Book Reviews

ENVIRONMENT

FOR THE BEAUTY OF THE EARTH: A Christian Vision for Creation Care by Steven Bouma-Prediger. Grand Rapids, MI: Baker Academic, 2001. 234 pages. Paperback; $21.99. ISBN: 0801022983.

This book is a worthy addition to the growing body of writings on ecology and Christian faith by evangelical advocates of creation care. Bouma-Prediger (Hope College) presents a well-organized, readable and passionate argument for evangelical action.

In chapter 1, the author brings alive in vibrant prose the experience of a jungle (Belize), a mountain highland (the Sierras), and a lake region (the Quetico-Superior Wilderness). With this sense of the world's beauty evoked, he moves on in chapter 2 to help the reader hear "the groaning of creation": rapid human population growth and its attendants—widespread hunger; declining biodiversity; habitat, land, and water degradation; fossil fuel consumption with acid rain and global warming—all illustrated briefly but with disturbing data.

Chapter 3 explores the oft-made accusation that Christianity is responsible for this crisis. While Bouma-Prediger questions "the cogency of the complaint," he agrees with Wesley Grandberg-Michaelson that the Western Church is a complicit actor: (1) captive to Western culture, (2) it has accepted the anthropocentrism of modernity (3) and the Western divinization of technology, (4) has forgotten the doctrine of creation, and (5) has been "theologically arrogant … and condescending of non-Western Christian traditions" (pp. 80–3). Scientific and economic materialism have greatly contributed to this crisis.

Yet, with the Church lies hope for changing Christian and cultural attitudes, and Bouma-Prediger approvingly cites eco-theologian Thomas Berry's admonition that Christians take another look at the Bible. The author does so in chapter 4 with a series of truly fine exegeses of critical passages, identifying themes that undergird a theology of creation care: that the creation is God's and is good (Gen. 1), that God made a covenant with *all* of creation (Gen. 9), that our human understanding of creation is limited, for we do not have God's eye-view (Job 38–41), that Christ holds *all* of creation together (Col. 1:15–20), and that God's good future includes a recreation of heaven and earth (Rev. 21–22). In the chapter following, he offers a theology and an ethic of care for the creation rooted in central foci of evangelical faith: a theocentric vision; the doctrine of the Trinity, the power and presence of the Holy Spirit, humans as Image-Bearers, sin and salvation, the role of Christ, and especially the need for the Church to be a *community* committed to stewardship. He examines various elements often evoked for an ethic of earth care, including conservationism, land and wilderness ethics, and deep ecology; and in analyzing the strengths and weaknesses of each, he identifies aspects that could be incorporated into a distinctively Christian ethic.

In chapter 6, Bouma-Prediger addresses the question, "What kind of people ought we be?" by revisiting the classic virtues developed by Aristotle and Christianized by Thomas Aquinas, and shows how they may be transformed into ecological virtues. A concrete embodiment of such virtues is essential, he maintains, for accomplishing the good work of caring for creation. The urgent circumstances of the present ecological crisis call for the Christian community to draw upon its biblical, theological and moral strengths and its faith in the Creator to make a *corporate* commitment to creation care (chap. 7). We must recognize that "we're all in this together," that God commands us to this work, and, finally, that gratitude for God's providential gifts is reason enough to make us become the earth-keepers we are called to be. Finally (chap. 8), Christians can call upon and act within the theological virtue of hope. He concludes:

> Perhaps at the end of the day we should heed that most passionate medieval evangelical, St. Francis of Assisi, who admonished all who follow Christ to preach the gospel always, and if necessary, to use words. We modern evangelicals tend to be too wordy, too preachy, not incarnational enough. Perhaps we should, like Francis, speak only when necessary and spend more time preaching with our actions. That, after all, is the most genuine evangelism. The world is watching, and what we do and fail to do with respect to the earth speaks volumes.

Bouma-Prediger has read widely and ecumenically: Paul Santmire, Calvin De Witt, Joseph Sittler, Thomas Berry, Annie Dillard, Rosemary Radford Ruether, and Max Oelschlaeger are some of the many whose voices are heard here. This accessible exposition would make a fine text for any academic course or for a church study group wishing to explore issues of Christianity and ecology. Highly recommended.

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ECOLOGY AND THE END OF POSTMODERNITY by George Myerson. Duxford, England: Icon Books, 2001. 80 pages. Paperback; $7.95. ISBN: 1840462795.

The title of this little book suggests a puzzle: How can postmodernity already be at an end? But the answer—according to the author who has written other works on contemporary culture such as *Habermas and the Mobile Phone*—is also in the title. The importance of ecology undercuts one of the key claims of postmodernism.

The term "postmodernism" has been in use for over twenty years and means many things to many people. One of its key ideas is what Lyotard called "The End of the Grand Narrative." Modernism had been characterized by ideas growing out of the Enlightenment, especially the unlimited validity of science and the values of a democratic society. It was supposed to provide a global world view which, in principle, was valid for everyone. The end of modernism then means that this "grand narrative" is in fact not universally valid. Science is a way in which some

people look at the world but there are other ways that are equally legitimate for other people.

Myerson focuses on the events of what he calls the "millennial autumn" of 2000 in Britain. Protests against a rise in the price of petrol intended to combat pollution and global warming, massive flooding associated with climate change, and the crisis of "mad cow disease" (BSE) came together in that season. Myerson intersperses his discussion with news reports from those days to show that in fact ecology was providing a new grand narrative "in which science and democracy advance together, legitimising one another. Or they meet common obstructions and antagonists" (p. 44).

"Postmodernity," the author says, "is slipping into the strange history of those futures that did not materialise" (p. 74). The example of one autumn presented in one book will certainly not silence all proponents of postmodernism but they have been given a significant challenge.

Postmodernity's rejection of "the grand narrative" has been extended to *all* meta-narratives, including those of religious traditions. In particular, claims that Christ is the universal savior have been criticized as a form of modernist colonialism. Myerson's book does not address this issue directly, but those who are interested in the impact which postmodern thought has had on theology in recent years will profit from reading this short critique of the movement.

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FAITH & SCIENCE

UNSHAKABLE FOUNDATIONS: Contemporary Answers to Crucial Questions about the Christian Faith by Norman Geisler and Peter Bocchino. Minneapolis, MN: Bethany House, 2001. 413 pages. Paperback; $16.99. ISBN: 0764224085.

Packed with countless gems of fact and logic relevant to science and Christian faith, this book offers "credible reasons as to why Christianity is intellectually sound." It emphasizes first principles of logic and reveals the fallacies of relativistic pluralism that teaches all views are true even if they oppose each other, even alleging every religion is equally valid when Christianity affirms evil is real and Hinduism claims it is illusion. Three world views with different assumptions about God, reality, humanity, and evil that bias observations and produce incompatible conclusions are a major focus—atheism, theism (represented by orthodox Christianity), and pantheism (represented by the New Age), which affirms that God is the universe. The authors repeatedly show how theism fits all facts and first principles. Whenever Christianity is challenged, they recommend shifting the burden of proof by asking rational questions about world views and first principles. Subjective emotional diatribes "spouting off answers or obnoxiously stumping for the Christian faith will not help …" (p. 61).

Five chapters on physical and biological sciences focus upon the cosmos, the origin of life, macroevolution, and intelligent design. When applied to cosmology, cosmogony, the origin of life, and evolution, the law of noncontradiction and second law of thermodynamics reveal the false views of reality in atheism and pantheism and expose the philosophical fallacies of prominent scientists who commingle science and metaphysics. Among fascinating topics succinctly addressed are the radiation echo, black holes, the big bang, quantum cosmology, imaginary and real time, DNA molecular information, intelligent design, information theory, punctuated equilibria, fossils, microevolution, and the biblical age of the earth and humanity.

