



News & Views

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Hyde Park Religion and Science Society Awarded \$10,000 Metanexus LSI Grant

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Message from the New Director

Change has come to the Zygon Center. We begin a new school year with a new director and associate director at ZCRS. As the director of the center since July 1, I am excited about new programs we intend to implement at ZCRS and new constituencies we hope to reach. I am also grounded in the Zygon Center's history. As director of the Epic of Creation project since 2003 and as a regular participant in ZCRS courses, I deeply appreciate the value of the center's past. Past directors have built the Zygon Center into a place that strengthens the dialogue between religion and science. ZCRS programs have consistently engaged both religion and science in an academic and challenging spirit, and they have not hesitated to tackle issues that are difficult for both disciplines. Courses and special symposia have targeted questions that challenge both disciplines, encouraging dialogue that provides insight and focus.

I am committed to continuing this tradition, which has brought together a unique community of investigators. Inclusivity has been the hallmark of this group. It has welcomed scientists and theologians with equal warmth, and it has been attentive to contributions from different faith traditions. I have felt fortunate to participate in this community, and I look forward to our continued conversations.

Some of those conversations will take place around the table in ZCRS's annual courses. The Epic of Creation this fall promises another round of fascinating lectures from scientists, theologians, and biblical scholars. In the spring, Dr. Philip Hefner will direct the 2008 Advanced Seminar. Entitled "'The Hard Problem'—Consciousness, Experience, and Mind," the course will place emphasis on understanding consciousness and its relation to the human experience. Dr. Hefner plans to invite a series of local and outside speakers to enlighten the course participants and to provide for lively, interactive discussions. The topic and speakers this year will be especially challenging and should be extremely interesting for the group.

A new course offering will also broaden the scope of our conversations in the spring semester of this year. Dr. David Rhoads, professor of New Testament and director of the Web of Creation project at LSTC (www.webofcreation.org), and I will coordinate this new course, called the Future of Creation. The course has been designed as a companion to the Epic of Creation, though Epic will not be a course prerequisite. The goal of the Future of Creation is to help students and others in the community to understand ecological issues that threaten our environment and

our world. Over the course of the semester, we will hear from experts on global warming and eco-justice, learn approaches to deal with ecological concerns, and discuss how communities can contribute to solving these problems. We anticipate that this course will become a staple for the Zygon Center, offered each year during the spring semester.

We are also excited about new developments in existing programs. The Hyde Park Religion and Science Society, a student society for students of the Hyde Park seminaries and theological schools, recently received a supplemental grant from the Metanexus Institute Local Societies Initiative. Metanexus awarded the grant "for organizational excellence, creative programming, and

spirited commitment to fostering the constructive engagement of science and religion." We are thrilled about the possibilities this grant funding offers. We plan to intensify outreach and recruitment efforts, and we are making plans to expand the society's programming as well. One program we hope to develop will be a series of student research symposia that will give students an opportunity to present their work to the local academic community.

As we build on existing ZCRS programs and undertake new projects, we are delighted to have the contributions of Lea Schweitz as the center's new associate director. Schweitz brings a fresh, unique approach to the science-religion dialogue. We anticipate that her growing leadership in the

activities of the center will enhance our conversations and strengthen our programs.

The year ahead promises many opportunities for the Zygon Center. Even as we look forward, we appreciate the work of previous leaders to make the center a place for fruitful dialogue that is both inclusive and academically rigorous. Special thanks should be extended to the members of the Zygon Center Interim Steering Committee whose extraordinary hard work and commitment has been a real gift to the Zygon Center and the religion-science community at large. The Interim Steering Committee served the center from February through July of 2007. Members of this committee included John and Carol Albright, Christina Heisser, Philip Hefner, Karl Peters, Audrey West. It is anticipated that this group will continue to serve as advisors to the center in the future.

Thank you for your continued interest in the activities of the Zygon Center. I look forward to our dialogues and discussions this year.

Gayle Woloschak



Meet the ZCRS Associate Director

Lea F. Schweitz joined the ZCRS staff as associate director this summer. Schweitz will receive her Ph.D. in philosophy of religion from the University of Chicago Divinity School in March 2008. She was a resident dissertation fellow at the Center for Philosophy of Religion at the University of Notre Dame in 2005-06. Her fellowships and grants include the Wilson Teaching Fellowship, a Martin Marty Center Dissertation Fellowship, a grant for advanced theological studies from the Evangelical Lutheran Church in America, and the Wabash Fellowship with Chicago Forum on Pedagogy and the Study of Religion.

Q: What are you currently researching, and how does it connect with the religion-science dialogue?

A: I am currently researching the theological anthropology of the 17th century German Lutheran, G.W. Leibniz, who co-founded calculus and coined the word, 'theodicy.' These biographical features alone connect him to the history of religion and science and thus to some of the religion-and-science dialogues. However, my overarching interest in the religion-and-science dialogues is in envisioning and re-imagining what it means to be human. I find Leibniz's contribution to this aspect of the dialogue quite remarkable. His is an early attempt to see humanity as essentially related and interrelated to God, other humans, and the created world while maintaining an adequate and comprehensive scientific explanation of humans and nature. I think the conversations in religion and science are uniquely situated to offer robust understandings of humanity. My hope is that this work on Leibniz will contribute to that larger project by offering a view that is both productive for contemporary thought and helpful for developing a longer historical perspective on the conversations.

Q: What do you think is the most compelling topic in the religion-and-science field?

A: It seems to me that students and scholars in the field are currently excited by and interested in the latest developments in consciousness studies. The science behind this field is becoming increasingly sophisticated, and it gets at the heart of some of our deepest questions about who we are. This year's Advanced Seminar is projected to take up these questions in response to the growing interest and concern in this area. Lurking just behind the interest in consciousness studies is an interest in disciplinarity, interdisciplinarity, and transdisciplinarity. Much recent work has drawn attention to the ways the structure of our disciplines constrains the questions we ask and the answers we discover – or invent. The interdisciplinary nature of the religion-and-science field is uniquely situated not only to help develop robust understandings of humanity, but it is also a particularly fruitful space to pursue questions about the disciplines.

Q: Where do you see the greatest opportunities for

growth in religion and science?

A: Because the field is vibrant, the opportunities are many. In particular, I'm interested in seeing the field pay greater attention to its own history. This is one of the reasons why my own work is on early modern figures. I think we can make better sense of where we are and where we ought to go by knowing whence we've come. History matters. One thing this history reveals is the continuing need to widen the scope of the interlocutors participating, fully participating, in the conversation. In other words, one of the greatest opportunities for growth in the field is to grow the field.

Q: What are you most excited about working on at ZCRS?

A: One of the unique features about ZCRS is the high level of participation of working scientists. As an undergraduate biology major, I did field research on ecological management techniques for tall grass prairies so I, personally, am excited about the opportunity to be in conversation with scientific communities again and to deepen my own level of scientific literacy.

For ZCRS more generally, I think this is an exciting moment. In the short term, I am excited about the collaboration with Gayle Woloschak and the other members of the Center to develop and to articulate a vision for the future of ZCRS. The Center was founded in 1988, and as we approach the 20th anniversary of its founding, we find the Center with many of its programs flourishing. The Epic of Creation lecture series and the Hyde Park Religion and Science Society are succeeding at the Center's goal to yoke scientists and theologians, individuals and communities, and students and scholars. These programs fulfill the Center's mission of yoking in terms of joining, and I am looking forward to helping these programs continue to grow. However, yokes also enable the "yoked" to do more work together than either could do alone. I hope that this pragmatic sense of ZCRS's yoking will play a role in the vision for the Center's future so that in addition to serving our academic communities we strive to contribute to the cares and concerns that impact on everyday communities and congregations - whether that be through HIV/AIDS workshops, literacy education, or the myriad of possibilities for working together toward human flourishing. ■



Photo courtesy of Jan Boden

Spirited Commitment, Organizational Excellence Contribute to HPRSS Award

In June, the Hyde Park Religion and Science Society (HPRSS) was awarded a \$10,000 grant by the Metanexus Institute Local Societies Initiative. The society received one of two supplemental grants awarded to American organizations. Supplemental grants provide funding to local religion and science societies that have proved "particularly innovative, creative, and effective in their efforts to engage in and promote the religion and science dialogue."

