

# The Metaphor of Design

## How Shall We Talk About The Creation?

Presentation Made at the 1999 Biblical Research Institute Science Council Session (BRISCO) in Carlsbad, New Mexico

*By Edwin A. Karlow*

### Resurgence of the Design Metaphor

**D**esign as a mode of scientific explanation fell out of fashion after Darwinian evolution provided what appeared to be a completely naturalistic explanation for the origin of species. Though initially focused on biological entities, the Darwinian mode of thought subsequently permeated physical, social, as well as life sciences, effectively purging design and its attendant references to a designer from all scientific discourse.

Within the past thirty years or so the progress of science has driven many people (including atheistic scientists) to recast their descriptions of what's going on in the universe in terms of design. Christian believers welcome this resurgence of the design metaphor, but must take caution to note that reaffirmation of God as designer is generally not intended. Even among believers the range of meanings attributed to design can be bewildering. Phrases like "divine blueprint," and "engineered existence" at one extreme vie with "gapless economy," and "cosmological anthropic principle" at the other. People are impressed with the evidence for "fine tuning" in the universe, and some believe that living things show "irreducible complexity" that requires "intelligent design," while others affirm that nature has been endowed by the Creator with the capacity to explore all avenues lawfully open to it through the action of random processes.

It was my original intention to catalog the spectrum of meanings or uses the design metaphor currently entails, and to delineate their relative merits. But I've chosen rather to contrast and compare two views of design that I think dog Christian believers the most: the "divine blueprint" meaning of design, and the "process model" of design.<sup>1</sup>

### The Blueprint Model

Design—what comes to mind when you hear that word? A pretty pattern for a dress or a stained glass window; the sleek shape of a new concept car or advanced aircraft; or perhaps a carefully executed engraving, as suggested by 2 Chronicles 2:14:

Huram . . . is trained to work in gold and silver, bronze and iron, stone and wood, and with purple and blue and crimson yarn and fine linen. He is experienced in all kinds of engraving and can execute any design given to him. (NIV)

The Bible also uses design in reference to architectural drawings, as in 2 Chronicles 24:13:

The men in charge of the work were diligent, and the repairs progressed under them. They rebuilt the temple of God according to its original design and reinforced it. (NIV)

The word appears only a few times in Scripture (and just where depends upon the translation), but is also used to indicate cunning intentions, as in Esther 8:3:

Then Esther spoke again to the King; she fell at his feet, weeping and pleading with him to avert the evil design of Haman the Agagite and the plot that he had devised against the Jews. (NRSV)

Ellen White used design rarely, but seems to assume the meanings noted from Scripture.

The artistic skill of human beings produces very beautiful workmanship, things that delight the eye and these things give us something of the idea of the designer. . . .<sup>2</sup>

God designs that the Sabbath shall direct the minds of men to the contemplation of His created works.<sup>3</sup>

Used in these ways the word conjures vivid images of blueprints, drawings, and specifications to be strictly followed. It suggests intention, engineering, and adherence to a plan. Not merely a mechanical obedience to rules, the act of rendering or fulfilling the design can be very personal. Such an idea echoes in the words of Genesis 1:26, 27 and 2:7:

God said, "Now we will make humans, and they will be like us. . . ." So God created humans to be like himself; he made men and women. God gave them his blessing. . . . The Lord God took a handful of soil and made a man. God breathed life into the man, and the man started breathing. (CEV)

Early this century James Weldon Johnson drama-

tized these verses of God's personal involvement in the poem entitled "The Creation."<sup>4</sup>

Then God walked around,  
and God look around  
on all that he had made.  
.....  
and God said: I'm lonely still.

Then God sat down—and  
on the side of a hill where he could think;  
.....  
till he thought: I'll make me a man!

Up from the bed of the river  
God scooped the clay;  
.....  
this great God,  
like a mammy bending over her baby,  
kneeled down in the dust  
.....  
till he shaped it in his own image;

Then into it he blew the breath of life,  
and man became a living soul.  
Amen. Amen.

