



Reports

The Newsletter of the Zygon Center for Religion and Science

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The Created Co-Creator

The 2002 Advanced Seminar, convened in April and May, is focusing on Philip Hefner's concept of humans as "created co-creators." Hefner recently gave a series of interviews to the newspaper, Research News & Opportunities, in which he discussed the concept. We have included excerpts from those interviews here.

In 1993 you published *The Human Factor*, in which you explored in detail your idea of the human as "created co-creator." Explain that.

The idea of the created co-creator has had a rather long life. The idea evolved beginning when I was writing on Christian dogmatics in the early 1980s. As part of a team of six authors, I wrote the article on creation. The idea was presented in this context, since the doctrine of the human being was included in the doctrine of creation. I do not claim to have originated the term, but I did develop it on my own, without recourse to other thinkers. The basic idea is this:

We are created, because we do not create ourselves, and we are co-creators, because co-creating is obviously the actual character of our lives in the world.

Active co-creating is what I see all around—whether it is genetic engineering, technology of all sorts, or the attempt to mold human minds through education and psychotherapy or social engineering. The theological tradition does speak powerfully of God as the creator-source of all that is. Humans are small indeed when measured against the cosmos or God. I include this element in the term "created." Our createdness certainly seems to have bequeathed to us the nature to be active creators on our own level, however, and not to be passive responders only.

Whereas the non-theological thinker can understand that we are created by the processes of evolution, the theological thrust is that God has created us to be co-creators. God created us to be free, in other words, in the sense that we have the capacity to imagine that the world and we ourselves can be different in significant ways, and we conclude, even though we cannot understand it very well, that God intends for us to be co-creators.

These ideas are actually consistent with some of the newest thinking in physics, chemistry, artificial intelligence, and the sciences that are associated with "complexity." I am referring, of course, to ideas of autocatalysis, self-generation, and autopoiesis, which point to the fact that the appearance of novelty seems to be inherent in the natural processes.

These ideas do not challenge the traditional views of sin and finitude at all. If co-creating is the shape of human life today, it is also the arena where sin and evil—and grace—play out. Far from obscuring the frailty and often sinful nature of humans, or the gracious action of God,

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Love Of Wisdom

by Eduardo R. Cruz



Eduardo Cruz, professor of Religious Studies at Pontifical Catholic University of Sao Paulo reflects on his time in Chicago and with LSTC, ZCRS, and Zygon.

Yes, science used to be fascinating. As a kid in the late fifties-early sixties, atomic energy and space-flight grasped the imagination of quite a few of us, and choosing a career in science was not out of our plans. Yet, after six years in a physics lab (in a time when jobs were still plenty!), I felt quite uncomfortable about spending the rest of my life there, and felt dragged to take science, instead of physical nature, as object of my studies.

The “leap out” of this situation came when I met a few thinking Christians that taught me that theology was a decent intellectual path for someone to pursue.

Therefore, after completing my M.Div., and already teaching at the Catholic University of Sao Paulo, I started looking for alternatives to get a Ph.D. that could unite my interest in the sciences with rigorous theological thinking. That is when, after much writing and many referrals, I was greeted by the enthusiastic response of Philip Hefner and LSTC to my quest.

Back in 1983 (without being aware of that), I was one of the first few guys pursuing a doctorate in religion and science. Well, the rest is history. With the encouragement of Phil, I came back to Chicago in 1992-93 for a sabbatical, and since then we have been meeting each other in congresses and publications. *Zygon* and ZCRS, therefore, have been companions to me for quite a while and helped to shape my way of thinking and my standards of excellence.

Paul Tillich, moreover, has been the author that most in-

fluenced my thought, and the years in Chicago provided me with the opportunity to know his works in some depth, as well as to learn how to think in the framework of a theology of culture. This expertise was instrumental in my dissertation on the ambivalence of science and on much of my publications since then. I have also had the opportunity to have access to some of the grants provided by the Templeton Foundation that, as many are aware of, have been of paramount importance to establish religion and science as a field.

One of these grants (coupled with a generous supplement from ZCRS) took me back to Chicago, after several years working hard at my home university. During the last week of June, I was able to do some research for myself and for my students with the wonderful resources of JKM and Regenstein libraries, as well as to engage in fruitful conversation with some of LSTC faculty. This grant was part of a major project funded by the Templeton Foundation, helping Calvin College (Grand Rapids, Michigan) to put together one of their “Seminars on Christian

Scholarship,” specifically aimed at the religion and science dialogue.

During July 2001, a group of fifteen scholars chosen by

their research projects, studied “Biology and Purpose: Altruism, Morality, and Human Nature in Evolutionary Theory” under the direction of Jeff Schloss and Phil Clayton. With the help of a first rank faculty (Richard D. Alexander, D. Sloan Wilson, Kevin Vanhoozer, Malcolm Jeeves, and Niels Gregersen), we engaged in interdisciplinary discussion, research and writing, developing our own projects (mine is on the doctrine of Original Perfection) up to their written stages.

In May 2002 we shall meet together again, this time to present to a wider audience the results of our research. We believe that it is through initiatives such as these, properly funded, that the field of religion and science will mature until it reaches the status of an academic discipline and, within this process, we can personally achieve our goals as scholars and educators of a new generation. ■



ADVANCED SEMINAR IN RELIGION AND SCIENCE

The Created Co-Creator: Interpreting Science, Technology, and Theology LSTC, Spring 2002 Monday Evenings, 7:00-10:00 p.m.