Society member Jennifer Baldwin accepted the award on behalf of the society at the Metanexus Institute's 2007 conference, "Transdisciplinarity and the Unity of Knowledge: Beyond the Science and Religion Dialogue," held in Philadelphia. She was one of more than 250 representatives of multidisciplinary Local Societies from 40 countries around the world. The Hyde Park Society was one of only nine groups to be recognized with a supplemental grant award.

The Hyde Park Society's goal is to encourage and equip young scholars of religion and science toward making a future impact on academic teaching and education among religious communities. It does so by supporting student research and teaching. Bimonthly meetings give students an opportunity to work together in an effort to improve one another's scholarship. Faculty mentors help students to develop their papers for presentation. Special guest speakers meet with students in small groups, allowing students to learn from leaders in the field of religion and science. Funding from the Local Societies Initiative grant and matching funds from LSTC support travel for these speakers and make it possible for the HPRSS to provide travel assistance for students

to attend and present at conferences.

In the 2006-07 academic year, the society's 24 members came from the University of Chicago and the Lutheran School of Theology at Chicago (LSTC). They represented disciplinary backgrounds including biology, chemistry, and information science, and they have applied their differing interests and skills to a wide range of pursuits. This past year, Antje Jackelén, then ZCRS director, and John Albright, Visiting Professor of Religion and Science at LSTC and Professor Emeritus of Physics at Purdue University Calumet provided mentorship to members of the society as chairs. For the spring semester of 2007, the society also benefited from the work of Carol Rausch Albright, Visiting Professor of Religion and Science at LSTC and author of several books on the interface of neuroscience and religion.

Meetings for the Fall 2006 semester consisted mostly of student presentations. Members gathered as a group to present their research to their peers and work on revising drafts together. This past school year, students discussed nine draft papers in society business meetings. Society member George Tsakiridis, who presented a draft paper to the society that he planned to revise for the American Academy of Religion (AAR) national meetings, finds this process to be extremely helpful. He writes, "The society is at its best when students present their work and receive peer feedback. This has been a valuable tool for me as well as many other students in the field." Faculty mentors observe that these "workshop" sessions strengthen students' writing and argumentation and build collegial bonds between students.



Jennifer Baldwin at the Metanexus Conference, June 2007. Photo courtesy of Neva Hefner.



George Tsakiridis speaks at the banquet for the Peacocke Symposium, February 2007. Photo courtesy of Dan Hille.

Academic conversation among society members has strengthened their academic work. Those conversations have been improved by the latest scholarship and input from leading scholars in religion and science. The society pays for student subscriptions to *Zygon: Journal of Religion and Science* and *Theology and Science*, literally placing the most current scholarship in the field of religion and science in the students' hands. Students bring new knowledge gained from their reading to society meetings. Megan Doherty, a society member and Ph.D. student at the University of Chicago Divinity School, writes, "The resources made available through LSTC, including faculty, visiting lecturers, symposia and a subscription to *Zygon: Journal of Religion and Science* are the perfect catalysts to widen the scope our conversations." Indeed, the society's meetings have been a space for committed students to hone their critical thinking skills and have allowed students to test new ideas in their critical assessment of the works, and spirited discussions with their peers have helped them to practice reshaping and strengthening oral arguments.

In addition to discussing religion and science among themselves, society members have had the opportunity to meet with working scholars in the field of religion and science. This fall, society member Carmelo Santos-Rolon presented part of his dissertation to the society and to special guest Andrew Newberg, Professor of Psychology at the University of Pennsylvania. Santos's dissertation explores the relationship between pneumatology and cognitive science. Because of his membership in the Hyde Park Society, he was able to receive feedback on his work from one of the leaders in the field of cognitive science. In the spring semester, guest speakers joined the society to discuss the problem of evil. Their visits coordinated with the Advanced Seminar in Religion and Science, allowing students to work in small groups with guest faculty. In addition to the intellectual benefits of these conversations, Santos and other society members have made ongoing professional connections through conversations begun at the society meetings.

The society has also made it possible for students to share their work at conferences throughout the country and abroad by providing travel scholarships. This fall, it supported three students' travel to the AAR meetings in Washington, D.C. George Tsakiridis (Ph. D. student, LSTC) and Adam Shapiro (Ph.D. student, University of Chicago) presented papers at the conference, and Jennifer Baldwin (Ph.D. student, LSTC) proposed, organized, and moderated a panel. In addition, the society provided registration fees and travel costs for eleven students to attend other conferences in the past year. One of the conference students attended was the Zygon Center's fall research conference, "Emergence:



Elonda Clay speaks at the Godspeed and Farewell Service for Antje Jackelén. Photo courtesy of Jan Boden.

A Better Vision of Nature, Science, and Religion?" Five HPRSS members moderated sessions at that conference. Through this financial support, the society makes it possible for students to participate fully in academic professional communities and national meetings and conferences related to the interests of the student. The educational benefits that students receive from their conference experience are impressive: there is a noticeable growth of scholarly identity.

That scholarly identity has translated into impressive scholarly achievements. Individual members of the society, through their own hard work and assisted by the society's human and financial resources, have published eight articles, interviews, and reports in the 2006-2007 academic year. They presented fifteen papers at regional and national conferences and as invited lecturers. They moderated five conference panels and attended thirty-three conferences. One member co-edited a book, and another organized an academic conference. They have accomplished all this while balancing the demands of academic coursework and employment, as teachers, as ministers, and as research scientists.

Given the successes of the past year and the opportunities afforded by the supplemental Local Societies Initiative grant, the Hyde Park Religion and Science Society is excited to move into the new academic year. The HPRSS will hold an open meeting on Monday, October 1 to welcome new members. It invites students in all disciplines from the Hyde Park theological schools and the University of Chicago to join. For more information, contact the ZCRS office: zcrs@lstc.edu or 773-256-0670. ■

Symposium Honors Arthur Peacocke's Legacy of Dialogue

by Susan L. Barreto and Philip Hefner



*Panel discussion, L to R: Antje Jackelén, Karl Peters, Gloria Schaab, Wentzel van Huyssteen.
Photo courtesy of Dan Hille.*

The Zygon Center for Religion and Science and *Zygon Journal*, with support from the Lutheran School of Theology in Chicago and the John Templeton Foundation, hosted a symposium February 9 and 10 on Arthur Peacocke's lifelong work of narrowing the gulf between science and belief.

The project likely began with a series of questions in Peacocke's own heart and mind. A biochemist and a priest in the Anglican Church, Peacocke died last October after publishing more than two hundred papers and twelve books on theology and science. He became one of the world's greatest thinkers on humankind's struggle to find a bridge between evolutionary theory and Christian faith. The two-day series of lectures attracted nearly one hundred participants – including scientists, theologians and seminary students.

"We cherish Arthur in Chicago, but we realize he belongs to the world," said Philip Hefner, editor of *Zygon Journal*. Rosemary Peacocke, Arthur Peacocke's wife and guest of honor, noted that he would have been surprised and honored at the symposium's turnout and the enthusiasm of its participants. Ian Barbour, considered to be the "Dean of Religion and Science" studies, paid tribute to Peacocke and traced the interaction of the two men over the years.

Keynote speaker Gloria L. Schaab, assistant professor of systematic theology at Barry University, focused on Peacocke's early work in uncovering the

correct framework of dialogue between scientists and theologians. While science analyzes what's observable, theology is based on the infinite, unfathomable reality, she said.

"Concerning finite reality in science and infinite reality in theology, Peacocke proposes that each must speak critically and somewhat skeptically," Schaab said. "The theologian and the scientist must strive to demonstrate as clearly as possible that the reality which each investigates truly exists." This brand of inquiry is what Peacocke dubbed 'critical realism' – the idea that science and theology can refer to the realities they investigate but neither can literally describe them.

