

**THE DESIGN REVOLUTION:
ANSWERING THE TOUGHEST QUESTIONS
ABOUT INTELLIGENT DESIGN**

By William A. Dembski

EPIGRAPH: People almost invariably arrive at their beliefs not on the basis of proof but on the basis of what they find attractive. —Blaise Pascal, *The Art of Persuasion*

DEDICATION: To John and Dorothy Van Gorp, my wife's parents, salt of the earth

Mainstream modern science, with its analytical methods and its “objective” teachings, is the dominant force in modern culture. If science simply discovered and taught the truth about reality, who could object? But mainstream science does not simply “discover the truth”; instead it relies in part on a set of unscientific, false philosophical presuppositions as the basis for many of its conclusions. Thus, crucial aspects of what modern science teaches us are simply shabby philosophy dressed up in a white lab coat.

In this important new book Dr. William Dembski continues his groundbreaking effort to show just how unscientific many modern scientists tend to be. If we are truly open to all the evidence, we can discover by the use of our unaided reason that the natural world is not the purposeless outcome of law—itsself of unknown origin—and chance. This revolutionary approach has broad implications for science and broader implications for modern culture. Among many other things, Dr. Dembski's book is further evidence of the critical need for students in our public school systems to learn what is really going on in the disputes at the cutting edge of science rather than having their understanding of the natural world veiled and distorted by the prejudices of the past.

—Senator Rick Santorum, United States Senate

TABLE OF CONTENTS

Foreword by *Charles W. Colson*

Preface & Acknowledgments

PART I: BASIC DISTINCTIONS

1. Intelligent Design

What is intelligent design?

2. Creation

How does intelligent design differ from a theological doctrine of creation?

3. Scientific Creationism

Is intelligent design a cleverly disguised form of scientific creationism?

4. Disguised Theology

Even though intelligent design purports to be a scientific research program, isn't it really a theological enterprise?

5. Religious Motivation

Isn't the real driving force behind intelligent design a fear that evolutionary theories, and Darwinism in particular, will one day permanently displace any need for God?

6. Optimal Design

Why place the word "intelligent" in front of "design"? It seems that much of the design in nature is anything but intelligent.

7. The Design Argument

How does intelligent design differ from the design argument?

PART II: DETECTING DESIGN

8. The Design Inference

What is the design inference? How does the design inference differ from the design argument?

9. Chance and Necessity

How does the scientific community conceive of natural causes and why aren't intelligent causes among them?

10. Specified Complexity

What is specified complexity and how does one determine whether something exhibits specified complexity?

11. The Explanatory Filter

How does specified complexity function as a criterion for detecting design?

12. Reliability of the Criterion

Is specified complexity a reliable criterion for detecting design?

13. Objectivity and Subjectivity

Does specified complexity describe an objective feature of the world or merely a subjective state of ignorance about the functioning of the world?

14. Assertibility

Even if specified complexity is a well-defined, objective, and reliable criterion for detecting design, why should we think that we could ever be justified in asserting that some natural object exhibits specified complexity?

15. The Chance of the Gaps

Why must any scientific theory that aims to detect design be probabilistic?

PART III: INFORMATION

16. Information and Matter

What is the difference between information and matter and what role does each play in the theory of intelligent design?

17. Information Theory

How does the mathematical theory of information relate to intelligent design and specifically to intelligent design's criterion for detecting design, namely, specified complexity?

18. Biology's Information Problem

What is biology's information problem and how do biologists attempt to resolve it?

19. Information ex Nihilo

Is nature complete in the sense of possessing all the capacities needed to bring about the information-rich structures that we see in the world and especially in biology? Or, are there informational aspects of the world that nature alone cannot bridge but require the guidance of an intelligence?

20. Nature's Receptivity to Information

What must nature be like for a designing intelligence to interact coherently with the world and generate the specified complexity we see in living things?

21. The Law of Conservation of Information

What does it mean to say that specified complexity or complex specified information is conserved?

PART IV: ISSUES ARISING FROM NATURALISM

22. Varieties of Naturalism

Is naturalism in any guise compatible with intelligent design?

23. Interventionism

Is intelligent design an interventionist theory in which design events punctuate an otherwise fully natural causal history?

24. Miracles and Counterfactual Substitution

Does intelligent design require miracles and, if so, wouldn't that place it outside the bounds of science?

