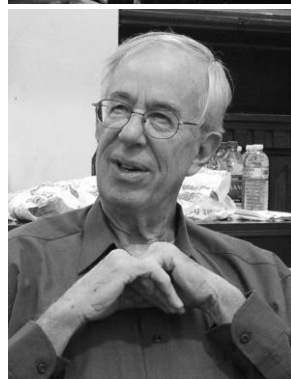
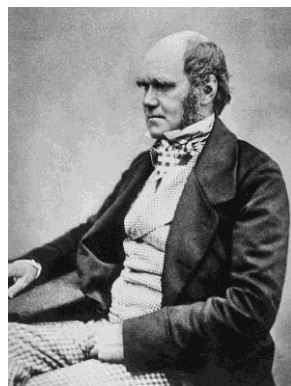


EVOLUTION: WAITING AND PURPOSE

This is an excerpt from *Making Sense of Evolution: Darwin, God, and the Drama of Life*, by John F. Haught (Louisville, Kentucky: Westminster John Knox Press, 2010), Senior Fellow in Science and Religion at the Georgetown University Woodstock Theological Center, and Professor of Theology Emeritus at Georgetown. In *Making Sense* Haught argues for a focus on evolution as an ongoing drama—a drama within which divinity plays a purposeful and transformative role. In the section below, taken from pages 79-82 of the book, Haught illustrates that there is a directionality, and thus a purpose, self-evidently present in the universe—and therefore that evolution cannot be described as aimless.

If human inquiry looks exclusively to the cosmic past for complete understanding, as scientific analysis typically does, nature and life fall apart into the dust of isolated cells, molecules, and atoms. Analysis alone leaves the world incoherent, scattered about in unconnected bits. Scientific reduction can lead to a clear sense of the world's elementary units, but not to any inkling of its possible coherence. This is why a theology of evolution must insist that if the story of life in the universe possesses an overall purpose, it would not become evident to any present-time or past-time oriented scientific reading. To apprehend evolution's meaning, you would need to turn around and face toward the future. You would have to wait.

To understand what I mean, try out the following exercise. Picture yourself standing on earth about 3.8 billion years ago. This is about the time when the earliest living cells were appearing. As you journey even further back in time from this point in cosmic history, making your way slowly towards the horizon of the early universe, you will see living cells disintegrating into molecules, molecules into atoms, and atoms into sub-atomic elements. You will eventually arrive at a state



Top to bottom—Charles Darwin, Alfred North Whitehead, John F. Haught.

of subatomic dispersal that materialized not long after the Big Bang. Then, after having made your way all the way back to this point, turn around and start moving forward in time toward the present. As you travel in this direction you will need to wait patiently until you see anything remarkable occurring. Eventually, however, you will see atoms forming and then very gradually being integrated into molecules, molecules into cells, cells very slowly fusing with one another into complex organisms, organisms developing backbones and complex nervous systems, brains appearing, and conscious beings eventually populating a planet.

You will notice, in other words, that coherence begins to show up only when you look *from* the fragmented cosmic past *toward* the more complex and unified states of being that emerge in the future.... From the very beginning of the big bang universe, surely, the physical conditions and constants had to have the mathematical values that would allow for eventual complex coherence. The universe is seeded with the promise of emergent coherence from the outset. But a promise requires patience, hope, and trust as we look forward toward its final fulfillment.

What can you learn from this exercise? That if the cosmic process and evolution have a meaning—that is, if they have any overall coherence—you cannot expect to find it here and now by looking only at design, or by breaking complex instances of design down into their elementary components or into past states of atomic, molecular, and cellular units, no matter how interesting such reduction may be. To be in a position to look for evolution's overall coherence, and hence its possible meaning, you need to condition your mind to look from the past toward what is still emerging up ahead, in the future. However, this way of seeing requires that you go beyond science and assume a stance of anticipation, though without in any way contradicting scientific analysis. It may require that you put on the virtue of hope.....

While you are waiting for the future, can you at least catch a glimpse of what might be dawning by looking at what has already happened? In evolution's errant ramblings and serendipitous escapades, is an overall narrative coherence already beginning to take shape? Are

there at least some hints that might arouse a reasonable hope that there may be a final meaning to the drama? In life's gradual emergence, is there some vague evidence, even here and now, of its having at least a loosely directional drift?

To have a meeting, the drama of life must all along have been more than just aimless meandering. Something of importance (or value) must already have shown itself as the drama develops, though perhaps fleetingly and ambiguously. Looking for such importance in the evolution of life is the same as looking for purpose. By "purpose," I mean that something of undeniable value or significance is coming into being. So, to interpret a process as purposeful, we would have to witness that in its overall unfolding something of great significance is already working itself out. In the case of evolution what could that be?

The dimension of drama excavated by Darwin's work provides at least a small part of an answer. Evolution's meaning, we may surmise at least in a vague and general way, somehow consists of its adventurous aim to intensify *beauty* or what Darwin called "grandeur" in the universe. "The teleology [purpose] of the universe," as Whitehead puts it, "is its aim toward beauty."¹ From a Christian perspective, much more is no doubt going on in evolution than this, but at the very least the drama of life, along with the cosmic process as a whole, has had the net effect of leaning toward the intensification of beauty, and this is enough to give it at least a baseline directionality.

During the last century the narrative aspect of nature that had already begun to emerge in the fields of geology and biology was eventually extended so as to embrace the entire universe. Relativity theory, big bang cosmology, and astronomy have now clearly demonstrated that the universe is still a work in progress. With Whitehead, I want to suggest that what is going on in the cosmic story and more recently in life's evolution is an ongoing aim toward the maximization of beauty. The cosmos, at the very least, has been undergoing an aesthetic transformation. The process is not always straightforward, and long periods pass in which nothing terribly dramatic seems to happen. But over the long haul, banality has been supplanted

¹ Alfred North Whitehead, *Adventures of Ideas* (New York: The Free Press, 1967), 265.

by beauty, mere elements by elaborate elegance. In its adventurous struggle toward what Darwin rightly calls grandeur, nature turns out to be something profoundly purposeful.

Purpose means the actualization of something good, important, or valuable, and beauty may be the most sublime of all values. Beauty, in its Whitehead-ian definition, means the harmony of contrast or, better, the ordering of novelty. Since “purpose” can be defined as the actualization of value, nature’s purpose consists, minimally, of its ageless urge to intensify forms of ordered novelty. If so, then the meaning of our own lives within the larger drama of the universe and evolution may have something to do with our contributing in our own small but unique ways to the intensification of the world’s beauty. The great wisdom traditions may add their own distinct shades of meaning to this mysteriously transformative aesthetic drama that goes by the name “cosmos,” of which the life-story comprises the most interesting set of episodes. However, the various religious traditions may discover beneath all doctrinal differences the silent but persistent cosmic quest for an ultimate beauty—in other words, for “Perfection.”

The actualization of beauty during the Darwinian chapters in the cosmic story gradually takes on the shape of heightening consciousness, self-awareness, freedom, moral sensitivity, aesthetic enjoyment, and the instinct to worship. A process that can bring about beings endowed with these traits is not trivial. Indeed, it is literally mind blowing. So there is no rational basis for arbitrarily asserting that evolution is aimless when in fact it has already accomplished something so wonderful.