

Friendship nourishes bonds in all species

# Research News & Opportunities IN SCIENCE AND THEOLOGY

June 2003 | Vol. 3, No. 10 | U.S. \$3.00 Canada \$4.50



page 15

## IN THIS ISSUE



Shelley Taylor shows the value of seeing the glass half-full, Page 6

## FEATURE



Robert Corrington recognizes the fullness of nature, Page 20

'Good' vs. 'evil' skewed in terrorism, Page 2

Your family doctor goes online, Page 5

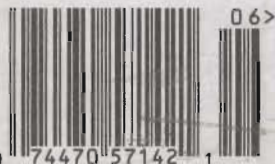
Biology contradicts Book of Mormon, Page 7

## INTERVIEWS

Noah Efron on tradition and change, Page 3

## INSIDE

BOOKENDS	17
CALENDAR	22
EDITORIAL PAGE	4
RELIGION & LIFE	5
HIGHLIGHTS	7
OPPORTUNITIES	28
REPORTS FROM THE FIELD	13
UNLIMITED LOVE	12



## Ocean water may hold key to life's origins

By Heather Wax

Seawater billions of years old may tell us how life originated, according to David Banks, a scientist at the University of Leeds in England.

Researchers there are pioneering a new way to investigate "the earliest water on the planet," hoping it will tell them how the sea has changed and how the first biological molecules and microbes came about.

It starts with pockets of water — called "fluid inclusions" — that were trapped within quartz crystals as they grew and curled, Banks said. These crystals, from Isua in Greenland, translate the scientists' wishes into reality: They house water pockets that remain exactly as they were when the rocks were formed 3.8 billion years ago.

Because of their shape, said Banks, the scientists have good evidence the crystals were formed from lava flow under the water and have not been affected by geological processes like erosion. The result, if all is correct, is what Banks calls "pristine sea water."

The Leeds scientists are the first in the United Kingdom to use a laser to drill into each inclu-

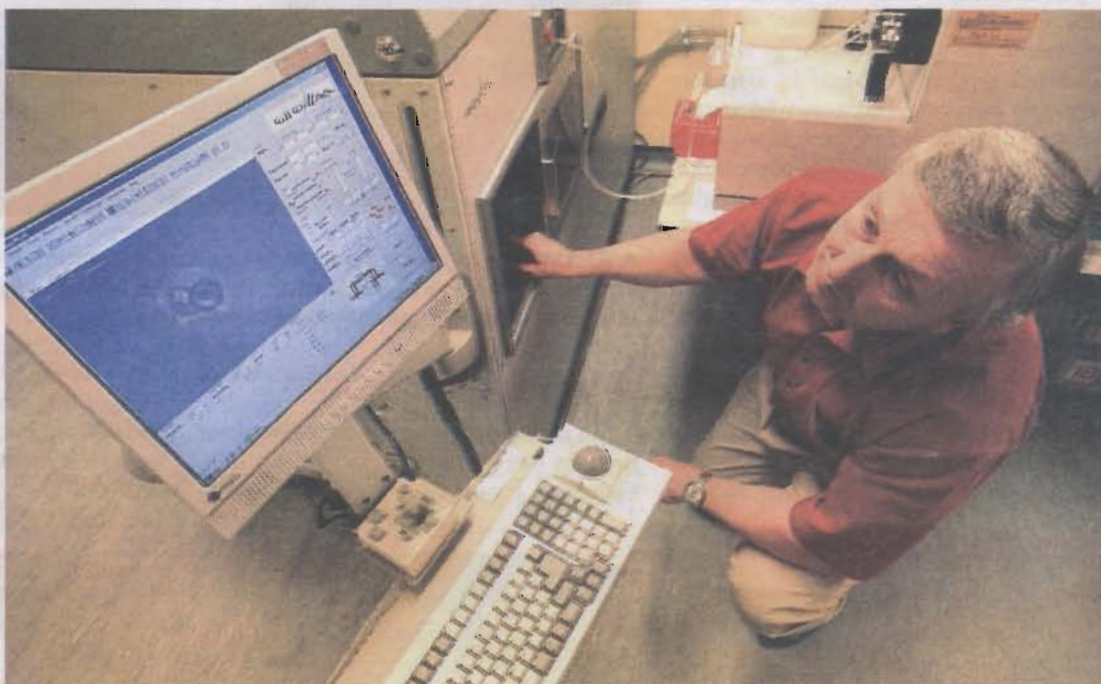


Photo by Richard Moran

David Banks, shown here, is working with a team of scientists that includes Robert Cliff, Andrew McCaig, Bruce Yardley and Tom Shepherd, to study seawater with special laser equipment. The team collaborates with Peter Appel of the Geological Survey of Denmark and Jens Gutzmer of the Rand Afrikaans University in Johannesburg.