The authors show that belief in universal moral laws is credible and views of creation, law, and government logically connected. Natural law inherent in humans is central to discussions of nihilism, utilitarianism, evolution[ism], postmodern legal theory, moral relativism, positive law theory, human rights, similarities of Nazism to current education, defense strategies in criminal justice, and relationships of legal theory to personal morality. Because government-created laws are self-centered, promoting their creators' interests, only natural law emanating from the *Imago Dei* and emulating God's moral attributes can protect human rights.

The fact that evil troubles atheists "logically leads to a standard of good or justice beyond the world, … [while pantheists] offer neither substantial explanation for the problem of evil nor intelligent justification for calling evil an illusion" (p. 231). Things are not evil; evil is a corruption of what ought to be, not a created substance. God could eradicate evil only by eliminating freedom and thus precluding love, the greatest good.

Kushner's explanation of why bad things happen to good people presumes an evaluative standard beyond God to evaluate his actions, but we cannot know all of God's purposes for suffering. Pain has purpose. Many disasters (floods, tornadoes, earthquakes) are necessary in the natural world. Others result from people's freedom, while birth defects and cancer verify the universal law that everything in the universe deteriorates.

Historical questions include whether miracles are possible. They are outside laboratory tests, possible only if there is a God who can act. *Operation science*, which concerns observable causes and effects in the present physical world, is limited to discovering secondary natural causes for regular patterns of events. It cannot deal with nonrepetitive phenomena like the singularities no longer happening that are the subject of *origin science*. "How can science prove that something does not exist outside of nature when … science cannot go beyond nature?" (p. 64).

Evidence from tests for the reliability and authenticity of historical documents and rules for the credibility of authors fully satisfy the historicity of the Bible and claims for the deity of Jesus (chapters 12–13). Ethics and moral law are addressed in Chapter 14 and the Appendix on "First Principle Responses to Ethical Questions" (abortion, euthanasia, cloning, assisted suicide, and other biomedical issues). Two chapters (15 and 16) cover the ultimate meaning of life, heaven and hell. Eternal separation from God is fair because people choose it and God never forces love on unwilling people.

One might quibble about details, like the assumption that theistic evolution precludes God's continuous intervention (which they label "progressive creation") after his first cause, calling folkways *mores*, and treating human drives as instincts, yet this is an excellent survey of Christian apologetics. It is well-written, easily understood, and packed with macro- and micro-aids for defending the Christian faith, including a bibliography, index, and Scripture index.

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SCIENCE AND RELIGION IN THE ENGLISH-SPEAKING WORLD, 1600–1727: A Bibliographic Guide to the Secondary Literature by Richard S. Brooks and David K. Himrod. Lantham, MD: The Scarecrow Press, Inc., 2001. 620 pages, index. Hardcover; $85.00. ISBN: 0810840111.

The historical and philosophical study of the (sometimes-acrimonious) discourse between science and religion is a topic of perennial interest to scholars in many disciplines, and to Christian scholars particularly. This recent bibliography will provide the serious student with a thorough, if somewhat idiosyncratic, resource for researching this topic and for bringing together diverse strands of the rich intellectual history of the period 1600 to 1727, the year of Newton's death.

This book, the result of ten years of research the authors tell us, was once planned to be even more comprehensive and to cover a greater period (an almost unimaginably ambitious project, the diversity of topics actually covered being as broad as it is). The authors surprised even themselves with the sheer volume of secondary literature that exists on the topic (no primary literature is included in the bibliography), which is evidenced by the 2,000 sources that are referenced here. Three bibliographies constitute the bulk of this book following an introductory essay and a description of the criteria that were used to select works for inclusion and for indexing. An annotated bibliography of books and articles contains 1,735 entries and is followed by shorter lists of other bibliographies and doctoral dissertations on the subject. Indexes are by topic, historical persons likely to be of interest, and authors and editors of secondary works.

Twelve topical categories are defined to give some structure to the material. However, the overlap that occurs between them (which the authors readily acknowledge and even spell out for the reader's convenience) and the discontinuities the separate them, result in a collection that is something less than a complete systematic catalog of the material and is a bit awkward to negotiate. The topics are: historiography; magical, alchemical, and *Prisca* traditions; Protestantism and the rise of modern science; Christianity, social ideas, ideology, and science; social institutions in science and Christianity; religion, technology, architecture and the environment; theology, philosophy and science; natural theology and natural philosophy; heretical Christianity, deism, and atheism; science, the Bible, and literature; religion and medicine; and, Newtonian studies. Rather than defining each topic explicitly, these are characterized by certain recurring themes. For instance, studies of religio-medical theories of soul and body is one of the discourses that is included under the topic of religion and medicine. This list gives an idea of the enormous diversity of the subject matter and the idiosyncratic style of the project. The diversity means that this book will be a very useful reference for a variety of studies. The idiosyncrasy means that locating sources that pertain to a specific research question may be difficult.

Overall, the detail of the annotations and the scope of the literature that has been included results in a very impressive collection. It is unfortunate that the topics covered are as peculiarly chosen as they are. Inevitably, there will be some relevant studies that have been overlooked because they fall through gaps that emerge at the intersection of discontinuous categories or that lie at the periphery of the subject. Nevertheless, this reference is an important contribution to the already prolific research on the topic of science and religion studies, and provides an indispensable roadmap to the secondary literature on a period of much intellectual change and growth.

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RELIGION AND SCIENCE: God, Evolution, and the Soul by Nancey Murphy. Kitchener, ON: Pandora Press, 2002. 125 pages. $14.00. ISBN: 1894710207.

Murphy, professor of philosophy at Fuller Theological Seminary and an ordained Church of the Brethren minister, has written other books of interest to readers of this periodical. She gave three lectures at Goshen College as the speaker for the 2001 Goshen Conference on Religion and Science. The first was entitled "Science, Anabaptism and Theological Anthropology," the second, "God's Nonviolent Direct Action," and the third, "Evolution: One Anabaptist's Perspective." The lectures, and most of the discussion after them, are recorded in this book. There are notes, and the index is adequate.

In the first lecture, Murphy argues, as she has before, for what she calls a *physicalist* view of the soul, namely, that there is no immaterial soul or spirit, but that consciousness is a product of our physical brain. She claims that the idea of a separate soul was introduced early in the Christian era to explain some scientific phenomena, not because scripture demands it. Murphy gives a capsule history of Christian views on the soul. She argues that a dualist view of soul and body has led to some problems for Christians. Two such problems are that gospel ethics involves the body, not just the soul, and that "it is impossible to do justice to God's relation to the natural world without an appreciation of humans' role in nature" (p. 23). If you have never encountered Murphy, or the idea of physicalism, this lecture is a good place to meet them both.

In the second lecture, Murphy discusses an interesting question, namely "How does God act in the natural world?" Her conclusion is that he is constantly acting, limiting himself because of the powers he has invested in his creatures. This view of how God acts, she says, solves the problem of explaining evil.

In the third lecture, Murphy again deals with how God acts in the natural world. Her conclusion, in relation to evolution, is basically the second sentence in the previous paragraph, and she says that one's view of evolution usu-

ally depends on one's view of how God acts. In this lecture, and others, it is clear that she has read more than just theology books. She refers knowledgeably to, for example, the work of Holmes Rolston and Frans de Waal.

The discussions identify the speakers by number, so that the reader can tell when a speaker enters the discussion more than once. The discussions take up almost as many pages as Murphy's lectures. There is one gap, due to changing the recording tape, but apparently all other discussions are complete. Approximately half of the comments are Murphy's. The discussions were wide-ranging. Two of the most interesting topics were what it means to be a fundamentalist and Murphy's reaction to Phillip Johnson ("First, he does not understand biology. Second, he plays fast and loose" [p. 98].).

