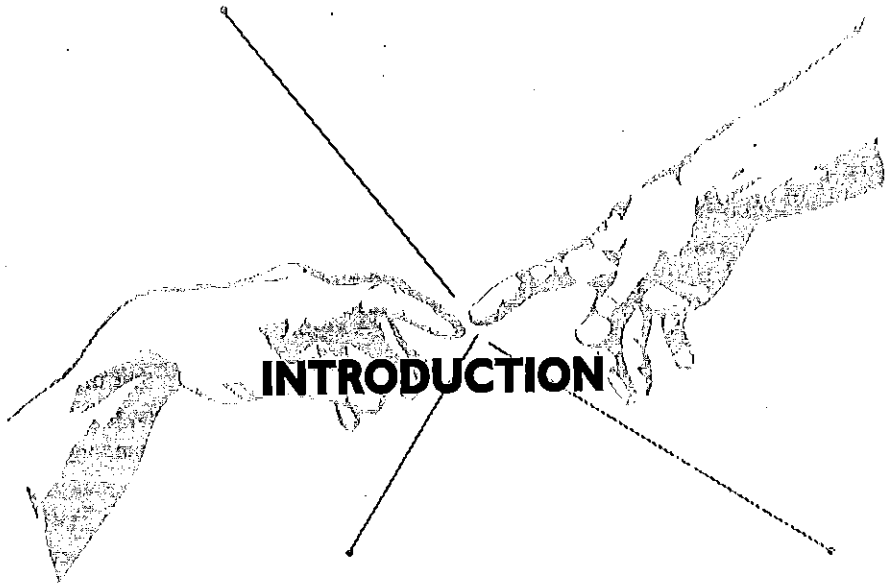


INTRODUCTION

American culture continues to struggle with evolution. On December 20, 2005, Federal District Court Judge John E. Jones III, in *Kitzmiller v. Dover*, delivered the most recent judicial decision involving these struggles.

Judge Jones's decision resulted from a suit brought by citizens of the Dover, Pennsylvania, school district against their own school board. The Dover board had adopted a policy that many of Dover's citizens believed illegitimately promoted religious beliefs in high school biology classes. The trial was a cultural event, much as the 1925 Scopes "monkey trial" in Tennessee had been.

As did the earlier Scopes trial, the 2005 Dover trial stood as testimony to the acrimony between some venues of American religion and mainstream biology. In the Dover trial, the main issue was whether intelligent design theory was a real scientific alternative to evolutionary theory or rather a covert effort to insert specific religious views into high school science classrooms. A subsidiary issue was whether or not the Dover School Board, in

adopting the controversial policy, was motivated by a concern for the integrity of science education or by their religious views.

Here is part of the statement the Dover Board required to be read to students in biology classes:

> Because Darwin's theory is a theory, it continues to be tested as new evidence is discovered. The theory is not a fact. Gaps in the theory exist for which there is no evidence.
>
> Intelligent Design is an explanation of the origin of life that differs from Darwin's view. The reference book, *Of Pandas and People*, is available for students who might be interested in gaining an understanding of what Intelligent Design actually involves.
>
> With respect to any theory, students are encouraged to keep an open mind. The school leaves discussion of the origin of life to individual students and their families.[1]

Judge Jones's decision was unequivocal. Here is an excerpt:

> To be sure, Darwin's theory of evolution is imperfect. However, the fact that a scientific theory cannot yet render an explanation on every point should not be used as a pretext to thrust an untestable alternative hypothesis grounded in religion into the science classroom or to misrepresent well-established scientific propositions.
>
> The citizens of the Dover area were poorly served by the members of the board who voted for the I.D. policy. It is ironic that several of these individuals, who so staunchly and proudly touted their religious convictions in public, would time and again lie to cover their tracks and disguise the real purpose behind the I.D. policy. . . .
>
> Those who disagree with our holding will likely mark it as the product of an activist judge. If so, they will have erred as this is manifestly not an activist court. Rather, this case came to us as the result of the activism of an ill-informed faction on a school board, aided by a national public interest law firm eager to find a constitutional test case on I.D., who in combination drove the board to adopt an imprudent and ultimately unconstitutional policy.
>
> The breathtaking inanity of the board's decision is evident when considered against the factual backdrop which has now been fully revealed through this trial. The students, parents, and teachers of the Dover Area School District deserved better than to be dragged into this legal maelstrom, with its resulting utter waste of monetary and personal resources.[2]