The seminar will focus on Philip Hefner's proposal of understanding humans as created co-creators, and its possibilities and weaknesses for relating science, technology, and theology. Since he first advanced the idea in 1984, it has been elaborated in Hefner's later work. It has also been subjected to analysis and criticism by a number of thinkers. The seminar will give attention to this body of thought and analysis, as well as new elaborations that will be presented in Hefner's Rockwell lectures at Rice University later this year. Participants will also consider the idea apart from this specific line of thinking, pointing to new directions that it might take.

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| 1 April | "The Cultural Significance of the Symbol 'Created Co-Creator' "
Richard Busse , Attorney, Valparaiso, Indiana; Associate Faculty, History and Philosophy, Indiana University Northwest Gary |
| 8 April | "An Evolutionary Critique of the Created Co-Creator Concept: Can We Birth the Future That is Most Wholesome for the Nature That has Birthed Us?"
William Irons , anthropology, Northwestern University |
| 15 April | "Created Co-Creator as a Standard for Scientific Intervention"
Audrey Chapman , social ethics, American Association for the Advancement of Science |
| 22 April | "The Poet, the Practitioner, and the Beholder: Thoughts on the Created Co-Creator"
Vitor Westhelle , theology, Lutheran School of Theology at Chicago |
| 29 April | "Beginnings and Endings of Life: The Theological Implications of the Created Co-Creator for Bioethics."
Ann Pederson , theology, Augustana College, Sioux Falls |
| 6 May | "Rethinking the Imago Dei"
Anna Case-Winters , theology, McCormick Theological Seminary |
| 13 May | "Natured Culture and Cultured Nature"
Gregory Peterson , religious studies, Thiel College |
| 20 May | "But Will it Play in Peoria?: The Created Co-Creator in the Church and Ethics"
Roger Willer , theological ethics, doctoral candidate, University of Chicago and associate for studies, Department of Studies, Evangelical Lutheran Church in America |
| 27 May | "The Future of the Created Co-Creator"
Philip Hefner |

The seminar is a voluntary group, with no fees -- except for course credit. Registration is possible through LSTC, or other schools that cross-register, by registering for course T-672. Pre-registration both for credit and non-credit is advised, since the number of participants is limited.



Reflections on the 2001 Religion & Science Symposium

by James Moore

"The Possibility of a Global Ethic: The Potential of a Religion-Science Dialogue on HIV / AIDS."

Z CRS sponsored a symposium on September 29-30, 2001, which brought together a group of noted scholars to address the general issue of what contribution a religion and science dialogue might make to the formation of a global ethic. The symposium also used the particular concern of HIV/AIDS as a test case both because AIDS is a global concern but yet requires the combination of accurate scientific information and consideration of values that would help address solutions to this pressing problem. The symposium was organized by and directed by James F. Moore, Professor of Theology, Valparaiso University and director of the Zygon Center's Inter-faith Project.

The challenge to form a global ethic is daunting as we recognize both the wide diversity of viewpoints as well as the changing nature of our understanding of reality. Gordon Kaufman, Mallinckrodt Professor of Divinity Emeritus of Harvard University, opened the symposium with some recognition of the difficulty of this task, especially for theology. His view, which he has developed over the last several years, is that a new language is necessary to account for both religious pluralism and the ever-changing landscape of the scientific world. His notion of serendipitous creativity is a way of moving in this new direction.

Much of this same perspective was echoed by Paul Knitter, Professor of Theology at Xavier University, Cincinnati, who cautions us in any effort to produce "a single" global ethic. Still, he has argued that some basis for conversation might and in fact does grow out of the common compassionate spirit of the religious traditions that can allow us to act together in what he has labeled a globally responsible dialogue.

This very difficulty, in contrast, led Norbert Samuelson, Professor of Jewish Studies at Arizona State Univ., to challenge the possibility of a global ethic suggesting that

what is lost in the richness of particular religious traditions is too much to sacrifice for what might be gained by some sort of common platform.

V.V. Raman, Emeritus Professor of Physics at Rochester Institute of Technology, and Joe Edelheit, retired Rabbi of Temple Israel, Minneapolis and member of the President's advisory council on AIDS, were, however, more inclined to see the benefit and the possibility of a common ethical response to major global problems. Raman is much more optimistic about the potential of common ground for the religions and Edelheit, looking particularly at the issue of AIDS, calls for a public response that can only come from some joint effort to combat what has become a global pandemic.

Philip Hefner, Professor Emeritus of Theology at The Lutheran School of Theology in Chicago and Director of

The Zygon Center, also raises concerns about a global ethic that seeks some form of universal but also is inclined to think about the potential for a whole set of conversations that would be the context for ethical reflection and action. The issues are made even more complex for him with the challenge of thinking about AIDS from a

theological point of view, but such a challenge is, perhaps what is necessary for us to take on. He suggests possibly the attempt to develop a theology of disease.