The concept of God as 'cosmic composer' was explored in the responding panel of Wentzel van Huyssteen, Princeton Theological Seminary's James I. McCord Professor of Theology and Science, and Karl Peters, professor emeritus of philosophy and religion at Rollins College and co-editor of *Zygon Journal*.

Antje Jackelén, departing director of the Zygon Center for Religion and Science, opened the second day's schedule of seminars with her paper on "An Intellectually Honest Theology." Peacocke proposed an intellectually honest theology that deals with questions that must be asked. If those questions are not asked, humanity will ultimately pay with a loss of meaning, Jackelén said.

Philip Clayton, professor of theology at Clare-

mont Graduate School, focused on Peacocke's concept of hierarchies. He concluded that current scientific views fit closely with Peacocke's idea of a hierarchy of interlocking complex systems that have a determinative effect on the whole of nature.

Ann Pederson, a professor of religion at Augustana College, Sioux Falls, S.D., spoke on Peacocke's "Christology for a Scientific Age," and the impact the science and religion dialogue has had on her first-year students. Pederson and Peacocke co-authored the book *Music of Creation* in 2005.

Pederson highlighted Peacocke's belief that Christ embraces nature in all its particulars, inclusive in that he embodies all of God's intentions for his creation. For him Pederson said, "To be Christologically informed is to serve one's neighbor. And who is our neighbor? It is the world around us."

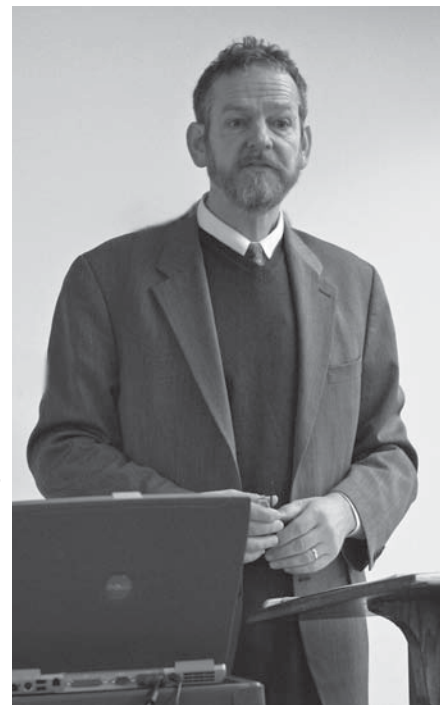
Peacocke's final book, *All That Is: A Naturalistic Faith for Twenty-First Century*, was written in the months immediately before his death. This book is a compact expression of his conviction that faith can be understood and articulated in constructive interaction with contemporary science. Fortress Press published this work in book form for the symposium. The book includes Peacocke's proposal and ten scholarly responses, to which Peacocke in turn responded. Nancey Murphy, professor of philosophy at Fuller Seminary, Donald Braxton, professor of religious studies at Juniata College, and Philip Hefner, all of whom contributed to the volume, provided commentaries on *All That Is*.

The symposium concluded with presentations by two scientists. Northwestern University molecular biologist Gayle Woloschak, who showed how Peacocke's early work studying the nature of hydrogen bonds in

DNA helped lead to the discovery of DNA's true structure. He also pioneered the chemicals used to study DNA, which are still in use in laboratories today, she said. Paul Heltne, president emeritus of the Chicago Academy of Sciences and a senior research scholar with the Center for Humans and Nature, elaborated on Peacocke's interpretation of evolutionary theory.

ZCRS and Zygon are grateful for this opportunity to honor a man who was a good friend and a foundational figure in bringing religion and science into meaningful conversation.

Through a grant from the John Templeton Foundation, the papers from this symposium are available on the website, zygonjournal.org, and in the March 2008 issue of the journal. ■



*Philip Clayton responds to a question.
Photo courtesy of Dan Hille.*



*Gloria Schaab delivers the keynote lecture.
Photo courtesy of Dan Hille.*

For Further Reading:

Arthur Peacocke is rightly called one of the pioneers of the modern religion-and-science dialogue. His books include titles that have become standard works in the field, including:

- *Science and the Christian Experiment*. Oxford University Press, 1971.
- *Theology for a Scientific Age: Being and Becoming - Natural, Divine, and Human*. Fortress Press, 1993.
- *From DNA to Dean: Reflections and Explorations of a Priest-Scientist*. Morehouse Publishing Co., 1997.
- *Paths from Science towards God: The End of all our Exploring*. Oneworld Publications, 2001.
- With Ann Pederson, *The Music of Creation*. Fortress Press, 2006.

Fall Conference Explores Emergence from Multidisciplinary Perspectives

by Carol Rausch Albright

It is widely assumed that there is a “scientific outlook” on the natural world to which most scientists subscribe. This outlook is seen as mechanistic, materialistic, and often antithetical to religion. This worldview certainly does exist, but currently, it faces important challenges from within the scientific community itself. The challengers are birthing new visions of “the way things really are,” with important implications, not only for science itself, but for the entire human project.

To explore these burgeoning insights, the University of California, Santa Barbara, has launched a three-year project, “New Visions of Nature, Science, and Religion,” with generous funding from the John Templeton Foundation. ZCRS director Antje Jackelén was selected as a Core Scholarly Participant in the project.

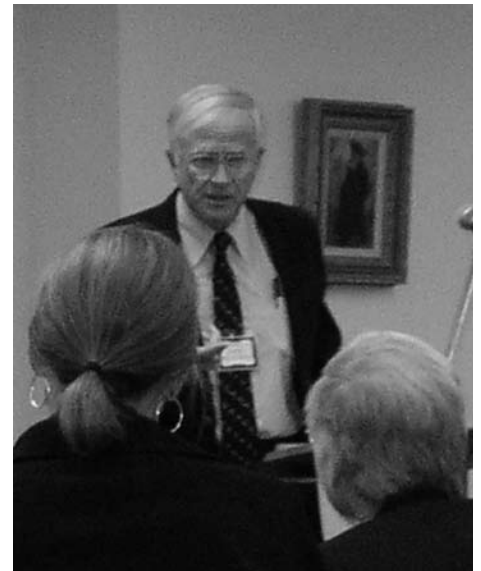
As part of this investigation, ZCRS hosted a conference on September 28-30, 2006 to explore one of the most important foci of these new visions: theories of emergence. Eight leading scholars presented their perspectives on “Emergence: A Better Vision of Nature, Science, and Religion?” The 42 registered participants traveled from 15 U.S. states and Estonia; many more attended the opening public lecture.

Emergence is a focus of intensive work in a variety of scientific, philosophical, and theological fields, and provides exciting new perspectives that cast new light on scientific and other assumptions. Although emergence is variously defined, one definition speaks of “events in which simpler components join together and actually integrate, with a result that is significantly different

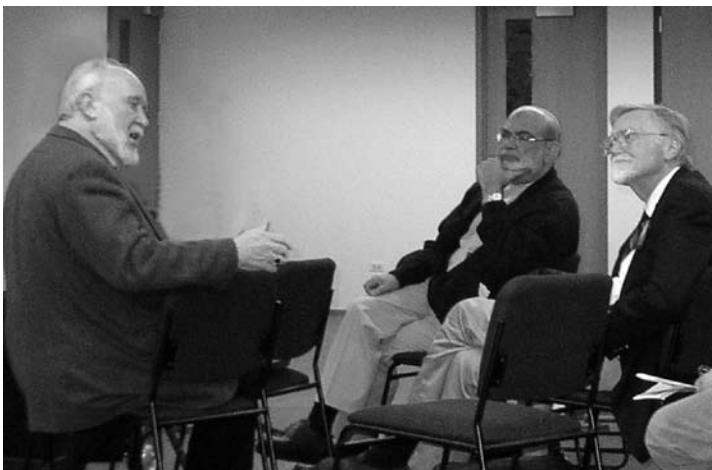
from the sum of its parts and that could not readily have been foreseen.... A classic example is water, which has characteristics different from those of the hydrogen and oxygen which joined together to form it.”* A tendency to increased organization is apparently built into the world at all levels: sub-atomic particles, organisms, even societies. Furthermore, not only do the “building blocks” that become organized influence the nature of what develops, but the outcomes in turn affect the components. And, the *processes* involved are seen as being as fundamental, as “real,” as the components. The theoretical implications of emergence theory range from ideas about how the world came to be to ideas about free will (or the lack thereof).