The caustic tone of Judge Jones's decision may be difficult to understand. Indeed, upon reading his decision, one might wonder what could have motivated the almost derisive tone of some of Judge Jones's statements. The judge seems to have no respect for the Dover School Board members who were responsible for the intelligent design policy. Apparently, Judge Jones believed that the trial made quite obvious the "breathtaking inanity of the board's decision." And, Judge Jones's advance defense against the charge of judicial activism may serve as a reminder that he is a Republican and a Bush appointee.

CHRISTIANITY OR SCIENCE: FAITHFULNESS OR ATHEISTIC NATURALISM

Judge Jones apparently became convinced during the course of the trial that some of the Dover School Board members were scientifically naïve, especially about biology. He apparently saw their adoption of the policy to commend to biology students intelligent design theory, along with the textbook *Of Pandas and People*, as an inept effort to be faithful to their Christian beliefs. Religious faithfulness was, for the Dover board, a commitment to be maintained at all costs, and public avowal of their faithfulness in board policy seemed simply a requirement for good stewardship of their Christianity. Board members in effect confessed in their testimonies that they were not well-informed about the theological, philosophical, or scientific issues involved in the controversy about evolutionary theory and intelligent design theory.[3] Judge Jones apparently thought that overwhelming evidence obvious in the testimonies of various experts confirmed the board's naiveté concerning issues about which they had rushed to public judgment. The board's willingness to adopt so controversial a policy in the face of what they might have suspected was their own naïveté signaled their willingness to appear foolish in order to be faithful to their Christian commitments.

In their willingness to risk public condemnation (or even scorn of the sort Judge Jones's decision comes close to expressing), members of the Dover board saw themselves as choosing to make their Christian commitments their first priority; they chose not to separate their personal commitments between their religion and their public roles as board members. They must have felt an almost palpable conflict between their Christianity and the scientific culture into which they were supposed to be leading students in the

Dover area schools. The conflict must have seemed to them to require a choice between their Christianity and the godless science of biology classrooms.

Faithfulness to one's religion is a (probably the) primary commitment for almost all American Christians. And such faithfulness is no vice.[4] How can it seem, how has it come to seem, that such faithfulness requires a negative judgment about a particular scientific view, evolutionary biology, which seems to a vast majority of biologists, geologists, paleontologists, along with many other specialists, to be as well-supported by evidence as any scientific theory in human history? What exactly is the religious objection to Darwinian evolution?

A rough account of the religious objection to Darwinism is that the scientific explanations Darwinian thinkers offer not only do not mention God but they also make God irrelevant to scientific thought about the origin and development of life. Within Darwinian evolution, God becomes irrelevant to understanding the development of human life on earth. More harshly, God may become a hindrance to scientific understanding of the complex phenomena of biology. Alvin Plantinga, in an important essay not included in this collection, quotes Richard Dawkins's remark to A.J. Ayer at an "elegant, candle-lit, bibulous" Oxford dinner that "although atheism might have been logically tenable before Darwin, . . . Darwin made it possible to be an intellectually fulfilled atheist."[5]

The fundamental problem for many religious people is that Darwinian evolution makes possible a way of thinking about the entire living world that has no need of God. Thus they see it as committed to scientific naturalism—a view they identify with secularism, relativism, and "might makes right" atheism—and as offering an invitation they fear might be especially attractive to the young people who study science in American classrooms. Roger Olson, a theology professor at Baylor University's Truett Seminary, expresses this problem succinctly in a guest column for the *Waco Tribune-Herald* after Judge Jones's decision:

> The concern many people (and not only fundamentalist Christians) have is whether it is really possible to be good without God. Of course, they know that there are atheists who are good people. That's not the point. The point is to ask whether in the long run society can hold onto objective values and morality such as respect and compassion for others without belief in God or something like God.