25. The Supernatural

Isn't the designer to which intelligent design attributes biological complexity a supernatural agent and therefore outside the bounds of science?

26. Embodied and Unembodied Designers

Would the design produced by an unembodied designer be accessible to scientific investigation in the same way as design produced by an embodied designer?

27. The Designer Regress

If nature exhibits design, who or what designed the designer?

28. Selective Skepticism

Why is professional skepticism so antagonistic toward intelligent design? What are skepticism's prospects for unseating intelligent design?

29. The Progress of Science

Does scientific progress invariably vindicate naturalism and work against intelligent design?

PART V: THEORETICAL CHALLENGES TO INTELLIGENT DESIGN

30. Argument from Ignorance

In attributing design to biological systems, isn't intelligent design just arguing from ignorance?

31. Eliminative Induction

If the design inference isn't just an argument from ignorance, how is it more than an argument from ignorance?

32. Hume, Reid, and Signs of Intelligence

Didn't David Hume demolish not just the design argument for the existence of God but any sort of inference to design based on features of the natural world?

33. Design by Elimination vs. Design by Comparison

How are design hypotheses properly inferred, simply by eliminating chance hypotheses or by comparing the likelihood of chance and design hypotheses?

34. The Demand for Details—Darwinism’s Tu Quoque

Isn’t it the height of hypocrisy for design theorists to complain that Darwinism provides no details about the emergence of biological complexity when their own theory, intelligent design, likewise provides no such details?

35. Displacement and the No Free Lunch Principle

How do the No Free Lunch theorems undercut Darwinian theory and support intelligent design?

36. The Only Games in Town

Isn’t it crude and simplistic to cast the debate over biological evolution as merely between Darwinism and intelligent design? Surely evolutionary biology encourages many more options.

PART VI: A NEW KIND OF SCIENCE

37. Aspirations

What does science stand to gain from intelligent design and what is intelligent design aspiring to do for science?

38. Mechanism

Since intelligent design is not a mechanistic theory of life’s origin and development, how can it be scientific?

39. Testability

Is intelligent design testable? Is Darwinism testable?

40. The Significance of Michael Behe

Why do evolutionary biologists think Michael Behe’s work on irreducible complexity has been discredited?

41. Peer Review

If intelligent design is a scientific research program, why don’t design theorists publish or have their work cited in the peer-reviewed literature?

42. The “Wedge”

Isn’t intelligent design really a political agenda masquerading as a scientific research program?

43. Research Themes

What’s a scientist interested in intelligent design supposed to do by way of scientific research?

44. Making Intelligent Design a Disciplined Science

Granting that intelligent design is a scientific research program or at least has the potential to become one, how can it avoid being swept away as part of a larger cultural and political agenda?

FOREWORD *by Charles W. Colson*

Bill Dembski is, above all, a revolutionary. And this is a revolutionary book.

For years—far too many years—Darwinian evolution, the prevailing orthodoxy in the academy, faced no meaningful challenges. Those who believed in any other theory of biological origins were dismissed as religious cranks or fools. This is now beginning to change.

Bill Dembski has been in the vanguard of an exciting movement of thinkers, Christian and non-Christian, who effectively argue that naturalistic evolution can give no answers to the most vital questions of the day. In this book, Dembski delivers a stunning rebuttal of the idea that we live in a chance-driven, naturalistic universe and that time plus chance plus matter entails life in all its glorious complexity.

Immanuel Kant provides a convenient lens for understanding the current quandary. Kant was a theist deeply influenced by Christian pietism. As a philosopher, he made a radical proposal for epistemology, the branch of philosophy that studies how we know what we know. The upshot of his proposal was that there were two kinds of knowledge; that which could be determined as fact, that is, phenomenological knowledge, and that which could only be known by faith, that is, noumenological knowledge. This fact/faith distinction stuck and changed the way the Western mind approached the question of what it could know and not know.

Prior to Kant, people were perfectly willing to accept that since God created the universe, all truth was His and all truth could be known. We could rely upon God's authority and wisdom. As the pressures of the Enlightenment built, however, people surrendered the notion that God was necessary to explain creation. And having capitulated on this point, they readily surrendered the notion that God was necessary for the formulation of moral law or behavior. Over the years the fact/faith distinction became more firmly rooted so that in the end western intellectuals insisted on basing both our science and our morality on naturalism.