Two speakers in particular helped lay foundations for the exploration. Greg Peterson, associate professor of philosophy and religion at South Dakota State University, outlined the philosophical and scientific issues on which most emergentists agree. Peterson also clearly laid out areas of disagreement among these same scholars.

Emergence theory has foundational implications for the assumptions underlying scientific inquiry, and these were trenchantly explained by Robert Ulanowicz, professor of theoretical ecology at the University of Maryland Center for Environmental Science. In particular, he showed how emergence theory and other scientific findings have undermined five basic assumptions of traditional science: (1) that systems can have only mechanical or material causes, which co-occur; (2) that systems are composed of least units, which can be dissociated and then built up again (reductionism); (3) that systems are always reversible; (4) that they are deterministic; and (5) that physical laws are universal. An emergentist approach poses alternatives,



Dr. Robert Ulanowicz lectures on emergence in theoretical ecology.



Dr. Philip Hefner answers questions from the audience.

with fundamental consequences for belief systems. While emergence theory certainly does not prove the reality of God, it also does not rule out theism, but may enrich our understandings.

A physics perspective was presented by Leo Kadanoff, John D. MacArthur Distinguished Service Professor of Physics Emeritus at the University of Chicago, president-elect of the American Physical Society, and recipient of the President's National Medal of Science. A long-time researcher into nonlinear processes, including emergence, Kadanoff has confessed in another connection that physics has no real explanation for *why* emergence occurs; however, it does suggest

self-organization and cooperation, [it may be possible to reach] an understanding of creation that recognizes both *science* and *story* in our attempts to make sense of the universe." God may be seen as "not the designer of outcomes, but the wellspring of the frameworks in which complexification can occur."

Hefner pointed out that evolution is a flow, not of individual parts, but of forms or structures. He expressed the belief that "the process of emergence is a God-filled process. Or, we might say, the process of emergence is rooted in ultimacy." ■

*Carol Rausch Albright, "An Ethics of Emergence," ZCRS Advanced Seminar in Religion and Science, April 23, 2007.



Dr. Leo Kadanoff and Dr. John Albright during a discussion period.

fundamental processes in the development of the world as we know it.

Anne Foerst, assistant professor of computer science at Saint Bonaventure University, who has a doctorate in theology, explored emergence in artificial intelligence. Warren Brown, professor of psychology at Fuller Theological Seminary, took the discussion further into "Neuropsychology, Emergence, and Human Agency."

A view from anthropology was presented at the opening public lecture by Barbara King, professor of anthropology at the College of William and Mary. King has traced the emergence of religious practice in human pre-history and even in non-human primates, who show awe and love.

Finally, ZCRS director Antje Jackelén and *Zygon* editor Philip Hefner presented perspectives from theology. Since, as Jackelén said, "emergence means the coming into being of new modes and levels of

Selected Readings on Emergence:

- Beckermann, Ansgar, Hans Flohr, and Jaegwon Kim, editors. *Emergence or Reduction? Essays on the Prospects of Nonreductive Physicalism*. New York: Walter de Gruyter, 1992.
- Clayton, Philip. *Mind and Emergence: From Quantum to Consciousness*. New York : Oxford University Press, 2004.
- Clayton, Philip and Paul Davies, editors. *The Re-Emergence of Emergence: The Emergentist Hypothesis from Science to Religion*. New York: Oxford University Press, 2006.
- Gregersen, Niels Henrik. *From Complexity to Life: On the Emergence of Life and Meaning*. New York: Oxford University Press, 2003.
- Morowitz, Harold. *The Emergence of Everything: How the World Became Complex*. New York: Oxford University Press, 2002.
- *Zygon: Journal of Religion and Science* 41, no. 3 (September 2006). Includes several articles in the section "Emergence Theory - What is its Promise?"

Environment: Scientific Knowledge and Ethical Action

Spring Environmental Lectures 2007

ZCRS co-sponsored two extremely well-attended environmental lectures this spring. Ray Pierrehumbert, a professor of geophysical sciences at the University of Chicago, presented the inaugural Religion and Ecology Lecture in March, speaking on the topic "Global Climate Change: What is Happening and What We Can Do About It." Dwight Hopkins, a theology professor in the University of Chicago Divinity School, delivered the Earth Week Lecture, "Ecological Justice/Environmental Racism." Each lecture drew approximately 100 listeners from the Lutheran School of Theology at Chicago (LSTC), the University of Chicago, and the Hyde Park community. Dr. David Rhoads, professor of New Testament at LSTC, coordinated the initiative, a collaborative effort including ZCRS, LSTC, McCormick Theological Seminary (MTS), the Hyde Park Religion and Science Society, and the University of Chicago Religion and Environment Initiative.

Problem: Global Climate Change

Dr. Pierrehumbert is a scientist who is practiced in speaking to non-academics. He presented scientific information to the public as lead author on the Intergovernmental Panel on Climate Change Third Assessment Report. He works on developing solutions to climate change locally as a member of Mayor Daly's Task Force on Climate Change. He also contributes to the award-winning RealClimate.org climate science blog.

Dr. Pierrehumbert explained that global climate change is a product of rising levels of carbon dioxide in the atmosphere. Carbon dioxide is the most important warming gas in the earth's atmosphere. While carbon cycles in and out of the atmosphere naturally, human activity also contributes to carbon dioxide levels. As humans burn fossil fuels, carbon dioxide is released as a byproduct. Carbon dioxide levels since the Industrial Revolution are much higher than the previous million years, and they have been growing at much faster than natural rates. This translates into a warmer climate. Human contributions to increased carbon dioxide create a warming effect that is fourteen to twenty times greater than would be caused by the natural system. If we continue to burn fossil fuels at this rate, Pierrehumbert said, the results could be cataclysmic. At current rates of warming, a hot summer day in Chicago in the year 2100 will be 35°F warmer than today. While 130°F temperatures will not kill everyone, they will be deadly to some, particularly the poorer and more vulnerable sectors of the population.

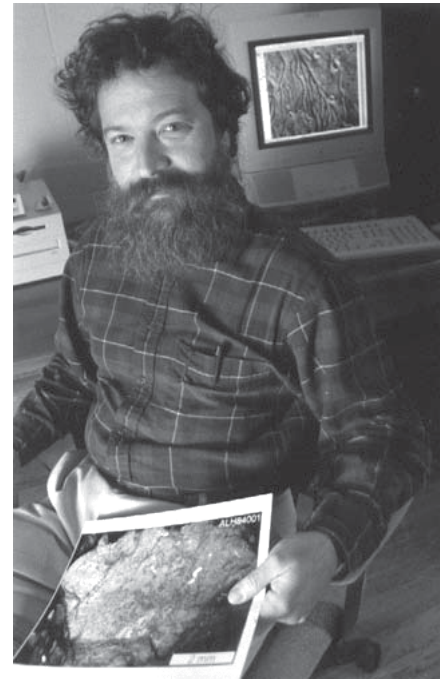
While current rates of climate change pose serious dangers to human life, Pierrehumbert emphasized that people can make a difference by changing their behavior.

He suggested that one way to do this on a personal level is to attempt to reduce your "carbon footprint," or the amount of carbon dioxide released by your activities. Some of that reduction can be made through simple choices: to reduce consumption, to drive less often, to be conscious of energy used in food production, to replace standard light bulbs with compact fluorescent bulbs.