> If God does not exist . . . what is the basis for objective right and wrong? Without God, wouldn't might make right? Wouldn't nature, the only reality, justify the survival of the fittest even among humans? Without God, why live anything but a totally selfish life? Why help the weak? Without appealing to something beyond ourselves and nature, how can we urge, even expect ourselves and others to be good?[6]

Many biologists, other scientists, theologians, philosophers, and many Christians who are not professional academics believe on the other hand that there need be no animosity, nor even any tension, between their Christian commitments and their commitments to Darwinian evolution. In addition to what Richard Dawkins calls "intellectually fulfilled atheists," many Christians find their religious beliefs fully compatible with their commitment to Darwinian evolution. Given that there are atheists among evolutionary biologists, the puzzle for many Christians like the Dover board members who adopted the intelligent design policy (who are probably pretty well represented by Roger Olson's commentary just cited) is how one can be *both* a good Christian *and* a committed evolutionary biologist, a Darwinian. How is such a combination possible?

CHRISTIANITY AND SCIENCE: FAITHFULNESS AND DARWINIAN EVOLUTION

Many people—biologists, theologians, philosophers and others—are in fact both Christians and Darwinians. Kenneth Miller, the Brown University biologist who offered expert testimony at the Dover trial, is a Catholic and a Darwinian; an excerpt from his testimony is included in this collection. Ernan McMullen, a Catholic priest and a philosopher of science at the University of Notre Dame, offers a critique of Alvin Plantinga's endorsement of "theistic science." And Pope John Paul II likewise endorses evolutionary biology in his statement near the end of this collection.

The position, however, that Christian faith and Darwinian science are compatible is also widespread among non-Catholic Christians. Nancey Murphy, a philosopher of science and a Baptist theologian who explicitly embraces both Christianity and Darwinian biology, offers a critique of Phillip Johnson in this collection. Others in this collection also see no incompatibility between earnest commitments both to Christian religion and to

Darwinian biology. Stephen Jay Gould, for example, while a practitioner neither of Christianity nor of his own Jewish tradition, argues strenuously for the legitimacy of all religious perspectives independently of Darwinian biology. In his essay, Gould seeks to mediate what he sees as needless controversy between some versions of Christianity and evolution. Others in this collection are non-committal about their own religious views but are generous in spirit toward those with whom they disagree. Michael Ruse, a strong advocate of Darwinian biology, speaks of Bill Dembski, a leading proponent of intelligent design, as a friend with whom he disagrees about basic issues in philosophy of science and biology, and Ruse evinces what might be thought of as religious reverence toward the biological mysteries of the natural world.

There is disagreement in this volume, but much of it is infused with charity toward intellectual opponents. But there remains the nagging original question: Why do some Christians think of Darwinian evolution as a direct challenge to their Christian commitments and others do not? This question is a genealogical one: How might we plausibly account for such deeply felt disagreement?

SOME HISTORICAL REMARKS

Nancey Murphy notes that Isaac Newton and Robert Boyle insisted on absolute separation between theology and science and that they did so for theological reasons. "Their Calvinistic doctrine of God's transcendence led them to make a radical distinction between God the Creator and the operation of the created universe, and hence to seek to protect *theology* from contamination *by science*."[7] Murphy's remark about Newton and Boyle suggests that they felt a need to bifurcate their intellectual world into a part where science does its work and a part where theology does its work. This bifurcation of our intellectual world into a religion part and a science part has a distinguished history.

