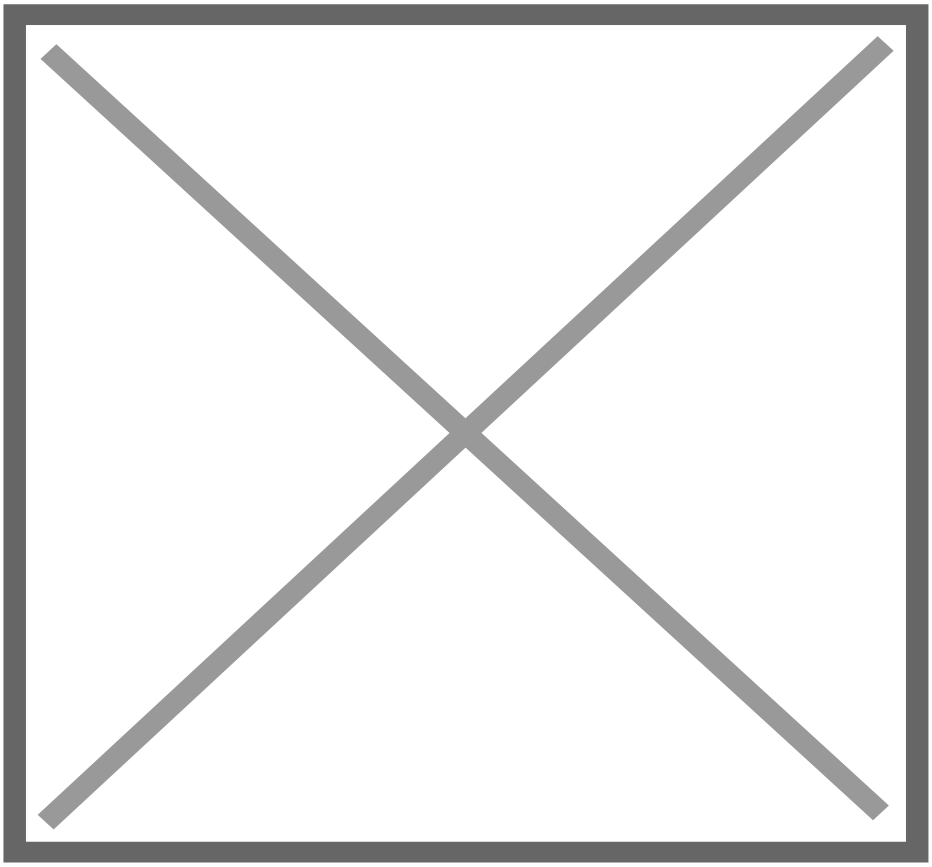
The purpose of dinosaurs: Extinction and the goodness of God

by Bethany Sollereder in the October 2, 2013 issue



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I recently took a friend's three-year-old son to the Natural History Museum in London. We stood together in awe in the hall of dinosaurs, wondering at the beauty, strength and majesty of the long-departed creatures. I questioned how a good God could let such magnificent creatures as the iguanodon or the allosaurus simply fade from the earth.

My question could extend well beyond dinosaurs: about 99 percent of all species that have ever lived are now extinct. Though increasingly extinction is now the result of humans' impact on the environment, extinction has always been an intrinsic part of the evolutionary process.

If God is both the author and lover of creation, why would God use a process to develop complex beings that necessitates species extinction?

This question has been addressed theologically in two main ways. One route is taken by teleological anthropocentrists, for whom all species, including those which have become extinct, find their fulfillment only in relation to the development of humankind.

Michael Corey, for example, concludes *Evolution and the Problem of Natural Evil*:

> Now we are in a position to understand why an omnipotent Deity would have opted to create the universe in a gradual, evolutionary manner, instead of instantaneously by divine fiat. He presumably did so in order to facilitate the human growth process as much as possible; but in order to do this He seems to have been compelled to implement the same evolutionary processes in the natural world that appear to be an essential part of the Human Definition.

By this logic, every death and every extinction is significant only insofar as it is the means to an anthropic or human end. Only humans really matter to God.

At the opposite pole from Corey are thinkers for whom evolution is entirely a chance process, with no teleological end involved. God, in this view, is essentially tied to chance. For example, Wesley J. Wildman, whom we might call a "ground of being" theologian, says that a plan for creation's fulfillment or care for the creatures is simply not a characteristic of the divine being. Nothing really matters to God.

Both of these approaches present difficulties for Christians as they think about extinction. The first approach devalues all nonhuman creatures by insisting that they are simply means to an end. The second ascribes little or no value to any particular state of creation.

Is it possible, however, to see creatures long gone as valuable in their own right, as ends in themselves, while not giving up the sense that they are part of a larger providential reality? In her thought-provoking book *God and the Web of Creation*, theologian Ruth Page refuses to see the deaths of various species as merely a means in the process of creating human beings. Page argues that the life of each creature, and the existence of each species, is an end in itself.