Pierrehumbert noted that some changes need to occur on the policy level

as well if Americans will reduce carbon output enough. A mild carbon reduction goal would allow CO₂ levels to double over the next 100 years. In order to make that happen, we would need to reduce carbon output to 1.2 tons per person per year. For Americans, that would be a drastic reduction, as Americans currently produce 5.5 tons of carbon per person per year. Pierrehumbert argued that it is possible to reduce carbon use sufficiently and still live well. He used the example of the French, who currently output 1.5 tons carbon per person per year, in order to illustrate the way policy differences and infrastructure choices (often also decided by policymakers) make low carbon output possible. France makes intensive use of nuclear power, and French people predominantly use speedy trains rather than planes to travel. Cities are compact, and food is grown close to them. Of these factors, Pierrehumbert underscored power plants as the single most important. He argued that coal-fired energy poses the biggest threat for the future of the climate. Since 1980, the United States has doubled its use of coal. As coal is a cheap and abundant source of energy, it will be natural to continue to increase coal use. Pierrehumbert suggested that the government should monetize the environmental and health costs of coal mining, which would temper some of coal's attraction.

Pierrehumbert closed his lecture with a passionate call for change. Pierrehumbert argued that Americans



Dr. Ray Pierrehumbert. Photo courtesy of University of Chicago Geosciences

are wreaking ecological destruction for meager payoffs. He said, "We're selling our heritage for junk – for the ability to live in distant suburbs where you don't know your neighbor, for the ability to drive vastly excessive vehicles.... It's the abundance of possessions, possessions that don't contribute to the life of the spirit, that are causing us to put out so much carbon."

Problem: Environmental Racism

Dwight Hopkins, a professor of theology at the University of Chicago Divinity School, spoke on the problem of environmental racism. Hopkins argued that the traditional environmental movement has historically excluded people of color and poor people. Its focus on conservation has neglected issues of justice, while poor people and people of color have fought for equal access to environmental resources and equal protection from contaminants. Environmental racism is widespread. The injuries it has caused require a holistic healing response that articulates a vision of justice and organizes grassroots efforts to fight for justice. In short, Hopkins argued, environmental racism requires an environmental liberation theology.

Although the environmental justice movement was formally founded in the late 1980s, environmental racism is not a new problem, said Hopkins. The struggle for environmental justice played a major part in civil rights struggles in modern America. African Americans fought for access to clean environments and recreational spaces such as swimming pools and public parks throughout the twentieth century. In the 1960s and 1970s, Chicano labor activists in the United Farm Workers fought for protection from pesticides and Native Americans struggled to win land rights. Many struggles for civil rights have had environmental components, particularly regarding access to resources.



Dr. Dwight Hopkins. Photo courtesy of University of Chicago Divinity School

Despite the efforts of grassroots movements for environmental justice, environmental racism persists. The statistics are striking. Fifty percent of children suffering from lead poisoning are black. Two-thirds of all uranium in the U.S. is located in Native American territories. Ninety-two percent of people suffering from pesticide-related skin diseases are from a Latino background. Three out of five African

Americans and Hispanics live in areas with uncontrolled toxic waste sites. Approximately half of all Asian Americans, Pacific Islanders, and Native Americans live in places with uncontrolled toxic waste sites.

Hopkins proposed that a black environmental liberation theology might be an effective tool for healing some of the damage caused by environmental racism. He quoted James H. Cone, the father of black liberation theology, "Justice fighters for blacks and the defenders of the earth have tended to ignore each other with their public discourse and practice... Their separation from each other is unfortunate because they are actually fighting the same enemy: human beings' domination of one another and nature."

Hopkins pointed out that the Bible also links justice issues and creation-care. Romans 8:19-23 links the freedom of creation with the freedom of God's children. Ephesians 1:1-10 speaks of Christ kneading together and unifying all that is in heaven and earth. Matthew 25:31 reminds us that we achieve redemption by serving the least of God's people. Hopkins concluded that the Bible illustrates a unity between the hope for the liberation of the children of God and hope for the liberation of the creation. "It is a sin to monopolize environmental wealth and resources from earth [that have been] bequeathed to all creation."

Hopkins suggested that a black environmental liberation theology formulated by Diane Glave may answer the need for healing occasioned by environmental racism. Glave bases her black environmental liberation theology in three main sources: the Bible, history, and grassroots organizing. She argues that theology must incorporate praxis as well as reflection. Dr. Glave summarizes her vision in the following: "Black environmental liberation theology is both a theology and an ideology that is actualized by shielding contemporary African Americans exposed to toxins and pollution from landfills, garbage dumps, and auto mechanic shops or sewage plants."

Hopkins argued that Glave's theology is a model for holistic healing that seeks to heal body, mind, and spirit. He emphasized the importance of action in her model, concluding: "In response to African Americans being inequitably exposed to toxic chemicals and waste, the church is called to further expand grassroots and national reform...."

Dr. Hopkins and Dr. Pierrehumbert both argued for the necessity of change in our responses to environmental degradation. Pierrehumbert urged a combination of individual action and pressure on policymakers in response to the scientific problem of global climate change. Hopkins suggested that grassroots organizing and community healing were both necessary to redress the injustices of environmental racism. Both lectures sought to raise consciousness and inspire action on environmental problems in order to alleviate current human suffering and minimize it in the future. ■

Learn more and do more:

Read scientists' responses to the latest climate controversy.

Real Climate: Climate Science from Climate Scientists

<http://www.realclimate.org/>

Ray Pierrehumbert contributes to this blog. Contributors post detailed (but readable) information about climate science, in an effort to "provide a quick response to developing stories and provide the context sometimes missing in mainstream commentary." Site is keyword searchable. "Highlights" include "Al Gore's Movie," "Betting on Climate Change," and "Dummies Guide to the latest 'Hockey Stick' controversy."

Unearth environmental racism in your community.

Environmental Justice/Environmental Racism

<http://www.ejnet.org/ej/>

This site has PDFs of key documents in the environmental justice movement, background information, and policy documents from the U.S. government. It also links to websites with further resources.

Scorecard: The Pollution Information Site

<http://www.scorecard.org/community/ej-index.tcl>

Search for data about environmental racism in your neighborhood.

Green your wardrobe/meals/cleaning/furniture/gifts.

Treehugger.com: How to Go Green

<http://www.treehugger.com/gogreen.php>

This website aims to make 'green' hip. It also has thirty different articles with basic tips about moving toward a more ecologically sustainable lifestyle. Each begins with "Top 10 Tips" and then directs readers to green products, suggests more ways to learn about the problem addressed, and ways to take personal action into your community.

Bring environmental consciousness into your religious services.

Web of Creation: Ecology Resources to Transform Faith and Society

<http://www.webofcreation.org/>

This website, created and maintained by David Rhoads, a New Testament professor at the Lutheran School of Theology at Chicago, features congregational resources for environmental stewardship, including devotions, worship resources, and "green congregation" manuals.

Convert your religious group's power source to clean energy.

Focus on Energy

<http://www.focusonenergy.com/>

Madison Christian Community, a congregation with 400 members, received a \$15,000 grant from this Wisconsin organization. From the website: "Focus on Energy works with eligible Wisconsin residents and businesses to install cost effective energy efficiency and renewable energy projects."

Faith in Place

<http://www.faithinplace.org/>

Faith in Place is an organization based in Chicago "partner[s] with religious congregations to promote clean energy & sustainable farming." Faith in Place works in Illinois with congregations from a wide variety of faiths—Christian, Jewish, Muslim, Hindu, Buddhist, Sikh, Zoroastrian, Baha'i and Unitarian.

AAR Religion and Science Hospitality Event



Come out to enjoy great conversation with other religion and science enthusiasts at the AAR! ZCRS co-sponsors this annual hospitality event with the Institute for Religion in an Age of Science (IRAS), which runs summer conferences at Star Island, NH, and The Center for Theology and the Natural Sciences, at the Graduate Theological Union in Berkeley, CA.

Save the Date!

Religion and Science Hospitality Event
Saturday, November 17, 2007
San Diego Convention Center
Room 30A
7:00 pm - 9:30 pm

Publications

ZCRS associates have published several works in religion and science in the past year. The citations for those publications follow. Look for the proceedings of the ZCRS/*Zygon* symposium in honor of Arthur Peacocke in the March 2008 issue of *Zygon: Journal of Religion and Science*.