sion (usually between one-hundredth and one-thousandth of a millimeter in diameter). Traditionally, scientists had to crush the crystals to open the inclusions, a method that is thought to have mixed together seawater of

different ages. Not only does the laser isolate individual pockets, but the high temperature vaporizes the water so that the chemicals can be analyzed in a mass spectrometer.

"The composition is one of the

main things that controlled the concentration of oxygen in the atmosphere," explained Banks. "Initially, there was little oxygen because there was a lot of iron [in

"Seawater" continues on p. 27

## Hollywood takes on science-and-religion

By Kimberly Roots

Struck down and bleeding, a lean young man succumbs to death as his persecutors look on in victory. His followers weep. All seems lost — until the slain hero rises. After defeating the villains, the serene young man returns to his friends and begins to spread his message to the world.

"I know you're out there. I can feel you now," he says. "You won't have to search for me anymore."

At this point in the story, Jesus would have ascended to Heaven. Neo, the science-fiction Messiah

figure played by Keanu Reeves in 1999's *The Matrix*, instead hangs up a handset, exits a public phone booth and slides on a pair of dark sunglasses. Heavy metal music bangs away in the background as the credits roll.

When its sequel, titled *The Matrix: Reloaded*, opened in theaters last month, it was the latest in a long tradition of financially successful movies to meld basic ideas of religion and science into a form of entertainment. The film chronicles the further adventures of a small group of rebels piloting a hovercraft called the Nebuchad-

nezzar through a futuristic world in which computers use humans as fuel. The rebels' enclave is called Zion.

Science fiction movies like *The Matrix*, traditionally known for their special effects and implausible scenarios, are now finding themselves very popular places in which culture can hash out its biggest questions. It is a measure of the genre's significance that many theologians and scientists are paying it serious attention.

One of those theologians,

"Hollywood" continues on p. 35



©2003 Warner Bros. Melinda Sue Gordon photo

Keanu Reeves plays Neo in *The Matrix: Reloaded*.

# Three conventional notions ignore the fullness of nature

By Robert S. Corrington

Recently there has been a great deal of talk about nature, as if philosophy and theology have made an astonishing new discovery about an amazing lost object that has now been found. While much of this talk has been valuable, too often we are left with only three choices when we want to unfold a larger picture of the way nature works. Each of these perspectives has many followers, who are often articulate and fairly sophisticated in their talk about nature itself. Yet no matter how hard you try, none of these options seems to get at the full scope and depth of the world of nature; it is as if we get novellas rather than novels.

The first model of nature is one that comes from a rather short-sighted view of the empirical sciences. I would call this model a form of "descriptive naturalism," in which the focus is on empirical facts understood in terms of efficient causes. The world of descriptive naturalism has a tendency to reduce nature to one type of stuff, and this stuff almost always turns out to be matter. After all, few things seem as reliable as good old matter, that basic reality that bumps along causally, generating all of the various phenomena that we find in the world. Consciousness, that strangest of all guests in nature, is itself a product of matter — at best a kind of super thin matter, but certainly not something that might exist on its own.

Descriptive naturalists assume that they, and perhaps they alone, honor the work of ongoing scientific research. This framework puts tremendous pressure on any talk about a divine agent or about anything that could be somehow disconnected from nature as known by the sciences. The nature it gives us is flattened out, bereft of some of its deepest energies and disconnected from many of the things we know to be true about the endless realms of the world.

At the other extreme we find the perennial patriarchal monotheisms, which assume a nature that is created, shaped and governed by a sovereign power that operates by non-naturalistic principles. In spite of what I consider to be heroic efforts by eco-feminists and others to deconstruct this model of the divine/nature relationship, it continues to have an almost mesmerizing power over many of the thinkers (not all of them males) of our time. The nature that is talked about is one that seems bound and

hemmed in by a supernatural agent whose practices are at variance with our perhaps more humble forms of ethics and sense of right and wrong. God looks at the full rich fabric of nature from above and, for the most part, only interacts when a new religion is needed, complete with its own set of miracles.