Probably the most prominent thinker in that history is Immanuel Kant. Kant sought to answer Hume's empiricist skepticism by grounding scientific knowledge on synthetic *a priori* truths supplied by human nature, on "factual necessities" that govern human cognition of the natural world. Synthetic *a priori* intuitions and concepts "structure" our interactions with the world to make knowledge of that world possible, and they are sources of all the truths

of mathematics and (Euclidean) geometry as well as all of the concepts—causation, substance, and others—involved in formulating (Newtonian) laws of nature.[8]

The price Kant willingly paid for his answer to Hume's skepticism was a price many thinkers have been unwilling to pay. Our human nature (in Kant's terminology our "transcendental ego") made proper use of these synthetic *a priori* structures to gain knowledge only of the empirical world. If humans sought to use these structures to gain knowledge of a transcendent (supernatural) world beyond the empirical world of scientific inquiry, they would inevitably become confused by equally legitimate arguments for contradictory conclusions; they would fall into "antinomies." The price of Kant's answer to Hume was to put knowledge of what transcends human experience—God, freedom and immortality—beyond human cognitive powers; knowledge of what is transcendent or supernatural is, in Kant, beyond human ken.

Kant made philosophically official the Calvinist theological perspective Nancey Murphy finds in Newton and Boyle. Although Kant was mistaken in thinking of Euclidean geometry and Newtonian physics as necessary or *a priori*, the spirit of his understanding of the relation between science and religion remains a prominent strand in Western intellectual culture; science gives us knowledge of our world and religion gives us the faith and values we live by. Each is an equally legitimate arena of human activity and inquiry, and each is a properly significant part of our lives. Neither may encroach on prerogatives of the other, though on some issues they may enter into constructive conversation.

The spirit of this Kantian perspective appears in many of the essays in this collection. Stephen Jay Gould's idea of "nonoverlapping magisteria" is conceived, even if unintentionally, in this Kantian spirit. John Paul's contribution in "Truth Cannot Contradict Truth" is also an expression of the same Kantian spirit. Perhaps it is only just to remark as well that there are resources specifically within the Catholic intellectual tradition, as Kant is not, who support John Paul's recognition of the autonomy of biology from Christian doctrine. Ernan McMullen makes explicit some of these resources.

Post-Kantian Western intellectual traditions, by and large, have turned away from Kant's bifurcation of human institutions into those that are cognitively accessible, where science may roam in unfettered pursuit of real knowledge, and those that are cognitively inaccessible, religion and morality, where knowledge is impossible but the human significance of which is guar-

anteed and unthreatened by scientific knowledge. Nevertheless, the Kantian intellectual spirit that sought to diminish the possibility that human institutions might "cannibalize" one another does find a vigorous expression in twentieth-century American pragmatism. John Dewey, in his Gifford Lectures, *The Quest for Certainty*, is a staunch advocate of an intellectual strategy similar to Kant's.[9]

The contemporary tendency to force confrontation between science and religion, between biology and creation, is unmistakable in intelligent design theorists, and that tendency depends upon strands of intellectual tradition that reject the Kantian spirit. For intelligent design theorists, including Michael Behe, Phillip Johnson, William Dembski and Stephen Meyer, evolutionary biology is inevitably committed to metaphysical materialism and metaphysical materialism is logically inconsistent with traditional Christian theism. In their view, and of many who share their commitment to intelligent design (probably including the members of the Dover School Board), conflict and confrontation are the only alternatives: God or matter-in-motion; God or godless science; God or materialistic mechanism; God or Chance; God or Darwin. The palpable absence of the Kantian spirit in these Christian thinkers underscores their reservations about Darwinian evolution.