## The Designer God of William Paley

It was no doubt such an intimate picture of God's involvement that inspired the Rev. William Paley to construct the now well-worn story of finding a watch upon a pathway and inferring a designer from its intricate "contrivance." Such designer stories are the homiletic backbone of contemporary preaching about Creation.

Human life is not an accident; it was a choice by God to make us in his image. . . . We believe that we are the product of a personal, intentional choice by a loving God who wanted us to be here for a relationship with him.<sup>5</sup>

Not only is this earth and our little cocoon made to be for us, but the whole universe, all that is out there, trillions of stars, had to be designed exactly the way it is and all in perfect balance for the earth to be here. God had us on his mind when he made the universe as it is.<sup>6</sup>

Paley justified the existing social, economic, and political arrangements with his view of a benevolent Creator who intended only good for his creation.<sup>7</sup> His emphasis on teleology, or ends and purpose in nature, became repugnant to the society of his day and was rejected with the onset of the industrial revolution in the 1800s.<sup>8</sup> Darwin's theory of evolution by natural selection was eagerly seized by social reformers who sought release from the constraints of the "given order." Not only Paley's God and his argument for God from design in nature, but also the very concept of design as an attribute of nature was discarded from scientific and philosophical discourse for nearly 150 years.

This silence has been broken within the past thirty years by many who declare no belief in God. Paul Davies suggests that "the laws which enable the universe to come into being spontaneously seem themselves to be the product of exceedingly ingenious design."<sup>9</sup> He urges that "these rules [of physics] look as if they are the product of intelligent design. I do not see how that can be denied."<sup>10</sup>

Even Richard Dawkins, whose book *The Blind Watchmaker* caricatures Paley's design argument for the existence of God as "wrong, gloriously and utterly wrong," flatly states that "biology is the study of complicated things that give the appearance of having been designed for a purpose."<sup>11</sup>

The design metaphor is so natural and seems so appropriate for describing the beauty, complexity, and order in nature that, even without intending to, scientists who use the word, but avow an atheistic philosophy, appear to affirm an intelligence behind it all.

## Process and Design

Theologians, too, have given design renewed vigor by broadening its meaning to include process as well as plan.<sup>12</sup>

There seems to be the chance of a revised and revived argument from design, [by] appealing to a cosmic planner who has endowed the world with a potentiality implanted within the delicate balance of the laws of nature themselves. . . . In short, the claim would be that the universe is indeed not "any old world" but the carefully calculated construct of its Creator.<sup>13</sup>

If all were governed by rigid law, a repetitive and uncreative order would prevail; if chance alone rules, no forms, patterns or organizations would persist long enough for them to have any identity or real existence and the universe could never be a cosmos and susceptible to rational inquiry. It is the combination of the two which makes possible an ordered universe capable of developing within itself new modes of existence. The interplay of chance and law is creative.<sup>14</sup>

We recognize in both of these statements tacit acceptance of an evolutionary scenario within the cosmos. Before rejecting the concept of a dynamic, unfolding universe because of its apparent basis in evolutionary thinking, let's notice that just such dynamic involvement is suggested by Scripture. Speaking of Christ, Paul writes in Hebrews 1:2, 3, "He is the one through whom God created the universe. . . . He reflects the brightness of God's glory and is the exact likeness of God's own being, sustaining the universe with his powerful word." (TEV)

Ellen White affirms an ongoing creative activity in the following passage:

The same creative energy that brought the world into existence is still exerted in upholding the universe in continuing the operations of nature. It is not because of inherent power that year by year the Earth continues her motion round the sun and produces her bounties. The word of God controls the elements.<sup>15</sup>

John Polkinghorne asserts the same idea. "Creation is not something that God did, once and for all, a long time in the past. It is something that he has been doing all the time and that he is continuing to do today."<sup>16</sup> Arthur Peacocke agrees: "God's actions as creator is both past and present: it is continuous. Any notion of God as creator must take into account, more than ever before in the history of theology, that God is continuously creating. God is semper creator."<sup>17</sup>

## Process Involves Randomness

At every level, from the atom to the stars, the universe is characterized today by both order and disorder, regularity and randomness, law and novelty, necessity and chance. Laws describe the microscopic behavior of large numbers of atoms in a gas, for instance, but the detailed behavior of any one atom cannot be prescribed. Instead, we must infer its behavior from the statistical average of an ensemble of similar atoms modeled by probability functions appropriate to the situation.