At the same time, religious believers, bitten by the same bug, became increasingly private in their faith. Focusing on individualistic piety, believers forgot the holistic worldview thinking of

previous generations. In adopting the fact/faith distinction, they compartmentalized their faith and cut it off from the rest of their understanding of the world. The result has been a wholesale abandonment of meaningful cultural engagement.

Such “two-story” thinking became almost unassailable and left the field wide open for naturalistic scientists to dominate Western thought—scientists who gave a naturalistic explanation of the biophysical universe with no reference at all to a creator or designer. There was religion on one hand and science on the other. And these two did not meet.

Although this was—and is—a false dichotomy, it has continued to dominate Western thinking even after naturalistic explanations for the creation of life began to fail. Today in public schools across America the idea that science provides a fully naturalistic explanation of the world and that faith is merely a matter of religion (or worse, “values”), which must be kept out of the classroom, is absolutely entrenched.

The intelligent design movement, of which Bill Dembski is a key part, is effectively challenging this whole way of thinking. It has assaulted naturalistic evolution with lucid arguments and clear evidences of design.

The more we learn about the world in which we live, the more impressed we should become at what has been called the anthropic principle. As I have written elsewhere, the anthropic principle states that in our own universe, all these seemingly arbitrary and unrelated features of the physical world—the distance of the earth from the sun, the physical properties of the earth, the structure of an atom—have one thing in common: they are precisely what is needed so that the world can sustain life. The entire biophysical universe appears to have been thought out and designed—intelligently designed.

Many scientists still hold onto the old two-story way of thinking and would rather not consider a thoughtful designer. Instead they prefer to hold onto the naturalism that asserts a self-generating and self-explaining universe in which everything proceeds by chance and necessity, including the emergence of human life.

Bill Dembski along with such thinkers as Phillip Johnson, Michael Behe, and Jonathan Wells have forced scientists to take seriously design and a designer. Their case is not based on the Bible or on religion. Instead the case is based on scientific evidence. In place of naturalistic evolution, they are proposing a well-developed theory of intelligent design. Because it is scientific theory versus scientific theory, secular thinkers are no longer able to simply dismiss design as a religious idea.

Bill Dembski is a pioneer and a brilliant thinker who is making a tremendous mark. Not only are his ideas shaking intellectual circles, but they are now also filtering down to the popular consciousness. As a result, he is part of a movement to recapture the mind of our culture and to get intellectual balance back into the schools. This is one of the best and most hopeful things to come along in the Christian world in generations.

In *The Design Revolution*, Dembski covers a great deal of ground, answering objection after objection to intelligent design. In his years of writing, lecturing, and debating intelligent design, he has heard just about every objection possible. In this book he takes these objections on one at a time, responding to the confused, the skeptical, and the hostile. His arguments not only build the confidence of those of us who are already convinced of intelligent design but should also serve as a catalyst for serious thought by thoughtful skeptics.

Albert Einstein said, "I, at any rate, am convinced that God is not playing at dice." Indeed he is not. God carefully created a world that he cares for providentially. Bill Dembski has, in this book, made that truth ever more clear.

PREFACE

Ever since Thomas Kuhn published *The Structure of Scientific Revolutions* in the 1960s, just about every new idea in science has been touted as the latest scientific revolution. It's therefore not surprising that most scientific revolutions are overblown. I was part of one such overblown revolution in the late 1980s as a graduate student in Leo Kadanoff's physics lab at the University of Chicago. Chaos theory, also called nonlinear dynamics, was going to revolutionize science. A decade later, the promise and hype were largely spent. Yes, chaos theory offered some interesting insights into the interdependence and sensitivity to perturbation of physical processes. But after the revolution ran out of steam, our scientific conception of the world remained largely unchanged. Thanks to that experience, I take all declarations about the next big revolution in science with a stiff shot of skepticism.

Despite this, I grow progressively more convinced that intelligent design will revolutionize science and our conception of the world. To be sure, as a leading proponent of intelligent design, I have a certain stake in this matter. Nonetheless, there is good reason to think that intelligent design fits the bill as a full-scale scientific revolution. Indeed, it is challenging not merely the grand idol of evolutionary biology (Darwinism) but it is also changing the ground rules by which the natural sciences are conducted. Ever since Darwin, the natural sciences have resisted the idea that intelligent causes could play a substantive, empirically significant role in the natural world. Intelligent causes might emerge out of a blind evolutionary process but were in no way fundamental to the operation of the world. Intelligent design challenges this exclusion of design from the natural sciences. In so doing, it promises to remake science and the world.