Murphy is an important Christian thinker and we can be grateful that she gave these Goshen College lectures and that they have now been published at a reasonable price. The book is accessible to lay readers. Members of the ASA are especially encouraged to read it.

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General Science

NOTHINGNESS: The Science of Empty Space by Henning Genz. Translated by Karin Heusch. Cambridge, MA: Perseus Publishing, 1999. 340 pages, 102 illustrations, notes, references, index. Paperback; $20.00. ISBN: 0738206105.

Genz is professor of theoretical physics at the University of Karlsruhe, Germany. He is the author of another popular science book, *Symmetries: Bauphan der Natur (Symmetry: Blueprint of Nature).*

In *Nothingness*, Genz attempts to convince the readers that there really is something in nothingness, and that empty space is just another physical system worthy to be studied and described. He first cites many early philosophical concepts and metaphysical speculations on nothingness, empty space, void, vacuum, and ether. He then explains these ideas in terms of modern physics, quantum mechanics, and the theory of relativity.

Reading just a few paragraphs of the text, one can easily tell that this book is a translation of a German text. Although the translation is excellent, there are terms and phrases that are definitely of Germanic characteristics. Numerous interesting illustrations appear throughout the book. A few of the illustrations are as funny as comic strips and are reminiscent of George Gamow's popular science books.

Typical of a German fashion in scientific writing, the author comprehensively covers the subject of nothingness with topics related to empty space. These topics include the cosmological principle, quantum physics, the general theory of relativity, elementary particles, fields, chaos, and order. As a simple-minded chemist, I found many of the terms and their illustrations in the book, such as quantum vacuum and ur-matter, quite fascinating.

The book is divided into eight chapters, each of which consists of several short sections. The title for Chapter 6, Spontaneous Creation, is rather misleading. This chapter deals only with elementary particles and fields, but not with the origin of the universe or life, as we members of the American Scientific Affiliation may suspect. Each section has a heading, which may be helpful in focusing the readers' attention on the central ideas therein; however, it is really unnecessary. Some section headings seem irrelevant to the discussion in the text. For example, the section with the heading, "The Quantum Numbers of the Universe," is a discussion of the origin of the universe. I do not see the quantum numbers of the universe in that section.

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Health & Medicine

OUT OF ITS MIND: Psychiatry in Crisis by J. Allan Hobson and Jonathan A. Leonard. Cambridge, MA: Perseus Publishing, 2001. 292 pages. Hardcover; $26.00. ISBN: 0738202517.

This book has received high praise from professionals within the field of mental health. Its "call to arms" seeks to establish a mental health system which would supply the best treatments science can provide in a compassionate way. Its thirteen chapters are accompanied by endnotes, a bibliography, and index.

While most Americans are familiar with the crisis in healthcare, both in terms of cost and availability, fewer are aware of the vast need and disjointed approach in the field of mental illness. Millions of patients with mental illness are untreated, many are unsuccessfully treated, and often professionals responsible for treatment are unfocused.

Humanistic psychologists opt for "the talking cure," psychiatrists frequently follow the pharmacology route, and neuroscientists think understanding brain functioning should have more consideration. Hobson and Leonard, while favoring neuroscience, believe the solution to the dilemma is a combination of the three. To achieve improved care, reforms must occur in the courts, HMOs, hospitals, clinics, higher education, and medical schools.

The four parts of the book summarize its contents: psychiatry's lost mind; finding the mind's brain; psychiatry and the brain; and prescription for a new psychiatry. These segments cover how society got to its present status on mental health and what it needs to do to improve it. In other words, understanding the history of the problem may better enable professionals to chart a new and improved course. It is hoped that this book will "kick-start a long overdue debate." Revolutions are hard to incite, but science and journeys begin with single steps and often move at slow paces. This book may be an impetus.

Where does religion fit into this scheme? The authors comment pejoratively on religion (p. 15) while acknowledging the necessity of understanding its influence (p. 76). Religion's adherence to dualism has made it attractive to quantum physicists; the authors think "it looks odd seeing religious philosophy and quantum physics hitched to the

same wagon" (p. 77). Their only other comment on religion refers to the evidence that obsessive-compulsive disorder shares something in common with repetitive magical and religious rituals in various cultures (p. 151).

While the part religion plays in mental health is generally a beneficial one, anecdotes reveal that it sometimes can have a deleterious effect. Those who adopt a Christian persuasion may become mentally healthier, but they may not rid themselves of mental conflict and disorder as illustrated by the existence of Christian psychotherapists and therapies.

There is little debate on the problem mental illness presents, not only to America, but to the whole world. Any attempt to help those who suffer is welcomed. Hobson and Leonard have offered up a synergistic approach which has the potential to move therapy forward. For interested professionals, laypersons, and patients, this volume is recommended. Knowledge is power. Hobson and Leonard offer a erudite, lucid, and authoritative perspective on the chronic problem of mental illness.

Hobson is a psychiatry professor at Harvard Medical School and director of the Laboratory of Neurophysiology at the Massachusetts Mental Health Center. Jonathan Leonard is a freelance medical writer and contributing editor at *Harvard Magazine.*

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HISTORY OF SCIENCE

ON PASCAL by Douglas Groothuis. London, UK: Wadsworth Philosophical Series, 2003. 97 pages, bibliography, notes. Paperback; $15.95. ISBN: 0534583911.

This is one in a series of over seventy short books in the Wadsworth Philosophers Series. The purpose of each volume is to provide an up-to-date view of the lives and ideas of one of history's major philosophers. The series editor is Daniel Kolak, chairman of the department of philosophy at the William Paterson University in New Jersey. The author is associated with the Denver Seminary, Denver, Colorado.

The author does a credible job of providing the casual reader with an overview of Blaise Pascal's brief life (1623–1662), scientific achievements and philosophical thinking. The intended audience is apparently advanced high school and college undergraduate students.

Groothuis describes Pascal's epiphany experience on November 23, 1654, his services to the poor and oppressed of the day, and his famous "wager." He is careful to note, as many writers do not, that part of Pascal's writings, undoubtedly his most famous, was never finished, and consequently when we read the *Pensées*, we are looking at an interpretation of raw, unedited notes "… written on four sides of a single folded sheet. Some paragraphs are inserted into the main text, other sentences are written vertically up the margins, and parts are written upside down on the page" (p. 75).

Pascal, argues Groothuis, thought the topic "Jesus Christ and the Meaning of Life" was of preeminent importance. His final chapter, seven brief pages, addresses this subject as he perceived Pascal saw it. Seven pages is far too little space to develop the subject in full, but what is written is a useful summary. The book concludes with what has always been my favorite Pascal saying: "The heart has its reasons of which reason knows nothing; we know this in countless ways."

This book provides a short overview of an important scientist, philosopher, and theologian. It is useful as an introduction to Blaise Pascal, a most remarkable human being. The serious scholar will want much more, and for that the bibliography will be useful.

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LOVE AT GOON PARK: Harry Harlow and the Science of Affection by Deborah Blum. Cambridge, MA: Perseus Publishing, 2002. 336 pages. Hardcover; $26.00. ISBN: 0738202789.

Blum, 1992 Pulitzer Prize winner for writing about primate experiments, is a professor of journalism at the University of Wisconsin. She has chosen to write about the work of one of her university's former psychologists, Harry Harlow, who performed some of the most important and famous experiments in history. (Harry changed his last name from Israel to Harlow—his father's middle name—because of prejudice against Jews, although Harry was not Jewish.) Indeed, a check of five introductory psychology texts reveals that Harlow's studies are included in every one of them. Out of the dozens of such texts published today, probably none omits Harlow's research. And yet, among the general public, Harlow is hardly known compared with Skinner, Ellis, Rogers, Terman, and Maslow (who was Harlow's student at Wisconsin), all of whom lived in the twentieth century.