The most philosophically sophisticated of thinkers who reject the spirit of Kantianism is Alvin Plantinga. Plantinga argues explicitly that truth is one, be it scientific truth or Christian truth, and that some scientific truth claims and Christian truth claims conflict in ways that no "accommodationist" (or Kantian) strategy can finesse.[10] Plantinga is sympathetic with intelligent design theorists who believe that confrontation and conflict are inevitable. His list of the metaphysical alternatives is a bit more extensive than theirs and includes three possibilities: Perennial Naturalism, Enlightenment Humanism, and Christian Theism. But Plantinga is as adamant about the alternatives as they are. As he puts it, "The stakes . . . are high; this is a battle for men's souls."[11] Elsewhere, he continues the metaphor of warfare: "The first thing to see . . . is that Christianity is indeed engaged in a conflict, a battle. There is indeed a battle between the Christian community and the forces of unbelief." Plantinga recommends to Christians engaged in this conflict that they find a way to win: "[W]e Christians must think about the matter at hand from a Christian perspective; we need Theistic Science. . . . What we need from our scientists and other academics . . . is both cultural criticism and Christian science."[12]

The principal fault line that philosophically divides intelligent design

Christians from Darwinian Christians is this Kantian tradition. Intelligent design Christians do not take that tradition seriously (and Plantinga even argues explicitly against it); Darwinian Christians do take it seriously. Attempting to adjudicate this particular philosophical disagreement is certainly beyond the scope of this volume, but taking note of it and bringing it to the focal attention of those on both sides of the fault line may be useful. Any serious effort to engage it constructively inevitably exposes many additional areas of philosophical disagreement inextricably tangled up with it. The concluding essay of this volume by Alfred Tauber represents and argues for a Kantian style perspective on issues of science and religion in general as well as on the particular issue of intelligent design and Darwinian evolution.

OTHER MATTERS

Other issues also turn up in these essays. Consider "methodological naturalism."

Plantinga notes that Dawkins remarked to Ayer that Darwin made it possible to be an "intellectually fulfilled atheist." Dawkins' remark suggests that he does not respect, any more than does Plantinga, the Kantian strategy of partition.[13] Is Darwinism atheistic? Perhaps it makes atheism possible as Dawkins remarked, but why would anyone think Darwinism makes evident, or even supports, atheism? This tendency of Dawkins and others to see naturalistic metaphysics in their biology is none other than the flip side of the same coin that Behe, Johnson, Dembski and Plantinga are looking at when they see Christianity at war with Darwinism. (Matt Cartmill, in his essay, addresses this issue.) Dawkins in effect agrees with Plantinga that truth is one and that there is, making use of Plantinga's conception, a war going on, a battle for men's souls, one that Dawkins and his atheist companions are as committed to winning as are Plantinga and the intelligent design theorists with whom he sympathizes.

The resort to the idea of "methodological naturalism," a way of thinking about science so as to give it at least temporary autonomy from religion, is an effort to call a truce in the war that Plantinga and Dawkins are training soldiers to fight. Each side thinks of methodological naturalism as a "cop out," a way to postpone the battle that each thinks must ultimately be fought to the death. In a battle for men's souls there is no place for half-hearted commitment, for anything other than a willingness to give one's all.

Still, even a truce about the metaphysical issue, perhaps pending more insight or greater wisdom about the Kantian strategy of partition that might lead to a negotiated settlement instead of continued bloodshed, is welcome. If a truce resting on methodological naturalism can be achieved, philosophical attention, including genealogical and historical attention, must be paid to the intellectual contexts in which the Kantian spirit thrives. Foremost among these intellectual contexts is that of American pragmatism, especially the work of William James and John Dewey. These American intellectuals had the breadth of spirit and mind that enabled them to see, in ways similar to those of Kant, beyond the intractable conflict still insisted on by Plantinga and Dawkins. We must take these American pragmatist thinkers seriously.[14]

Then there is of course the matter of the scientific evidence for Darwinian evolution. How good is it? Has significant progress been made in garnering scientific support for the theory since Darwin's 1859 publication? The answer to the latter question is a resounding *yes*! The answer to the former question is "pretty good, but not good enough." And there are unending disputes between the Darwinian faction and the intelligent design faction about how good "pretty good" is. On both of these questions, the discussion Nancey Murphy offers is quite good, as are also the discussions of Ernan McMullen and Kenneth Miller. Other selections also offer cogent discussions of the state of the evidence for Darwinism.