Patriarchal monotheism makes its god too large and its nature too small. It is addicted to container analogies, as if nature must be corralled in a box to keep it from getting too metaphysically frisky or unruly. One could even speculate, if one is in a bad mood, that this perspective is an expression of an authoritarian personality structure that is intrinsically hostile to nature and all of its emerging and chaotic wonders.

The third operative perspective is that of "process theology," which has a strong camp following and has come to dominate most upper-level discussion about the relationships between the divine and nature. For sophisticates, it refers to itself as a special form of pantheism, where the focus is on the ways in which the divine is both in (pan) and not (en) in nature. Pantheism, in its process form, assumes that it has unraveled the mysteries of how nature evolves and finds its way toward participation in the divine realms. We can have our nature and eat it too, because the wonderfully complex eternal and consequent minds of god are always on the lookout to see that value is enhanced in the infinite long run.

Unfortunately, the process perspective remains mired in an almost Victorian and Romantic belief in a watered-down god whose energies are gentle, persuasive and always (ultimately) congenial to our needs. This is not the place to enter into the technical problems with process thought, as I have done so in several more appropriate places, but I can at least offer the opinion here that pantheism is a perspective that gives us a nature that is hard to recognize and that, in the end, mirrors our face back to us in a way that seriously blunts its generic power.

So, where do we go from here? I am persuaded that there is a fourth perspective on nature that 1) honors the sheer scope of what is, 2) avoids the reductionism of descriptive naturalism, and 3) rescues nature from the anthropomorphic romanticism of process thought. I have termed this metaphysical perspective "ecstatic nat-

"Corrington" continues on next page

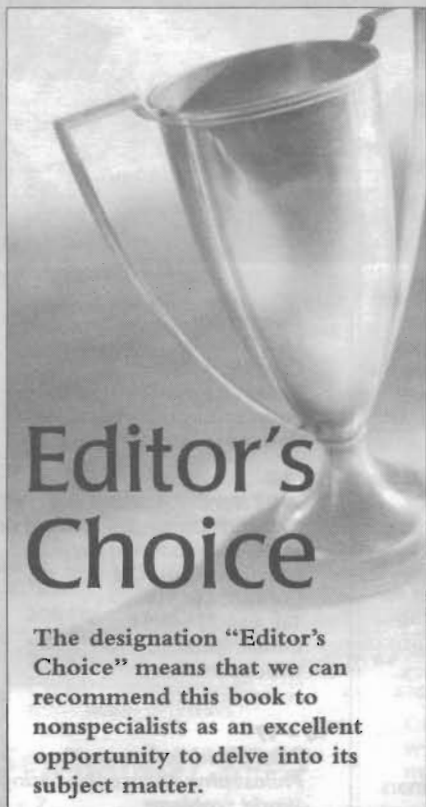


Photo courtesy of Robert S. Corrington

Robert S. Corrington is a professor of philosophical theology at the Caspersen School of Graduate Studies at Drew University in Madison, N.J. He has authored eight books (see below), co-edited five others, and has published 50 articles in the areas of metaphysics, semiotics, depth-psychology, theology and theosophy. His ninth book, *Riding the Windhorse: Manic-Depressive Disorder and the Quest for Wholeness*, will be published this fall. In an ongoing series of books and articles, Corrington, the founder and director of the Overlook Institute for Ecstatic Naturalism in Woodstock, N.Y., is expanding his philosophical perspective of ecstatic naturalism. He is also working on new ways of doing psychobiography (having already published studies of C.S. Peirce and Wilhelm Reich) and is planning a work on the life and thought of Helena Petrovna Blavatsky, founder of the modern theosophy movement. Corrington is primarily focused on integrating a pantheistic conception of nature with a semiotically reconfigured psychoanalysis so that the relationship between the human and the extra-human can be better understood. Theologically, he is focused on starting the quest for a post-tribal world religion. Corrington is an active member of the Unitarian Universalist Association, the Theosophical Society of America and the International Theosophical Society.