The scientists in the group filled in the details of important information about the current crisis that faces us in dealing with HIV. Gayle Woloschak, senior researcher at Argonne National Laboratories, presented a remarkable survey of current information about the disease and the virus, both what we know and can do. Solomon Katz, Professor of Anthropology at the University of Pennsylvania, expanded this information to look at the global picture giving a demographic of the spread of the disease. It is clear from both of these scholars that this problem requires both immediate attention and some form of global action.

Robert Wright, Science Writer for the New York Times

The challenge to form a global ethic is daunting as we recognize both the wide diversity of viewpoints as well as the challenging nature of our understanding of reality.



and noted author, added his perspective on the propensity of the evolutionary process (especially cultural evolution) toward some expanding form of cooperative values.

While there is no inevitability to any of the process itself, the overall picture suggests that we will find ways to survive together rather than at the expense of each other. Such a view gives a cautious optimistic view of the potential for a global ethic. Given this foundation, Barbara Strassberg, Professor of Sociology at Aurora University, argued that what is needed is to develop morally competent agents which really means agents who are literate in ways that will inform their actions fully in all ways including scientific literacy. Her view is that, in fact, we are moving in that direction, but need to be more intentional about these efforts.

Clearly the symposium covered a wide-ranging discussion that only begins the process of the discussion. The conclusion was both that the beginning was highly successful in setting the stage for an inter-religious science and religion discussion of a global ethic, especially focused on the problem of HIV/AIDS.

In addition, it was clear from all present that we should go forward with the plan of holding a second symposium by building on the first with many of the same participants in the coming year. Also, we plan to publish a number of the presentations of this first symposium within the coming year. ■

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the idea of the created co-creator accentuates those ancient teachings, and also puts a new face on them.

What do you intend for the idea, given the responses?

As a matter of fact, the idea has exploded with new possibilities for me.

First, it has value as a *concept* in the sense of the German *Begriff*, a word whose sense is to gather every-thing together for the gist, the point (*concetto* in Italian is another word that gets at this). It is an image, but it is also more. A concept in this sense is close to what scientists mean by the term “theory.” That is to say, the created co-creator idea interprets a broad range of experience. The “created” component of the idea says who we are, how



Karl Peters, Solomon Katz, Ursula Goodenough, William Grassie, Philip Hefner at the AAR Reception held in Denver, Colorado on November 18, 2001.

we got here. We are natural, and God did it that way. The “co-creator” is about freedom and the constructivist dimension. If we look at genetic engineering, for example, we construct the ethics of it, the justification of it, and the criticism of it. Second, I am probing, with the help of thinkers like Paul Tillich, Paul Ricoeur, Mary Gerhart, and Allen Russell, the significance of the created co-creator idea as symbol and metaphor. This line of pursuit suggests the multilayered quality of language and images, the “something deeper” to which the idea of created co-creator can point.

For example, my reflection on the work of Donna Haraway and other feminist theorists leads to me to the suggestion that the “created co-creator” concept can help us interpret technology and our relationship to it. Ours is a technological culture, and I believe that our culture is at a crisis point, because we are not able to direct our culture in ways that promote the most wholesome life for the human community and its encompassing natural environment. One of the features of this crisis is that we are in many ways alienated from nature and technology, and hence from ourselves. Since the created co-creator embodies our oneness with technology in a vivid manner, it is a symbol both of our truest nature and of our alienation from our own nature. Personally, I believe that many of the protests against the created co-creator are manifestations of this alienation. In one sense, these critics express denial of our real human nature, and hence they are very alienated. This aspect of the idea has actually been a surprise to me, and it reveals just how “gutsy” the created co-creator concept is. Gutsier than I imagined in the early 80s! ■



The Epic of Creation:

Scientific, Biblical, and Theological Perspectives on Our Origins

Lutheran School of Theology at Chicago

Annual Event since 1989

Monday Evenings, 7-10 PM

January 7 to March 11, 2002

I. The Scientific Story of Creation

The Creation of Matter and Our Physical Environment

January 7 (7:00-8:20 PM) The Origin of It All [Michael Turner, cosmology, UC].

January 7 (8:30-9:50 PM) The Story of Creation from Hydrogen to the Earth [Donald York, astronomy, UC]

The Creation of Life and Our Biological Environment

January 14 (7:00-8:20 PM) The Origin of Life [David Oxtoby, chemistry, UC].

January 14 (8:30-9:50 PM) The Origin of Multicellular Life [Gayle Woloschak, molecular biology, ANL]

January 21 (7:00-8:20 PM) Biological Evolution from the Cambrian Explosion to the Appearance of Higher Primates [James Hopson, biology, UC].

January 21 (8:30-9:50 PM) From Miocene Apes to Modern Humans: An Overview of the Fossil Record of Human Evolution [Fred Smith, anthropology, NIU]

January 28 (7:00-8:20 PM) Brain Evolution [Philip Ullinski, neurobiology, UC]

The Creation of Humans and Our Cultural Environment

January 28 (8:30-9:50 PM) How the Human Mind/Brain Manages Adaptive Human Behaviors [Robert Glassman, psychology, LFC]

February 4 (7:00-8:20 PM) Precursors of Human Behavior and Culture as Revealed by Studies of Primates [Paul Heltne, primatology, CAS].