An interestingly different kind of evidence for Darwinian evolution has turned up in the last few years. Michael Ruse mentions it in his selection, as did Robert Pennock in his expert testimony at the Dover trial (though not in the selection by him included in this volume). Carl Zimmer offers a detailed account of this new evidence, provided strangely enough by a computer program designed to "mimic" the process of evolution, in "Testing Darwin." Whether or not the program mimics evolution or actually instantiates it is a matter of some controversy. Pennock and others directly involved in the research using the program are convinced that they are not showing merely how the process of Darwinian evolution can be imitated on a computer but are finding actual instances of evolution in progress. At the moment, it probably suffices to say that this new evidence looks promising, and it appears to undermine intelligent design objections to the possibility of natural selection and mutation as adequate sources of evolutionary change. Whether or not intelligent design theorists are able to produce an adequate response to this putative evidence remains to be seen. In the meantime, see Zimmer's account.

We have designed this collection of essays to capture critical dimensions of the controversy about intelligent design and Darwinian evolution. Each selection we believe deserves thoughtful attention, and we hope these selections capture the care and the passion with which each of these thinkers pursues issues in religion and biology.

(Note to readers: We had originally intended this volume to include important contributions from representatives of the intelligent design perspective. However, those representatives from whom we sought reprint permission denied it.)

Waco, Texas
October 2006

NOTES

1. These sentences are part of the focus of Kenneth Miller's Expert Statement at the trial. Miller is a Catholic professor of biology at Brown University and a portion of his expert statement appears in this collection.

2. A more extensive excerpt of Judge Jones's ruling appears in *The New York Times*, December 21, 2005, A21, along with more extensive coverage of the trial. The text of the entire ruling is available at the National Center for Science Education website, http://www.natcenscied.org/.

3. For an account of the trial that is more revealing of individual board members' characters and motivations see Matthew Chapman, "God or Gorilla: A Darwin Descendant at the Dover Monkey Trial," *Harper's Magazine*, February 2006, 54–63.

4. Such faithfulness can be a vice, though it need not be. See the essay by Daniel Dennett, "Common-Sense Religion," *The Chronicle of Higher Education*, January 20, 2006, B6–B8.

5. "When Faith and Reason Clash: Evolution and the Bible," *Christian Scholar's Review* XXI, no. 1 (1991): 17.

6 "We Need Intelligent Design," *Waco Tribune-Herald*, December 26, 2005, 9A.

7. Murphy essay, p. 194.

8. The most accessible account of Kant's view appears in *Prolegomena to Any Future Metaphysics* (Indianapolis: Bobbs-Merrill, 1950).; the full expression appears in *The Critique of Pure Reason*, trans. Norman Kemp Smith (New York: St. Martin's Press, 1929).

9. John Dewey, *The Later Works, 1925–1953, Volume 4: 1929, The Quest for*

Certainty, edited by Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1988), especially chapters 3, 10, and 11. But see also William James's *The Varieties of Religious Experience* (New York: The Modern Library, 2002), James's own earlier Gifford Lectures and available in many editions; see especially chapters I and XVIII.