Robert S. Corrington's latest book, *Riding the Windhorse: Manic Depressive Disorder and the Quest for Wholeness* (Hamilton Books) comes out later this year. It is the ninth addition to the list of books he has authored: *The Community of Interpreters: On the Hermeneutics of Nature and the Bible in the American Philosophical Tradition* (Mercer University Press, 1987), *Nature and Spirit: An Essay in Ecstatic Naturalism* (Fordham University Press, 1992), *An Introduction to C.S. Peirce: Philosopher, Semiotician, and Ecstatic Naturalist* (Rowman & Littlefield, 1993), *Ecstatic Naturalism: Signs of the World* (Indiana University Press, 1994), *Nature's Self: Our Journey from Origin to Spirit* (Rowman & Littlefield, 1996), *Nature's Religion* (Rowman & Littlefield, 1997), *A Semiotic Theory of Theology and Philosophy* (Cambridge University Press, 2000) and *William Reich: Psychoanalyst and Radical Naturalist* (Farrar, Straus & Giroux, 2003).



## Editor's Choice

The designation "Editor's Choice" means that we can recommend this book to nonspecialists as an excellent opportunity to delve into its subject matter.

By Karl Giberson

For every action there is an equal and opposite reaction. For every particle there is a corresponding antiparticle.

Such dualisms are commonplace. The philosopher Hegel developed an elaborate theory of history based on the struggle between theses and antitheses. And indeed there is a great deal of illumination that results from identifying key initiatives in the world and their opposition.

Physicist Victor Stenger has written an impassioned antithesis to the entire set of assumptions on which the existence of a publication like *Research News* is based. The book has a title quite similar to many that have appeared in these pages: *Has Science*

# Sleeping with the enemy

*Has Science Found God? The Latest Results in the Search for Purpose in the Universe.*

Victor J. Stenger. Amherst, NY. Prometheus Books, 2003. 295 pages. \$30 hardcover.

*Found God? The Latest Results in the Search for Purpose in the Universe.* The answer that the book provides, however, is quite different.

Stenger, no stranger to readers of this publication, (see the January, February and June 2002 issues of *Research News* for his work) argues forcefully that science has not turned up any evidence that God exists. Covering all the bases, he looks at creationism, intelligent design, faith healing, religion and health, the origin of the universe, the anthropic principle, near-death experiences, prayer studies, parapsychology and more. In each case, the happily liberated ex-Catholic author concludes either: a) the evidence is simply not there or, if it is,

it does not imply the existence of God; or b) there is an equally compelling or even better case for a non-theistic explanation.

Stenger's criticisms are aggressive. Intelligent design theorist William Dembski, described as "confused," is faulted for using a definition of information that "does not correspond to that used in the field," the conclusions of *Research News* editor-in-chief Harold Koenig are faulted for being so statistically weak that they could never have gotten published in a physics journal; Larry Dossey is aggressively critiqued for having created a "composite" character named Sarah with an

extraordinary near-death experience and passing her off as real, a charade exposed by Susan Blackmore. "Bible Code" guru Michael Drosnin is faulted for his "ignorance of biblical scholarship." Templeton laureates John Polkinghorne, Ian Barbour, and Arthur Peacocke, labeled "premise keepers," are treated a bit more respectfully, but the latter is accused of promoting a Christianity "pruned of virtually every traditional teaching."

In such a wide-ranging work there are bound to be some problems. Stenger is not careful to distinguish between religion-and-health studies that require a supernatural explanation and those that can be explained within the framework of contemporary science. Interspersed

prayer studies, in which someone prays for a subject without the subject's knowledge, are testing for some kind of interaction that could only be described as supernatural. (Such studies, unfortunately, have not done very well and null results are the norm.) On the other hand, correlations between health and religious practice, such as those discovered by researchers like Dale Matthews, Ken Pargament, Koenig and others, have never claimed to provide,

as Stenger suggests, "scientific support for a supernatural role in health."