So why is Harlow significant in psychology? Blum points out that "most people don't realize that in the 20th century, psychologists argued that affection was unnecessary, and it could be destructive for a parent to treat a child in a loving manner." Robert Sapolsky, a Stanford University psychologist in the early twentieth century, believed that "touching, holding and nurturing infants was sentimental maternal foolishness."

Perhaps the most famous psychologist in the early twentieth century was John B. Watson who led a crusade against parents showing infants affection. "When you are tempted to pet your child remember that mother love is a dangerous instrument … (there are) serious rocks ahead for the over-kissed child." Harlow's experiments changed all that. His experiments with rhesus monkeys (He worked with rats so much in graduate school that he vowed never to work with them again. He said he had worked with rats more than any two living psychologists combined.) led him to the conclusion that "we learn human connection at home. It is the foundation upon which we build our lives—or it should be—and if the monkey or the human doesn't learn love in infancy, he or she 'may never learn to love at all.'" As Blum points out, Harlow argued that "mothering mattered, that babies needed an involved parent, that first

relationships were enormously important." This view did not endear Harlow to the feminists who thought he was urging them to stay home and mother. The animal rights activists also thought his monkey experiments were unethical; by today's standards, they were.

Harlow coined the term "contact comfort" to refer to the need monkeys (and humans) have for security which comes from skin-to-skin contact between the infant and the mother or surrogate. He demonstrated that monkeys ran to cloth-covered surrogate mothers for security, not the wire surrogate mothers who fed them. By the time the monkeys were one-month old, they were all fleeing to the cloth-covered surrogates, clinging to them with their hands, burrowing their faces into their warm, fluffy body, closing their eyes, sleeping on them, and making them their home bases.

Blum points out the irony of Harlow's work: he lived "at the lab, dawn to dark, fueled by coffee, cigarettes, alcohol and obsession … He was an unlikely crusader for love … a father more involved with science than with his children, a husband who expected that his wives would understand that his real home was the psychology lab."

Blum wrote this book because she thinks many people are unaware of the revolution in the science of affection and relationships caused by Harlow's experiments. She wrote: "It's incredible to me how newborn our idea of love is … memory loss affected our knowledge of Harlow. Because he was so controversial, also, many people were happy to forget him. So my mission, in a sense, was to bring him back." She has done so in an interesting way.

Blum has written a superlative book of science history. Even if you have never heard of Harry Harlow, you will come to understand and appreciate the importance of his work when you read this book. This book will have special appeal for research scientists, science historians, college teachers, and public speakers. Harlow said teaching an introductory college class is "the best possible speech and timidity therapy you can have." By the way, the title of the book comes from the former University of Wisconsin psychology building, now demolished, given the nickname Goon Park, because of it street address.

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NATURAL SCIENCE

THREE ROADS TO QUANTUM GRAVITY by Lee Smolin. New York: Basic Books, 2001. 231 pages. Hardcover; $24.00. ISBN: 0465078354.

The major unsolved problem which the theoretical physics of the twentieth century has bequeathed to the twenty-first is the development of a correct theory of quantum gravity. Einstein's general relativity, based on the concept of curved space-time, is our best description of gravitation at the macroscopic level. Quantum mechanics provided the key to the microworld. But it has not yet been possible to bring about what John Wheeler called the consummation of the "fiery marriage" of these two great theories. Here

Lee Smolin of the Center for Gravitational Physics and Geometry at Penn State describes the approaches to this goal being pursued by theorists today.

The first four chapters set out basic principles. Smolin sketches the relational view of space and time characteristic of relativity theory, points out that not only the universe but the cosmic information available to us changes with time, and says that quantum theory has to do with a single world seen by many observers. Finally he argues that "The Universe is Made of Processes, not Things." Some readers might want to make connections with versions of process thought which have been used by theologians.

Smolin then devotes the next four chapters to black holes. While our understanding of these strange entities emerged from classical general relativity, close theoretical examination has revealed properties connecting them with quantum theory. The realization that a non-zero temperature must be associated with a black hole led to Hawking's discovery of black hole radiation. The area of a black hole's horizon is proportional to its entropy, and thus to the information that is hidden within the horizon.

The fact that a volume of space can contain only a finite amount of information suggests that space is discrete rather than continuous. The quantization of space-time itself is one of the most fundamental results of the search for a theory of quantum gravity, and Smolin points out how surprising it is that it should come from considerations about the thermodynamics of black holes. I wish, however, that he had pointed out that a limit on the size of space-time intervals can be derived from the uncertainty principle and the effects of gravitation on measuring instruments. This allows one to calculate the limiting Planck length, 10^{-33} cm from the basic ideas of relativity and quantum mechanics.

Smolin then goes on to describe two major approaches to quantum gravity—loop theory and string theory. While the latter has gotten a great deal of publicity, Smolin gives reasons for believing that the loop description is more fundamental. In it space can be built up from discrete units of volume with dimensions on the order of the Planck length. This can be done without assuming any pre-existing background space, thus satisfying the relativistic criterion that space and time are entirely relational. Space seems to be continuous even on the smallest scales that high energy physics has yet been able to probe. It is possible, however, that observation of interference effects on photons that have traveled billions of light years across the universe will reveal the granular character of the world's geometry.

Smolin closes with some fairly optimistic predictions about the development of quantum gravity theories, including the statement that the basic framework of the theory will be worked out by 2015 at the latest. At the same time, his description of the different approaches to this theory, combined with personal anecdotes, will give a feel for the confusion that attends the development of any fundamental theory.

Some confusion, however, could have been avoided. In his prologue, Smolin indicates that the "three roads" of his title are string theory, which starts from quantum mechanics, loop theory, which starts from relativity, and theories which do not assume either quantum theory or relativity as fundamental. But when we get to page 169, we are told that the third road is that via black hole physics. This is not surprising given the amount of space devoted to that topic but readers may feel a bit of a jolt. Moreover, some notice might have been taken of the road followed by pioneers such as Rosenfeld and Bergmann who tried to apply conventional quantization techniques to general relativity.

Smolin's presentation has its flaws but that is perhaps inevitable with a popular report on work in progress in a highly technical field. The book will give attentive readers a sense of the way things are proceeding in one of the most important areas of theoretical physics.

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SHATTERING THE MYTH OF RACE: Genetic Realities and Biblical Truths by David Unander. Valley Forge, PA: Judson Press, 2000. 127 pages, references. Paperback; $14.00. ISBN: 0817013172.

Interested in a book of manageable size that brings a Christian perspective to the age-old issue of race? You might appreciate the insights that ASA Member Unander brings to this topic, as I did recently, in reading this book. The theme developed is that from a Christian view there is only one race, the human race.

Although physical and cultural ethnic differences occur in human populations all over the world, the biological similarity of DNA in humans is more similar than the DNA in any other species. Three main sources of information—history, genetics, and Scripture—are used to encourage the reader to revisit and reformulate their widely held concept of race.

Part of the history is personal as the author grew up on the south side of Chicago in a predominantly African-American neighborhood. His experience with other ethnic cultures extends to the Deep South in Mississippi and to Puerto Rico, where he conducted agricultural research for the University of Puerto Rico. It was in this latter context in a conversation with a local pastor in Puerto Rico that this book had its origin. Along with the author's roots in Christian truth and historical research, he has added his insight in genetics from graduate work in biology. Thus, he is well qualified to lead the reader down new paths to a more complete understanding of one of the critical issues in the modern world.