February 4 (8:30-9:50 PM) The Evolution of Culture from Australopithecines to Anatomically Modern Homo Sapiens [William Irons, anthropology, NU]

II. The Biblical Story of Creation

The Old Testament Story

February 11 (7:00-8:20 PM) The Ancient Near-Eastern Context for Hebrew Ideas of Creation [Bernard Batto, religion, DU].

February 11 (8:30-9:50 PM) Old Testament Views of the World's Beginnings [Ralph Klein, Old Testament, LSTC]

The New Testament Story

February 18 (7:00-8:20 PM) The Christian Story: The Influence of Greco-Roman Cosmology on Christian Theology [Drew Blankman, Editor, IVP]

February 18 (8:30-9:50 PM) New Testament Views of Creation [Robert Brawley, New Testament, MTS].

III. Theological Reflections

February 25 (7:00-8:20 PM) God and Creation [Antje Jackelén, theology, ZCRS/LSTC].

February 25 (8:30-9:50 PM) Toward a Theology of Nature [James Moore, theology, VU].

March 4 (7:00-8:20 PM) Reconstructing a Christian Theology of Nature: Prerequisites and False Starts [Anna Case-Winters, theology, MTS].

March 4 (8:30-9:50 PM) Christ and the Cosmos [Zachary Hayes O.F.M., theology, CTU].

March 11 (7:00-8:20 PM) Interpreting "Salvation" in the Light of the Epic of Creation [Richard Busse, theology and law, ZCRS/LSTC]

IV. Epilogue

March 11 (8:30-9:50 PM). The Meaning of the Creation Stories. [Philip Hefner, theology, ZCRS/LSTC].

The Future of Creation

by Marcy Gaston

The Future of Creation course was offered at the Lutheran School of Theology at Chicago during the Spring 2001 quarter. It was cosponsored by LSTC, ZCRS, and Science and Theological Education to Meet the Environmental Challenge. David Rhodes of LSTC and Andrea Orcutt coordinated the course.

The lectures sought to review the scientific, ethical, and theological dimensions of environmental issues and introduce resources needed to be effective leaders in these matters for both church and the larger society.

The class was made up of a diverse group of students representing many nationalities. There were 12 registered students. Since the course was open to the public, approximately 20 additional people joined the students each week.

During the third week, the class took a field trip along the Chicago River. The trip was led by Paul Heltne and it covered the history of the area (from glaciers to the present day) and reviewed the interaction of humans and ecology of the Chicago River.

Lecturers representing various fields were brought together to teach. Among the lecturers present were Paul Heltne, President Emeritus at Chicago Academy of Science; Ron Engel, Professor of Social Ethics at Meadville/Lombard Seminary; Steve Perkins, Associate Director of Center for Neighborhood Technology; Dieter Hessel, Director of Program on Ecology, Justice and Faith Director of TEMEC; Philip Hefner, Professor Emeritus of Systematic Theology at Lutheran School of Theology at Chicago, Director of ZCRS; Ted Hiebert, Professor of Old Testament at McCormick Seminary; Anna Case-Winters, Associate Professor of Theology at McCormick Seminary; and Clare Butterfield, Associate Director of Inter-religious Sustainability Project..

Dr. Paul Heltne led the first three weeks of the course and focused on population and carrying capacity. He demonstrated his concerns with a UN population clock that counted by seconds the US and world populations. He also touched on how humans are embedded in a particular place--our place being Chicago. His lectures prepared



Dr. Heltne during the tour of the Chicago River system

the students for the Chicago River field trip.

Ms. Andrea Orcutt lectured on the complex systems of theory and how it is related to the global warming issue. Dr. David Rhodes discussed what it means to think from an ecological perspective.

Coordinating the next three weeks on religio-ethical issues, Dr. Ron Engel reviewed the content and development of the Earth Charter and discussed the emergent discipline of environmental ethics

On week five, Dr. Steve Perkins focused on issues of sustainable development in Chicago by examining transportation, living patterns, and urban sprawl. He also explored the hidden aspects of cities and how cities can offer solutions for sustainability. Ms. Jackie Grimshaw discussed transportation issues in Chicago.

Week six found Dr. Dieter Hessel speaking on the response to sustainability issues in the national and international religious communities. Rev. Clare Butterfield discussed what motivates people and how

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ELCA *Faith & Science Consultation*

The Evangelical Lutheran Church of America, over the weekend of January 25-26, 2002 in Chicago, IL, hosted a consultation on Faith and Science. Attendees, Antje Jackelén and Daniel Johnson, agreed to give us their reflections on the weekend.

By Daniel Johnson

I attended the ELCA Faith & Science Consultation the weekend of January 25-26, 2002, in Chicago. The Evangelical Lutheran Church in America (ELCA) invited 24 “working scientists” from across the country to discuss issues with each other and with 12 staff. At the opening dinner Friday evening, all were asked to introduce themselves by talking for 3 minutes on “my life as a scientist in the church.” I said that I’m from Houston, Texas, a geophysicist in the oil industry, and a member of Christ the King Lutheran Church, where I’ve taught adult Sunday school classes on science & religion. I was impressed by the variety of scientific disciplines, levels of achievement, and by the diverse backgrounds, like the microbiologists doing tissue typing for transplants, the Adler Planetarium astronomer and the applied physicist from Camden, N.J., who kept calling our attention to down-to-earth matters like scientific role models for disadvantaged youth. With such a group, we all had more to say than time to say it, and we finished a long day, eager about working with the people we’d met.