The inherent cloudiness of probability talk gives statistical stories a bad rap. Everyone has heard the calculations that show the enormous odds against random events alone accounting for the assembly of the simplest biochemicals, let alone fashioning a simple one-celled organism. Such is the stuff of fundamentalist blasts against Darwinian evolution we hear touted from the pulpit.

In fact, unbelievers agree. Here is Richard Dawkins:

Since living complexity embodies the very antithesis of chance, if you think that Darwinism is tantamount to chance you'll obviously find it easy to refute Darwinism! One of my tasks will be to destroy this eagerly believed myth that Darwinism is a theory of 'chance'.<sup>18</sup>

We are entirely accustomed to the idea that complex elegance is an indicator of premeditated, crafted design. This is probably the most powerful reason for the belief . . . in some kind of supernatural deity.<sup>19</sup>

We must pause here and note that Dawkins' view of design is synonymous with the blueprint image we described at the opening of this paper: static, rigid, given, unadaptable, and mute. At most he allows the "illusion of design."

Natural selection is the blind watchmaker, blind because it does not see ahead, does not plan consequences, has no purpose in view. Yet the living results of natural selection overwhelmingly impress us with the appearance of design as if by a master watchmaker, impress us with the illusion of design and planning.<sup>20</sup>

He makes us feel like he's on our side, however, when he assures us:

My aim has been in one respect identical to Paley's aim. I do not want the reader to underestimate the prodigious works of nature and the problems we face in explaining them. . . . [Paley's] hypothesis was that living watches were literally designed and built by a master watchmaker. Our modern hypothesis is that the job was done in gradual evolutionary stages by natural selection.<sup>21</sup>

The battle is drawn! Either evolution is true (random mutation with natural selection) or creation is true (intentional planning by a designer God). But I say, "Whoa!" We've let Dawkins capture the moment. It is just this rigid picture of design that Peacocke and Polkinghorne have been trying to replace.

## Is It Chance AND Dance?

Let us try for a moment to hold in one breath both regularity and randomness, both "chance and dance," as C. S. Lewis once stated the matter. Let us try to view

Receive the **free**  
AAF e-mail newsletter!

The quarterly newsletter features:

- AAF news
- SPECTRUM previews
- AAF chapter updates
- The voices of AAF officers and chapter presidents

To subscribe, send your request to  
AAF Executive Secretary, Alita Byrd:  
[albyrd@erols.com](mailto:albyrd@erols.com)

Provided by  
THE ASSOCIATION OF ADVENTIST FORUMS

them both as complementary, even necessary, to God's cosmic design. This means we shall have to cease representing randomness as an enemy and accept it as part of the creation.

Adventists have been struggling with this for some time, and it should not surprise us that we find little mention of these concepts in publications by our church. Over the past fifty years, however, we have been warming to the idea that change and adaptability are part of God's design. Specific mention of design in nature does not occur in the *Seventh-day Adventist Bible Commentary*, but the idea is implied by reference to "compatibility" and "harmonious existence" of complex living things within their surroundings. Chance, on the other hand, is pejoratively described as "mere chance in a self-originating, self-evolving, reckless, crashing chaos."<sup>22</sup> That was 1953.