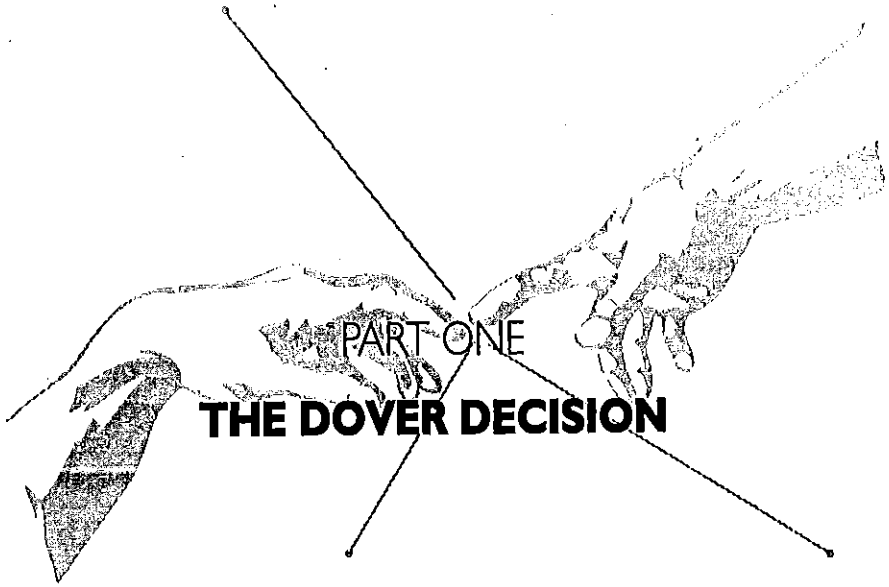
10. Plantinga addresses the issue of Kant's "segregation strategy" explicitly in his recent *Warranted Christian Belief* (New York: Oxford University Press, 2000), chapter 1, especially 18–30.

11. Plantinga, "When Faith and Reason Clash: Evolution and the Bible," *Christian Scholar's Review* XXI, no. 1 (September 1991): 8–33.

12. Plantinga, "When Faith and Reason Clash: Evolution and the Bible," 30.

13. For the origin of the use of "partition" in this context, see Dewey's *The Quest for Certainty*, chapter 3, especially page 47.

14. For an essay that explicitly makes this connection between American pragmatism and Kant, see Thomas Carlson, "James and the Kantian Tradition," *The Cambridge Companion to William James*, edited by Ruth Anna Putnam (Cambridge: Cambridge University Press, 1997), 363–83. Richard Rorty, too, suggests that Dewey came to this view; see "Dewey's Metaphysics," *Consequences of Pragmatism* (Minneapolis: University of Minnesota Press, 1982), 72–89.



PART ONE

THE DOVER DECISION

INTELLIGENT DESIGN

SCIENCE OR RELIGION?
CRITICAL PERSPECTIVES

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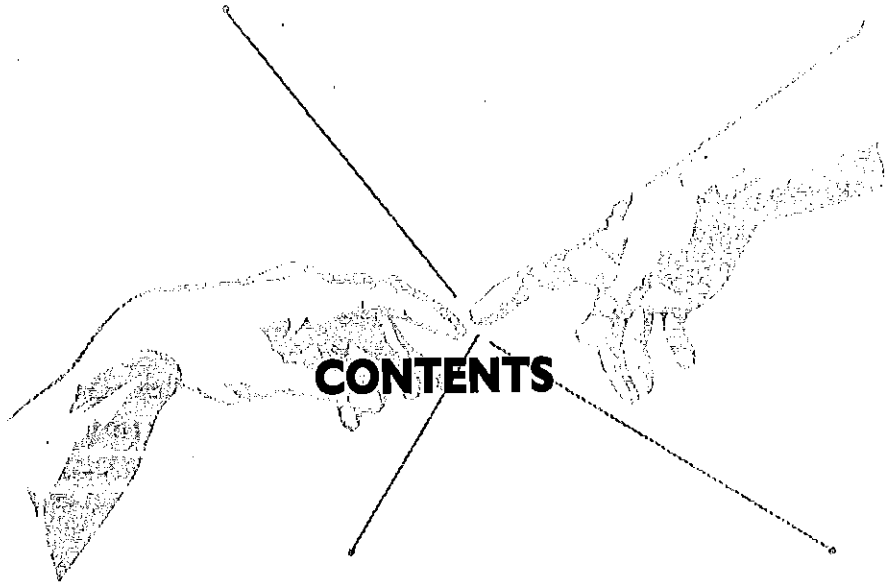

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