Saturday was the working agenda, at the Lutheran Center. There were three sessions: identifying issues; what we as a church have been doing; and envisioning where the ELCA would like to go. Two of these sessions used small groups, in the morning composed along scientific discipline lines, and interdisciplinary in the afternoon. A recurring theme from the morning issues groups was the bad press that science and religion gets, i.e., the popular misconception that science and religion are in conflict, and that people must choose to have faith and forsake reason, or to be ruthlessly rational and reject God. Some well-known scientists compound the problem by attacking religion with naive ideas about theology and church history (Carl Sagan and Richard Dawkins were especially

mentioned), and they seem to be the mirror image of some religious fundamentalists who attack science while betraying a woeful ignorance of scientific facts and methods. I think this is a good diagnosis of the problem, but our stereotypically stodgy Lutheran statements on the issues aren’t likely to capture media attention or the popular imagination.

The afternoon session on envisioning the future for the ELCA regarding faith and science produced many more interesting ideas than I could remember, so I’ll just mention one which received a favorable hearing: organizing local discussion groups on science and religion. This is something I’ve done in Houston for the last two years, inspired by the Institute on Religion in an Age of Science (IRAS) network of local groups, which aren’t generally church-based and include people from any religious background. A geneticist from Washington, D.C., suggested something similar, a theology book review club. More and better resources for clergy and church education were a common theme of the wish lists.

I found this weekend consultation very worthwhile, and I think most everyone left wishing we’d had more time. If the ELCA can engage its scientists and others with the big picture relating science and theology to the whole world community, then it will serve to advance both faith and science. ■



Daniel Johnson works as an Exploitation Geophysicist for BP America in Houston, Texas, where he has organized a local Science and Religion discussion group affiliated with IRAS.



by Antje Jackelén

It is said that 85% of Americans believe that science makes the world a better place and that 80% welcome government support for scientific research even when no immediate benefits can be expected. However, Americans' familiarity with the facts, theories, and practices of science appears to be shakier than that of many other comparable countries. If this is true – and I haven't lived in this country long enough to judge – it adds to the sense of urgency of the issues spelled out by the participants in the consultation.



As an observer at the consultation, I was impressed by the seriousness and faithfulness with which the scientists approached the tasks of identifying issues, trends, and dilemmas and of listing “next steps.” The stories shared during the first evening suggested that quite a number of scientists present are dedicated Lutheran Christians in spite of their multiple experiences of how the Church failed to nourish their growing interest in science and technology. Long gone are the days when children, women, and men felt that they had to check their brains at the church door. For the Evangelical Lutheran Church of America (ELCA), the engagement in the dialogue between faith and science is also about reclaiming the proud (in a positive sense) Lutheran heritage of literacy. Remember that, as late as in the beginning of the 20th century there was a significant difference in literacy between traditionally Protestant and Roman Catholic European countries. The Lutheran practice of learning the catechism and catechetical meetings entailed educational benefits that in the long perspective contributed to emancipatory and democratic movements. The Christian churches becoming more science literate and opposing anti-intellectualism is indeed in line with tradition in the best sense of the word. If science literacy seems like a great future goal to work towards, then another goal, even if of less importance, should be that scientists be met with positive curiosity rather than skepticism, indifference, or anxiety.

A majority of the scientists emphasized the need of strengthened education programs in the church. Children need to be taken seriously when they ask difficult

questions and the church should actively encourage their scientific and technological interests. Many scientists are longing for an affirmation of their vocation to work in science or technology; and they wish their church to strengthen them in their commitment to minister to fellow scientists. The picture of the ideal church that emerged during the consultation was a church where spirituality means that there is a place for all big, difficult, and important questions of life and work, and a church that provides a space for both open-endedness and answers. In other words, the church is a dwelling place of the Spirit in the midst of paradoxes.

Long lists of both trends and dilemmas and steps to take were established, both in terms of short-range projects and long term perspectives. Most ideas were articulated in the category of education, such as resources and ideas for parish education programs, strengthening of campus ministries, sharing of electronic information and further conferences. The fact that faith and science is one of the (some said THE) most important questions for the ELCA should be acknowledged also on the highest organizational level. Even liturgy and worship face a challenge as there is a need for new hymnody reflecting images of our age, such as the beauty of DNA and equations, as well as the sense of communion with other creatures testified by the genes we share.

Discussions were rich and the participants covered an impressive amount of ideas in a short period of time. I did not miss much. However, I was surprised that the role of economy was never addressed. Who puts the price tags on what and why? In what sense are science and technology in the hands of “the market,” and how is that relevant to the dialogue between religion and science? Is there willingness on different levels of the church to financially sponsor at least some of the good ideas the scientists came up with? What is the ideology of those who own the resources?

Everyone agreed to the necessity of training pastors to

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Antje Jackelén is assistant professor of systematic theology and religion and science at the Lutheran School of Theology at Chicago.