In his first book, *Creation: Accident or Design?* published in 1969, Harold Coffin used the word "design" only once in the running text (page 394) and only once in a section heading (page 380), and the word does not appear in the index.<sup>23</sup> Apparently he assumed that the reader would understand the meaning he intended. But it seems clear from the general context of the book that his concept was that of a given order.

Fourteen years later, in *Origin by Design*, the word "design" still does not appear in the index (nor do "chance," "accident," or "random"). But Coffin allowed that

... clearly living organisms are not fixed or static. They change either naturally or through man's manipulations. New varieties, races, sub-species and even species have and are forming. In a sense evolution is taking place, but it is not the kind of change evolutionists need. . . . Yes, new species of plants and animals are forming today.<sup>24</sup>

Though attributing "many of the adaptations seen in plants and animals today . . . because of changes that have marred the perfect creation since sin came into the world, especially since the Genesis Flood,"<sup>25</sup> Coffin nonetheless acknowledged change. Coffin allowed that at least adaptability may be inferred as part of God's design.

Ariel Roth's recent book, *Origins: Linking Science and Scripture*, not only uses design language liberally (pages 91, 94, 95, 96, 98, 100), but also affirms that "organisms with limited adaptability were purposefully designed."<sup>26</sup> Roth conjectures that "living organisms are remarkably adaptable within their limits, and we cannot

discount the possibility that harmless 'parasites' (symbionts) may have been part of an original creation."<sup>27</sup>

Throughout the book Roth generally uses design to refer to the need for intelligent planning to account for the complex functioning of living things. But he allows for process, change, and adaptability under the design rubric,<sup>28</sup> a much more expansive position than the one taken by the editors of the first volume of the *Seventh-day Adventist Bible Commentary*.

Can we find a comfort zone in which change, adaptability, novelty, and even randomness are included as legitimate partners in the process of creation, that is, in God's design? No doubt, some would be unwilling to go as far as Arthur Peacocke does in declaring God's creativity through random processes:

To a theist, it is now clear that God creates in the world through what we call chance operating within the created order, each stage of which constitutes the launching pad for the next. The Creator, it now seems, is unfolding the potentialities of the universe, which he himself has given it, in and through a process in which these creative possibilities become actualized.<sup>29</sup>

We know that Peacocke accepts the general evolutionary scenario for the development of life on earth,<sup>30</sup> and we know that there is good reason to doubt the efficacy of that story on biochemical grounds alone,<sup>31</sup> but we needn't discard all of Peacocke because we don't agree with his accommodation to evolution. We still need to hear that process is part of God's design and with it randomness as a legitimate attribute of the universe.

## Consequences of Design through Randomness

John Polkinghorne, in replying to Jacques Monod and George Gaylord Simpson, who would have us believe our existence is meaningless owing to its origin in "blind chance," wants us to have a "picture . . . of a world endowed with fruitfulness, guided by its Creator, but allowed an ability to realize this fruitfulness in its own particular ways. Chance is a sign of freedom, not

blind purposelessness."<sup>32</sup> Randomness is not an enemy, but "a way of referring to the openness of reality, the character of that world in which God is ceaselessly at work and in which we are given the opportunity of cooperating with him."<sup>33</sup>

Polkinghorne is very clear about the implications of this view of chance. The universe is endowed by the Creator, he says, with fruitfulness, and is allowed to be fruitful. When new conditions arise, new phenomena are elicited from the same old laws. Thus chance is God's way of introducing novelty into the world, and law is his way of guiding the outcomes.<sup>34</sup> He pictures the lawful necessity of the world as a reflection of God's faithfulness, and the role of chance in the world process as a reflection of the precariousness inescapable in the gift of freedom by love.<sup>35</sup>

But Polkinghorne also believes we should expect the world to have ragged edges, where order and disorder interlace each other.<sup>36</sup> Thus we recognize that sickness and disease can occur, as well as what we call natural disasters. Not attributing evil intent to God, he sees the creation being open to perils like cancer and murder.<sup>37</sup> Roth is not far from this position when he says, "Because of freedom of choice we have to cope with both good and evil. The presence of evil challenges neither God's omnipotence nor his love if freedom of choice also exists. True freedom of choice requires that evil be permitted."<sup>38</sup>