Content is organized into nine chapters beginning with the concept of race and its relationship to economics. Minority groups frequently end up at the lower end of the economic scale. The chapter on slavery and abolition in the United States is exceptional. The role of power and domination by wealthy plantation owners over slaves, often justified in religious terms, is clearly exposed in all its brutality. Slave owners were granted three votes for every five slaves according to a provision of the Constitution resulting in the 1857 Dred Scott decision by the U.S. Supreme Court that a black man was only three-fifths human. The Bible clearly states that we are to respect and dignify all persons created in God's image.

Biology, genetics, and DNA are carefully explained. The number of human genes given as 80,000 has now been reduced to about 36,000 as the result of research for the Human Genome Project directed by Francis Collins, ASA member. Data from sequence DNA studies seem to support greater diversity the closer one gets to Africa, but samples from many ethnic groups in different parts of the world are compatible with the concept of one human race.

Near the end of the book are two chapters about racial superiority. One of these focuses on evolutionary genetics and the other considers the views of the scientific community. The extrapolation of Darwin's principles into Social Darwinism is illustrated by Haeckel's views supporting the idea of a superior Aryan race in Germany. The rise of eugenics through Galton's influence is also reviewed as bolstering the notion that eminence and superiority are more prevalent in the white race. Unander also cites S. J. Gould's book, *The Mismeasure of Man*, by documenting racist quotes from such earlier scientists as Cuvier, Lyell, and Agassiz.

The final chapter brings the author's personal Christian faith to bear on the theme of the book. Both Old and New Testament passages are given which directly or implicitly emphasize that it is the inner spiritual person that is important, not the physical appearance. In Revelation, the final book of the Bible, every nation and people group is present in the great multitude that no person can number. There are no "races" excluded, there is only the one human race. Encouragement toward reconciliation and peacemaking complete the final pages with mention of Martin L. King's famous speech and the role of John Perkins in The Voice of Calvary Ministries in Mississippi.

An index would be helpful before the next printing is done. The reference to Pat Shipman's book *The Evolution of Racism* (New York: Simon and Schuster, 1994) on page 65 was omitted.

Reviewed by Raymond H. Brand, Research Associate, The Morton Arboretum, Lisle, IL 60532.

Origins & Cosmology

THE FIVE AGES OF THE UNIVERSE: Inside the Physics of Eternity by Fred Adams and Greg Laughlin. New York: Touchtone Books, 2000. 251 pages, illustrations, notes, bibliography, index. Paperback; $14.00. ISBN: 0684865769.

Fred Adams is a professor of physics at the University of Michigan. Greg Laughlin was a National Science Foundation Fellow at the National Astronomical Observatory in Japan. While cosmological work in the recent years has focused on the past history of the universe, Adams and Laughlin, starting in 1995, began a detail study into the universe of the future.

In *The Five Ages of the Universe*, they present their vision of the history of the universe. Their theory involves five stages and they introduce standards for coping with the incredibly large numbers required for such a discourse. The five stages cover from the beginnings in the big bang to the lonely demise of the universe in the Dark Ages. Time is measured by the "cosmological decade," providing a comprehensible summary of the extraordinary events of our universe from its inception to its bitter end.

The authors' biography of the universe cites a potential melting of the earth's surface as one of a series of events just waiting to occur as the cosmos and its contents grow older. The publisher believes that with this book, the mythologies of eternity and apocalypse can now be matched against scientific fact.

Reviewed by Dominic J. Caraccilo, Lieutenant Colonel, US Army, Vicenza, Italy, CMR 427, Box 1628, APO AE 09630.

THE DEFECTIVE IMAGE: How Darwinism Fails to Provide an Adequate Account of the World by Ben M. Carter. Lanham, MD: University Press of America, 2001. 183 pages. Hardcover, $33.00. ISBN: 0761819614.

Carter, an ASA Member with a Ph.D. in Christianity in the Non-Western World from the University of Edinburgh, has the academic credentials to address this subject. He writes: "This book was occasioned by my own loss of faith in the theory of evolution, a loss that made me increasingly aware of the dogmatism of those who insist that Darwin's model is as fixed in the intellectual firmament as the heliocentric solar system."

I was greatly impressed by one feature of the book, namely, the large amount of space devoted to endnotes. I counted 176 pages of text plus endnotes. The endnotes accounted for 54 pages, or 30% of the book! I appreciated reading the endnotes as much as I did the text.

The book is written in two parts. In Part I, the theory of evolution is discussed, emphasizing the epistemological problems inherent within it. In part II, the phenomenon of abstract communication is discussed, not only as it relates to human language, but as it relates to animal existence in general. In this section, the attempt is made to show how Darwinism fails from its own limitations to account for the phenomenon of communication.

Carter begins his epistemological analysis by pointing out that western thought developed more in line with Plato's views. Plato addressed a fundamental philosophical problem: "How do we know a thing is what it is?" His answer: the world derives its meaning from the realm of transcendent ideals or "forms." His theory of knowledge was based on intuition. The "logos principle" was the rational principle integrating all knowledge. In the early seventeenth century, western culture was shaken by the Galileo controversy with the Church. This led Francis Bacon (a contemporary of Galileo) to declare: "We must free science from the corrupting influence of religion." The development of naturalism came in the "Age of Reason" (18th–19th centuries). In Darwin's day, the universe was presumed to be a continuum, closed to outside influences. Darwin used this prevailing world view to propound his theory of evolution. Carter states his thesis: "If Darwinism is true, it should not have been able to produce a mind capable of understanding that Darwinism is true."

The sample given above is reminiscent of Phillip Johnson's critique in his book *Darwin on Trial*. Carter falls a bit short of the elegant logic and argumentative skill

displayed by Johnson. Even so, Carter does a creditable job of his critique of Darwin's epistemological approach. He recalls Johnson's statement that "survival of the fittest" is a tautology, and can be restated "the survivors survive." Carter reminds us that Darwin looked at life forms extant in his day and then extrapolated back in time millions of years to describe the kind of life forms that he supposed existed early in time and proceeded to produce life in forms found in his day by chance variation in species.

Carter introduces Part II of the book thus: "In this section I want to challenge evolution theory by asking a question about communication. I will argue that given evolution's materialistic assumptions, communication (as most animals experience it) should be impossible. The two parties communicating must have something in common." Random mutations can hardly produce "irreducible complexity" (Michael Behe's example) by slow stages. Consciousness is something of an anomaly. We should not have expected evolution to have produced it. Communication is a function of consciousness and is fundamentally intuitive. Consciousness is a property of the soul, and evolutionary theory has no way to account for the existence of a "soul."

I recommend this book to ASA members and anyone interested in a critique of Darwinian evolution. Carter has done an excellent job of casting grave doubt on the evolutionists' claim that their theory is a "firmly established science." In my view, he has made a good case that "Darwinism Fails to Provide an Adequate Account of the World."

Reviewed by O. C. Karkalits, McNeese State University, Lake Charles, LA 70609.

THE GOD HYPOTHESIS: Discovering Design in Our "Just Right" Goldilocks Universe by Michael A. Corey. Lanham, MD: Rowman & Littlefield Publishers, 2001. 360 pages. Hardcover; $27.00. ISBN: 0742520544.

Intelligent design (ID) is a popular line of reasoning and exploration among members of the ASA. This book sets out to contribute to the ID discussion by "proving the existence of God through a detailed analysis of the physical universe and inferring the various attributes of God using *only* the empirical data of modern science as an interpretive guide" (p. ix). Unfortunately the faults of the book are so significant that the book is ineffectual at convincing this reader that ID can be a legitimate, important way to approach part of the faith and science issue.