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see science as a vocation. To me, this sounds like a two-fold task for each seminary: to see that every candidate entering church ministry is equipped with a basic knowledge about the dialogue between religion and science, and to cultivate good examples of living and respectful dialogue within its own walls. It may sound almost redundant, but I think that the cooperation of ZCRS and LSTC makes for a unique possibility and responsibility to achieve these goals.■



AAR Reception in Denver

ABOVE: Philip Hefner at the reception

LEFT: Karl Peters accepting his award

For week eight, Dr. Ted Hiebert explored the Old Testament and issues of nature, asking whether or not the Bible could be a resource for ecological thinking. Dr. Mary Frohlich lectured on the spirituality of place.

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sustainability functions as a religious issue.

Dr. Philip Hefner led off weeks seven, eight, and nine with a discussion of the importance of ideas about nature, namely, overcoming dualisms of nature vs. humans, animals vs. humans, and nature vs. culture. He also went on to discuss the sacrality of nature. During week nine, Dr. Hefner offered a lecture on the conceptions of nature: nature as a living being, as machine, or as historical process.

Along with Dr. Hefner in week nine, Dr. Anna Case-Winters focused on feminist theology or eco-feminism and the problems of dualisms: the body-soul dualism, the nature/culture dualism, and the subject-object dualism.

For the last week, students had the opportunity to present a summary of their paper or project for the course.

In the future, the course will be offered every other year with the next course occurring in the Spring of 2003.■



Center News

Meet the New Staff Members



Marcy Gaston
Executive Coordinator,
ZCRS and Editor of
ZCRS Reports

Marcy joined the ZCRS staff in August 2001. She and her husband, Joe, along with their baby daughter, Caitlynn, have been living in the Chicago area for a year and a half. They are originally from Ohio. Marcy holds a bachelors degree from Miami University in Oxford, Ohio. Having

worked in various jobs, she has also worked many years in the restaurant industry. Cooking remains her number one passion. Her husband, Joe is a first year MA student at the Lutheran School of Theology at Chicago. Marcy is enjoying her work at ZCRS and is happy to have the opportunity to meet so many fascinating people.



David Glover
Editorial Assistant, *Zygon:*
Journal for Religion and
Science and Epic of Creation
Coordinator

David Glover has been a student at LSTC since 1999. He has a master's degree in chemistry and worked as an environmental chemist for ten years followed by two years in the pharmaceutical

industry before entering seminary. His present interests are in the areas of science and religion and ethics. David has been working for ZCRS since January 2001 when he began helping Tom Gilbert as the Coordinator for the Epic of Creation lectures. During the 2001 spring quarter David started working for *Zygon* where he helped Deb Van Der Molen handle the Journal's correspondence. This past summer David split his time between both *Zygon* and ZCRS, an arrangement that has continued this winter.

AAR Meeting honors Karl Peters and Philip Hefner. On Sunday, November 18, 2001 in Denver, Karl Peters and Philip Hefner were honored at a reception at AAR (American Academy of Religion). Peters and Hefner retired in 2001 from their teaching positions at Rollins College (FL) and LSTC, respectively. The reception honored their careers and achievements in the religion and science field.

Philip Hefner taught in Houston, Texas. Dr. Hefner spent this past fall teaching at The Melancthon Institute in Houston.

Thomas Gilbert lectured in Canton, Missouri. Gilbert spoke this past October at Culver-Stockton College in Canton, Missouri. The title of his lecture was "Epic of Creation." The lecture was part of the Robinson Lecturship in which a scholar from some field of reli-

gious studies is invited to speak on a significant topic. For the 2001 lecturship, they wanted to focus on the religion and science dialogue.

Epic of Creation to be broadcast on television. Chicago cable access network (CAN TV, channels 19 and 21) taped the January 14, 2002 and the February 11, 2002 lectures for later broadcast. To see list of speakers for this past year's Epic course, see page 6 of the newsletter. For those living in the Chicagoland area, please check your local listings.

Antje Jackelén and Philip Hefner elected to a newly formed International Society of Science and Religion. Jackelén and Hefner were elected to a newly formed international science and religion organization. The first meeting for the group will be in August 2002 in Granada, Spain.



Ingrid Shafer & Zygon Center's website, "zygoncenter.org"

Over the past few months our webmaster, Ingrid Shafer, has been busy updating our website. Below, you will find a short bio on Ingrid and her own words. The website is designed to offer valuable information about the Center, as well as past articles pertinent to the religion and science dialogue. We hope that you will take the time to visit us on the web.

What you will find at <http://zygoncenter.org>:

Human Cloning

- Philip Hefner: "There's an Elephant in the Living Room" (Aug. 2001)
- Philip Hefner: "Cloning: The Destiny and Danger of Being Human" (Oct. 2000)
- Philip Hefner's reflections on the February 1997 announcement of the cloned lamb
- Philip Hefner's statement on cloning for the President's Bio-Ethics Commission
- Ingrid Shafer's reflections on the moral challenge of human cloning

The Parliament of World Religions, Cape Town, 1999

- Pictorial Chronicle



Ingrid with her cat, Tigger

Ingrid Shafer is Professor of Religion Philosophy and Mary Jo Ragan Professor of Interdisciplinary Studies at the University of Science and Arts of Oklahoma (USAO), located in Chickasha, where she has taught since 1968. She also teaches an online graduate Human Relations course for the University of Oklahoma. Dr. Shafer has published several books and over a hundred

articles, book chapters, poems, sermons, and even a technical illustration of an orchid in Lindeleyana. Her most recent book, Religions in Dialogue: From Theocracy to Democracy, co-edited with Alan Race, is slated to be published by Ashgate in July. Dr. Shafer has lectured in Africa, America, Asia, and Europe. Since 1994, she has created some fifty websites containing over a thousand pages. In addition to her work with the Zygon Center, Shafer is active in the Association for the Rights of Catholics in the Church, the Association for Communal Harmony in Asia, and the Global Dialogue Institute. Her daughter, son, and four grandsons live in Vermont and California, respectively. Shafer shares her home with three cats, two dogs, three frogs, eleven fish, one parrot, assorted plants, 12,000 books, and several computers.