Revolutions are messy affairs. They are also far from inevitable. For there to be a revolution, there must be revolutionaries willing to put their necks on the line. They must be willing to take the abuse, ridicule, and intimidation that the ruling elite can and will inflict. The ruling elite in this case are the dogmatic Darwinists and scientific naturalists. Rigidly committed to keeping intelligent causation outside the natural sciences, they misrepresent intelligent design at every

step, charging that its critique of Darwinism (and naturalistic theories of evolution more generally) is utterly misguided and groundless. Accordingly, the public is informed that intelligent design is religion masquerading as science or “Creationism in a Cheap Tuxedo” (the title of a newspaper headline). Moreover, the public is warned that intelligent design spells the death of science and that to teach intelligent design is intellectually (if not morally) in the same boat as teaching that the Holocaust didn’t happen.

The acceptance of radical ideas that challenge the status quo (and Darwinism is as status quo as it gets) typically runs through several stages. According to Arthur Schopenhauer, “All truth passes through three stages. First, it is ridiculed. Second, it is violently opposed. Third, it is accepted as being self-evident.” Similarly, evolutionist J. B. S. Haldane remarked, “Theories pass through four stages of acceptance: i) this is worthless nonsense; ii) this is an interesting, but perverse, point of view; iii) this is true, but quite unimportant; iv) I always said so.”

I like to flesh out Haldane’s four stages as follows. First the idea is regarded as *preposterous*—the ruling elite feel little threat and as much as possible ignore the challenge, but when pressed confidently assert that the idea is so absurd as not to merit consideration. Second it is regarded as *pernicious*—the ruling elite can no longer ignore the challenge and must take active measures to suppress it, now loudly proclaiming that the idea is confused, irrational, reprehensible, and even dangerous (thus adding a moral dimension to the debate). Third, it is regarded as *possible*—the ruling elite reluctantly admits that the idea is not entirely absurd but claims that at best it is of marginal interest; meanwhile, the mainstream realizes that the idea has far reaching consequences and is far more important than previously recognized. And fourth, it is regarded as *plausible*—a new status quo has emerged, with the ruling elite taking credit for the idea and the mainstream unable to imagine how people in times past could have thought otherwise. With intelligent design, we are now at the transition from stage two to stage three—from pernicious to possible. This is the hardest transition.

The aim of this book is to facilitate the transition from stage two to stage three by giving supporters of intelligent design the tools they need to counter the attacks by critics of intelligent

design. It is also intended for all honest skeptics of would-be scientific revolutions, for this book honors that healthy skepticism by fully and systematically responding to the toughest questions critics have raised concerning intelligent design. Readers will not need to grope about to find the questions or the answers. Nor will readers find tough questions missing in action.

In the past ten years, I've spoken at numerous colleges and universities on intelligent design, both in America and around the globe. I'm also regularly interviewed by the media about intelligent design. I have fielded an enormous variety of questions in both types of venues, and my work has drawn intense and extensive published criticism from the guardians of scientific orthodoxy. This book brings all those experiences, all those questions and their answers, together into one place. Think of this book as a handbook for replacing an outdated scientific paradigm (Darwinism) and giving a new scientific paradigm (intelligent design) room to breath, develop, and prosper.

In speaking on intelligent design, I receive three types of questions. Often a question simply asks for further clarification. Sometimes, however, a question indicates a stumbling block that needs to be removed before further insight is possible. And finally there is the question that is really not a question but an objection designed to “deep-six” intelligent design. I'll address all three types of questions in this book, but I'm particularly interested in the stumbling blocks. Intelligent design raises many stumbling blocks, especially for scientists and theologians. As much as possible, I want this book to remove those stumbling blocks. Clearing them away is for now the most important task in moving the design revolution forward.

Simply put, intelligent design is the science that studies signs of intelligence. Stated this way, intelligent design seems straightforward and unproblematic. Yet depending on where the intelligence makes itself evident, one may encounter fierce resistance to intelligent design. Archeologists attributing intelligent design to arrowheads or burial mounds is not controversial. But biologists attributing intelligent design to biological structures raises tremendous anxiety, not only in the scientific community but in the broader culture. Why is that?