> Teleology is always now! It is with creatures as they live, rather than persuading them further up the evolutionary ladder. Indeed there is no ladder, a metaphor which gives comfort to human beings at the top. Instead, there is only diversity with different skills and lives. . . . [Therefore] creatures who die in the recurrent ice ages, or who are caught in the lava from volcanoes, have their importance to God, and their relation with God during their lives.

Page discards the idea of an evolutionary ladder and contends that the relationship that God has with each individual creature gives the creature's life meaning regardless of whether it serves the process of evolutionary development.

In fact, the very notion of "greater evolutionary development" would be suspect to her. The value of any given life is found in God's companioning of a creature, God's coexperience of life and God's remembering of that life.

This is a foreign concept in a society that idolizes accomplishment. What worth, what meaning, we ask, does a life have that does not survive? What is the meaning of a species that turns out to be an evolutionary dead-end, whose descendants do not have a place among contemporary flora or fauna?

For Page, value is found simply in the act of participation in life. "Fellowship, concurrence or relationship among creatures and between creatures and God is the greatest good of creation. The possibility of such relationships is what creation is about."

In the creative space of possibility instituted by God in creation, each creature and each species brings glory to God in whatever form it takes. In light of this claim, Page concludes that "neither continuing background extinction, nor the devastation of species in cataclysms, tells against God's companionship and possibilities of influence in the world." God's goodness and love are not called into question by extinction since the worth of the

creatures that die is not reliant upon some future good; God was not using their deaths for some larger picture. From Page's perspective, a world of dinosaurs, or of bacteria, is just as worthwhile to God as the world we currently see, because value is found in being.

As useful as this account is, I don't think Page tells the whole story. To value creatures for themselves is a good and necessary correction of the anthropocentric approach that has long dominated reflections on the natural world. But it does not necessarily diminish the value of the individual to say that the individual has an impact that is bigger than itself. After all, the world has had a particular history. The chronological march of time gives the world direction, and past events are causally linked to the flourishing and diversification of biological novelty today.

Page is right to avoid instrumentalist language in discussing the value of a creature or of an extinct species. We can build on Page's position by saying that in retrospect, the impact of past lives on today's world changes our interpretation of their lives. The subsequent history can add a dimension of either glory or tragedy to the meaning of past lives without limiting their value to a merely instrumental role.

The most well-known major extinction of creatures is that of the dinosaurs some 65 million years ago. At the end of the Cretaceous period, a meteorite hit the Yucatán Peninsula, causing widespread climate change and environmental disruption. Dinosaurs could not survive the changes and were wiped out. Without competition from the dinosaurs, mammals—until that time minor players in earth's history—suddenly flourished in the new environment. The diversification of mammals eventually ended up in the emergence of Homo sapiens—and that development, we might add, led to the incarnation of God in the person of Jesus Christ.

So how do we interpret the mass extinction of dinosaurs? Certainly we want to acknowledge that their extinction was a tragedy. The loss of a unique way of being in the world is a true loss, just as the loss of an individual is a true loss. We can acknowledge with Page that God companioned and valued dinosaurs' lives for what they were and was fully satisfied with their lives as they were. Teleology now! But I think we must also have a sense of "Teleology then."

The position I will outline involves the belief that God does not control all of creation in every respect. Furthermore, God does not know the whole of the future. God rarely has fixed specific outcomes in mind. God changes desired outcomes based on creaturely interaction and the "givenness" of the past. God always acts in perfect love and wisdom and will continually and creatively work to bring about good, even if the path to the good is circuitous due to the freedom exercised by creatures.

This account of God is generally termed "open theism." From the open theist perspective, one can say that God is constantly companioning each being in the here and now. God cannot be simply using the present as a means to a foreordained end because God does not know which ends will actually occur. God knows only the possibilities of the future.

At the same time, creatures have important and lasting effects on future creatures. The world looks as it does today precisely because creatures in the past lived and died, fought and reproduced, flourished and were made extinct. Their lives and their narratives are linked to ours today.

The full meaning and impact of species long since extinct are, in fact, still in development. Our stories continue their stories. This adds a providential twist: in the choices that are made today, the possibilities which God foresaw in the life of a now extinct *Tyrannosaurus rex* are either realized or closed. The possibilities that help make the extinction of a species more or less meaningful in retrospect are realized only in the future.

God is constantly working toward giving the greatest amount of meaning to the events that have occurred. God is constantly redeeming the lives of the past by luring creation toward ends that will lead to the greater glory of the individuals of the species now extinct.

An analogy is found at the end of Hebrews 11. After describing the long line of heroes of the faith, the writer says, “Yet all these, though they were commended for their faith, did not receive what was promised, since God had provided something better so that they would not, without us, be made perfect.” The passage continues directly into the paraenesis, the instructions about how to live, starting with “Therefore, since we are surrounded by such a great cloud of witnesses, let us . . .”