- Philip Hefner, "Evolution: Life in the Context of the Energies of God," *Journal of Theology and Science* (June 2007).
- -----, "Genetic Frontiers: Challenges for Humanity and Our Religious Traditions," *Zygon: Journal of Religion and Science* 42, no. 1 (2007).
- -----, "Science and the Masks of God: An Interpretation of Langdon Gilkey's Thought," *American Journal of Theology and Philosophy* (January 2007).
- Antje Jackelén, "A Critical View of 'Theistic Evolution,'" *Theology and Science* (June 2007).
- -----, "A Relativistic Eschatology: Time, Eternity, and Eschatology in Light of the Physics of Relativity," *Zygon: Journal of Religion and Science* 41, no. 4 (2006): 955-973.
- -----, "Emergence Everywhere?! Reflections on Philip Clayton's Mind and Emergence," *Zygon: Journal of Religion and Science* 41, no. 3 (2006): 623-632.
- -----, "Why is Søren so popular?" *Dialog: A Journal of Theology* 45, no. 1 (2006): 101-105.

Center News

Carmelo Santos* taught a course entitled, “**God in the Brain: Conversations between the Cognitive Sciences and Religion**” at the University of Richmond, June 26-29, 2007.

Gayle Woloschak presented and participated on a discussion panel on stem cell research at the Orthodox Theological Society of America annual meeting, St. Vladimir’s Orthodox Seminary, Crestwood, NY, June 12-14, 2007.

Philip Hefner lectured on “The Cultural and Theological Significance of OncoMouse,” May 7, 2007 at Augustana College, Sioux Falls, SD.

Gayle Woloschak attended the Social and Moral Commission meeting for the Standing Conference of Canonical Orthodox Bishops of the Americas in New York City in May 2007.

Carmelo Santos was invited to be a member of the Genetics Task Force for the Evangelical Lutheran Church in America (ELCA) in May 2007. The group will have the responsibility of writing the official ELCA policy, or social statement, on genetics.

David Glover presented on environmental stewardship at a stewardship conference of the Metro Chicago Synod of the Evangelical Lutheran Church in America on April 28, 2007.

Knut-Willy Saether, a theology professor from Norway, visited the Zygon Center on April 18, 2007.

In April 2007, **Gayle Woloschak participated in the biannual meeting of the LOGOS Group on Contemporary Issues** in the Orthodox Church in Boston, MA.

Gayle Woloschak served as co-chair on the planning committee for a stem cell conference of the Social and Moral Issues Commission of the Standing Conference of Canonical Orthodox Bishops of the Americas (SCOBA) in April 2007.

Elonda Clay* was awarded a supplementary doctoral grant from FTE. The Fund for Theological Education advocates excellence and diversity in pastoral ministry and theological scholarship. **She was also awarded a**

renewal of the Women of Color Scholarship from the General Board of Higher Education and Ministry of the United Methodist Church.

Philip Hefner led an adult forum series at St. Paul Lutheran Church in Wheaton, on “Responding to Scientific Critiques of Christian Faith” in April 2007.

On March 28, 2007, **John and Carol Albright appeared in a video production for Turkish television** on dialogue between scientists and religious scholars.

David Glover participated in the American Chemical Society presidential discussion on global sustainability at the national meetings of the ACS in Chicago, March 26-28.

John Albright led an adult discussion group at Augustana Lutheran Church in Hobart, IN, in a conversation on issues in religion and science, March 19, 2007.

David Glover participated in the “Iowans for Religion & Science Dialogue” conference on March 16-17, 2007.

Jennifer Baldwin, Elonda Clay, Rebecca Proefrock, Adam Shapiro, and George Tsakiridis, all HPRSS members, presented papers at the Midwest Regional Meeting of the AAR in March 2007.

Jennifer Baldwin* presented a paper at a March 2007 conference in Austria on “Evil and Human Weakness: Reconsidering Theodicy.”

Gayle Woloschak was an invited speaker at the Orthodox Women’s Society of Montreal in March 2007, where she presented on “Religion and the Biological Revolution.”

Antje Jackelén lectured on “Progressive Religion: The Dialogue between Religion and Science” at Beth Or Synagogue, Deerfield, IL, February 23, 2007.

LSTC M.Div. students David and Natalie Barnes led an adult forum discussion on religion and science for Evolution Sunday at Augustana Lutheran Church in Hyde Park on February 11, 2007.

On February 9-10, 2007, **ZCRS co-hosted a symposium in honor of Arthur Peacocke** with *Zygon: Journal of Religion and Science*. For more information, see the article on page 7.

Antje Jackelén presented "A Theologian's View of Science and Religion in Europe: What can the United States learn from this relationship?" at the annual meeting of the American Association for the Advancement of Science (AAAS) in San Francisco, February 2007.

In February 2007, **Antje Jackelén participated in a radio interview on anti-evolutionism for Austrian Radio (ORF)** at the AAAS meeting.

The Spring 2007 Advanced Seminar in Religion and Science, "Evil: Perspectives from Theology and Science," was co-chaired by John and Carol Albright. Presenters included Tamar Rudavsky, Mark Swanson, Hans Schwarz, Rod Boriack, Robert Cathey, John Albright, Don Browning, Paul Heltne, Bill Irons, Karl Peters, Marjorie Davis, Terry Cooper, Dan Liechty, John Kerr, Mladen Turk, Gladys Horvath, Richard Busse, Carol Rausch Albright, Joseph Bracken, and Vítor Westhelle.

John Albright and Philip Hefner spoke at a conference on "Physics, Philosophy, Physiology: Three Paths, One Spirited Product" at the University of Chicago Divinity School on January 26, 2007. Dr. Albright was a discussant, and Dr. Hefner delivered opening and concluding remarks. **HPRSS member Megan Doherty organized the conference.**

Carmelo Santos presented, "Implication of the Cognitive (Neuro)science of Religious Experience for Hispanic/Latino Theology," to the Latino Lutheran Theologians, January 2007.

Antje Jackelén participated in a discussion for Swedish Radio. The 45-minute program broadcasted nationwide in Sweden.

John Albright and Antje Jackelén presented papers at "The Boundaries of Knowledge in Buddhism, Christianity, and the Natural Sciences," a conference at Trinity Lutheran Seminary, November 10-11, 2006.

On November 8, 2006, **Antje Jackelén gave a presentation on Religion and Science at Brent House**, Episcopal Campus Ministry at the University of Chicago.

Adam Shapiro* and George Tsakiridis* presented papers at the national meeting of the AAR in Washington DC in November 2006. **Jennifer Baldwin organized and moderated a panel.**

ZCRS co-sponsored a Science and Religion Hospitality Event at the AAR meeting with IRAS and CTNS in Washington, DC, November 2006. Approximately 80 participants attended.

Philip Hefner lectured on the topic, "Evolution is More Than Biology," at Ferrum College, Ferrum, Virginia, in November 2006.

Adam Shapiro presented the paper: "The American Textbook Industry and the Roots of the Anti-Evolution Movement" at the annual meetings of the History of Science Society, Vancouver, BC, November 2006.

Adam Shapiro presented "The Evolution of the 'New Civic Biology'" at the annual conference of the American Studies Association in Oakland, CA in October 2006.

On September 28-30, 2006, **ZCRS hosted "Emergence: A Better Vision of Nature, Science, and Religion?"** For more information, see the article on page 9.

Antje Jackelén presented "A Critical View of 'Theistic Evolution'" at the 2006 J.K. Russell Fellows' Research Conference, Center for Theology and the Natural Sciences (CTNS), Berkeley, CA, September 15, 2006. **Philip Hefner spoke on "Evolution: Life in the Context of the Energies of God."**

Elonda Clay presented "Technology, Church, and Society: Challenges, Opportunities, and Possibilities" at a conference for Methodist pastors.