C. S. Lewis, in his book *Miracles*, correctly placed the blame on naturalism. According to Lewis, naturalism is a toxin that pervades the air we breathe and an infection that has worked its way into our bones. Naturalism is the view that the physical world is a self-contained system that works by blind, unbroken natural laws. Naturalism doesn't come right out and say there's nothing beyond nature. Rather, it says that nothing beyond nature could have any conceivable relevance to what happens in nature. Naturalism's answer to theism is not atheism but benign neglect. People are welcome to believe in God, though not a God who makes a difference in the natural order.

Theism (whether Christian, Jewish, or Muslim) holds that God by wisdom created the world. The origin of the world and its subsequent ordering thus results from the designing activity of an intelligent agent—God. Naturalism, on the other hand, allows no place for intelligent agency except at the end of a blind, purposeless material process. Within naturalism, any intelligence is an evolved intelligence. Moreover, the evolutionary process by which any such intelligence developed is itself blind and purposeless. As a consequence, naturalism makes intelligence not a basic creative force within nature but an evolutionary byproduct. In particular, humans (the natural objects best known to exhibit intelligence) are not the crown of creation, not the carefully designed outcome of a purposeful creator, and certainly not creatures made in the image of a benevolent God. Rather, humans are an accident of natural history.

Naturalism is clearly a temptation for science, and indeed many scientists have succumbed to that temptation. The temptation of naturalism is a neat and tidy world in which everything is completely understandable in terms of well-defined rules or mechanisms characterized by natural laws. As a consequence, naturalism holds out the hope that science will provide a theory of everything. Certainly this hope remains unfulfilled. The scandal of intelligent design is that it goes further, contending that this hope is unfulfillable. It therefore offends the hubris of naturalism. It says that intelligence is a fundamental aspect to the world and that any attempt to reduce intelligence to natural mechanisms cannot succeed. Naturalism wants nature to be an

open book. But intelligences are not open books; they are writers of books, creators of novel information. They are free agents, and they can violate our fondest expectations.

There is an irony here. The naturalist's world, in which intelligence is not fundamental and the world is not designed, is supposedly a rational world because it proceeds by unbroken natural law—cause precedes effect with inviolable regularity. On the other hand, the design theorist's world, in which intelligence is fundamental and the world is designed, is supposedly not a rational world because intelligence can do things that are unexpected. To allow an unevolved intelligence a place in the world is, according to naturalism, to send the world into a tailspin. It is to exchange unbroken natural law for caprice and thereby destroy science. Thus, for the naturalist, the world is intelligible only if it starts off without intelligence and then evolves intelligence. If it starts out with intelligence and evolves intelligence because of a prior intelligence, then somehow the world becomes unintelligible.

The absurdity here is palpable. Only by means of our intelligence is science and our understanding of the world even possible. And yet the naturalist clings to this argument as a last and dying friend. This was brought home to me when I recently lectured at the University of Toronto. One biologist in the audience insisted I must take seriously that the world is two minutes old so long as I accept intelligent design. Presumably any creating intelligence could just as well create a deceptive world that appears old but was freshly created two minutes ago as create a verisimilitudinous world that appears old because it actually is old. That is certainly a logical possibility, but do we have any reason to believe it? Hundreds of years of successful scientific inquiry confirm a world that's structured to honestly yield up its secrets. If, further, the world reveals evidence of design, why should the mere possibility of a deceptive or capricious designer neutralize that evidence or lead us to disbelieve in the existence of a designer?

If we're going to take seriously the possibility of a designer misleading us, then we also need to take seriously the possibility of a natural world devoid of design misleading us. Imagine a natural world, devoid of design, where the laws of nature change radically from time to time, where time can back up and restart history on a different course, and where massive quantum

fluctuations on a cosmic scale bring about galaxies that seem ancient but are in fact recent. It's not just designers that can be deceptive and capricious. The same is true of nature. Yet if science is to be possible, we need, as a regulative principle, to assume that nature is honest and dependable. And if nature is the product of design, that means we need, again as a regulative principle, to assume that the designer made nature to be honest and dependable.

