pact between them and me according to which I lend them my body in order that they inscribe upon it and give me their resemblance” (Merleau-Ponty 1968, 146; Milbank 2001, 485–507; Toadvine 2024, 153–99). The descriptions one gives a thing—which it has inscribed on them—will always be partial, as one grows in awareness of an excess to what one can see and experience. This excessive essence functions, I suggest, as an eschatological remainder. As Maximus puts it, the Logos “manifested and multiplied” in all things, proportionate to their limited existence, is also “beyond any created thing” (quoted in Loudovikos 2010, 59). The point is not, as Southgate implies, that the darkly violent God of creation exceeds the preservationist and nonviolent God of redemption as an absolute power exceeding God's ordained power; rather, the excesses live

within creation itself, as Logoi that bear witness to a telos that will always lie beyond both temporal manifestation and human comprehension.

In fact, the more I contemplate a living thing, the more I see that my language must attempt to describe not only the way it appears to me but also how it appears among what Merleau-Ponty (1968, 125) calls “lateral relationships, the kinships that are implicated in their transfers and exchanges.” In this, he anticipates extinction studies, with its emphasis on niche evolution and mutualism. I cannot actually follow the flight of the vulture and so name its essence unless I also see the lives and systems that emerge around and through the scavenger. *Gyps indicus* is part of a “multi-species knot of ethical time,” as Deborah Bird Rose (2012, 127–40) puts it, containing all these lateral connectors, and I can observe and name it because I am now also loosely incorporated into this knot.

This may be an unfamiliar way to conceive of eschatology, a discipline generally ordered toward future realizations of present hope. But such orientations, as I have shown, fall short in their ability to contemplate the excess of the Logos/in scape. Elizabeth Johnson (2015, 255), for instance, rightly suggests that extinction represents a crisis in our ability to know and love God: “If the diversity of creatures is meant to show forth the goodness of God which cannot be well represented by one creature alone, as Aquinas saw, then extinction of species is rapidly erasing testimony to divine goodness in the world now and for the foreseeable future.” Her account of this divine testimony, however, runs into the same doctrinal aporia that compromise Southgate’s vision, since she sees fallenness as a consequence of human sin that can only affect historically consequent events. The five extinctions that preceded the anthropogenic one must be part of the divinely ordained creative process. God, it seems, is responsible for natural evil after all.

Johnson (2015, 188) diverges from Southgate though, suggesting that this process is not one with which we should tamper: “[W]hat humans are morally obligated to do for other species does not enter into a theological assessment of” non-anthropogenic cosmic suffering. We are back then to an eschatology like Gregersen’s (2015, 191): all one can do is “affirm the compassionate presence of God in the midst of the shocking enormity of pain and death.”

By contrast, a Logos-oriented eschatology takes its cues not from a future, whether biologically engineered or agnostically hoped for, but rather from Christology. When Colossians (1:17 NRSV) says that Christ “himself is before all things, and in him all things hold together,” the author suggests that in him all of creation holds its integrity—its universal in scape—not just eventually, say at a second coming, but all along. When Jesus tells the Samaritan woman that the hour of true and spiritual worship “is coming and is now here” (John 4:23 NRSV), he suggests that his presence makes available the mysterious truth at the heart of all reality.

Indeed, the eschatology of Maximus and the conciliar tradition that preceded and succeeded him was a matter of taking such texts seriously, in light especially of the perceived disappointment of a delayed parousia. If the promise of a peaceable kingdom seems only unfulfilled, perhaps Christ's followers had not yet taken seriously his insistence that in the Incarnation it "is now here." Gregory of Nyssa's confidence that the Nicene faith opens a contemplative path to the unfallen creation should be seen as an eschatological vision of this sort. Rather than a needle wavering between an already and a not yet, the already is the ontologically real, "in spirit and in truth," and the not yet names our limited existential and epistemic access to it.

We cannot see the full vulture or salt marsh that is, only the analogue embodied in a world both limited and fallen.⁷ When I contemplate them, I encounter the systemically situated beings that write themselves on my flesh but also the excessive essence of all they have been and ever will or could be. There, beyond my vision, I "see" in them the kinds that they have encountered, incorporated, cooperated with, or replaced. I see the fragile potential for their own evolving, even their disappearance. I am contemplating the past of the vulture's flight way that saw it join the dinosaurs who took wing and so survived the Triassic mass extinction and its later history as it outcompeted scavengers with more delicate constitutions. I am also encountering the possible and even lost futures in which it branches a thousand different ways into species and subspecies newly suited to a changing globe.