The introduction to *The God Hypothesis* describes many "Principles" of science. These mostly come from the author's own analysis of the workings of science. Examples include his "Principle of Deceptive Appearances," that things rarely are the way they seem to the naked eye; "Principle of Sufficient Reason," that all finite objects must have a sufficient reason for their existence; and the more familiar "Principle of Theoretical Economy," which he correlates with the famous Ockham's Razor and "Principle of Universality." These Principles are presumably going to lead the reader to the proof for God's existence and nature. The bulk of *The God Hypothesis* is organized as a series of chapters that describe various aspects of the cosmos as they fit perfectly together to enable human life to exist on earth. Corey uses mostly secondary sources and cites primary sources only haphazardly in this book. This habit led me to question why I wouldn't read the cited books by Hugh Ross, Paul Davies, and the others instead of *The God Hypothesis* itself.

This book contains significant factual problems in the science that I am most familiar with, biochemistry and cell biology. For example, in chapter 8, Corey compares the evaporation of methane, ammonia, and water in his discussion of the "just rightness" of earth, and makes the statement that water has the "just right" molecular mass (18, versus 16 for methane and 17 for ammonia) to prevent its rapid evaporation under conditions where the other two molecules do evaporate. In this statement, he fails to acknowledge that the main reason that water evaporates differently is not its molecular mass but the network of hydrogen bonds that form in water but not the other liquids. This incompleteness is particularly vexing because in chapter 9 Corey describes the remarkable properties of water, including its hydrogen bonds. There are several odd or misinformed biological statements within the book as well. Online critics' statements include an endorsement of the book by Hugh Ross, so I assume that the astronomy is better than the chemistry and biology.

Perhaps most disconcerting is his near-idolatrous focus on humans as the center of the entire cosmos, his anthropic principle. While this proposition is a valid starting point for a philosophical or theological discussion, Corey turns to science to back it up with shaky evidence that includes the size of a human as the geometric mean between the size of a planet and the size of an atom. Putting aside the difficulty in choosing *which* atom or planet, and what measurement to use for this calculation (mass, volume, something else, does it matter?), the statement fails to note that there are many other organisms of similar size to humans and so would also fit the geometric mean. This form of reasoning is used in many places, always failing to note that all organisms are remarkably complex, and thus *scientifically* just as valid to mark as the "goal" of the cosmos. Theologically, it seems far more orthodox to see the universe's goal as glorifying God (Psalm 19:1–4), just as the Westminster Shorter Catechism defines the goal of creaturely humans—to glorify God and enjoy him forever (Q&A 1).

In conclusion, *The God Hypothesis* does not make any original contributions to the concept of ID. It is more worth the reader's time to consider the original books by Behe, Dembski, their critics, and others instead of this marginal compilation of ID ideas.

Reviewed by Robin Pals-Rylaarsdam, Assistant Professor of Biology, Trinity Christian College, Palos Heights, IL 60463.

INTELLIGENT DESIGN CREATIONISM AND ITS CRITICS: Philosophical, Theological, and Scientific Perspectives by Robert T. Pennock, ed. Cambridge, MA: MIT Press, 2001. 805 pages. Paperback; $45.00. ISBN: 0262661241.

This anthology of articles was put together to serve as a companion volume to Pennock's book (*Tower of Babel: The Evidence Against the New Creationism*) and to bring together

original sources on this issue. As a reference book, it is a useful resource for insight into the current debate on cosmology. Because the book is very long with many authors, it is impossible to review it all. Instead, the focus will be on three presuppositions that stand out as formative throughout the book, emphasizing that each side in this debate uses a significantly different paradigm which accounts for the differing conclusions.

In general, the tone of the editor's comments is negative and condescending to the Intelligent Design creationists, specifically with respect to what Pennock thinks is their failings in the area of real scientific research (this begs the questions because by "science" he means "naturalism"). The first crucial presupposition, noticeable throughout the book, is that cosmology is a scientific (empirical) issue. However, it is impossible for theories about the past to be truly empirical (there can be no experience of the past, only of the present). Rather, the interpretive framework of "naturalism," or "uniformity," must be assumed (neither of these can be proven empirically). In a similar fashion, those who believe this is a religious debate begin with the presupposition that this is a matter for special revelation, which assumes that God the creator exists (also begging the question). In contrast to these approaches the question of origins seems to fall within the domain of philosophy, which can ask the question: "which paradigm should be used to interpret the data?" The Intelligent Design creationists address some of the presuppositions behind naturalism (Parts 2, 5, 8). Specifically brought out are questions about materialism and uniformity.

In this the reader is confronted with the second notable presupposition, namely, conclusions reached by empirical investigation are interpreted through the framework of uniformity. Contemporary thinkers often take the assumption of uniformity and apply it to the interpretation of various kinds of data, coming up with what they then call "facts" (i.e., the bone is 10,000 years old, or it took 80,000 years to form this canyon). But why assume uniformity (say, in Carbon 14 dating)? Why not begin with the assumption that the earth as seen today was formed by large catastrophic causes over a short period of time? Even naturalists resort to this when pressed, as in theories about the extinction of dinosaurs. But if non-uniformity is used in some cases, how can it be ruled out in others? Uniformity is an essential part of the evolutionist's epistemology, yet cannot be empirically supported.

The final presupposition noticeable in this book is that a third, compromise, position is possible (discussed in Part 6). Theistic contributors present Theistic Evolution as an option, and it even seems that others, like Alvin Plantinga, do not rule it out. Yet this is not acceptable for the Theist or the naturalist in that it contradicts the essential features of both world views. In Theism, God as perfect in power and goodness made a world without any evil. Yet for Theistic Evolution natural evil must have been in the creation from the beginning. For the naturalist, the desire is to give a cosmology that relies only on material causation. If God guides every mutation, then material causation and naturalism are lost. In the end, Theistic Evolution as a compromise, distorts the essence of both positions.

In conclusion, while this book offers no new insight into the creation/evolution debate, it does provide a helpful resource of articles on many issues from notable persons on each side. In spite of certain biases that can detract from the whole, the book offers a reminder that philosophical questions cannot be solved by polemics. Until more basic issues in cosmology are brought out and addressed philosophically, the debate will continue without resolution. It is this reviewer's hope that interpretive frameworks, often used without awareness, will be brought to light and the appropriate paradigm shift will be made by those operating with a logically inconsistent ontology.

Reviewed by Owen Anderson, Philosophy/History Professor at Paradise Valley Community College, and Researcher in the Religious Studies Department, Arizona State University, Tempe, AZ 85287.

PHILOSOPHY & THEOLOGY

THE BATTLE FOR GOD by Norman L. Geisler and H. Wayne House. Grand Rapids, MI: Kregel Publishing, 2001. 336 pages. Hardcover; $15.99. ISBN: 0825427355.

This book is about an issue being discussed by many Christians. Neotheism, also known as "openness to God" theology, attempts to redefine the biblical understanding of God. The principal advocates of these concepts do this by challenging fundamental tenets of Orthodoxy such as God's power, understanding and wisdom. Its world view is not immediately obvious or comprehensible, reminiscent of the Gnostic heresy which made damaging inroads into the early church.

Geisler, an apologist, and House, also an apologist and a lawyer, have the credentials and tools for analyzing this issue. They provide a Table of Contents, comprehensive list of sources, and a helpful index. The reader-friendly type face and sparse footnotes make for easier reading. The book's sturdy binding and attractive cover enhance the book's value. There is more to this book, however, than these features.

The authors refute the ideas of neotheism as well as provide an alternate view. The tenet put forward by this new philosophy is that although God created humans, he now is unable to exercise total control over their freedom and independence from him. This is because God is also temporal, is liable to change and who, perhaps, is also on a learning curve. God does not have infallible foreknowledge of an individual's future acts which was a characteristic lacking in pagan deities, also. This is neotheism which is closely related to process theology or panentheism taught by Alfred North Whitehead and others in the earlier part of the twentieth century. However, some of the writers of neotheism acknowledge that their thesis has little historical support.