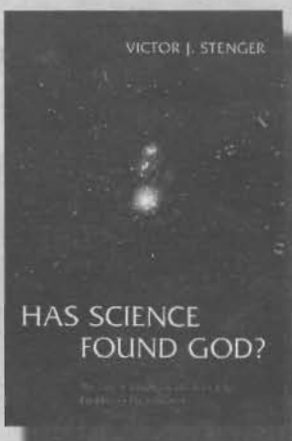
*Has Science Found God?* does not, of course, destroy the basis for the science-and-religion dialogue. And that is not really what it is trying to do. What Stenger offers in this polemical, no-holds-barred, personal, often idiosyncratic survey is a fresh look at the "evidence" for God from someone who does not believe. The science-and-religion community, for obvious reasons, is dominated by people who believe in God, many with considerable passion, and many who have believed in God for their entire lives. The editors, contributors, advisors and readers of *Research News* fall comfortably into this group, for the most part. Within such a context it is all too easy to forget that there are radically different ways to look at the complex and wondrous world in which we live.

Careful consideration of opposing viewpoints can sharpen your self-understanding, give you a better sense for what you believe.

Or it can change your mind. At the very least it promotes humility, opening your mind to a richer appreciation of "how little we know," a phrase that is often on the lips of Sir John Templeton.

Do not read Stenger's book right before church, as it certainly does not promote a devotional frame of mind. But do read it. ■

Karl Giberson is editor of *Research News*.



## Do not read Stenger's book right before church.

## Corrington

Continued from previous page

uralism" to signal that it is committed to the view that nature is all that there is; yet, there are many potencies and powers within this one nature that are ecstatic and self-transforming.

For an ecstatic naturalist, there can be no reality that is disconnected from nature, but it does not follow that anything I pick out of the inventory of nature must somehow link up with everything else. There are breaks and tears in the fabric of things, and no longing for a totalizing feeling (prehensive) connection can stand up to this primal fact. Perhaps we can say that nature takes away as much as it gives. Further, anything I point to is real; nothing is less or more real than anything else within nature. We can still say that

some things have more value than others, but this is perhaps our business rather than God's.

Take a long hard look at the innumerable realms of nature. I challenge you to find just one thing or type of stuff that underlies everything or is found in every realm. The quest for an ultimate "something" is a holdover from the three approaches to nature briefly described above. Why assume that nature must be, for example, matter, or a divine creation or atomistic actual occasions? A true naturalist view says something more austere, namely that nature is the availability of orders and the orders themselves — nothing more, nothing less. Where does God fit into this somewhat chastened form of naturalism?

Certainly, the god of ecstatic naturalism is not an extra-natural creator, nor can the god of nature be connected with everything

through some kind of super-relation. Let me suggest that the divine is an emergent potency within some orders of the world, but not all. The divine is manifest in what could be called "sacred folds," that is, those places in nature that seem to fold in on themselves and have more meaning, power and compelling force than everyday realities. I think, for example, of sacred groves or unusual natural formations, as well as certain human events that are charged with a different kind of meaning than we usually find. These sacred folds stand out from the background of nature; they are ecstasies, ecstatic releases of energy and meaning. From the perspective of materialism, they cannot be what they seem to be. From the patriarchal monotheistic perspective, they must be more dangerous than healing, whatever they are. And I suspect that for pantheists, these ecstasies are a

bit on the scary side and don't show enough of their collective and evolutionary value.

Ecstatic naturalism, which is really a pantheism, honors the strange uncanny ecstasies of the sacred. It refuses to paint an all-too-human god on the face of nature and lives courageously with the fact that nature is all that there is. Thus, ecstatic pantheism or naturalism is fully religious at its heart, but insists that our pictures of nature must be as broad in scope as is humanly possible. Nature has no outside; it is all inside, but the inside is broiling over with all kinds of signs and meanings that dazzle and confound our metaphysical systems.

Most racially, ecstatic naturalism believes that the heart of nature is a deep unconsciousness, a homogenous ground that somehow managed to emanate the heterogeneous realms that we know of, and many more that we don't

Spinoza called this dimension *natura naturans*, or nature radiating nature out of itself alone. He called what it emanates *natura naturata*, namely, the stuff of the world. For an ecstatic naturalist, the goal of the religious life is to live within the power of this deep cleft within the heart of nature and to swim along with the ecstasies that suddenly and strangely emerge from the unconscious of the world.

Consequently, ecstatic naturalism does not need a process companion god, a materialist presupposition or a sovereign creator. It embraces a kind of naturalistic piety that allows the self to be shriven of its projections and to live within the one nature that has emanated and continues to emanate all that is. In doing so, it prepares the way for a global religious consciousness that truly represents the mysterious depths of nature. ■