It follows that the two-minute-old universe argument against intelligent design is an exercise in irrelevance. It cuts as much against naturalism as it does against intelligent design. And it can't even touch the point at issue, namely, whether certain biological systems are designed. To decide that question we must consult not theology or anti-theology but the evidence of biology. If that evidence points us to design, then that's where we must go. What would be absurd is to say that the evidence points us to design but that we must nonetheless reject design because a deceptive designer might have designed the evidence to mislead us. That would be rejecting design by presupposing design.

When I pointed out to the Toronto biologist that Isaac Newton believed in intelligent design and didn't hold to a two-minute old universe, he instantly remarked that Newton didn't know about evolution. Poor Sir Isaac. Presumably Darwin would have made him an intellectually fulfilled atheist and erased any vestige of intelligent design from his science (intelligent design figures substantively in Newton's *Principia*—see, for instance, his General Scholium). Somehow science and our knowledge of the natural world is supposed to unravel once we allow that intelligence could be a fundamental principle operating in the universe.

The charge that intelligent design spells the end of science and rationality is without merit. If anything, the very comprehensibility of the world points to an intelligence behind the world. Indeed, science would be impossible if our intelligence were not adapted to the intelligibility of the world. The match between our intelligence and the intelligibility of the world is no accident. Nor can it properly be attributed to natural selection, which places a premium on survival and reproduction and has no stake in truth or conscious thought. Indeed, meat-puppet robots are just fine as the output of a Darwinian evolutionary process.

I remarked that scientists wedded to naturalism have a hard time accepting intelligent design. Surprisingly, theologians often have an even harder time accepting intelligent design. Mainstream theology accepts the prevailing view that naturalism is a proper regulative principle for science—that science, to be science, must treat nature as a closed system of natural causes. Even if they are not metaphysical naturalists, mainstream theologians therefore tend to be methodological naturalists.

If this were their only reason for refusing intelligent design, then one would expect these theologians to hold methodological naturalism without ardor, as a mere working hypothesis. In fact, the idea that God could act not merely as some all-enveloping mushy influence but as an agent who makes a difference in space and time and takes responsibility for features of the world strikes many theologians as anathema. Often what's behind this distaste is an overdeveloped sensitivity to the evils of the world and a resulting compulsion to find an airtight theodicy. Theodicy attempts to justify the ways of God in the face of the world's evils. The easiest way to do this is not to let God get his hands dirty with the world. As a consequence, many theologians have a doubly hard time with intelligent design. Not only have they made their peace with a naturalistic construal of science, but they also have a theological need not to let divine action become too obvious or personal (e.g., if God acts here to do good, why doesn't He act there to prevent evil?).

This is not the book where I address the theodicy problem (I plan to address it in a future book on Genesis, theodicy, and the Christian doctrine of creation). Although theodicy is, to be sure, the thorniest problem facing theologians trying to make sense of intelligent design, it is not a problem for intelligent design per se. Intelligent design attempts to understand the evidence for intelligence in the natural world. The nature and, in particular, the moral characteristics of that intelligence constitute a separate inquiry. Intelligent design has theological implications, but it is not a theological enterprise. Theology does not own intelligent design. Intelligent design is not an evangelical Christian thing, or a generically Christian thing, or even a generically theistic thing. Anyone willing to set aside naturalistic prejudices and consider the possibility of evidence

for intelligence in the natural world is a friend of intelligent design. In my experience such friends have included Buddhists, Hindus, New Age thinkers, Jungians, parapsychologists, vitalists, Platonists, and honest agnostics, to name but a few. As a consequence, intelligent design's fate does not stand or fall with whether one can furnish a satisfying theodicy.

Even though I'll be bracketing the theodicy problem throughout this book, I will nonetheless address certain criticisms of intelligent design motivated by it. According to design critic Edward Oakes, intelligent design makes the task of theodicy impossible. Why is that? Because, he claims, intelligent design is wedded to a crude interventionist conception of divine action and to a mechanistic metaphysics of nature. Neither of these criticisms is accurate. Intelligent design is compatible with just about any form of teleological guidance. Its concern is not with how a designing intelligence acts but with whether its action is discernible. Intelligent design therefore does not require an interventionist conception of design. As for intelligent design requiring a mechanistic metaphysics of nature, within the context of theology this is just the flipside of an interventionist metaphysics of divine action. Indeed, for God to be an intervening meddler requires a world that finds divine intervention meddlesome. Intelligent design requires neither a meddling God nor a meddled world. For that matter, it doesn't even require that there be a God. I address Oakes's concerns in chapter 20 ("Nature's Receptivity to Information") and chapter 23 ("Interventionism").

