

EXPLAINING THE AUDITORY CHEESECAKE

**When you give it a closer look, there is more
to design than complexity.**

For more than a decade, those tuned to the science-faith debate have heard the voice of the movement known as Intelligent Design. This is the new kid on the anti-evolution block, spearheaded by academics from a variety of disciplines, including astronomy, physics, biology, biochemistry, genetics, philosophy, mathematics, and jurisprudence.

Proponents of intelligent design draw upon solid current science to declare that our planet's intricate systems and the wondrous forms of life within it could not have arisen

solely by chance. The required mechanisms, they say, are simply not there in nature. Yet today's mainstream science, with its edifice of Darwinian evolution, has to have mechanisms; and it rests its origins story wholly on purposeless chance events backed by natural selection. Spokespersons for science propose various creative mechanisms in

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nature and tell beguiling “just so” stories. But skeptics declare they are ruled out by recent advances in science and by the laws of probability. And if you rule out chance, you must have intelligence—a designer.

In *Darwin's Black Box*, for example, biochemist Michael Behe has pleaded the principle of “irreducible complexity.” Not only macro structures like the eye, but even the simplest living cells are now known to be unimaginably complex. And these structures contain mutually dependent parts that could not have appeared by any conceivable series of chance molecular events. On a different note, William Dembski has applied rigorous laws of probability to prove (in *Intelligent Design* and *No Free Lunch*) that random chance could not birth the “specified complexity” that we see in nature, like the massive and highly specific coding in DNA. Both of these writers have articulated robust arguments that rest upon the observed data, whose essential character is a vast complexity.

But there is more to design than complexity, and it is time to advance beyond an analysis of complexity, fruitful though that has been. The scope of design arguments should be expanded to include the existence of beauty, which points to design of a different kind. And this expansion of focus provides some provocative consequences.

Design arguments found their classic formulation in 1802, when William Paley, archdeacon of Carlisle, published his book *Natural Theology*. Paley did not originate this argument, but his book defined its form. It is useful to quote its first words: “In crossing a heath . . . suppose I found a watch upon the ground, and it should be inquired how the watch happened to be in that place. . . . For this reason, and for no other, viz. that, when we come to inspect the watch, we perceive . . . that its several parts are framed and put together for a purpose.”¹

Note that Paley's emphasis was not on complexity but on purpose—on intention. He did dwell significantly on complexity but did not develop an argument from beauty as an additional evidence of purpose and design.

In their current form, intelligent design arguments have been well received by those who come from a traditional monotheism—Judaism, Christianity, or Islam. But in other circles their reception has been mixed at best. Outside North America, intelligent design has been widely ignored, and most mainstream scientists have rejected it. What is intriguing, however, is the hostility to intelligent design from many persons who profess a sturdy religious faith.

Recently a group called “Christians in Science,” an assemblage of a

hundred or more intellectuals, met at a conference in England. The theme of the conferences was “Divine Action in Nature,” which offered plenty of room for lively discussion. One might have expected them to be sympathetic toward the presentation of a God who is engaged in nature, who may sometimes intervene. This is a God to whom they pray, who is accessible, who cares for His world.

But this was not so. These scientists of undoubted faith, who in principle should not have a quarrel with the concept of a designer, nevertheless gave little or no support to intelligent design. Though scientists of faith declare belief in God, it seems they are not happy with Him meddling in their universe. They look for answers in the natural realm where they have always looked: under a microscope, in a test tube, in software code, or wherever they can rely on known predictable laws. But though this habitual naturalism works well in the laboratory or in the kitchen, it has nothing helpful to say about occurrences that transcend known laws. So conferees were wary of intelligent design, which rests much of its case on phenomena that have no natural explanations.

Methodologic naturalism, the over-arching paradigm in the practice of today’s science, is an entrenched worldview with a tenacious grip on the minds and hearts of