The writers of this book infer that because evangelicalism has not defined its theology there is no clearly marked boundary to show where liberal ideas contradict their orthodoxy. In fact, some conservatives accommodate or even accept parts of this liberal theology. The authors explain the current understanding of God revealed in the Scriptures and set out by the Church, examining in depth God's attributes and comparing them with the challenge posed by these new ideas. They emphasize his omni-

science, the absolute universality of divine knowledge, his eternal being, immutability, immortality and incorruptibility, always confronting and answering the challenges of neotheisrn. Examples are given where the clear statements of the scriptures are twisted, thus exposing the nebulous ideas of some neotheists. This approach is summed up in the comment that error does not so much need refutation as it does a clear exposition.

In confronting the challenges to biblical teaching raised by neotheism, it sometimes is more effective to ask of them the right questions rather than try to answer each issue. Geisler and House have achieved this as well as presenting useful counter-arguments, sometimes from the original biblical languages. They make frequent reference to the views of some influential theologians of past eras.

This is a helpful book that provides a sane assessment of neotheism, discusses many issues in-depth and remains faithful to the clear teachings of the Bible. The authors have researched the issues, and they show that many of these have no biblical or theological basis. The authors show that the battle for God is a valid one for Christians. I believe this book would be of interest to anyone reading this review.

Reviewed by Ken Mickleson, 21 Windmill Road, Mt Eden, Auckland 3, New Zealand.

RELIGION & CHRISTIAN FAITH

REALIZED RELIGION: Research on the Relationship Between Religion and Health by Theodore J. Chamberlain and Christopher A. Hall. Radnor, PA: Templeton Foundation Press, 2000. 239 pages. Hardcover $29.95. ISBN: 1890151459.

Chamberlain is associate professor of counseling psychology and vice president for student development at Eastern University in St. Davids, Pennsylvania. He was the founding director and chair of the graduate program in counseling psychology at Eastern University. Hall is associate professor of biblical and theological studies at Eastern University. He has written a number of books and has also served as senior editor for *Christianity Today*. The authors state in the introduction that they have "approached this study with a Christian faith commitment that embraces the notion that religion is beneficial for living a meaningful life" (p. 23). Yet they feel that the information presented in this book is compelling in its own right and that their faith bias does not "unduly influence" their findings.

The authors chose to focus on the phrase "realized religion" in order to more effectively overcome the problem of studying the mystery of faith from the perspective of objective scientific methodology. The word "realized" is defined in the introduction as "to bring into concrete existence." Religion is therefore realized when the essential elements of religion (faith and trust) are made operational by being brought into "concrete existence." The byproducts of realized religion which are analyzed in this study include better physical and mental health, a higher degree of well-being, more marital satisfaction, less addiction, less suicide, fewer mental disorders, and a better likelihood of healing.

The book includes ten chapters that are organized into three sections. In part one, the relationship of realized religion to prayer and healing is explored. The relationship of realized religion to well-being is the subject of part two and six out of the ten chapters are included in this section. In part three, the authors discuss the relationship of realized religion to future research. They argue in the last chapter of the book that more research on religion and health is needed from the specificity of a Christian perspective.

The main purpose of the book is to provide the reader with numerous summaries of past research focused on the relationship between personal religious faith and personal health and well-being. In addition to these summaries, each chapter ends with a list of references as well as a separate, extensive bibliography. According to the information provided on the front cover flap, the authors have documented over 300 scientific studies that have been published by reputable scientific journals. The lists of source material included in the references and bibliography sections contain many articles which support the authors' main thesis. But the book also includes a number of articles in which neutral or even negative conclusions are drawn from the research. It therefore provides a wealth of information for anyone who is interested in exploring this topic further.

This book is one that should be read by all Christians who are employed in any type of medical profession. It could easily be used as a textbook in a health course that is taught from a Christian perspective. This book is easy to read, well organized, thoroughly researched, and well worth the price, especially since it is available at a lower price in the paperback edition. It will be an invaluable resource in the emerging field of spirituality and health for years to come.

Reviewed by J. David Holland, Associate Professor of Life Science, Nyack College, 1 South Blvd., Nyack, NY 10960.

WHEN RELIGION BECOMES EVIL by Charles Kimball. New York: HarperCollins Publishers, 2002. 240 pages, bibliography, notes. Hardcover; $21.95. ISBN: 0060506539.

Charles Kimball, chair of the department of religion at Wake Forest University, an ordained Baptist minister, and author of three books on Middle East religion, examines the nature of religiously based evil as it takes place in each of the major religious traditions and offers corrective measures. Arguing that no tradition is exempt, Kimball defines and explains five basic religious corruptions, both as they have existed in history and as they are seen today.

Kimball does not see religion itself as the problem, but religion gone bad. The five corruptions discussed are: (1) absolute truth claims which are seen to be imposed on others; (2) blind obedience to authority figures; (3) the establishment of the "ideal" time; (4) the belief that ends justify means; and (5) the practice of declaring holy war. Each of these corruptions is addressed in a separate chapter.

Kimball argues that one's religious views can be reconciled with respect for those of other faith traditions. The process of conversation with those of other traditions can result in significant personal growth. He resists the syncretic blending of religious ideas, however, and grounds his views of tolerance theologically. This excellent book is highly recommended.

Reviewed by John W. Burgeson, 2295 E. Iliff Ave. #101, Denver, CO 80210.

SKEPTICAL ODYSSEYS by Paul Kurtz, ed. Amherst, NY: Prometheus Books, 2001. 415 pages. Paperback; $15.95. ISBN: 1573928844.

Kurtz, professor emeritus of philosophy at the State University of New York at Buffalo, is a major disciple of David Hume and a high priest of secular humanism. He is a past president of the American Humanist Association, founder of the Council for Secular Humanism, the National Center for Science Education and the Committee for the Paranormal (CSICOP). This book has thirty-six articles by CSICOP members which by scientific and skeptical enquiry try to debunk the evidence for the supernatural. Kurtz states:

> We need to state forthrightly the scientific case against intelligent design, the survival of the self after death or the dearth of evidence for personal salvation … it is incumbent on us to defend the natural interpretations of reality, a materialist's not for a spiritual-paranormal account … in a universe without purpose or design (p. 80).

The essays include efforts to debunk UFOs by Philip Klass, psychic phenomenon by Susan Blackmore, creationism by Eugenie Scott, Intelligent Design by Victor Stenger, and the Bible Code by David E. Thomas. Also, Kurtz presents his side of why CSICOP original magazine editor Marcello Truzzi and the original statistician resigned charging the CSICOP with bias and one-sidedness.

For one who has read the scientific evidence for phenomenon which defy natural explanations, *The Skeptical Odyssey* is unconvincing. For example, while three parapsychology debunkers expose psychic Uri Keller and UFO abduction claims no mention is made of the evidence for psychokinesis (ability of the mind to influence physical objects) by Princeton University Engineering Department Chairman Dr. Robert Jahn.

In claiming to explain the unexplainable image of Jesus on the Shroud of Turin, CSICOR exposes its own manipulation of facts. On page 315, Lores Gamez says: "Walter McCrone, one of the world's leading forensic microanalysis, was expelled from the group (of scientists examining the shroud) after he revealed that what looks like blood was really paint pigment." On page 225, Joe Nickell of CSICOP says he proved that he can make similar images to the one on the shroud by his "rubbing technique that utilizes a base-relief sculpture."