To those inclined toward the blueprint model of design, these consequences of the process model are hard to swallow. The Bible clearly states that the result of each day's creation was good, and at the close of the sixth day "God saw everything he had made, and, behold, it was very good." (Gen. 1:31 KJV) The deliberateness of the Creation narrative gives no hint of an exploratory process, with its attendant blind alleys and adaptations to changing conditions. It's difficult to read Genesis as general directions without a detailed plan.<sup>39</sup> Yet that is where the process model appears to come down. "God didn't produce a ready-made world. He's done something cleverer than this. He's created a world able to make itself."<sup>40</sup> But this conclusion seems to fly directly in the face of the testimony of Ellen White.

It is supposed that . . . nature is endowed with certain properties and placed subject to laws, and is then left to itself to obey these laws and perform the work originally commanded.

This is false science; there is nothing in the word of God to sustain it. God does not annul his laws, but He is continually working through them, using them as His instruments. They are not self-working. God is perpetually at work in nature. . . .<sup>41</sup>

If God is continually working through his laws, might it not be that what we call "chance" is an evidence of that process? If the creation is designed with the possibility for change and adaptability, might it not be that a part of the development of the universe is left to the contingencies of history? Polkinghorne reminds us

The physical world seems to have an openness to the future about it, which is no doubt how we are able to act in a free and responsible way within it. . . . I don't think that the effect of purely physical causes is drawn so tightly that it rules out either human choice or divine providence.<sup>42</sup>

My belief is that we can take science with all seriousness, yet not conclude that the fabric of the physical world is so rigid in its structure that there cannot be powers of human and divine agency exercised within its unfolding history.<sup>43</sup>

Thus rather than referring to "blind chance" as an agent in a pointless universe, we can accept the freedom implied by the openness of creation as a gift from God.

## Middle Ground

We must seek to find some middle ground between two extreme pictures of God's relationship to the creation. Quoting John Polkinghorne again:

One is the picture of the universe as God's puppet theater, in which he pulls every string and makes all creatures dance to his tune alone. The God of love cannot be such a cosmic tyrant, but neither can he be an indifferent spectator, who just set it all going, then left the universe to get on with it. We have

to strive for an understanding that lies in between these two extremes.<sup>44</sup>

I have not explained how this middle ground might be found and maintained. I shall be pleased if others more capable than I should set about that task. But I believe the blueprint meaning of design too rigid to allow for a meaningful relationship to develop between God and man;<sup>45</sup> while the picture of the cosmos creating itself as it explores the gamut of lawful necessity<sup>46</sup> is too remote from the God who formed man from the dust of the earth and breathed into him the breath of life.

It is the sign of a mature subject to be able to be true to experience however hard that experience may be to understand. . . . One cannot tell the wave-particle story of quantum physics without thinking of the God-man duality of Christ. If Christian experience finds in Jesus elements both human and divine, as I believe it does, then it must hold fast to that experience whatever the intellectual problems involved.<sup>47</sup>

To paraphrase: if the cosmos possesses elements of both law-like regularity and the openness and unpredictability of chance, then we must incorporate both into our metaphor of design.

## Notes and References

1. For me, this is a work in progress. If the reader finds problems with what I present, please point them out. I, too, am a fellow Christian whose faith in God is, as Anselm put it, "Belief seeking understanding."
2. Ellen G. White, *Testimonies for the Church*, vol. 8 (Mountain View, Calif.: Pacific Press, 1948), 263.
3. White, *Patriarchs and Prophets* (Mountain View, Calif.: Pacific Press, 1958), 48.
4. Johnson, "The Creation," in *God's Trombones* (New York: Viking Press, 1927), 17-20.
5. Dan Smith, "Chance or Choice," sermon at La Sierra University Church of Seventh-day Adventists, Jan. 9, 1999.
6. Smith, "Darwin's Black Box," sermon at La Sierra University Church of Seventh-day Adventists, Jan. 16, 1999.
7. Howard Van Till et al., *Portraits of Creation* (Grand Rapids, Mich.: W. B. Eerdmans, 1990), 20, 21.
8. Norman L. Geisler and J. Kerby Anderson, *Origin Science* (Grand Rapids, Mich.: Baker Book House, 1987), 146, 147.
9. Davies, *Superforce* (New York: Simon and Schuster, 1984), 242.
10. Davies, *The Mind of God* (New York: Simon and