When asked to reflect on herself, she writes:

"In many ways I was born to learn and to teach. As a child, right after World War II, I inevitably imagined myself in the future as a teacher of some kind. I might get married and raise a family; I might grow up and be an artist or a writer or a surgeon; but I would teach. The former were possibilities; the latter was a certainty. Especially after I had discovered the Holocaust, I also knew what and how I would teach: no matter what the field, I would help my students stop making war and start treating one another with caring and respect. I could do nothing to change the past but I would do my best to affect the future.

"At USAO, over thirty years ago, I saw the possibility of pursuing the patterns that connect, of crossing over from the sciences to the humanities, from the arts and philosophy to technology, from economics to the religious traditions of the world. I fell in love with this college and its potential. Today, I see the USAO mission, our dedication to interdisciplinary

I want to infect those I touch with a love of learning.

learning, not in terms of Chickasha, or Oklahoma, or even the United States. I see it as the beginning of what could (and I argue, should) be a model for higher education in the 21st century, a model that can be translated into alternate modes of teaching, such as using the Internet and other, not yet even envisioned, paradigms. This is why I now spend most of my personal time developing web site resources to further global dialogue.

"I believe that we are called, in the words of Teilhard de



Chardin, to build the earth. Ultimately, in the classroom, and in my books, articles, and web sites, my goals are the same--to introduce people to the art of wondering, questioning, and nuanced thinking in order to gain an integrated vision of themselves and the interrelationship of divergent areas of knowledge. I want to infect those I touch with a love of learning. I want to help them develop habits of respect for others and the earth in order to become the best they can be responsible global citizens and caring human beings." ■

Star Island 2002

"Is Nature Enough? The Thirst for Transcendence"

by Michael Cavanaugh

If you hanker to chair a conference, my first-time effort says "do it," because it isn't nearly as terrifying as you think. Here are six guidelines which emerged from planning the upcoming Star Island Conference "Is Nature Enough? The Thirst for Transcendence."

First, find a conference with a history. Forty-nine consecutive conferences provides a ready audience, and means you won't have to work so hard. For example when someone else handles food and lodging, as the Star Island Corporation and its enthusiastic "Pelicans" (the 30 college students who form the maintenance and service crew) do so well, nothing really serious can go wrong. Conferences with histories also have beautiful settings, like Star Island itself, which lies off the west of New Hampshire.

Second, find a conference with a Children's Program. The Archi Pelagos program, professional designed and directed by Sandra Woodruff, attracts wonderful families whose children make lifelong friends and have tons of intelligent fun. Did I mention that the program chairs don't have to worry about it?

Third, get a great co-chair like Terry Deacon, and get a fine organization like Institute on Religion in an Age of

Science (IRAS) behind you, to fine-tune your initial proposal and provide experienced workers to ease your load. When someone else takes care of workshops, candle-light services, mealtime announcements, talent show, registration, happy hour, publicity, the conference newspaper, and someone like Nancy Anchuetz handles mechanics and troubleshooting and supervising everyone else, you begin to wonder if there is anything for you to do except feel important.

Fourth, get a great conference committee. Recruit ex-chairs and others you respect to serve as advisors who think they won't have to work, and email them all the hard decisions. They will have good judgment, eliminate bad options, and graciously leave the easy final decisions to you and your co-chair.

Finally, you must get speakers, but that is easy too. Terry and I thought there would be too many slots and too few prospective speakers, but suggestions poured in from last year's conferees, from IRAS members, and from our committee, causing the opposite problem — too many prospects and too few slots.

Landing a good chaplain was crucial, so an early invitation went to Barbara Whitaker-Johns, who we knew would be great. Many of Barbara's parishioners are scientists trying to live authentic religious lives, and they agonize over our theme question, so she is eager to develop talks that address questions like theirs.

As for other speakers (learn more details at www.IRAS.org), we had to have both theologians and scientists on each side of our theme question (John Haught and Lawrence Fagg will argue that Nature is NOT Enough; Jerome Stone and Terry will argue that it is). Yet these speakers and others (artist Anne Sprin, primatologist Barbara Smuts, physicist V.V. Raman, me, two others not yet selected, plus workshop and "free university" presenters) are all committed to finding common ground, and not just defending pre-digested positions.

I can hardly wait for the week of July 27-August 3 to get here, so I can relax.

For your registration forms, consult the website listed above. ■

Michael Cavanaugh lives in Baton Rouge, Louisiana. He is a retired lawyer and is currently on the council for IRAS.