In *Verdict on the Shroud* (Servant Books, 1981), Shroud committee spokesman Kenneth Stevens denies that Walter McCrone was ever a member of the committee. On pages 108–9, he responds to Joe Nichells, concluding that the Nichells' technique "requires the building up of particles in the image area and microscopic inspection finds no evidence of this." While maybe not a committee member, McCrone has tried to debunk the Shroud image in CSICOP's magazine claiming it is a painting as evidenced by the presence of iron oxide. Stevens responds: "Microchemical studies determined that there is not nearly enough iron oxide on the cloth to account for even an enhancement of the image."

Report on the Shroud (Houghton Mufflin, 1983) is by Shroud team member, Dr. John H. Heller, a Yale professor of medical physics. He responds to McCrone in chapters nine through thirteen with strong counter evidence. Three times he challenges McCrone to debate the evidence of the source of the shroud's image and three times the skeptic failed to show.

Eugenie Scott says: "Nonmaterial causes are disallowed … science must explain using natural causes and scientists must be willing to change their explanations when they are refuted" (p. 247). Common sense says that if one starts with the David Hume mindset that there is nothing but the natural, one cannot objectively investigate the evidence for the supernatural. Therefore, we must be skeptical of these skeptics.

Reviewed by Leland P. Gamson, LCSW, LMFT, CDAPA, Marion, IN 46952.

Social Science

RELIGIOUS PLURALISM IN THE ACADEMY: Opening the Dialogue by Robert J. Nash. New York: Peter Lang Publishing, 2001. 224 pages, index, bibliography. Paperback; $29.95. ISBN: 082045592X.

For many years, the topics of religion, particularly those which touch on religious pluralism, have been avoided by much of American higher education, and so religious faith has become marginalized, ignored or, at best, sugar-coated as students move through their educational years. The author wants this to change. Nash brings to the task the expertise of a gifted educator, the understanding of a philosopher, and the belief in the importance of religious stories. He thinks religious conversations (and confrontations) can take place within the university in a meaningful, civil, and constructive way.

Nash, an educator for thirty-three years, has been addressing this issue since 1998 in a course titled "Religion, Spirituality and Education." It has been filled to overflowing in each of the five semesters it has been offered. Nash sets three goals for his course: (1) To convince his fellow educators that the need to address religious and spiritual meaning is of high importance to young college students; (2) To critically examine the nature of religious differences as they exist on college campuses today; and (3) To present a model for "moral conversation." It is not possible for me to evaluate his first goal, but he has succeeded excellently in his second and third.

Nash contends that "… religious pluralism, if left unattended, is a phenomenon that in the future will threaten to divide students, faculty, and administrators in a way that makes all the other campus divisions look tame by com-

parison" (p. 30). The perplexing dilemma for educators, of course, is how to deal with fundamentalists, both religious and secular, in a pluralistic university environment. Drawing on Stephen Carter's three books *(The Culture of Disbelief, Civility,* and *God's Name in Vain*) he discusses his own successes and failures in addressing this problem.

Toward the end of the book, Nash discusses what he calls "the Six Principles of Moral Conversation." Based on the poem "The Man with the Hoe" by Edwin Markham (1899), which concludes: "We drew a circle that took him in," these are: (1) Belief declarations are not the same as conversations about beliefs; (2) All views deserve initial respect; (3) Find the truth in what you oppose, always focusing on achieving agreements on word meanings; (4) "All or nothing" thinking is destructive; (5) Reality exists. But all we know are stories about it; and (6) Moral conversation in itself "leans to the left, therefore allow for this." This book is highly recommended.

Reviewed by John W. Burgeson, 2295 East Iliff Ave. #101, Denver, CO 80210.

Letters

On Universal Language

I would like to raise a few questions about Carol Hill's biblical evidence for a local versus universal flood (*Perspectives on Science and Christian Faith* [September 2002]: 170–83). The thesis and conclusion of this article is that "all of the evidence, both biblical and scientific, leads to the conclusion that the Noachian deluge was a local, rather than a universal, flood." What caught my attention in this statement is the universal "all." It is certain that Hill has not examined all of the scientific evidence, but I will leave that for others to discuss. My intent here is only to point out some internal inconsistencies in Hill's biblical arguments.

The first biblical argument for a local flood is based mainly on interpretation of the universal language in the biblical account of the flood. Several biblical texts are cited to illustrate the use of universal language in contexts where a local application is probable. For example, universal language used to describe the famine in Gen 41:46, apparently does not mean the whole earth, so Hill concludes that the universal language in Gen 6–9 can likewise be interpreted as local. This conclusion may be correct, but it cannot be established from such comparisons. Why not compare the universal statements in Gen 6–8 to other examples where universal language is indeed universal. For example, the article refers to Col 1:6 where "world" (*cosmos*) seems to require a local interpretation, but perhaps the universal language in Gen 6–9 is more like the *cosmos* of John 3:16 and "all creation" in Col 1:15. What makes the examples Hill cites useful to her purpose is that the limited intent of the universal language is implied (though not always sure) from the immediate context in which it appears. One could make the opposite and equally weak argument by citing only the examples where the universal language taken in context has a universal or global intent. So, Hill's comparisons establish nothing except that universal language in Scripture must be understood in context. Taken in its appropriate context, the universal language in Gen 6–9 and other biblical references to the flood (consider, for example, *cosmos* in Heb. 11:7) appears global.

The second of three of Hill's biblical arguments for a local flood is centered on a refutation of the canopy theory. Hill provides evidence and arguments which support the view that the mist of Gen 2:6 was an underground stream or spring rather than a canopy. Hill seems to agree with global flood proponents, at least on this one point, that the canopy theory, if correct, is evidence for a global flood. That may be, but it is not direct evidence for a global flood and the absence of the canopy is not evidence for a local flood. As Gen 7:11–12 implies, God apparently had lots of water (Gen 7:11); whether or not he got some of it from a canopy says nothing about the extent of the flood.

The third biblical argument cited in support of the local flood theory is, like the second, a refutation of a commonly held belief that is not directly relevant to the question. Hill's arguments to the effect that the ark did not land on Mount Ararat are substantive, but even if it could be proven that the final resting place of the ark was a much smaller hill, that would add little to an argument for or against a local flood. The only thing we can be sure of from the biblical account is that God directed the ark to a location which was safe for the people and animals to disembark.

So, taking stock (no pun intended) of "all the biblical evidence" cited in the article, we have three lines of argument, one which is fallacious and two which provide no substantive support for a local flood or against a global flood. But, there is more. Following Hill's principle that the biblical text can be "taken at face value," other questions arise from the plain reading of Gen 6–9.

If the flood was local, why spend 120 years building an ark; why not just chase the cows over the hill? Or why bother at all since most of the species already existed over the hill? Certainly most of the birds would be able to fly to higher ground; how humiliating for the eagles to be carried out of the valley in a house boat! What about the people that lived over the hill; are we to assume that everyone alive on the earth at the time of the flood lived in Mesopotamia; or, that none of the able bodied people in Mesopotamia were able to climb to higher ground? Were the survivors somehow not human as bearers of God's image, or was God a little confused when he made the statements in Gen 6:6–7? Then there is the problem of the rainbow; if the Noachian flood is local, then God's covenant with Noah and "all" flesh (Gen 9:12–17) must also refer to local floods and every subsequent destructive deluge stands in contradiction to God's Word (unless you assume that the covenant applies only to Mesopotamia which leads to the silly conclusion that Noah's descendants cannot benefit from the covenant unless they stay in Mesopotamia).

Hill also makes much of what the Bible does not say. For example, the article makes several statements similar to the following: "The Bible itself never claims that all of the sedimentary rock on earth formed at the time of the Noachian flood …" This is true, but what the Bible does