- Schuster, 1992), 214.
11. Dawkins, *The Blind Watchmaker* (New York: W. W. Norton, 1986), 1, 5.
12. Ian Barbour, *Religion in an Age of Science* (New York: HarperCollins, 1990), chap. 6.
13. John Polkinghorne, *Serious Talk* (Harrisburg, Penn.: Trinity Press, 1995), 69.
14. Arthur Peacocke, *Theology for a Scientific Age* (Minneapolis: Fortress Press, 1993), 65.
15. White, *Counsels to Parents, Teachers, and Students* (Mountain View, Calif.: Pacific Press, 1941), 185, 186.
16. Polkinghorne, *Searching for Truth* (New York: Crossroad, 1996), 40.
17. Peacocke, *Theology*, 105.
18. Dawkins, *Blind Watchmaker*, xi.
19. *Ibid.*, xii.
20. *Ibid.*, 21.
21. *Ibid.*, 37.
22. *Seventh-day Adventist Bible Commentary*, vol. 1 (Washington, D.C.: Review and Herald, 1953), 51.
23. Coffin, *Creation: Accident or Design?* (Washington, D.C.: Review and Herald, 1969).
24. Coffin, *Origin by Design* (Washington, D.C.: Review and Herald, 1983), 394, 395.
25. *Ibid.*, 413.
26. Roth, *Origins: Linking Science and Scripture* (Hagerstown, Md.: Review and Herald, 1998), 142.
27. *Ibid.*, 413.
28. *Ibid.*, 111, 356.
29. Peacocke, *Theology*, 119.
30. Peacocke, *Creation and the World of Science* (Oxford: Oxford University Press, 1979), 94, 103, 105.
31. Charles Thaxton et al., *The Mystery of Life's Origin* (Dallas: Lewis and Stanley, 1984); Michael Behe, *Darwin's Black Box* (New York: Free Press, 1996).
32. Polkinghorne, *Quarks, Chaos, and Christianity* (New York: Crossroad, 1994), 43.
33. Polkinghorne, *Searching for Truth*, 52.
34. Polkinghorne, *Reason and Reality* (Philadelphia: Trinity Press, 1991), 83.
35. Polkinghorne, *Science and Creation* (London, SPCK, 1988), xiii.
36. *Ibid.*, 49.
37. Polkinghorne, *Science and Providence: God's Interaction with the World* (London: SPCK, 1989), 67.
38. Roth, *Origins*, 313.
39. Barbour, *Religion*, 173.
40. Polkinghorne, *Quarks*, 50.
41. White, *Testimonies*, 8: 259.
42. Polkinghorne, *Searching for Truth*, 99.
43. Polkinghorne, *Serious Talk*, 86.
44. Polkinghorne, *Quarks*, 42.
45. Clark Pinnock et al., *The Openness of God* (Downers Grove, Ill.: InterVarsity Press, 1994).
46. Peacocke, *Theology*, 119.
47. John Polkinghorne, *One World: The Interaction of Science and Theology* (Princeton: Princeton University Press, 1986), 84.

---

**Edwin Karlow is professor and chairman of physics at La Sierra University. He earned his masters and Ph.D. in physics from Washington State University. His last article in *Spectrum* dealt with the divestiture of La Sierra University from Loma Linda University.**  
ekarlow@lasierra.edu