Creatio Absurdus

How masterfully the script
 scrolls across the page,
Offering alliteration, allegory, and allusion.
Within the poem
 lies an entity,
Worthy of holistic consideration.
Ever present with confounding conundrums
 and puzzling paradigms,
Lines are pitched into
 dynamic tension-
Suspending all notions of human endeavor
 and clever rationale.
Absurdity rings throughout the verse
 with discord-
Resounding sweetly into awaiting ears.
Rhyme mingles with rhythm,
 creating patterns-
Only to fall into the free verse
 trap,
Chaos places and parcels truth.

Rising and falling-
The language lifts into a frenzy
 and falls into white noise.
However adroit the pen becomes,
 it brings back the ingenuous
Of the complex.
Manifest within this labyrinth,
Stanzas display fleeting realities
 and teasing truths.
The ebb and flow of words
 point to the next wave
Where the observer
 beholds with bated breath.

Joseph E. Gaston

*Joseph Gaston is working on his M.A. in theology at the
Lutheran School of Theology at Chicago.*



Thomas Gilbert speaking at the Epic of Creation lecture

ZCRS is pleased to be able to offer our programs and publications to you at no charge. Nevertheless, we welcome your contributions in addition to your interest and commentary. Thank you!



The March 2002 ZYGON

Multilocationality

by Philip Hefner

Let me advise the reader that the images of this editorial may have been directly influenced by the gift of a National Geographic globe that arrived just as I was pondering this first issue of *Zygon's* thirty-seventh year of publication. It prompted me to coin a word--"multilocationality." This word should be read with the images of the globe in mind.

Who are the players in the engagement of science and religion? Who are the thinkers who are coining the new ideas and elaborating the old ones? Where are the participants "coming from"? these questions are not the theme for discussion in this issue of *Zygon*, but the articles that follow provide testimony to the fact that the players are coming from every point on the compass, representing an unbelievable variety of worldviews and commitments. To be sure, it is our authors' ideas that we focus on for our discussion, but the ideas are inseparable from their broad range of backgrounds and perspectives. Furthermore, the breadth of that range reminds us that the ideas at the center of the science-religion discussion do not emerge from a single crucible of intellectual ferment--nor even from just a few. It is not geographical nearness, similarity of education, or even a common literature that has produced the discussion in our journal.

The multifarious origins of the authors and their ideas prompts us to ask what common thrust or intention brings them together in the pages of this journal. Several things need to be said in response to this question. First of all, the identity of *Zygon* commits it to all points of the compass. There is not single intellectual, scientific, or religious-spiritual location that is authoritative for our conversation. Our principle of selection is articulated in the Statement of Perspective that appears in the back matter of each issue:

The journal *Zygon* provides a forum for exploring ways to unite what in modern times has been disconnected--values from knowledge, goodness from truth, religion from science....*Zygon's* hypothesis is that, when long-evolved religious wisdom is yoked with significant, recent scientific discoveries about the world and human nature, there results credible expression of basic meaning, values, and moral convictions that provides valid and effective guidance for enhancing human life.

Every piece that we publish contributes, in the editors' opinion, to the hypothesis we espouse. On occasion even the authors disagree with our hypothesis, because editors sometimes see aspects of an article that the author does not.

Because this statement of perspective focuses on the

enhancement of human life, it is not surprising that *Zygon's* authors represent different locations within the human community. It is also not surprising that we are never entirely satisfied with the range of differences represented in the journal--we recognize that we have miles to go before we can say we have accomplished our stated goals.

There is a deeper dimension to this multilocational character of the authors we publish, a dimension that may not be apparent. We edit the journal with an almost exclusive focus on the production of the hard copy--the printed volume that reaches most of our subscribers in the regular mail. My guess is that the larger number of these subscribers experience the multilocationality as an obstacle to their reading. It is difficult to access ideas that emerge from points on the globe that are foreign to us; or we may simply not be interested in certain topics. Nevertheless, even if readers do no more than scan the Table of Contents, they see the large map that is set before them.

An increasing number of our readers do not ever see the hard copy or the bound volume in their hands, since they access the journal electronically. Chances are that these readers have carried out a search, with the result that they read only the articles that correlate with their preset interests (or research topics). Most of the readers will never read this editorial. For the electronic readers, the journal makes a great contribution--they have found what they needed for their purposes. On the other hand, they may have no inkling whatsoever of what I call the multilocationality of our publishing venture.

In one sense, therefore, we do not achieve our goals--those who see the broad and varied range of authorship and ideas do not actually walk the path that each issue sets before them, while those who just digest thoroughly a few articles are never aware of the global offering that is available in the journal. This is no discouragement for us, however. The multilocationality is both inherent and necessary to our venture; it is mandated by the statement of purpose that I cited above. Both the bound volume that can be held in hand and the electronic test that is sent instantaneously around the world are irreplaceable images of who we are and what we intend for this journal. The fact is itself substance for reflection, discussion, and even publication: Why is multilocationality inherent and necessary in the engagement of religion and science? Everyone who is interested in the engagement ought to entertain that question, at least briefly. ■

If you would like to receive a copy of this issue of ZYGON, or subscribe to the journal, contact the following: Journals Fulfillment Manager, Blackwell Publishers, 350 Malden St., Malden, MA 02148. Telephone: 1-800-835-6770. E-mail: <subscrip@blackwellpub.com>



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