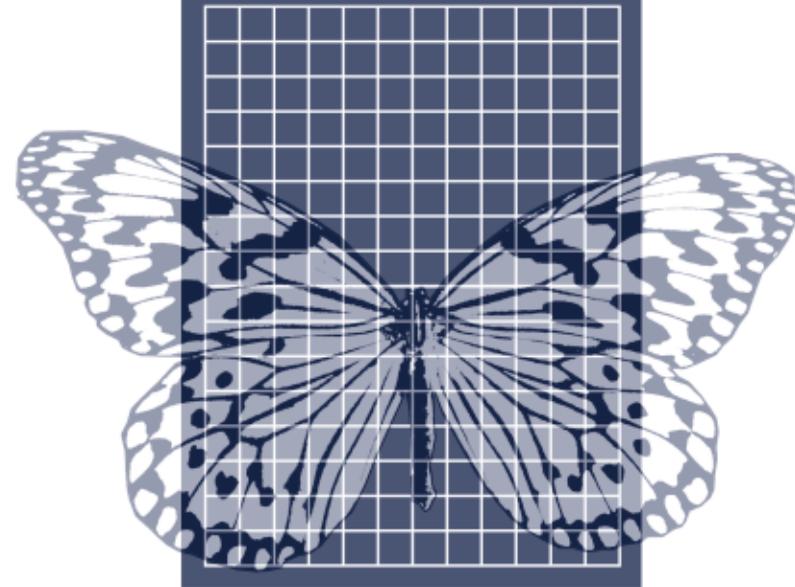
most scientists. This is hardly surprising: Their careers and their writings rest squarely upon it. Yet one wonders what it will take for them to see the inadequacy of the creative mechanisms identifiable in nature, as well as the far-reaching implications of hard-nosed naturalism for the practice of science and education. To be effective, the case for intelligent design needs to be reinforced and extended.

A consideration of beauty may be a step in that direction. One strength of Paley’s pocket watch metaphor was that its truth was so obvious. Even a child could see the need for a watch designer. Much the same can be claimed for beauty. It, too, is self-evident, even to a child. In his book *Climbing Mount Improbable*, Richard Dawkins relates how he asked his own daughter what she thought wildflowers were for. To this she replied: “To make the world pretty, and to help the bees make honey for us,”² which implied they were intended for beauty and for our enjoyment.

Yet even if beauty is self-evident, where does it fit in our discussion of design and purpose? Three requirements are recognized hallmarks of design:

Contingency: the object/event was not obliged to happen by natural law.

Specification: its details are defined by outside/independent criteria.



Complexity: it consists of many interrelated, mutually dependent parts.

Of these three, complexity has already been well explored by Behe, Dembski, and others. Design theorists can argue that, unaided, nature cannot account for the origin of complex biotic structures. They can apply mathematical tools to the specific arrangement of nucleotides in a strand of DNA and show that laws of probability rule out their chance appearance. Furthermore, they can assert that there is no natural information source that can provide the enormous mass of precise coding required to produce living things.

But when they address beauty, the order and the aesthetic virtues we see in nature, a different treatment is needed. Theorists cannot

tease apart its ingredients and subject them to a probability analysis. Beauty is in a different category. It is a distinctive outcome of design, but it is not quantifiable, and you cannot insert it into an equation.

In my early efforts to analyze beauty, I stumbled at first. I was looking for new support for the argument from design, but most paths I explored led nowhere. One morning I found courage to broach the subject in a conversation with John Mark Reynolds, a philosopher at Biola University. My question was straightforward: “This talk of irreducible complexity is fine. But where does beauty come in? To produce beauty by chance in the first place is an unsolved mystery. But its survival is an equally huge obstacle. Beauty in itself is not a factor for survival.

Is a rainbow beautiful to those who are color-blind? Why do we perceive that some colors blend well, while others clash? There is more involved than the wavelengths of light. Why is an orchid in the jungle not merely fragile and marvelous in its delicacy and complexity, but extravagantly so? Why this excess? Why are the tail feathers of a peacock not just bright enough with color to attract a mate, but plain flat-out gorgeous, to an extent far beyond any requirement in the mating season?

There is no reason that a fragile, exquisitely delicate orchid should survive in a harsh jungle environment. If Darwinian natural selection is valid, it should present us today with a biosphere populated by tough, rugged, even ugly surviving-type things. Delicacy and beauty should have vanished long ago.”

Reynolds took my question in stride: “Oh, you’re talking about the argument from aesthetics.” And silence followed. Well, of course I was. He had simply used different wording to restate my enquiry. But to me it sounded like a dismissal. I got the impression this matter of beauty was old hat, thoroughly dealt with already by a galaxy of thinkers. Chastened, I let the matter drop until I could do some library work.

After considerable searching, the truth came out: It is not so! I found that beauty is surprisingly ignored in the classics. It is noted as a phenomenon to be observed and enjoyed but

not in connection with a divine author. I explored in likely places, and I concluded that the analysis of beauty in relation to the existence of God has been neglected or ignored.

The subject deserves more extensive exploration. Here is an aspect of design theory that invites further development. Even without the Greeks and without Aquinas, there is a lot to be said about beauty to help us on our way, to give us a glimpse of where this journey might take us.