Beyond future-oriented eschatologies, then, my proposed Logos-oriented eschatology insists on an excess to any species that appears, so that I have falsely named its ontological inscape if I assume, reductively, that its appearance to me is the full expression of the Logos within it. There is always more to a living thing and its kind than I can experience.

Much of this excess may in fact be visible to the trained eye. I can learn to see the Pleistocene's American cheetah (*Miracinonyx*) in the speed of the still extant pronghorn, even if that speed turns out to have played a role in the cheetah's extinction (Donlan et al. 2006, 662). Lonesome George and his ilk have left their mark on Pinta Island's flora and fauna, and so the landscape remembers him in ways perceptive biologists can observe. Even in extinction studies' statistical modeling, our only witness to the undescribed species lost to time, I can see an eschatological excess. Pinta Island, after all, is shaped not only by giant tortoises but by the microorganisms around and within George, by countless insects, by mountains of fossilized beings never given names. The dead and disappeared leave ghostly gifts the living can sometimes still discern.

Logostalgia

We have strayed some distance from the current anthropogenic crisis, giving attention to the divine Logos that reveals itself in the excess of all limit and all

loss. Gregersen suggests that the current massive loss registers as sin and a trust that all this will be saved by God. Southgate insists that we must take a hand in undoing the damage, even of planetary forces beyond our agency. How can a Logos-oriented eschatology register the sixth mass extinction?

One way is by means of a practice I have already mentioned on several occasions, and now turn to in conclusion: acknowledgment. We owe to all creatures, minimally, a debt of noting and orienting ourselves to their mysterious, God-given existence. Seemingly a cold comfort, this theological teaching holds potential for a radical renewal of ecological ethics.

Currently, the little penguins of Australia are under threat, largely due to their inflexible adaptation of *philopatRIA*—deep loyalty to their birthplace—and our equally inflexible need to construct communities, swimming pools, and sea walls in their nesting grounds (van Dooren 2014, 64ff). If I have evolved with a unique capacity, as Gregersen notes, for cross-species empathy, I can only be fully human as I wonder—and likely laugh—at the stubborn creatures. As they inscribe themselves upon me, they ask me to acknowledge the ways in which an affluent subgroup of my species is threatening their existence. Or, in Maximus’s language: the Logoi that converge as my humanity call for a valuation of the Logoi that converge in the penguin. Wonder and laughter will not have far to travel before they become community organizing and resistance to the deregulation of housing construction.

This is not to say that acknowledgment will always result in conservationist intervention. The costs and benefits of cattle medication versus vulture survival in India, and over whooping crane preservation in the United States, are important and high-level debates in which few specialists—and certainly I am not among them—can fully participate. Further, there are a host of questions about the loss of memory—environmental amnesia—this practice does not address. If I do not see or recall a loss species or landscape, I cannot acknowledge it (Khan and Weiss 2017, 7–24).⁸

Still, a true theological contemplation of the places in which our bodies move across the Earth will manifest an affection for systems and species, revealing this in protests against the more egregious and unregulated human behaviors (careless use of pesticides, unregulated mining and burning of fossil fuels, hyper production of factory-farmed meat, devaluation of protected habitats). Contemplation, *theoria*, is, after all, a word for attentive love, a love that waits for the divine (*theos*) to appear to the human gaze.

Australian philosopher Glen Albrecht (2019) suggests, as part of his growing glossary of climate crisis neologisms, the term “solastalgia” as a window to one aspect of climate grief. If nostalgia is, by denotation if no longer by connotation, a term for the painful experience of being away from home, solastalgia is a way of describing the pain experienced when the comforts of home no longer comfort. When our homes have themselves become the subject of radical

change and loss—lost landscapes, tree lines, waterways, vistas, and human and nonhuman inhabitants of a region—we return to them to find we are homesick for a world no longer available to us.

This grief, properly attended to, is itself an acknowledgment that participates in Christ's redemptive work. Hannah Malcolm (2020, 592ff.) notes the way that naming our own grief allows us to see the grief of other creatures, so becoming a catalyst for transformative behavior. Grief over the loss of ecosystems can lead to liturgical laments—a funeral for a glacier, for instance—that in turn transform our sense of what we owe the lives around us (Sideris 2020, 173–79). The shape of the participatory work will require communal discernment and wisdom from voices in the biological and conservationist communities, among others. This work will involve us in redemption even if our discerned role has no other object than to acknowledge the loss as well as our responsibility in it (and indeed, all contemporary extinctions bear some anthropogenic markers) (Keck et al. 2025, 395–400).⁹ Mary weeps for the Jesus who wept for Lazarus: lament grants a true, if mysterious, human agency in the Easter gospel.