John Albright and Antje Jackelén served as members of the steering committee of the ELCA Alliance for Faith, Science and Technology. ■

* - denotes student society member

Midwest Regional AAR

This year's Midwest American Academy of Religion (AAR) Annual Meeting was dedicated to discussions of religion and science. Five members of the Hyde Park Religion and Science Society presented at the March 30-31 meeting at Dominican University in River Forest, Illinois. George Tsakiridis, a Ph.D. student in Theology/Science and Religion at LSTC, and Adam Shapiro, a Ph.D. student in History of Science at the University of Chicago, presented on the "Religion and American Culture" panel. Elonda Clay and Jennifer Baldwin, both religion-and-science students in LSTC's Ph.D. program, participated in a panel entitled, "God-Talk in the Technological Era." Rebecca Proefrock, also an LSTC Ph.D. student, presented on the "Art, Literature, and Religion" panel. We proudly present abstracts of four of these five papers below.



JENNIFER BALDWIN **Better Atonement Through Chemistry?**

"If God is all powerful and all good, then why is there so much evil and suffering in the world?" This question, a basic formulation of theodicy, forces us to reconsider the relationship between our theological

articulations of God and human experiences and definitions of evil. In previous projects, I have defined evil in terms of experiences that lead to the fragmentation of the human person in relation to God, self, and community. Trauma sufferers struggle with feelings of fragmentation, which make it difficult to process and cope with past traumatic experiences. Confronted with these debilitating experiences of fragmentation, some theologians have proposed that evil and profound suffering cannot be atoned or redeemed.

Dr. Roger Pitman, a psychiatrist at Harvard Medical School, is investigating the effectiveness of the drug propranolol in treating trauma survivors. According to preliminary reports, propranolol is able to ease the effects of traumatic memories. One woman in the study who was raped when she was 12 stated, "I have regained my identity. What was broken when I was 12 was fixed. They have given me back myself." Is this woman's statement a declaration of atonement and/or redemption?

This paper will discuss theological categories such as evil, atonement, and redemption in light of the research involving propranolol and post-traumatic stress disorder. I will focus on the question "Can there be better atonement through chemistry?"

ELONDA CLAY

Metaphors for God in a Technological Society

This paper explores the relationship between social change, culture, and innovations in metaphors, specifically: Do innovations in metaphors for God in a

technological society signify a shift in human conceptions of God? Do they serve as re-representations of previous God conceptions? Are they a mixture of the two?

Important aspects to consider in metaphorical analysis have to be, "From what culture do the metaphors originate and what theory of metaphor will be employed?" Here, recent research from the fields of cybercultural studies and contemporary metaphor theory will be introduced to the theological discussion concerning metaphors for God.

First, what is meant by cyberculture and post-Genome culture and possible interactions of these cultures with theological method is explored. Next, several theories of metaphor and the ways these theories have been engaged by theologians will be summarized. Metaphors for God within cyberculture (Internet culture) and post-Human Genome culture will be presented, and cognitively based analyses of these metaphors will be compared to traditional metaphors for God for their conceptual meaning. Finally, observations on the implications these findings have for theological method, theological language, and worship will be downloaded (shared).



REBECCA PROEFROCK

The Perils of Metaphor in the Science and Religion Dialogue



As useful as metaphors can be in the overall linguistic category of analogies, when brought into the science and religion dialogue -- when moved from the relatively free-wheeling linguistic world to the relatively linearly-driven scientific one -- some problems, perils, or at the very least, concerns

can arise. This paper will rely on Rabbi Byron L. Sherwin's use of the golem legend, particularly as expressed in his *Golems Among Us: How a Jewish Legend Can Help Navigate the Biotech Century*, as a case study to examine three such perils.

GEORGE TSAKIRIDIS

CSI, Science, and Religion: Exploring Views of Science in Popular Culture



The past five years have seen a resurgence in "science" TV dramas, from *CSI* and its offshoots, *CSI: Miami* and *CSI: New York*, to *Numb3rs* and *Bones*. Along with this interest in the scientific in popular television, comes a view of science that can be somewhat limiting. *CSI's* call to "follow the evidence"

presents a view of science that lends itself to become the ultimate authority for truth claims.

The goal of this paper is to investigate how science is presented through the medium of television in shows such as *CSI* and *Numb3rs*. The scientific truth

claims presented by TV dramas shape the public's view of science as well as being shaped by popular views of science.

The paper will be divided into two sections:

First, the paper will present how scientific evidence is presented by some television programming, using *CSI* as the main example in this discussion. This will consist of looking at what it means to "follow the evidence" or interpret "what the evidence tells us."

Second, the paper will look at how this presentation of science can affect the general public's view regarding truth claims. Is the definition of truth presented in *CSI* limiting or rationalistic? What ramifications does this have for broader society? The public conception of science has far reaching implications on ethical and religious issues, such as bioethics and discussions surrounding intelligent design and creationism.

The paper will conclude with a summary of "the evidence" and how television can work as a medium for religion and science dialogue. ■

From Neurons to Shakespeare: Advanced Seminar 2008

by Philip Hefner

How does subjective experience arise from neural computation? What accounts for the transition from brain to mind? From what we read in the popular press, one might think that science is on the verge of explaining the connection between neurobiology and subjective experience—and perhaps even "explaining away" our experience, including how our biology accounts for our creative imagination, from a chef's concocting a tasty meal to Beethoven's composing a symphony. Religion, including belief in God, may also be considered to be reduced to neurobiological explanation.

Neuroscientists, however, following the lead of philosopher David Chalmers, call this "the hard problem." They do not at present agree whether this problem can be solved at all or whether it is inherently beyond full explanation. Theologians like Lluís Oviedo call it "the greatest challenge now facing religion and theology from the sciences."

The Spring 2008 Advanced Seminar, co-chaired by Gayle Woloschak and Philip Hefner will focus on this "hard problem." A number of theologians and scientists have already accepted invitations to

participate in the seminar, but the full schedule of topics and leaders is still being put together. It is likely that the seminar will concentrate on 10 or 11 primary sessions, followed by a series of sessions designed for the involvement of advanced students.

Some useful discussion of this problem, including a basic paper by David Chalmers, is available at <http://www.imprint.co.uk/hardprob.html>. Psychologist Steven Pinker has written an article in *Time* magazine, <http://www.time.com/time/printout/0,8816,1580394,00.html>.

As the seminar plans develop, they will be available from the ZCRS office and website, www.zygoncenter.org. ■



The Epic of Creation

Scientific, Biblical, and Theological Perspectives on Our Origins



The Epic of Creation course was started by ZCRS in 1989 and has been running annually since that time. This is a unique lecture series that presents the scientific story of emergence and evolution from the beginning of the universe to the emergence of humans; interpretation of the biblical stories of creation; and theological reflection on creation and our origins. Prominent scientists tell the scientific story, which begins with the origins of the universe presented from a cosmological perspective. It continues through the origin of life on earth, the evolution of life to its present forms, and the development of humans,

including brain evolution and the development of social structures. Religious scholars present a variety of reflections on the biblical creation stories. Theologians discuss how scientific and religious creation stories affect our sense of meaning today.

The lectures are open to the public, and the series may be taken for course credit through the Association of Chicago Theological Schools (ACTS). There are also two student workshops that are planned as a part of the course. For further information, contact course coordinator Dr. Gayle E. Woloschak, (773) 256-0670, gwolosch@lstc.edu. ■

EPIC OF CREATION SCHEDULE Lutheran School of Theology at Chicago Lectures are from 7:00 pm - 10:00 pm in the Common Room (#350)

I. The Scientific Story of Creation

- September 10** The Origin of It All [Edward Kolb, UC]
September 10 The Story of Creation from Hydrogen to the Earth [Donald York, UC]
September 17 The Ongoing Creation of Stars, Planets, and Possibly, Life [Grace Wolf-Chase, Adler/UC]
September 17 The Origin of Life [Tatjana Paunesku, NU]
September 24 The Origin of Multicellular Life [Gayle Woloschak, NU/ZCRS]
September 24 Biological Evolution from the Cambrian Explosion to the Appearance of Higher Primates [James Hopson, UC (emeritus)]
October 1 From Miocene Apes to Modern Humans, Part 1: The Emergence and Early Evolution of Humans [Fred Smith, LUC]
October 1 Brain Evolution [Philip Ulinski, UC]
October 8 Precursors of Human Behavior and Culture as Revealed by Studies of Primates [Paul Heltne, CHN]
October 8 The Evolution of Culture and the Capacity for Culture in the Human Descent Line [William Irons, NU]