First, beauty is widely defined as being solely subjective. Its content may reside in material objects, or in mind, or in experience. But does it exist if it is not perceived? It dwells, we commonly say, in the eye of the beholder. It is a judgment made by an observer. But can beauty exist independent of an observer? If a tree falls in the forest when there is no one to hear, does it make a noise? In philosophy, and also in the Copenhagen version of quantum physics,

observers have a vital role to play. They give reality to what was only an idea. Some would say the same goes for beauty: Its material basis may remain, but there is no reality unless it is perceived. We may be reminded of Berkeley, in an earlier time, who taught that material objects do not exist unless they are observed.

Because beauty cannot be independently objectified and measured, it cannot be inserted into an equation and given the same probability analysis that has been given to complexity. But that does not diminish its force as an argument for design, based either on its unexplained origin or on its problematic survival.

Second, we must recognize several distinctive kinds of beauty, coming to our attention through a variety of pathways. They deserve closer consideration.

Visual beauty is the one that most readily comes to mind. But its subjectivity keeps cropping up. Is a rainbow beautiful to those who are color-blind? Why do we perceive that some colors blend well, while others clash? There is more involved than the wavelengths of light. Why is an orchid in the jungle not merely fragile and marvelous in its delicacy and complexity, but extravagantly so? Why this excess? Why are the tail feathers of a peacock not just bright enough with color to attract a mate, but plain flat-out gorgeous, to an extent far beyond any requirement

in the mating season? And why are you and I endowed with a capacity not only to see these wavelengths of light, but to integrate them and find delight in them? It is evident that our response to those feathers gives no survival advantage to us or to the peacock. Naturalism, fitness for survival, cannot explain them.

Auditory beauty has a comparable story. It is astonishing that oscillations in the air molecules surrounding us can be so combined as to contain an intricate, sometimes majestic, message. And also that you and I, though oblivious to the laws of physics, find ourselves equipped with an extraordinary mechanism to perceive these oscillations, and, beyond perceiving them, to find them beautiful, or soothing, or jarring, as the case may be.

Again, naturalism gives no explanation. To hear the footsteps of a predator in the jungle may have survival value. But to enjoy the difference between a Rachmaninoff concerto and Chopin’s “Polichinelle” and to find delight in these subtleties gives no survival advantage. Our capacity for enjoying music has, in fact, perplexed naturalists recently. In *Nature*, in March of 2002, researchers asked: What is music for? What is its usefulness? After all, an appreciation of music confers “no glaringly obvious advantage in the Darwinian struggle for survival.” It seems to be, as Steven Pinker of

M.I.T. put it, “auditory cheesecake.”³ Again, the observer’s participation is important. Does a progression of chords have beauty for a deaf man? I think the answer is Yes—if that man is already endowed, from his memory, with the ability to hear those chords in his mind. Beethoven could “hear” his music, and write it out as manuscript, after he became deaf. When I sit at my piano and improvise, I hear in anticipation and enjoy the torrent of sound I am about to make, even before I touch the keys.

Taste and smell provide for us shades of pleasure and subtle delight that are far richer, more delicately modulated, than can be accounted for by any criteria of survival advantage in a world where natural selection is alleged to rule supreme. We may understand the intricate neural sense organs that mediate these modes of sensation. But selection theory cannot account for our pleasure, for example, in the shades of different flavor in a dozen varieties of apple or our favoring one from an array of perfumes.

Touch sensation may not be so obviously an endowment of beauty, but it spoke volumes to the blind Helen Keller. Consider the huge variety of textures and temperatures that our fingers communicate every moment. And it takes little reflection on the rich experience of sexual gratification to be awed by the subtlety and delicacy and tactile ecstasy

that far transcends any reflex-driven mating in lower animal forms.

Further, we must marvel at the beauty seen in the mind and its functions. Ideas can be beautiful. Mathematicians declare that there is beauty in a finely drafted theorem. If they ever find it, the Grand Unified Theory will be a thing of great beauty. A noble beauty in logic and rhetoric, a product of our minds revered by the Greeks, has long been recognized. And words, in the hands of a true artist, can be fashioned into awesomely beautiful poetry.

I remember vividly from years ago the poetry extravaganzas held at the American University of Beirut Alumni Club, when two hundred academics and professionals applauded and wept in response to the recitation of poetry in classical Arabic. My friends explained that the language was far richer, more expressive, more heart-moving than poetry in English—provided, of course, you had a full grasp of the vehicle. Even in English, words can be powerful agents of beauty. Gray’s *Elegy* reminds us that the material ground of beauty may indeed be there, though unperceived:

Full many a gem of purest ray
serene
The dark unfathomed caves of
ocean bear.
Full many a flower is born to
blush unseen,
And waste its sweetness on the

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desert air.

And like other beauties that depend upon a recipient’s perceptual ability, finding delight in poetry is a mysteriously complex process that fulfills none of the criteria for survival fitness. Where did it come from? What is its usefulness in the survival contest?