We can name this grief work *Logostalgia*. Only those who rely on the vultures or who love the salt water marsh or the nesting grounds of the Australian coast can grieve the Christ who revealed himself in an unrepeatable way in them. As Johnson notes, to lose a species or system is to lose an utterly unique enfleshed modality of divine self-testimony. These testimonies, though, these Logoi, only manifest themselves to us through a glass darkly (1 Corinthians 13:12 NRSV). When the last dodo dies, or a local life-system grows strained and scarce, the eschaton holds, as it has always held, the divine language these creatures embody. As the theorists of ambiguous loss might put it: Lonesome George is not lost; he is just lost to us.

Further, returning to Professor Patel's outcry regarding the current annihilation of unnamed species, we are in position now to register this particular sin of the Anthropocene. An undescribed species is a divine revelation that humans simply have missed. Whether current or ancient, we can only acknowledge such kinds vaguely through mathematical modeling. Like a funeral with no mourners, an unnamed lost species is a brilliant manifestation of divine meaningfulness that none of us will ever understand or love. To fail to hear the Logos spoken in the Logoi is, at one level, a simple reality of our creaturely limit. We cannot be present to contemplate the divine testimony in all organisms and species. To act willfully and unrepentantly, though, with the awareness that our actions erase such divine language, is to compromise our very calling as creature-naming creatures. We fall beyond the range of our human calling when we refuse the care of naming to the kinds we destroy. The way of sin, Maximus (1985, 58) tells us, begins in carelessness.

We can contemplate these nameless disappearances only with an eschatological vision, not of the reachable future but of the excess of the present. In the

living systems around us we can acknowledge a gray background of lost flight paths. What deaths allowed this thing to live? What kinds were lost when today's native plants first invaded the landscape? What world was lost at the end of the Permian Period, when volcanic activity wiped out as much as 80 percent of marine species and 70 percent of terrestrial vertebrates? What unknown worlds are we losing now to unchecked human consumption? We can contemplate the missing Logoi like we honor unnamed soldiers and victims of genocide buried in mass graves; also in the way we confess unknown sins. We contemplate what it is to be the only beings with the capacity to acknowledge the series of mass extinctions that preceded us by hundreds of millions of years, even as we continue to acknowledge the one we are currently causing.

Citing Catholic phenomenologist Jean-Louis Chrétien, Malcolm (2020, 589) says we thrive only when our human *poesis* “turns the world from ‘a scattered vocabulary’ into ‘a poem.’” This is one way to construe the theological calling of inhabitants of the Anthropocene: ours is to make contemplative poetry from the broken and lost Logoi of God's world. That poetry might look like environmental intervention; it might also look like a liturgy or an actual poem eulogizing a creature or an ecosystem that has gone the way of the dodo. Either way, the work of acknowledging its inscape will involve us in the deeply theological work of grieving.

In the end, the sixth mass extinction can register in our theology through an eschatological vision of those Logoi that express themselves, however distantly, in the losses of our epoch: lost kinds, lost habitats, lost traits, lost flight ways. As we acknowledge our roles—known and unknown—in these losses, we contemplate countless testimonies of divine language that will never again materialize in the bodies and systems of created life.

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Notes

- ¹ This is also the case for Johnson, though not for Malcolm. I return to both later.
- ² Here, Southgate (2008, 97) translates the controversial term *haecvitas*, which Hopkins takes from Duns Scotus.
- ³ See also David Clough (2012, 76), who argues on similar grounds that zoology is a theological discipline.
- ⁴ Simon Conway Morris has spent much of his illustrious career demonstrating the array of evolutionary processes (Morris, Hoyal Cuthill, and Gerber 2015). Sarah Coakley's unpublished 2012 Gifford Lectures investigate the theological implications of noncompetitive evolution.
- ⁵ I have not been able to determine whether this eschatological phase is, for Southgate, primarily triggered by the cross and resurrection or by the evolution of humans. While Pauline logic points to the former, Southgate's own system, as I understand it, indicates the latter.
- ⁶ Urk-Coster's critique of Southgate's eschatology is persuasive until she rejects participatory knowledge and agency in divine action. In this, in fact, she reflects Southgate's voluntarism, discussed earlier.
- ⁷ Both limited and fallen are important qualifiers: as Thomas Aquinas notes, even apart from sinfulness, creatures are limited, so that their proper discernment as divine ideas requires analogical contemplation.
- ⁸ I am grateful to a reviewer for suggesting this field as one in need of further study. See Peter H. Kahn, Jr. and Thea Weiss (2017).
- ⁹ Not to say that humans have directly caused all extinctions of this epoch. The globalized habitation of a single apex predator, though, has certainly touched all ecosystems.

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