Ocean water may hold key to life's origins

By Heather Wax

Scientists 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 watery planet," hoping to see 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 cooled, Banks said. These crystals, from ice in Greenland, translate the scientist's 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 water 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 inclusion (usually between one-billionth 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 the atmosphere..."

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Hollywood takes on science-and-religion

By Kimberly Rees

Truck driver and bleeding a lean, young man succeeds to death is his perceptions look so in victory. His followers weep. All seems lost—until the slim hero races. After defeating the villain, the same young man returns to his friends and begins to spread far message to the world.

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

At this point in the story, Jesus would have ascended to Heaven. Now, the science-fiction Messiah figure played by Keanu Reeves in 1999's "The Matrix" instead hangs up a handkerchief, exits a public phone booth and slides on a pair of dark sunglasses. Heavy metal music blares 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 feast of entertainment. The film chronicles the further adventures of a small group of rebels piloting a hovercraft called the Nebuchadnezzar 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 these theologians, Keanu Reeves plays Neo in "The Matrix: Reloaded."
Three conventional notions ignore the fullness of nature

By Robert S. Corrington

Rebecca Corrington is a professor of philosophical theol- 
ogy at the Casperen School of Graduate Studies at 
Drew University in Madison, N.J. She has authored 
eight books (see below), co-edited five others, and has 
published 30 articles in the areas of metaphysics, Semiotics, 
phenomenology, theology and ecology. Her sixth 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 Naturalists, 
Woodstock, N.Y., is expanding his philosophical perspective of ecstatic 
naturalism. He is also working on new ways of doing psyche-
therapy (having already published studies of C.S. Peirce 
and Wilhelm Reich) and is planning a work on the life and 
thoughts of Helena Petrovna Blavatsky, founder of the modern 
derapy movement. Corrington is primarily focused on integrating a pantheistic conception of nature 
with a semiotically configured psychotherapy so that the relationship between the human and the 
world can be better understood. Theologically, he is focused on framing the quest for a post-nominal 
world region. Corrington is an active member of the Unitarian Universalist Association, the 
osophical Society of America and the International Theological Society.
Slepping with the enemy

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


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 thesis and antithesis. And indeed there is a great deal of illustration 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 supernatural deity is based. The book has a title quite similar to many that have appeared in these pages: Has Science Found God?

Stenger, no stranger to zenith 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 arm of Catholic orthodoxy 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: Irreligious 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 Krogs are faulted for being so statistically weak that they could never have been published in a physics journal; Larry Dosser is aggressively criticized for creating a "composite" character named Sarah with an extraordinary near-death experience and passing her off as real, a charade exposed by Susan Blackmore: "Bible God" guru Michael Destrang is faulted for his "groaner of a biblical scholarship;" Templeton laureate John Polkinghorne, Ian Barbour, and Arthur Peacocke, labeled "praying keepers" are treated a bit more respectfully; but the latter is accused of promoting a "Christianity spiced with virtually every traditional teaching."

In such a wide-ranging work there are bound to be some problems. Stenger is not careful to distinguish between religious- and health-studies that require a supernatural explanation and those that can be explained within the framework of contemporary science. Interdisciplinary proper studies, in which someone prizes for a subject without the subject's knowledge, are treated 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 practices like Duke Matthews, Kes Parungan, 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-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-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 the group, for the most part. But that is why it is all too easy to forget that there are actually different ways to look at the complex and wordy world in which we live.

Careful consideration of opposing viewpoints can sharpen your self-worthstanding, 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 new 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.

Corrington

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urialism" to signal that it is committed to the view that nature is all there is: at least, there are many possibilities 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 names, but it does not follow that everything I pick out of the inventory of nature must somehow link up with everything else. There are breaks and gaps in the fabric of things, and no longing for a totalizing feeling (presence) connection can stand up to that primal fact. Perhaps we can say that nature talks 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. I do not argue for the existence of anything but rather for the existence of the odors and the colors themselves — nothing more, nothing less. Where does God fit into that somewhat charmed form of naturalism?

Certainly, the god of ecstatic naturalism is not an extraplatin concept, nor can the god of nature's curve be connected with everything through some kind of super-rela-

tion. That suggests that the divine is an emergent property within some order of the world, not all. The divine is manifest in what could be called "sacred folds," that is, in those places in nature that seem to fold in on themselves and have more meaning, power and compelling force than everyday ordinariness. I think, far more than one, that nature is charged with a different kind of meaning than we usually find. Those 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 patrimonial materialistic perspective, they must be more dangerous than healing, whatever they are. And I suspect that for panentheists these activities 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 umbrageous essence of the sacred. It refuses to paint an all-too-human god on the face of nature and lives consonant with the fact that nature is all that there is. Thus, ecstatic naturalism or pantheism is possibly, at its heart, but insists that its pictures of nature must also be found in nature as it is humbly possible. Nature has no outside; it is all inside, but the inside is breaking out with all kinds of signs and meanings that dazzle and confound our mythopoeic systems.

Most radically, ecstatic naturalism believes that the heart of nature is a deep unconsciousness, a homogenous ground that somehow managed to evince the heterogeneously realized that we know of, and must now: that we don't. Spinor's called this dimension nature natures, or nature radiating nature out of itself. He called it what it emanates nature nature, namely, the stuff of the world. For an ecstatic naturalist, the goal of the religious life is to be within the power of this deep ecstatic, to swim along with the ecstatics that suddenly and strangely emerge from the unconscious of the world.

Consequently, ecstatic naturalism does not need a provident companion god, a materialist presupposition or a sovereign creator. Ecstasy is the naturalistic piety that allows the self to be shivered of its projections and live within the world that is emanated and continues to emanate all that is. In doing so, it prepares the way for a global religious consciousness that truly represents the previously depths of nature.