Leaving the sensory modalities that serve our perception, we turn to a third attribute of beauty: It expands when shared with another perceiver. It is possible, of course, as an individual to enjoy beauty. But if our quest, like Paley’s, is for an ultimate purpose, we can understand beauty most persuasively as a gift that enriches the receiver and also gives pleasure to the giver. When thus shared, it grows in depth and intensity. For me, reflection yields no satisfying way to contemplate beauty other than as a generous gift that, in all of nature, is offered uniquely to humans who have the capacity to perceive and celebrate it. Furthermore, we can discern no

convincing source for beauty in chance events or through natural selection. So at the end of the day, we are left in wonder of a wise and generous Designer, one who shares His own consummate sense of artistry.

In summary, then, beauty is subjective, though it resides in observable realities. It is diverse in its material sources and defies the rules of natural selection. It does not augment an organism’s fitness to survive. It does not have a discernible cause for its existence in the physical cosmos or in living things. It has no power within itself to survive, to exist. It does not help the Selfish Gene, whose sole goal is to achieve efficiency in reproduction. Beauty is a special instance of intelligent design that does not lend itself to analysis by natural laws or by our computers.

So how do we bring beauty into the intelligent design debate? Not easily and not simply, because its subjective nature derives more from childlike intuition than from empir-

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ical evidence.

To argue from beauty requires that those who are committed to intelligent design should be willing to take a further radical step: They must proceed to characterize the designer. If you have design you must have a designer, and a criticism of the intelligent design movement is that it is advocating a thinly disguised form of creationism. Yet in order to preserve a united front, design theorists have resisted being drawn into discussions about the nature of the designer. It has been more useful to view the movement as a large umbrella that shelters a diverse company of thinkers, all of whom reject philosophic naturalism.

Naturalism, the common adversary, remains far from being defeated, but an argument from beauty can be developed as a powerful additional weapon. Not everyone

under the umbrella will be comfortable using it, for it points to a particular *kind* of designer. When you bring this weapon to bear, you narrow the range of attributes you attach to this designer. And each of us will have a different, personal *animus* towards using the argument.

When I regard complexity my tendency is to conceive of an engineer-craftsman kind of God, left-brained (to descend into human categories), with an unthinkable capacity for details of function. His world holds together; its parts work well. But when I consider beauty, I look for an artist God, thoroughly right-brained, a personable, relational God who takes pleasure in the beauty He devises and shares.

Here I speak for myself, as well as for others who are bold enough to confess belief in a Creator. Confronted by both the complexity and the beauty all around me, I am a

believer out of necessity, compelled to bow before a transcendent Being who is personal, who is intelligent beyond imagining and imponderably artistic and generous. In discussing beauty in today's confrontation with entrenched naturalism, a bold creationist who upholds a designer/creator of beauty wins hands down. Though it is outside the laws of a naturalist worldview, his model works.

The model reveals a designer, a Demiurge, a God whom we can glimpse, though indistinctly, because the data we observe in nature require that He exist and that He be active in the cosmos. And His attributes come into clearest focus when we not only consider complexity, which is essential for life, but also see beauty, which is essential for spirit, as His gift to us. He is not only a designer and a fabricator, but also an artist who fashioned the physical vehicles that carry the colors of a rainbow and the sounds of great music. Further, He gave us eyes and ears to perceive them, plus a mind to enjoy these life-enhancing delights. He is an artist who likes company, who wants to share His own pleasure, His joy in the work of His hands.

The words still ring in my ears that I heard most memorably once in Washington, at the opening of the Mormon Temple: "He created us that we might have joy." And though

I treated the words offhandedly then, I am moved today when I consider how much truth they contain.

I am seeking, and science is seeking, a satisfying accounting for many unexplained attributes in the cosmos, in living things around us and within us. But materialist science has come up with only supposed models that do not satisfy me. At too many points naturalism fails. It makes beauty an unexplained anomaly and requires us to place faith in unlikely natural mechanisms that are described in full seriousness, but have scant supporting evidence and are beyond my believing.

It is not an abandonment of intellect, but rather an awed humility that leads me to open my mind to embrace super-naturalism, to acknowledge a Creator. For then I can say: I have a model that works, that does give answers. It is a Judeo-Christian model, mirrored in Islam, that recognizes the Creator God of the Bible. This is a God who, like any true artist, could complete His day's creative activity, look upon His handiwork, and declare that it was good. □

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- ¹ William Paley, *Natural Theology* (1802).
- ² Richard Dawkins, *Climbing Mount Improbable* (New York: W. W. Norton and Co., 1996).
- ³ Steven Pinker, *Nature*, (March 7, 2002), pp. 12-14.