According to Oakes, the task of a Christian theodicy is to "show that an omnipotent and benevolent God can coexist with evil in His finite creation." (*First Things*, April 2001) The key to resolving the theodicy problem for Oakes is Augustine's insight that God would not allow evil to exist unless God could bring good out of evil. Nevertheless, to speak of God bringing good out of evil could just be a fancy way of saying the end justifies the means. To avoid this charge, Oakes requires that the world be viewed "both as a totality and under the aegis of eschatology." In other words, God's bringing good out of evil must be judged not on the basis of isolated happenings but on the basis of the totality of happenings as they relate to God's ultimate purposes for the world. All of this is sound Christian theodicy as far as it goes. I challenge Oakes

and fellow critics to show that intelligent design, as developed in this book, conflicts with such a theodicy.

The theodicy question aside, how God relates to the theory of intelligent design requires one further clarification. Creationists and naturalists alike worry that when design theorists refer to a “designer” or “designing intelligence,” and thus avoid explicitly referring to God, they are merely engaged in a rhetorical ploy. Accordingly, design theorists are saying what needs to be said to get skeptics to listen to their case. But as soon as skeptics buy their arguments for design, design theorists perform a bait-and-switch, identifying the designer with the God of religious faith. Whereas creationism is direct and forthright in its acknowledgment of God, intelligent design is thus said to be deceptive and sneaky.

This charge is unfounded. If design theorists are reticent about using the G-word, it has nothing to do with waiting for a more opportune time to slip it in. Design theorists do not bring up God for the simple reason that design-theoretic reasoning does not warrant bringing up God. Design-theoretic reasoning tells us that certain patterns exhibited in nature reliably point us to a designing intelligence. But there’s no inferential chain that leads from such finite design-conducting patterns in nature to the infinite personal transcendent creator God of the world’s major theistic faiths. Who is the designer? As a Christian I hold that the Christian God is the ultimate source of design behind the universe (though that leaves open that God works through secondary causes, including derived intelligences). But there’s no way for design inferences from physics or biology to reach that conclusion. Such inferences are compatible with Christian belief but do not entail it. Far from being coy or deceitful, when design theorists do not bring up God, it is because they are staying within the proper scope of their theory. Intelligent design is not creationism and it is not naturalism. Nor is it a compromise or synthesis of these positions. It simply follows the empirical evidence of design wherever it leads. Intelligent design is a third way.

When InterVarsity Press offered me a contract to write a sequel to my previous book *Intelligent Design: The Bridge Between Science and Theology*, I was happy to sign it. The

previous book had done well for InterVarsity, and so its editors urged me to write a sequel dealing with the most pressing issues confronting intelligent design. The most pressing issue at this time is to show that intelligent design is intellectually defensible, and specifically that the criticisms and questions raised against it are answerable. Think of this book, therefore, as an extended question and answer period that helps clear the path for the design revolution.

Each chapter of this book starts with a question and is followed by an answer. I've tried as much as possible to make the chapters self-contained. This has necessitated some repetition, but I've kept it to a minimum. Although the questions in this book can be taken up separately, I have placed them in a logical progression so that the book can be read coherently from start to finish. I attempt to answer questions as I would in an audience setting, that is, in my own words, in plain English, and thus without extensive supporting quotes or technical apparatus (the only notes and references occur in the text itself). To be sure, writing my answers out allows me to be more thorough than I would be in a conversational setting. Nevertheless, I have attempted to keep my answers to questions reasonably short. Chapters of many books tend to be around 6,000 to 8,000 word. Most of the answers in this book are around 2,000 words.

Often when I write or speak about intelligent design and then step back to reflect on the fierce resistance my work receives, I'm reminded of those Kafka stories where some hapless figure is tied up and smothered in endless bureaucratic red tape. The fundamental claim of intelligent design is straightforward and easily intelligible, namely, there are natural systems that cannot be adequately explained in terms of undirected natural forces and that exhibit features that in any other circumstance we would attribute to intelligence. That claim can be considered on its own merits. Let's look at some actual systems and do the analysis. This book is my attempt to cut through the red tape, psychological inertia, and mental cobwebs that prevent intelligent design from receiving fair consideration. In short, it is my attempt at some much needed house cleaning.