II. The Biblical Story of Creation

- October 15** The Ancient Near-Eastern Context for Hebrew Ideas of Creation [Bernard Batto, DU]

- October 15** Old Testament Views of the World's Beginnings [Theodore Hiebert, MTS]

- October 22** Creation and Wisdom (Proverbs and Psalms) [Esther Menn, LSTC]

- October 22** Universe Story/ies and Christian Theology: Some Hermeneutical Reflections [J. Matt Ashley, UND]

- October 29** The Greco-Roman Context for New Testament Ideas of Cosmogony and Cosmography [Edgar Krentz, LSTC (emeritus)]

- October 29** The New Testament on Creation [Edgar Krentz]

- November 5** New Testament Views of Creation [Robert Brawley, MTS]

III. Theological Reflections

- November 5** Social Dimension of the Epic [Richard Busse, ZCRS]

- November 12** Reconstructing a Christian Theology of Nature: Prerequisites and False Starts [Anna Case-Winters, MTS]

- November 12** Creation and Salvation [Karl Peters, RC (emeritus)/ZCRS]

- November 19** No lectures: Thanksgiving Recess

- November 26** Social and Cultural Responses to Evolution [Barbara Strassberg, AU]

- November 26** The Epic of Creation and Interfaith Dialogue [James Moore, VU/ZCRS]

IV. Epilogue

- December 3** The Epic of Creation—What Does It Mean? [Philip Hefner, ZCRS/LSTC (emeritus)]

- December 3** Panel Discussion

The Future of Creation: Foundations for a Just and Sustainable World

by David Rhoads

This course is offered jointly by the Lutheran School of Theology and the Zygon Center for Religion and Science. It stands fully on its own in its design. Yet it can also be considered a companion course for those who have taken or wish to take the well-established course, "The Epic of Creation." While the Epic of Creation class focuses on the past development of creation, this course will focus on the prognosis for the future of our planet in light of the ecological state of the world and the human choices available on behalf of earth-community.

The course will be offered on Tuesday evenings from 6:30 to 9:30 in the spring semester 2008 (February 4 to May 9). Credit may be obtained through any of the ACTS schools. The public is invited to attend all course lectures at no cost. For more information, contact Chris Heisser at the Zygon Center (773-256-0670; zcrs@lstc.edu).

The class will be led by Gayle Woloschak, Director of the Zygon Center and Professor of Molecular Biology at Northwestern University, and David Rhoads, Professor of New Testament at LSTC and director of

the Web of Creation (www.webof-creation.org) and the Green Congregation Program. The course will feature guest speakers from local universities and seminaries on a variety of scientific and theological topics. ■



David Rhoads

To live faith in today's world, we need to face today's problems. This course will address the challenges that environmental degradation poses for the near future. We face numerous ecological crises: climate change, ozone loss, overuse of natural resources, loss of species/ecosystems, proliferation of waste, and over-population, among others. What are the basic scientific understandings of these problems? How much of this ecological state of the world is due to human activity? And how can this scientific information serve as a basis for humans to make wise decisions about our future?

Furthermore, we know that there have been great human costs and consequences to the human degradation of creation, especially upon the most vulnerable people in society and on the poorest nations. How can we find an earth ethic that takes account of the interrelationship between human injustice and the deterioration of the environment? How can we address specific instances of ecological injustice and environmental racism? What transformations in our systems—political, economic, social, and religious—do we need to make in order to turn away from our destructive patterns?

In addition, we know that our thinking about life informs the way we treat earth community. In what ways have our biblical interpretations, our theological formulations, and our patterns of spirituality either disregarded or contributed to the human exploitation of people and earth? What new biblical studies and theological constructions are leading us to think in an earth-friendly way that can lead to environmental restoration?

The course includes a strong scientific compo-

nent, with guest lecturers from the science faculties of Chicago-area universities and research centers. It also integrates theological responses to science, presented by theology professors from local seminaries, in order to help participants make connections between the knowledge of science and their faith traditions. Class discussions will prepare participants to be conversant about the problems of theodicy and ethics related to environmental issues. The course will offer practical suggestions for personal and congregational actions and transformations. Consultation with community organizations will orient participants to the collaborative network that will facilitate congregational action.

Topics to be addressed:

- The relationship between ecology and ongoing evolution
- The concept of ecological sustainability; organisms and their habitats
- The importance of species diversity; population and extinctions
- Pollution of air and water; radioactive contamination
- An ethic for earth community; ecological justice/environmental racism
- Theology of Nature
- Biblical resources for the future of creation
- Interfaith resources for human/societal transformations
- Spirituality of place; practical applications at home, in congregations, and with local communities

For further information:

If you have questions, suggestions, or comments, please send them to Gayle Woloschak (gwołosch@lstc.edu) or David Rhoads (drhoads@lstc.edu). For questions regarding registration, contact Chris Heisser (zcrs@lstc.edu). ■

Farewell to Antje Jackelén

On October 17, 2006, the Rev. Dr. Antje Jackelén was elected bishop of the Diocese of Lund, Sweden, with over 50 percent of the vote on the first ballot. She left ZCRS to assume her new duties in March 2007.

Dr. Jackelén had served as ZCRS director since 2003. She was appreciated for the many gifts she brought to the Zygon Center and the communities it serves. She maintained high standards of intellectual rigor during her tenure as director, while strengthening the center's programs for outreach and teaching.

As director of the Zygon Center and in her own academic work, Jackelén committed herself to excellence in research. Widely published, she also spoke regularly at universities, seminaries, and churches. She was highly effective at the interdisciplinary collaboration necessary for the leader of the Zygon Center. In the last year of her leadership, ZCRS sponsored two interdisciplinary research conferences in addition to its annual courses. The first brought together scientists and religious scholars to discuss emergence from multidisciplinary perspectives. The second, cosponsored by *Zygon Journal*, honored the work of biochemist and Anglican priest Arthur Peacocke.

Jackelén also cared about teaching. She collaborated with John Albright, Visiting Professor in Religion and Science, and graduate students at LSTC to form the Hyde Park Religion and Science Society, a group designed to encourage and equip young scholars in their study of religion and science. Through their efforts, the Hyde Park Society received Local Societies Initiative funding in April



Photo courtesy of Ingrid Shafer.

2004, funding that was matched by LSTC. It continues to provide a space for students to discuss religion and science, develop their research, and receive funding support for paper presentations. Graduate students also received Jackelén's academic counsel in advising sessions; she advised several Ph.D. students. Kathleen D. Billman, Dean of Academic Affairs at LSTC, noted that Dr. Jackelén was a "sought-after advisor to our doctoral students in religion and science." Several of Jackelén's advisees took the opportunity to honor her in the farewell celebrations hosted by ZCRS and LSTC in February and March 2007.

Jackelén also sought to reach out to new communities while at ZCRS. In 2005 and 2006, the Zygon Center organized HIV/AIDS workshops for medical and religious professionals. The workshops presented new scientific knowledge about HIV/AIDS prevention and treatment, along with pastoral insights on care for those living with the disease. LSTC President James Echols called the workshop, co-sponsored by the seminary, "a proud day for LSTC." The workshop gathered new groups of people to think about how the analytical insights of the religion-science dialogue could help build a better world, or in the words of the ZCRS mission statement, "a world in which love, justice, and responsible patterns of living prevail." Jackelén's commitment to this project helped ZCRS to improve its outreach beyond the academic community, and it helped connect religious and scientific expertise to the service of better approaches to solving today's problems.

Antje Jackelén was consecrated as the Bishop of the Lund Diocese, home to 1.1 million members, in April 2007. She has expressed her determination to continue work in science and religion. We at ZCRS wish her all the best in these endeavors. We truly appreciate her service to the Zygon Center and her contributions to its mission. ■



*Jackelén at her consecration in Lund, April 2007.
Photo courtesy of the Archdiocese of Lund.*

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