The saints of the Hebrew Bible recounted in chapter 11 lived and died long before, but the author of Hebrews feels that the current righteous action of believers enriches their legacy. Although they are long since dead, part of the promise of their lives is realized in the present. Conversely, there is a possibility of fulfillment that will not be realized if their descendants choose not to “lay aside every weight and the sin that so easily entangles.”

In a similar way, consider the role of Abraham. Abraham’s life is enriched by the later reality of Christ—but that doesn’t mean Abraham was just the means to a Christocentric end. He was a man who had an important part to play in the ongoing story of God’s relationship with the world. Abraham’s obedience as well as his numerous disobediences are wrapped into the narrative of salvation, and his life is given a greater glory, a greater meaning, because of the events that followed.

This view can be extended to all living creatures. All living creatures are companioned by God and loved and valued on their own terms. Yet each life also lives within a divine promise that the legacy of their life will be for the good. It is possible to see the ongoing history of evolution, comprising as it does ever increased complexity and interrelations, as the way that the promise of the past is being fulfilled.

The extinction of the dinosaurs is a tragedy, and yet the flourishing of mammals contributes to the meaning of the dinosaurs’ extinction. Thomas Merton, in another context, summarizes what I’m trying to say: “But the grace of Christ is constantly working miracles to turn useless suffering into something fruitful after all.”

Perhaps one of the ways we might see redemption of this kind is to consider that the wonder of human architecture, or the transcendence of music, or the capacity of human love is actually bound up with the meaning of the extinction of past creatures we never knew. Our stories serve their stories and vice versa. By merit of the dinosaurs’ extinction, we are here, and our retrospective vision allows us to interpret their deaths as having been meaningful in a way that an imagined human observer at that time could not have foreseen. Other equally meaningful and fruitful possibilities of redemption along the road of time no doubt were not explored in order that our road might be. God is always working toward redemption, though the specific realization of redemption is flexible.

Is this at all plausible? Is it really possible to have a God who is at every moment working toward the good of each existing individual while also working toward the good of the legacy left by every creature of the past? In her book *Wandering in Darkness*, Eleonore Stump explores stories of suffering and redemption. Drawing on the book of Job, she suggests that stories of similar redemptive shape are nested within each other in such a way as to become what she calls fractal.

A fractal is a type of self-similar and infinitely complex pattern in which the smallest unit resembles the shape of the whole. So, for example, the raven’s story in the divine speeches is part of Job’s story, which in turn is part of Satan’s story. And in each story exists God’s personal relationship with that particular creature as God works in their life toward their own specific good.

“Within each of the nested stories the creature whose story it is is an end in himself,” explains Stump, “even if in some other story he is also a means to an end for some other creature.” God allows these individual narratives to “work upward” in complexity and scope until the greater story, like the smaller story, is a picture of God working toward the good in a systemic sense.

Seen from this perspective, the individual and the system are not set against each other competitively, as is so often the case in reasoning about animal suffering or extinction. Page’s “Teleology now!” stance ensures that we never see extinction as only a means to an end. At the same time, a view of ongoing, ever-building fractal narratives means that we never relinquish an extinction event to the rubbish heap of history either.

Another way to envision fractal narratives is to think of a photograph that is a complex mosaic of smaller photographs. The shade, light and texture of each individual photograph are arranged to create a larger image.

This kind of photo mosaic is different from a tapestry, because in a tapestry each thread is not a valuable and unique whole in itself. A thread becomes something worthwhile only when it is a part of the finished tapestry. A thread may easily be replaced by any other thread.

In a photo mosaic, however, each photograph that acts as a pixel is in fact a complete image in itself—apart from its involvement in the larger image. But the individual photograph is also a necessary component of the larger picture. The uniqueness of each photograph is, in fact, precisely what makes it a component of the larger image, and its unrepeatable blend of color and shade means that it uniquely fits in that space, better than any other available picture.

The levels of the photo mosaic are not limited to just two, either. As we look at a smaller picture, it could itself be made up of a mosaic of still smaller pictures, each a whole in itself. There is no limit to how small or large the scale may go, and no limit to the complexity of the arrangement.

Even this analogy is too static. Each picture remains what it is without change. Reality and relationships, however, are dynamic. So instead of imagining photographs that merge together to form a great photograph, we should imagine little videos so artfully arranged that together they create a larger, more dynamic video.

This is the type of picture we must have in mind as we imagine God’s weaving of the world’s narrative. To the complexity of this picture we must add that each video, both the small and large, are not carefully acted and scripted pieces, but dynamic real-time scenes, full of improvisations. The end of each individual video, as well as the end of the large-scale video, is not yet determined in detail, and all of the actors have the freedom to determine their own response to divine direction in their own capacity.

God winds the texture and reality of each of these into the larger-scale video, which is influenced (but not determined) by each pixel of its makeup. God interacts at each level of the mosaic, luring, directing and arranging to bring about God’s purposes at every level.

Thus God’s providential action is twofold: each individual creature and species is an end in itself, existing for the glory and delight of God in that moment; and the disparate story lines of all beings that exist or have existed are wound into the epic tale of earth’s history.