Even so, my hopes for this book would fall short if a clean house were its only outcome. Besides cleaning house, this book aspires to provide a powerful new vision of science and the

world, one that people will want to pursue because they find it so attractive. At the end of his *Origin of Species*, Darwin remarked that a person armed with his theory need “no longer look at an organic being as a savage looks at a ship, as at something wholly beyond his comprehension.” At the time, Darwin offered a powerful vision for understanding biology and therewith the world. That vision is now faltering, and a new vision is offering to replace it. The new vision teaches us to see organic being as a civilized person would see a ship, namely, as the product of intelligent design. Nevertheless, we are to see its design not just intuitively; rather, we are to see it objectively, systematically, and scientifically, as an engineer or architect who actually designed the ship. My hope is that this book will make such a new vision compelling.

For ideas to prosper, they must satisfy. In his *Art of Persuasion*, Blaise Pascal wrote, “People almost invariably arrive at their beliefs not on the basis of proof but on the basis of what they find attractive.” Pascal was not talking about people merely believing what they want to believe, as in wish-fulfillment. Rather, he was talking about people being swept away by attractive ideas that capture their heart and imagination. Darwinism has played that role for many intellectuals, providing a compelling vision of life and the world.

But visions endure only so long as they can be grounded in reality. The Darwinian vision of life is fast losing touch with reality, and specifically with the design that pervades the world at the biochemical level, a world about which Darwin knew nothing. As with all dying paradigms, Darwinism’s old guard will not, to paraphrase Dylan Thomas, go gently into that good night. Count on them to rage against the dying light. Notwithstanding, the Darwinian vision is on the way out, to be replaced by a new vision that captures our imagination and at the same time is grounded in reality. Intelligent design is that new vision.

William A. Dembski
Baylor University
Waco, Texas

ACKNOWLEDGMENTS

This book owes more to foes than to friends. Just as an oyster gets busy when faced with a challenge, so has it been for me in writing this book. Let me therefore express my gratitude to foes (happily some of which are also friends) for devoting an inordinate amount of time, effort, and attention to criticizing my work and that of my colleagues in the intelligent design movement. Though sometimes mean-spirited and ill-considered, the criticisms often have been constructive and insightful. Yet invariably I have found them instructive. My hope is that this book, in responding to critics, will likewise prove instructive.

Among the foes, friends, and institutions that contributed to this book I want explicitly to thank the following: Dean Anderson, James Barham, Baylor University, Michael Beatty, Michael Behe, David Berlinski, John Bracht, Walter Bradley, J. Budziszewski, Jon Buell, Calvin College, Center for Theology and the Natural Sciences (CTNS), Bruce Chapman, Robin Collins, Richard Dawkins, Michael Denton, Discovery Institute's Center for Science and Culture (CSC), Mark Edwards, Wesley Elsberry, Barbara Forrest, the Foundation for Thought and Ethics (FTE), Karl Giberson, Guillermo Gonzalez, Bruce Gordon, Billy Grassie, Paul Gross, Stacy Grote, the International Society for Complexity, Information, and Design (ISCID), David Lyle Jeffrey, Phillip Johnson, Steve Jones, Barry Karr, Rob Koons, Gert Korthof, Paul Kurtz, Neil Manson, Nicholas Matzke, Timothy and Lydia McGrew, Angus Menuge, Stephen Meyer, Kenneth Miller, Paul Nelson, Allen Orr, Phylogenists, Massimo Pigliucci, Del Ratzsch, Jay Richards, Terry Rickard, Douglas Rudy, Michael Ruse, Andrew Ruys, Donald Schmeltekopf, Thomas Schneider, Eugenie Scott, Michael Shermer, Robert Sloan, Elliott Sober, Micah Sparacio, the Templeton Foundation, Howard Van Till, Richard Wein, Jonathan Wells, John West, John Wilkins, John Wilson, Jonathan Witt, and Donald Yerxa.

Finally, I want to commend my family for always standing by me in my work on intelligent design. Their prayers, encouragement, and patience have been an enormous source of strength and comfort to me. Here I want especially to thank my beloved wife Jana. I also want to thank her parents, John and Dorothy Van Gorp, for their lives of Christian devotion and kindness. I dedicate this book to them.